

GOVERNMENT OF INDIA

MINISTRY OF RAILWAYS

(RAILWAY BOARD 80D)

No. 69-RR/4

DATED THE 11TH FEBRUARY, 1976

NOTIFICATION

IN EXERCISE OF THE POWERS CONFERRED BY SECTION 60&87 OF THE RAILWAYS ACT, 1989 (24 OF 1989), THE CENTRAL GOVERNMENT HEREBY MAKE THE FOLLOWING GENERAL RULES FOR ALL THE TIME BEING USED FOR THE PUBLIC CARRIAGE OF PASSENGERS, ANIMALS OR GOODS.

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MINISTRY OF RAILWAYS
(Railway Board)
No. 69-RR/4**

New Delhi, Dated the 11th February, 1976

R E S O L U T I O N

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

1. The considerable advance made in recent years in methods of signaling 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 Railway 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 for 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 rearrangement of the rules which forced the basis of train working and safety operations for over 100 years and which were ingrained in the mind 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 Board, decided in September, 1972, that the revision of the existing General Rules should be so undertaken as to be in consonance

with these views and to cover such aspects only of the existing rules as require modification in the light of the technological changes or where certain existing rules have outlived their use. A fresh revision of the General Rules was accordingly taken up by the safety Directorate in consultation with other Directorates of the Railway Board.

4. A provisional issue of the revised General Rules was circulated to the Railway Administration; the research, Designs and standards Organisation; the Commission of Railway Safety; Signal Engineering and Telecommunications, Secunderabad; Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur; etc. for criticism and suggestions under Government of India, Ministry of Railways (Railway Board) letter No. 68-RR/2/Vol. V. Dated 25-7-1974.
5. The exhaustive views and comments received from the Railway Administrations; the commission of Railway Safety, other Railways 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 of Railways administered by the Government have now been framed, sanctioned and issued by 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 Administrators of the several railways not administered by the Government and the Heads of Railway Administrations of such railways may be modifications (if any) as may be considered necessary in each case.

Order:- Order that this Resolution, with its enclosures, be published under a notification in the Official Gazette as required by Section 60 & 87 of the Railway Act, 1989 (24 of 1989), and that a copy thereof be kept open for inspection at railway stations as directed by sub section (4) of the same section, also that a copy of this Resolution and of its enclosures be communicated to the Governments, Administrations and Officers, noted below, for information.

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

Documents accompanying :-

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

Secretaries, Ministries of Communications; Defence; Home Affairs; Law, Justice and Company Affairs; Petroleum; Shipping and Transport; and Tourism and Civil Aviation.

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

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

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

The Commissioner of Railway Safety.

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

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

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

The General Manager, Metropolitan Transport Project (Railways), Calcutta.

The Chief Administrative Officers, Metropolitan Transport Project (Railways), Bombay, Delhi and Madras.

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

The Principals, Indian Railways Institute of Advanced Track Technology, Pune; Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur; Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad; and Railway Staff College, Vadodara.

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

The Managing Agents, Ahmedpur-katwa Light Railway Company Limited, Bankura-Damodar River Railway Company Ltd, Katakhall all Bazar Railway Company Limited and Martin Light Railways.

The General Managers, Bharat Railway and Central Province Railways Company Limited.

The Secretary, Dehri-Rohtas Light Railway Company Limited.

The Chairman, Railway Service Commissions, Allahabad, Bombay, Calcutta and Madras.

The Chairman, Railway Rates Tribunal.

The Secretary, Indian Railways Conference Association.

The Director, National Archives of India.

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

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

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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 Railway 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 signal 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 virtue of his office, to issue instructions or to do any other things,

S.R.1.02(5)(1) The Chief Operating Manager is the “Authorised Officer” for the Konkan Railway Corporation.

- (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 dispatch 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 the either side on a single line, that the block section is obstructed or is to be obstructed;
- (9)

- (10) "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.
- (11) "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;
- (12) "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;
- (13) "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;
- (14) "Commissioner of Railway Safety" means an inspector appointed to exercise any functions under the Act, and includes an Additional Commissioner of Railway Safety;
- (15) "competent railway servant" means a railway servant duly qualified to undertake and perform the duties entrusted to him;
- (16) "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;
- (17) "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;
- (18) "day" means from sunrise to sunset;
- (19) "direction of traffic means –
 - (a) on a double line, the direction for which the line is signaled;
 - (b) on a single line, the direction for the time being established, under the system of working, to allow trains to move in that direction;

- (19) "Loco Pilot" means the engine driver or any other competent railway servant for the time being in charge of driving a train;
- (20) "electrical communication instrument" means either a telephone or a Morse telegraph instrument;
- (21) "facing and trailing points" : points are facing or trailing in accordance with the direction a train or vehicle moves over them. Points are said to be facing points when by their operation a train approaching them can be directly diverted from the line upon which it is running;
- (22) "fixed signal" means a signal of fixed location indicating a condition affecting the movement of a train and includes a semaphore arm or disc or fixed light for use by day and fixed light for use by night;

S.R.1.02(22)(1) Colour light signal – A colour light signal is also a fixed signal. A colour light signal is a signal which shows coloured light (or lights) both by day and night.

- (23) "fouling mark" means the mark at which the infringement of fixed Standard Dimensions occurs, where two lines cross or join one another;
- (24) "Gangman" means a railway servant employed on permanent way or work connected therewith;
- (25) "Gangmate" means the person in charge of a gang of workmen employed on permanent way or work connected therewith;
- (26) "Gateman" means a competent railway servant posted at a level crossing for working the gates;
- (27) "Goods train" means a train (other than a material train) intended solely or mainly for the carriage of animals or goods;
- (28) "Guards" means the railway servant in charge a train and includes a Brakesman or any other railway servant who may for the time being, be performing the duties of a Guard;
- (29) "Inspector of Way or Works" means any Inspector or Assistant Inspector responsible for the construction or maintenance of permanent way, points and signals, bridges or other works connected therewith;

- (30) "Interlocking" means an arrangement of signals, points and other appliances, operated from a panel or lever frame, so interconnected by mechanical locking or electrical locking or both that their operation must take place in proper sequence to ensure safety;
- (31) "Intermediate Block Post" means a class 'C' station on a single line or double line or multiple line remotely controlled from the block station in rear;
- (32) "Intermediate Block Signalling" means an arrangement of signaling on single line or double line or multiple line in which a long block section is split into two portions each constituting a separate block section by providing an "Intermediate Block Post";
- (33) "Isolation" means an arrangement, secured by the setting of points or other approved means, to protect the line so isolated from the danger of obstruction from other connected line or lines;
- (34) "last Stop signal" means the fixed Stop signal of a station controlling the entry of trains into the next block section;
- (35) "level crossing" means the intersection of road with railway track at the same level;
- (36) "**level crossing gate**" means any form of movable barrier, including a chain capable of being closed across the road at the level crossing, but does not include a wicket or a turnstile for the use of pedestrians.

S.R.1.02(36)(a) Level crossing gate located within Home signals in Multiple Aspect Signalling territory on single line sections are traffic gates controlled by operating department.

(b) Level crossing gates other than traffic gates are Engineering gates.

- (37) "Line Clear" means the permission given from a block station to a block station in rear for a train to leave the latter and approach the former; or the permission obtained by a block station from a block station in advance for a train to leave the former and proceed towards the latter;
- (38) "main line" means the line ordinarily used for running trains through and between stations;

- (39) "material train" means a departmental train intended solely or mainly for carriage of railway material when picked up or put down or for execution of works, either between stations or within station limits;
- (40) "mixed train" means a train intended for the carriage of passengers and goods, or of passengers, animals and goods;
- (41) "multiple-aspect signaling" means a signaling 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;
- (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 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 vehicles 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 signaling” means a signaling arrangement in which each signal displays at any one time either of the two aspects.

1.03 CLASSIFICATION OF STATIONS:-

- (1) **Stations shall, for the purpose of these rules, be divided into two categories-block stations and non-block stations.**
- (2) **Block stations are those at which the Loco Pilot must obtain an authority to proceed under the system of working to enter the block section with his train; and under the Absolute Block System consists of three classes-**

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

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

Class ‘C’ stations – block huts, where Line Clear may not be given for a train, unless the whole of the last preceding train, has passed complete at least 400 meters beyond the Home signal and is continuing its journey. This will also include an intermediate Block Post.

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

S.R.1.03(1) Special class stations – Definition – Any station which is not worked under “A”, “B”, “C”, “D” class conditions is termed as “special class” station. The Station Working Rules for a “special” class stations shall have the approval of the “Commissioner of Railway Safety”.

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 translation of the said rules or of such portions thereof as relate to his duties as may prescribed by special instructions.

2.02 UPKEEP OF THE COPY OF RULES:-

Every railway servant who has been supplied with a copy of these rules, shall –

(a) Have his copy readily available when on duty,

(b) Keep it posted with all corrections.

(c) produce the same on demand by any of his superiors,

(d) obtain a new copy from his superior in case his copy is lost or defaced, and

(e) 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.**

SR 2.03(1) Train crews, Guards of adjoining Railways, who are required to perform their duties on this Railway, must be conversant, with the Subsidiary Rules and local instructions of this Railway. Such staff shall be examined in the knowledge of rules and allowed to work a train after obtaining their written declaration to the effect that they are acquainted with the rules governing this railway.

SR 2.03(2) Railway servants for whom glasses have been prescribed for the proper functioning of their duties must be in possession of 2 pairs of glasses while they are on duty and they must wear a pair of glass, while actually performing their duties.

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 premises.**
 - (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.

SR.2.08(1) The station Master on duty shall lock the block instruments/Panel before leaving the place of work and keep the keys/Private Number Sheet in his personal custody to guard against misuse.

SR.2.08(2) Prior information of illness of an employee to be conveyed to Railway Administration to make relief arrangement for his duties.

SR.2.08(3) A railway employee who absents himself from duty or leaves his station without permission, shall be treated as being absent from duty and renders himself liable to disciplinary action.

SR.2.08(4) A railway servant, who overstays leave without previously having obtained permission, shall render himself liable to disciplinary action.

2.09. TAKING ALCOHOLIC DRINK, SEDATIVE, NARCOTIC, SRIMULANT 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.

SR.2.09(1) When any Railway employee is detected or doubted on duty to be in the intoxicated condition he should be sent for medical examination to the nearest Government hospital and/or statements by two independent witnesses should be obtained as circumstantial evidence to facilitate further disciplinary action. Arrangements for his relief should be, immediately made.

2.10 CONDUCT OF RAILWAY SERVANTS

A railway servant shall –

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

2.11 DUTY FOR SECURING SAFETY

(1) Every railway servant shall –

- (a) see that every exertion is made for ensuring the safety of the public,
- (b) promptly report to his superior any occurrence affecting the 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 the safety of the public, shall take immediate steps, such as the circumstances of the case may demand, to prevent accident; and where necessary, advise the nearest Station Master by the quickest possible means:

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

- SR.2.11(1)** if any Railway Servant notices that a train has parted he shall, in addition to taking action under the provision to Rule 2.11 try to attract the attention of the Loco Pilot and Guard by shouting that the train has parted and at the same time, by day putting both his hands together above his head and separating them quickly and by night waving a white light vertically up and down as high and as low as possible.

Note: Wherever Masculine gender has been used in this books, it is equally applied to feminine gender.

- SR.2.11 (2)** Precautions to be taken for working of trains during storm and strong wind.

- (i) When the warning message forecasting cyclone, storm or strong wind has been received from the Meteorological Department and/or there is responsible doubt that severe storm is going to break out endangering the safety of passengers, trains etc., the Station Master shall, in consultation with the Guard and the Loco Pilot of the train detain the train and also refuse to grant line clear to a train coming to his station until storm abates and he considers movements of trains safe.
- (ii) Should a train be caught on the run in a cyclone, storm or strong wind of an intensity which, in the opinion of the Loco Pilot, is likely to endanger the safety of the train he shall immediately control the speed of his train and bring it to stop at the first convenient place taking care as far as possible to avoid stoppage of the train at places like sharp curves, high embankments and bridges (including approaches thereof). In controlling the speed and bringing the train to a halt, the Loco Pilot shall stop his train carefully and without a jerk. He shall restart the train in consultation with the Guard only after the cyclone, storm or strong wind abates and it is considered safe to proceed.

- (iii) The Guard and the Loco Pilot, Asst. 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.

SR2.11(3) – Anemometers :-

In case of vulnerable locations and specially selected bridges where Anemometers are installed at one of the stations adjacent to bridges, the Station Master shall take the following actions if the Anemometer is indicating wind velocity higher than the danger level as prescribed by Special instructions :-

- (i) The Station Master shall inform the section Controller and the Station Master on the other side immediately about the need to control the movement of trains.
- (ii) The Station Master shall not start or allow the movement of trains through his station and also not grant line clear to the trains waiting at the adjacent station for his station.
- (iii) He shall resume normal running of trains consultation with the section Controller and the Station Master at the adjacent station after the wind velocity is again below the danger level of more than 72Kmph on BG.

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 KIND 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 Pilot of trains approaching them and shall be placed immediately to the left of or above the line to which they refer unless otherwise authorized 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 bar shall be parallel with the end of the arms.
 - (b) In the case of a yellow arm, a black bar shall take the place of the white bar on the side facing trains.
 - (c) Calling-on arms shall be painted white with a red bar on the side facing trains to which they refer, and white with a black bar on the other side.

B. DESCRIPTION OF FIXED SIGNALS

3.05 USE OF FIXED SIGNALS :-

- (1) Except under approved special instructions, all railways shall be equipped with fixed signal as prescribed in these rules.
- (2) The aspects of a semaphore signal shall be displayed by the position of the arm by day and by a light or lights by night.

Note:- In the illustrations given in this Chapter, which are not drawn to scale, the day aspect of the semaphore signal is shown by the position of the arm and the night aspect is shown by the light or lights to the right of the signal concerned.

- (3) The aspects of a colour light and position light signal both by day and by night shall be the same and shall be displayed by fixed light or lights.
- (4) The arm of a semaphore signal shall work in –
 - (a) The lower quadrant in two-aspect signaling, and
 - (b) The upper quadrant in manually operated multiple-aspect signaling.
- (5) The “off” position of a semaphore signal shall be displayed by day by the inclined position of the arm from 45 Deg. To 60 Deg. below the horizontal in case of two aspect lower quadrant signals and 45 Deg. or 90 Deg. above the horizontal in case of multiple-aspect upper quadrant signals.

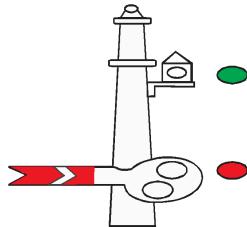
3.06 DESCRIPTION OF WARNER SIGNALS AND THEIR INDICATIONS:-

- (1) A Semaphore Warner Signal has a fish-tailed arm.
- (2) A Warner signal is intended to warn a Loco Pilot –
 - (a) of the condition of the block section ahead, or
 - (b) that he is approaching a Stop signal
- (3) A Warner signal may be placed either –
 - (a) on a post by itself with a fixed green light 1.5 to 2 meters above it by night, or
 - (c) on the same post below the first Stop signal or the last stop signal.
- (4) When placed in accordance with clauses (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’

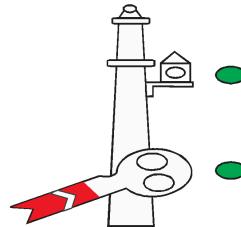
- (5) The aspects and indications of a semaphore Warner signal are shown below:-

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

on position



off position



ASPECT : Procedure with Caution

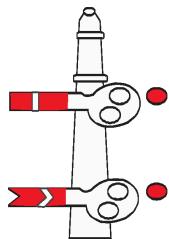
Proceed

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

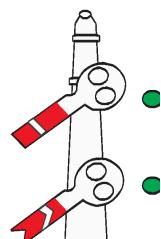
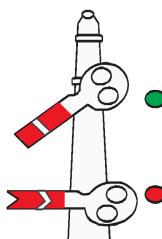
Proceed

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

On position



Off position



ASPECT : Stop

Proceed with Caution

Proceed

Indication : Stop dead

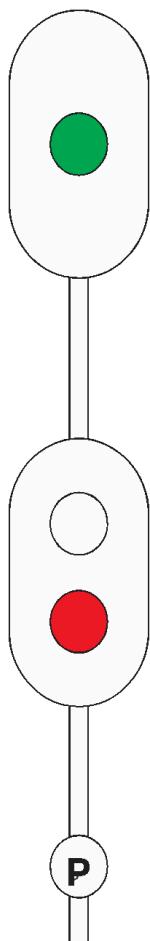
Proceed with caution and be
Prepared to stop at the next
Stop signal

Proceed

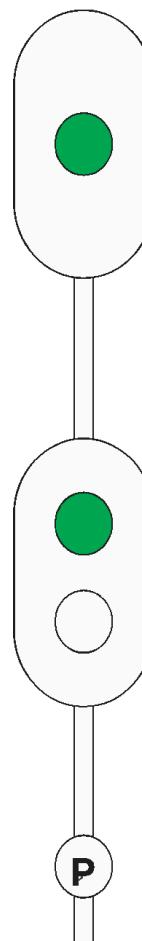
(6) The aspect and indications of a colour light Warner signal are shown below:-

- (a) Colour light Warner signal in Two-aspect Signalling Territory on a post by itself

'On' position



'Off' position



ASPECT : Stop

Proceed with caution

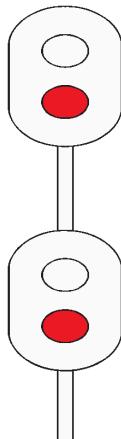
Proceed

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

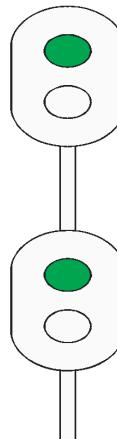
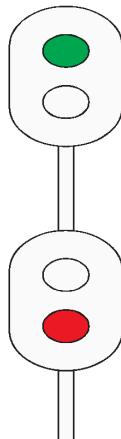
Proceed

- (b) Colour light Warner signal in Two-aspect Signalling Territory – below a stop signal

'On' position



'Off' position



ASPECT : Stop

Proceed with caution

Proceed

Indication : Stop dead

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

(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.

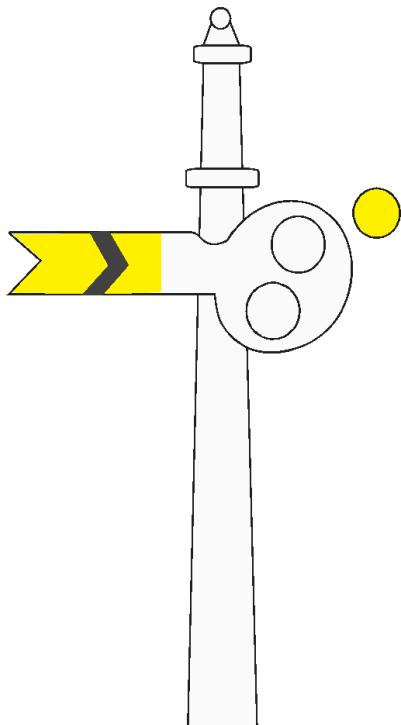
3.07.DESCRIPTION OF DISTANT SIGNALS AND THEIR INDICATIONS:-

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

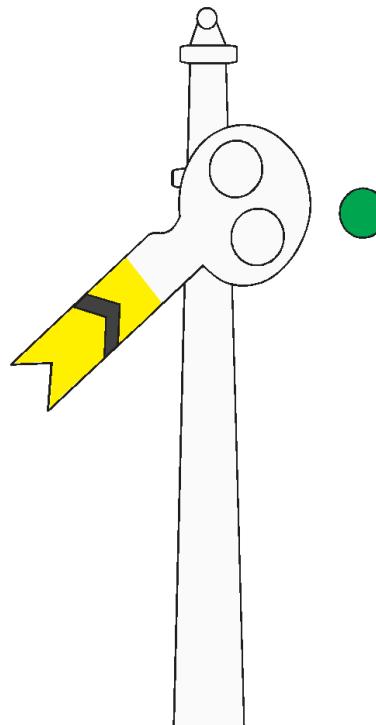
- (2) The aspects and indications of a semaphore Distant signal working in the lower quadrant are shown below:-

Semaphore Distant signal in Two-Aspect Signalling Territory

'On position



'Off position



ASPECT : Proceed with Caution

Proceed

**Indication : Proceed with caution and be prepared
To stop at the next Stop signal**

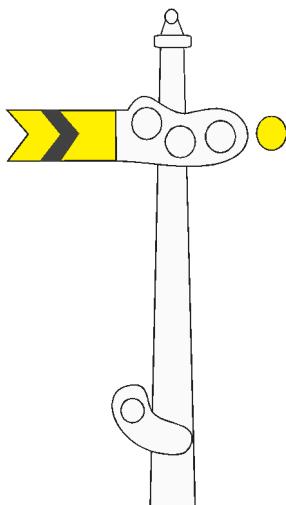
Proceed

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

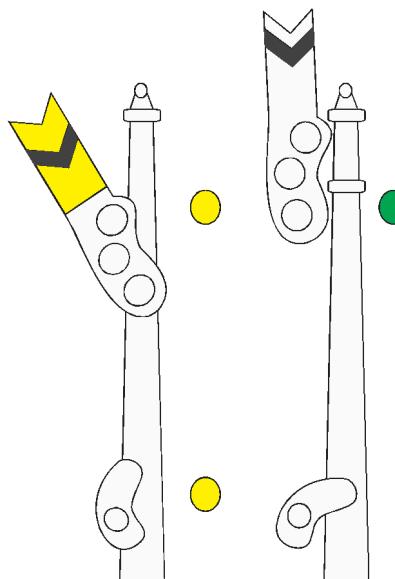
- (3) The aspects and indications of a semaphore Distant signal working in the upper quadrant are shown below:-

Semaphore Distant signal in Multiple Aspect Signalling Territory

'On' position



'Off' position

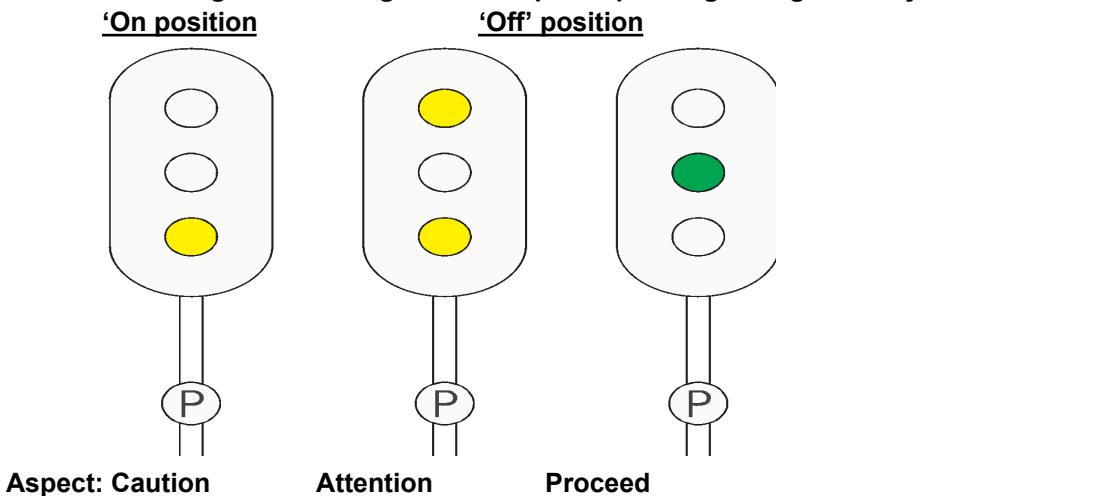


Aspect :	Caution	Attention	Proceed
Indication:			
Proceed with caution and be Prepared to stop at the next Stop signal	Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by special instructions. Train is being received either on Main line and is required to stop at the starter signal; or on a Loop line required to stop at the Starter signal or to pass run through via Loop line.	Proceed and be prepared to pass next signal at such restricted speed as may be prescribed by special instructions. Train is being received either on Main line and is required to stop at the starter signal; or on a Loop line required to stop at the Starter signal or to pass run through via Loop line.	Proceed, Block section ahead is clear, train is to pass run through the station via Main line.

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

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

Colour light Distant signal in Multiple-Aspect Signalling Territory.



Indication : Proceed with caution Proceed and be prepared and be prepared to stop at Stop signal 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 the Starter signal or to pass run through via Loop line.

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

- (5) A Distant signal shall be located at an adequate distance in rear of the Stop signal, the aspect of which it pre-warns.
- (6) Where necessary more than one Distant signal may be provided. In such a case, the outermost signal, to be located at an adequate distance from the first Stop signal, shall be called the Distant signal and the other called the Inner Distant signal, with the Distant signal capable of displaying 'Attention' or 'Proceed' aspect only.
- (7) Under approved special instructions, a colour light Distant signal may be combined with the last Stop signal of a station in rear or with a Stop signal protecting a level crossing. When a colour light Distant signal is combined with the last Stop signal of the station in rear or with a Stop signal protecting a level crossing, arrangements shall be such that the signal shall not display a less restrictive aspect than the stop

aspect till line clear as 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 later case.

- SR 3.07(1)(a)** Double distant signal where provided, the outermost signal shall be called distant signal and the other one shall be called inner distant signal. The distant signal shall be located an adequate distance from the inner distant signal and the inner distant signal shall be located at an adequate distance in rear of the stop signal, the aspect which it prewarns.
- (b) In such cases distant signal shall display attention (Double yellow) and proceed (green) aspect only where as the inner distant shall display caution (one yellow), Attention (double yellow) and proceed (green) aspects.
 - (c) The distant signal where double distant is provided is identified by alternate yellow and black bands painted on the post, with a 'P' marker (Black letter 'P' on white disc) fixed on it.

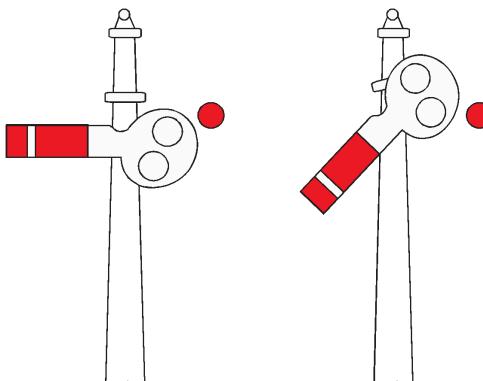
3.08

DESCRIPTION OF STOP SIGNALS AND THEIR INDICATIONS:-

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

Semaphore Stop signal in Two-Aspect Signalling Territory.

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



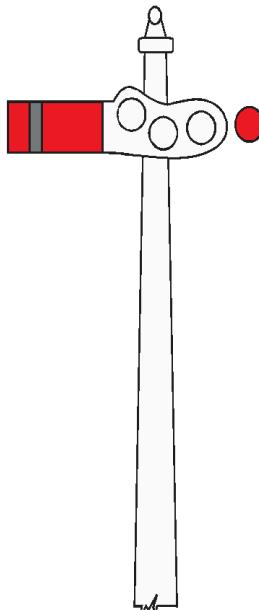
ASPECT :	Stop	Proceed
Indication	Stop Dead	Proceed

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

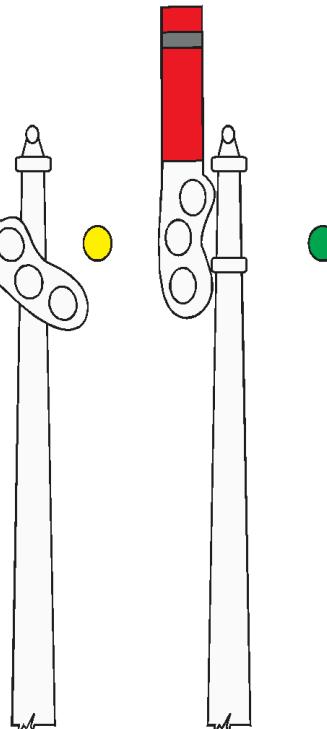
(3) The aspects and indications of a semaphore Stop signal working in the upper quadrant are shown below:-

Semaphore Stop signal in Multiple-Aspect Signalling Territory

'On position'



'Off position'



ASPECT: Stop

Indication : Stop dead

Caution

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

Proceed

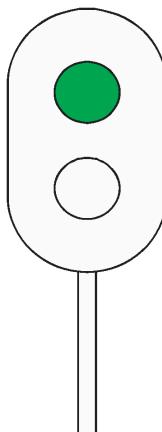
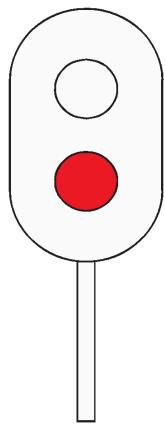
Proceed

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

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

On' position

'Off' position



ASPECT:

Stop

Proceed

Indication :

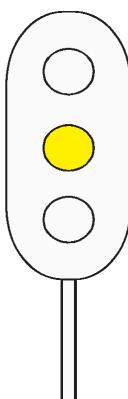
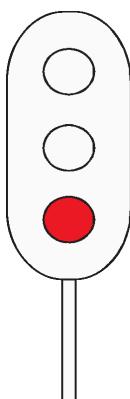
Stop dead

Proceed

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

On' position

'Off' position



ASPECT:

Stop

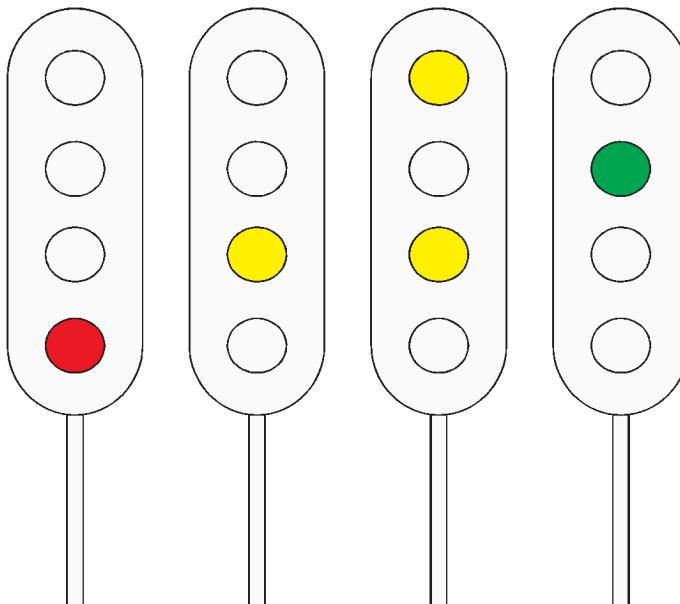
Caution

Proceed

Indication: Stop dead

Proceed with caution and be
preparation to stop at the next
stop signal

- (c) Colour light stop signal in Multiple Four-Aspect Signalling Territory
'On' position 'Off' position



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

3.09 KINDS OF FIXED STOP SIGNALS FOR APPROACHING TRAINS:-

- (1) The stop signals which control the movement of trains approaching a station are of three kinds, namely – Outer, home and Routing signals.
- (2) The Outer signal, where provided, is the first Stop signal of a station and is located at an adequate distance outside the point upto which the line may be obstructed after Line Clear has been granted to or obtained by the station in rear.

- (3) The Home signal is the first Stop signal of a station at which an Outer signal is not provided and the second Stop signal 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 or the connections to another running line.

3.11 INTERMEDIATE BLOCK STOP SIGNAL:-

Intermediate Block Stop signal is the Home signal provided at an intermediate Block Post.

3.12 KINDS OF FIXED STOP SIGNALS IN AUTOMATIC BLOCK TERRITORIES:-

- (1) Stop signals in Automatic Block territory shall be colour light signals and may be of the following kinds-
 - (a) an Automatic Stop signal which is not dependent upon manual operation but is controlled automatically by the passage of a train into, through and out of the automatic block signaling section;
 - (b) a Semi-Automatic Stop signal which is capable of being operated either as an Automatic Stop signal or as a Manual Stop signal, as required:

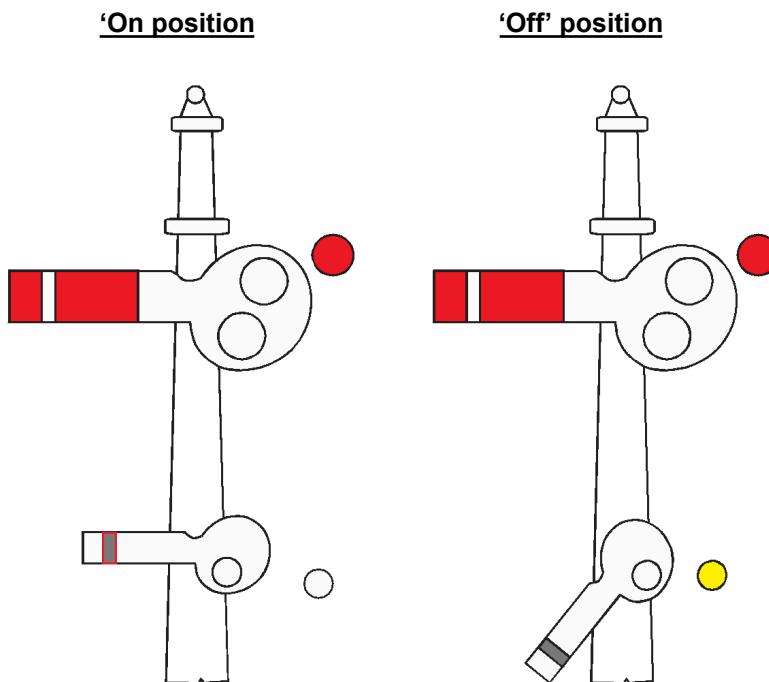
- (i) When a Semi-Automatic Stop signal works as an Automatic Stop signal, it assumes 'on' and 'off' aspects automatically according to the condition of the automatic block signaling sections ahead;
 - (ii) When a Semi-Automatic Stop signal works as a Manual Stop signal, it assumes 'on aspect automatically on the occupation of the automatic block signaling section ahead, but assumes 'off' aspect when operated manually, provided the relevant automatic block signaling 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 Manual Stop signal; and
 - (c) "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 work as modified semi Automatic stop signal and assumes 'off' aspect automatically or is taken 'off' manually as required; and"
 - (d) a Manual Stop signal operated manually and which cannot work as an Automatic or a Semi-Automatic Stop signal.
- (2) Colour light signals in Automatic Block territory shall be three-aspect or four-aspect.

3.13 CALLING-ON SIGNALS:-

- (1) A calling-on signal is a subsidiary signal which has no independent aspect in the 'on' position and shall be-
 - (a) a short square ended semaphore arm, or
 - (b) a miniature colour light provided with a 'C' Marker.
- (2) A Calling-on signal, where provided, shall be fixed below a Stop signal governing the approach of a train. Under approved special instructions, a Calling – on signal may be provided below any other Stop signal except the last Stop signal.
- (3) A Calling-on signal, when taken 'off', calls on the Loco Pilot of a train to draw ahead with caution, after the train has been brought to a stop even though the stop signal above it is at 'on' and indicates to the Loco Pilot that he should be prepared to stop short of any obstruction.
- (4) A Calling-on signal shall show no light in the 'on' position.

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

(a) Miniature Semaphore Arm type Calling-on Signal in Two Aspects Signalling Territory



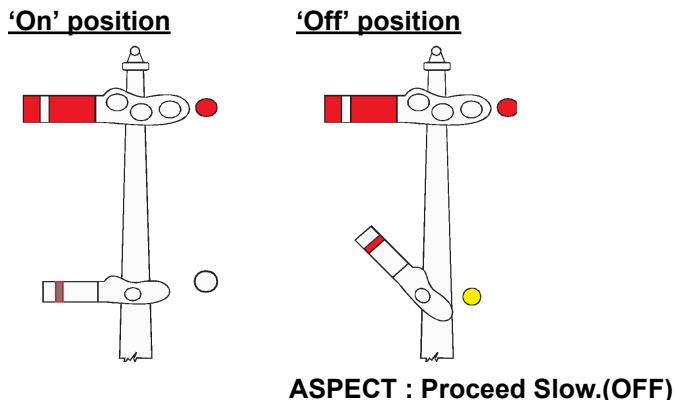
ASPECT(OFF): Proceed Slow

Indication :

Loco Pilot shall obey the aspect of the Stop Signal(ON)

Loco Pilot shall Stop and then draw ahead with caution and be prepared to stop short of any obstruction(OFF)

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



Indication :

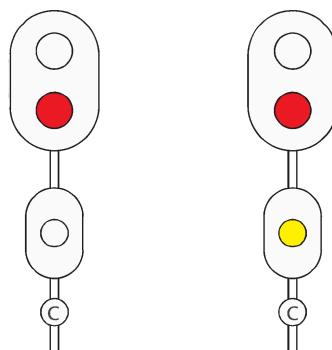
ON: Loco Pilot shall obey the ahead with aspect of the Stop signal aspect of the Stop signal.

OFF: Loco Pilot shall Stop and then draw caution and be prepared to stop short of any obstruction.

(6) The aspect 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



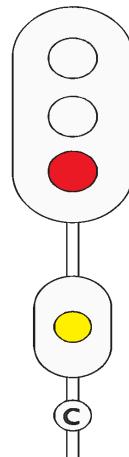
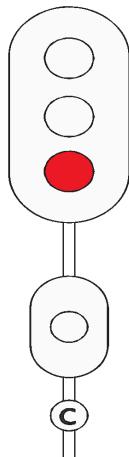
ASPECT : Proceed Slow.

Indication :

ON: Loco Pilot shall obey the aspect of stop signal

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

- (b) Colour light type Calling-on signal in Multiple-Aspect Signalling Territory
'On' position 'Off position'



ASPECT : Proceed Slow.

Indication :

Loco Pilot shall obey the Aspect of the Stop signal

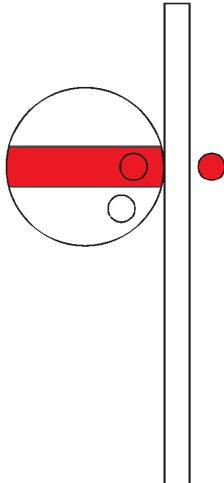
Stop and then draw ahead with caution and be prepared to stop short of any obstruction.

3.14 SHUNT SIGNALS :-

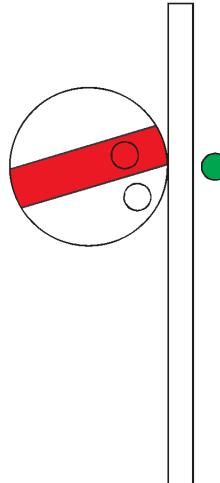
- (1) (a) A Shunt signal is a subsidiary signal and shall be either :-
- (i) a white disc with a red bar across it, or
 - (ii) a position light signal.
- (b) Under special instructions, a Shunt signal may be a miniature semaphore arm.
- (2) Shunt Signal control shunting movements.
- (3) A Shunt signal 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 authorizes 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

'On position



'Off' position



ASPECT :

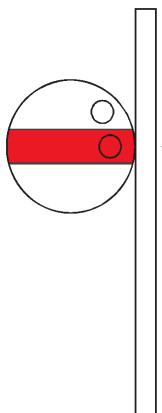
Stop

Proceed slow

Indication :

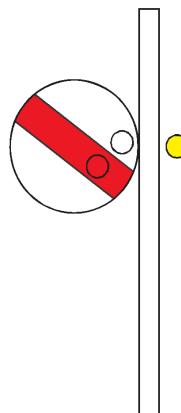
Stop dead

Proceed with caution for Shunting

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

ASPECT :

Stop

'Off' position

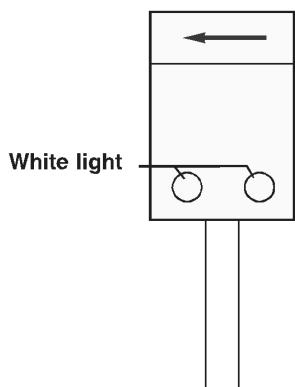
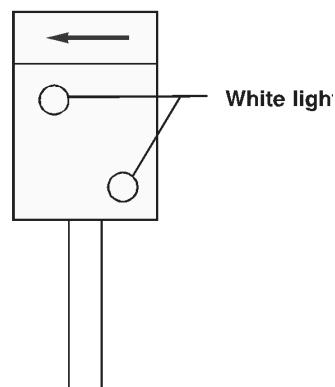
Proceed slow

Indication :

Stop dead

Proceed with caution for Shunting

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

'On position''Off' position

ASPECT :

Stop

Proceed slow

Indication :

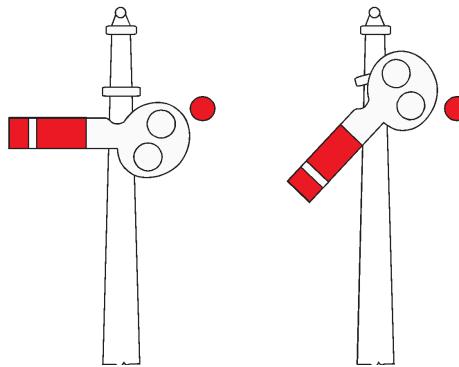
Stop dead

Proceed with caution for Shunting

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

(a) Miniature Semaphore Arm type Shunt Signal in Two Aspects Signalling Territory

'On position' 'Off' position

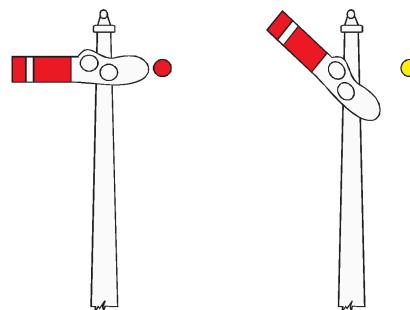


ASPECT : Stop Proceed slow

Indication : Stop dead Proceed with caution for Shunting

(b) Miniature Semaphore Arm type Shunt Signal in Multiple- Aspects Signalling Territory

'On position' 'Off' position'



ASPECT : Stop Proceed slow

Indication : Stop dead Proceed with caution for Shunting

- S.R.3.14(1) (a) – Shunting permitting 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 a yard after being isolated from the interlocked portion.
- (b) – If a shunting permitting indicator becomes defective, the Station Master on duty shall post a Competent Railway servant with hand signals at the foot of defective shunting permitting indicator for displaying hand signals. Besides, advise loco Pilot to pass defective shunting permitting indicator through written endorsement on shunting instruction form to this effect after ensuring correct setting, clamping and padlocking of concerned points.
- S.R.3.14(2) **A shunt signal may be placed at a post by itself or below a Stop Signal, other than the first and last Stop Signals of a station.**

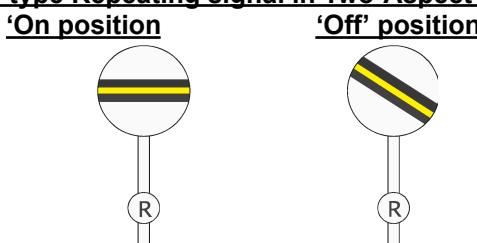
3.15 CO-ACTING SIGNALS :-

- (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



ASPECT :

Signal ‘On’

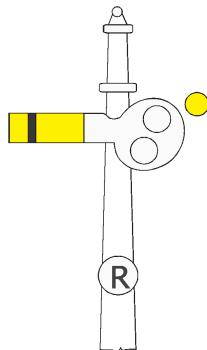
Signal ‘Off’

Indication : Signal which it repeats is at ‘on’ Signal which repeats is ‘Off’

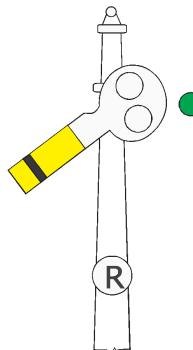
- (4) The aspects and indications of a Semaphore arm type Repeating signal are shown below :-

Semaphore Arm type Repeating Signal in Two Aspects Signalling Territory

'On' position



'Off' position



ASPECT :

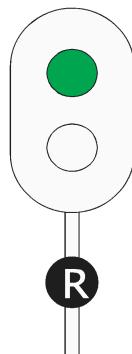
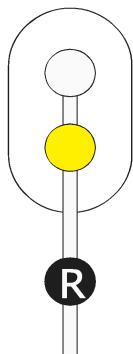
Signal 'On'(yellow) Signal 'Off'(Green)

- 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'(Yellow light lower of the two), Signal 'Off' (Green light upper)

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

3.17 DISTINGUISHING MARKER AND SIGNS FOR SIGNALS:-

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

Appearance	Provided on “
	Automatic Stop signal
	Semi-Automatic Stop Signal Colour light Distant Warner signal on a Post by –itself.

Description: While illuminated letter ‘A’ against black back- ground when working as an Automatic Stop signal and letter ‘A’ extinguished when working as a Manual Stop signal Letter ‘P’ in black on white circular disc.

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

<u>Appearance</u>	<u>Provided & Description</u>	a).Intermediate Block Stop Signal
EMB	a).Letter ‘IB’ in black on white circular disc	
ED	b)Calling –on signal	b)Letter ‘C’ in black on White circular disc
Core		
IDra	c)Repeating signal in Semaphore signaling Territory	
w.Gr	c)Letter ‘R’ in black on white circular disc	
aphi		
c.16		
	d)Repeating signal in colour light Signalling territory background	
	d)White illuminated letter ‘R’ against black background	

EMBE
D
Corel
Draw.
Graphi
c.16

37

- e)Gate Stop Signal e)Letter 'G' in black on yellow
Circular disc
- f)Gate Stop signal in Automatic Block territory
- f)Letter 'G' in black on yellow
circular disc and white illuminated Letter 'A' against black background

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

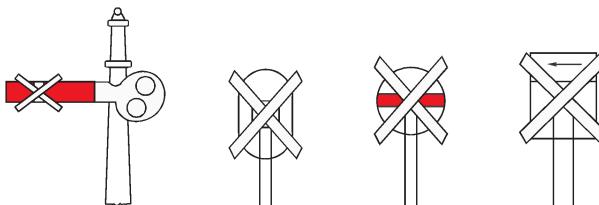
(2) Where necessary, signal arms shall be distinguished by prescribed signs as under:-

<u>Appearance</u>	<u>Provided on</u>	<u>&</u>	<u>Description</u>
EMBED CorelDr aw.Gra phic.16		a)	Approach Stop signal for Goods running lines Only a)One black ring on Semaphore arm
		b)	Approach Stop signal Platform b)Letter 'D' in 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 1 meter 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 Kilometers per hour with manually operated multiple aspect signals, only a single arm Home signal may be provided instead of separate signals on a bracket post or a route indicator. The facing points must be provided with point indicators.

3.20 PLACING OF STOP SIGNALS AT CONVERGING JUNCTIONS:-

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

3.21 SIGNALS ON BRACKET POST OR SIGNAL BRIDGE OR GANTRY:-

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

- (a) so grouped that the respective signals are easily distinguished 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.

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) Backlights 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.

C. EQUIPMENT OF SIGNALS

3.25 OBLIGATION TO PROVIDE FIXED SIGNALS AT STATIONS:-

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

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

3.26 COMMISSIONING OF FIXED SIGNALS:-

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

S.R.3.26(1) All new signals must be inspected and passed by a sighting committee consisting of –

- i) Signal Inspector
- ii) Loco Inspector,
- iii) Transportation Inspector.

The sighting committee shall certify themselves that the signal is correctly placed and focused for day and night indication 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) No alteration to an existing signal which require to be passed by a sighting committee must be taken in hand without the issue of a Traffic Working Order which must not be operative for more than three months, unless the work can be undertaken and completed within one day.

S.R.3.26(3) : Whenever there is a change in the complement of signaling at a station or on a section or whenever signals are newly erected or re-sited, a Caution Order shall be issued for a period of 90 days after the signal has been brought into use, drawing the attention of Loco Pilots. In addition, Crew Controller concerned shall take assurance from Loco Pilots deputed to work trains on that particular section that they have been informed of the change in signaling arrangement.

3.27 MINIMUM EQUIPMENT OF FIXED SIGNALS AT STATIONS PROVIDED WITH MANUALLY OPERATED MULTIPLE-ASPECT SIGNALLING:-

The minimum equipment of fixed signals to be provided for each directions shall be follows:-

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

3.28 MINIMUM EQUIPMENT OF FIXED SIGNALS AT STATIONS PROVIDED WITH MODIFIED LOWER QUADRANT SIGNALLING:-

Modified lower quadrant signaling may be introduced only where it is expressly sanctioned by a special order of the Railway Board. The minimum equipment for fixed signals to be provided for each direction shall be as follows:-

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

3.29 MINIMUM EQUIPMENT OF FIXED SIGNALS AT OTHER STATIONS PROVIDED WITH TWO-ASPECT SIGNALLING:-

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

- (a) at class 'A' stations...a Warner, a Home and a Starter,
- (b) at class 'B' stations-
 - on a single line ... an Outer and a Home.
 - on a double line ... an Outer, a Home and 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
kilometers an hour without
stopping, and
- (c) at a 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 stations as may be necessary for the safe working of trains.

3.31 SIGNALS AT CLASS ‘D’ STATIONS :- At a class ‘D’ station, a train may be stopped in such manner as may be authorised by special instructions.

SR.3.31 (1) Loco pilots of trains carrying passenger shall stop their trains at “D” class stations within the platform or at the usual stopping place to enable the passengers to detrain and entrain.

SR.3.31(2) Station Warning Boards are provided at 1000 Meter gauge and 1200 meters on Broad gauge short a flag/halt/D class stations to indicate to the Loco pilots working trains during thick and foggy weather about the approach of the flag/halt/D class station.

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 outermost facing points in the direction of an approaching train is permitted under special instructions under Rule 8.09, a Shunting Limit Board or an Advanced Starter shall be placed at such shunting distance from the Home signal or the outermost facing points as local conditions may require, provided the distance between the Shunting Limit Board (bearing the words ‘Shunting Limit’ on the side which faces the station and fitted with a lamp showing a white light in both directions to mark its position by night) or the Advanced Starter and the opposing first Stop signal is never less than 400 meters in the Two-Aspect signaling territory and 180 meters in the multiple-aspect signaling territory and 180 meters in the multiple-aspect or modified lower quadrant signaling territory. The location of such board or Advanced Starter shall mark the limit upto which shunting may be permitted.
- (2) On a double line class ‘B’ station worked on Absolute Block System equipped with multiple-aspect or modified lower quadrant signaling and where there are no points or the outermost points at the approaching end are trailing, a Block Section Limit Board (bearing the words ‘Block Section Limit’ on the side which faces the station and fitted with a lamp showing white light in both directions to mark its position by night) shall be provided. It shall be placed at a distance of not less than 180 meters in advance of the Home signal and shall protect the fouling mark of 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 stations shall be worked in accordance with approved special instructions;
- (b) on any section where traffic is light and speeds slow, one Stop signal only in each direction may be provided at each station, such signal to be located at an adequate distance outside the outermost facing points of the station and trains worked in accordance with approved special instructions;
- (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 kilometers per hour a distant signal and home signal only may be provided in each direction under approved special instructions.

3.34 FIXED SIGNALS AT LEVEL-CROSSINGS:-

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

3.35 PROTECTION AND WORKING OF POINTS OF OUTLYING SIDINGS:-

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

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 shall not be placed 'on' until the whole of the the train which it controls has passed it, except -
 - (a) In case of emergency to avert an accident, or
 - (b) 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 instruciots or where secured means of communication are not available, throgh a written memo to the effect that the said signals have been replaced to 'on' and that the Loco Pilot shall not start ;
 - (ii) Till the Loco Pilot has been advised through secured means of communication referred to in sub-clause (i) or through a written memo and his acknowledgement received, the route set shall not be altered except to avert an accident ; or,
 - (c) 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) (a)** The staff responsible for working signals at a station shall see that the signal obeys the control actuating it.
- (b)** The Station Master in-charge of the station shall test the working of signals daily as specified under special instructions when no train is expected to arrive or leave the station and record the result in Station Diary.

3.37 NORMAL ASPECT OF SIGNALS:-

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

3.38 POINTS AFFECTING MOVEMENT OF TRAIN:-

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

- (1)**
 - (a)** all facing points over which the train will pass are correctly set and locked.
 - (b)** all trailing points over which the train will pass are correctly set, and
 - (c)** the line over which the train is to pass is clear and free from obstructions.
- (2)** When a running line is blocked by stabled load, wagon vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station, etc. points in rear on double line sections and at either end or 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.

3.39 LOCKING OF FACING POINTS:-

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

3.40 CONDITIONS FOR TAKING 'OFF' HOME SIGNAL:-

- (1) When a train is approaching a Home signal otherwise than at a terminal station, the signal shall not be taken 'off' until the train has first been brought to a stand outside it, unless-
 - (a) on a double line, the line is clear for an adequate distance beyond the starter; or
 - (b) on a single line, the line is clear for an adequate distance beyond the trailing points or for an adequate distance beyond the place at which the train is required to come to a stand.
- (2) Where a train has first been brought to a stand outside the home signal, the signal may be taken 'off', if..
 - (a) on a double line, the line is clear upto the Starter, or
 - (b) on a single line, the line is clear upto the trailing points or under approved special instructions upto the place at which the train is required to come to stand.
- (3) Except under approved special instructions, the adequate distance referred to in sub rule (1) shall never be less than –
 - (a) 180 meters at stations equipped with two-aspect lower quadrant or two-aspect colour light signals, or
 - (b) 120 meters 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 adequate distance referred to in sub-rule (3).

3.41 CONDITIONS FOR TAKING 'OFF' OUTER SIGNAL:-

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

3.42 CONDITIONS FOR TAKING 'OFF' LAST STOP SIGNAL OR INTERMEDIATE BLOCK STOP SIGNAL:-

- (1) On double line, the last stop signal or Intermediate Block Stop signal shall not be taken 'off' for a train unless Line clear has been obtain from the block station in advance.
- (2) On single line –
 - (a) the last stop signal shall not be taken 'off' for a train unless line clear has been obtained from the block station in advance ;
 - (b) for Intermediate block signaling –
 - (i) first, the direction of traffic shall be established and then line clear shall be obtained from the bock 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 signaling, the line between two adjacent block stations is divided into two subsections, the first section which shall be termed as 'station controlled intermediate block section' and the section between Intermediate Block signal to First Stop Signal of block station ahead shall be termed as 'block controlled Intermediate Block section'.

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 is or are closed and locked against road traffic. Where a gate Stop signal is interlocked with station signal, 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 interferences 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.

S.R.3.47 Berthing of Passenger Train –

- (A) (i) A stopping passenger train should normally be received on a platform line.
- (ii) in case off crossing on single line, the first arriving train should always be received on the loop line provided it does not involve reception of a stopping passenger train on a non-platform line.
- (B) The following procedure should be followed when two passenger trains cross at a stations on the single line where there is only one platform.
- (1) When both passenger trains are booked to stop at the station.
- (a) **If the platform is at level or is not more than 455 mm high:-**

The passenger train arriving first shall be admitted on the platform line and the other train on the non-platform line. Each train shall be drawn as far ahead as possible, but without infringing the fouling marks at either end, so that the last vehicles of the trains, as far as practicable, are clear of each other

- (b) **If the height of the platform is 760 mm or more:-**

The passenger train arriving first shall be admitted on the platform line and, after the passengers have detrained and entrained, it shall be shunted on to the non-platform line, and the second passenger train shall then be admitted on the platform line. The first arriving train shall thereafter be despatched from the non-platform line:

Or

after the passenger train arriving first has been admitted on the platform line, the second passenger train shall be passed through on a clear line, as a shunting

movement and carefully backed on to the platform line after the departure of first train.

Or

after the passenger train arriving first has been admitted on the platform line, the second passenger train shall be passed through on a clear line, as a shunting movement and carefully backed on to the platform line, while the first train is still standing on the platform line only if the platform is long enough to accommodate both the trains.

- (2) if one of the two passenger trains is not booked to stop at the station.

The passenger train booked to stop shall be admitted first on the platform line and the other passenger train not booked to stop shall then be passed through the non-platform line.

- (3) If neither of the two passenger trains is booked to stop at the station.

The first arriving passenger train shall be admitted on the platform line and the second passenger train shall be passed through the non-platform line.

- (b) Special instructions necessary in this regard shall be detailed in the Station Working Rules, along with other precautions to be taken.

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 courses 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 singles are kept at 'on' and
- (d) at stations provided with neither a working Warners nor a Starters, the first stop signal is kept at 'on' and the train brought to a stand outside it.

3.49 CARE AND LIGHTING OF SIGNAL LAMPS:-

- (1) The station Master shall see that lamps of fixed signals, Indicators and boards such as Shunting Limit Board, Block 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 through out the day and night, and
 - (c) the sections where no train is scheduled to run at night.
- (3) **The Station Master shall ensure that 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.**

3.50 TRAPS, SLIP SIDINGS AND CATCH SIDINGS:-

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

3.51 POINTS:-

- (1) All points shall normally be set for the straight except when otherwise authorised by special instructions.
- (2) The railway servant concerned with the operation of points and signals shall not, while on duty leave the place of operation or 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) Whenever a train trails through wrongly set points, the Loco Pilot shall on realising the situation, immediately stop his train. He shall then consult the Guard and Station Master and then restart and proceed onward only if he is satisfied that the train can pass safely over the points without any accident. Backing trains over the points which have been trailed through is prohibited.

S.R.3.51(2) Points signals disconnections of:-

Before taking hand any disconnection of points, signals or interlocking gear, the person in charge of the work must advise the station master on duty in writing on Form S&T (T/351) before the work is started and after it is completed. When A disconnection is made at the request of the station master on duty to save delays to traffic, the station master must endorse the counter foil of Form S&T (T/351) with the remark "Disconnection made at my request".

Whenever the Disconnection memo has been received, it is the personal responsibility of Station Master to ensure that such points are set and locked and secured by means of clamps and padlocks before authorising the movement of any train over such points. If the disconnection of points is made at one end of a cross-over, the points at both the ends of the cross over should be treated as having been disconnected and the train shall be received as under:-

- (a) in the case of electrically operated points of a cross-over:
 - (i) the end where work is being done should be treated as having been disconnected and should be clamped and padlocked by the ASM and trains passed over the same by piloting. It should also be ensured that the other end of the cross-over shall be set for isolation and clamped and pad locked if the train passes over the straight road. The other end shall be set and locked for cross movement if the movement is over the cross-over;

- (ii) the end where work is not being done shall also be treated as non-interlocked, and also clamped and pad locked and trains passed on signals but with speed restriction of 15 Km/h. It should also be ensured that for a train passing over the straight road at the end where work is not being done that should be clamped also for the straight road, i.e for isolation.

S.R.3.51(3) Working of traffic during overhauling:-

- (a) When a interlocking frame is to be overhauled Traffic Working Order for each phase of work shall be prepared jointly by AOM and RSTE for working of traffic during such overhauling. The instructions should inter-alia stipulate the clamping and padlocking of points in accordance with G.R. 3.38 and 3.39 and that the Station Master shall be responsible for ensuring that all the facing points over which the train will pass, are correctly set, clamped and padlocked and that all trailing points over which the train will pass are correctly set before taking "Off" signals. The manner in which Station Master will ensure this must be clearly laid down. Detailed Traffic Working Order for each station shall be prepared by the AOM and RSTE for each phase of the work and supplied to the station before overhauling is commenced.
- (b) A notification showing the date and time when the overhauling work would be taken in hand, its probable duration and instructions for the Station Master to issue caution order to Loco pilots and for loco Foreman to advise Loco pilots to observe the temporary speed restriction must be issued jointly by the RSTE and AOM.

S.R.3.51(4) Stations provided with interlocked crank handles:-

If a point is defective and has been set to the required position by crank handle, a normal signalled movement can be made if the crank handle is restored to its normal lock and the signal comes off after being taken off. No clamping and padlocking is required in such a case. If the signal does not come off after the signal button is operated clamping and padlocking is to be done and trains are to be signaled past the defective signal in accordance with G.R. 3.69 and G.R. 3.70.

E. HAND SIGNALS

3.52 EXHIBITION OF HAND SIGNALS:-

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

3.53 STOP HAND SIGNAL:-

Indication : Stop dead

HOW GIVEN BY DAY:

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

HOW GIVEN BY NIGHT:

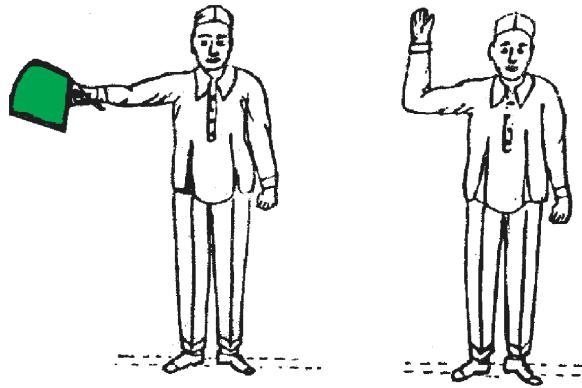
By showing a red light or by violently waving a white light horizontally across the body of the person showing the signal as illustrated below:

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 :(man holding green flag left and man raising hand right)



HOW GIVEN BY NIGHT :

By holding a green light steadily as illustrated below:

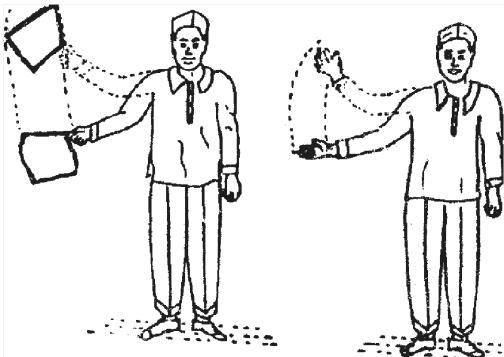


3.55 PROCEED WITH CAUTION HAND SIGNAL:-

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

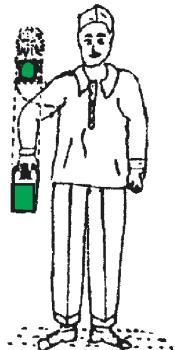
HOW GIVEN BY DAY :

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



HOW GIVEN BY NIGHT :

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



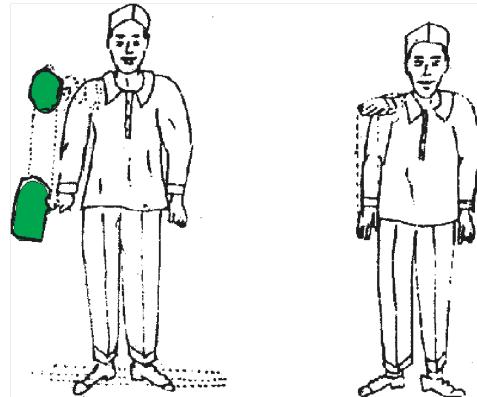
Note: When the speed is to be reduced further, this signal shall be given at a slower and slower rate and when a stop is desired, the Stop hand signal shall be shown.

3.56 HAND SIGNALS FOR SHUNTING :- The following hand signals shall be used in shunting operations in addition to the Stop hand signal:-

- (a) Indication : Move away from the person signaling.

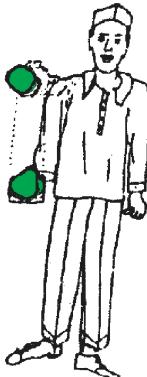
HOW GIVEN BY DAY :

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



HOW GIVEN BY NIGHT :

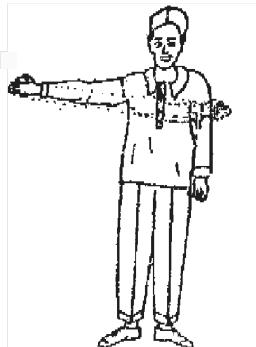
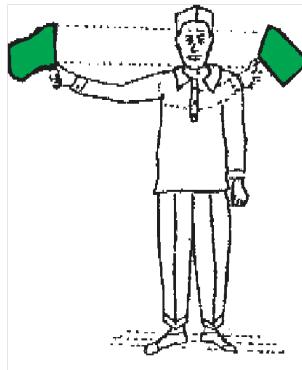
By a green light moved slowly up and down as illustrated below:



(b) Indication Move towards the person signaling

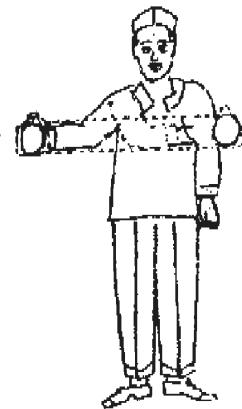
HOW GIVEN BY DAY :

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



HOW GIVEN BY NIGHT :

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



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

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

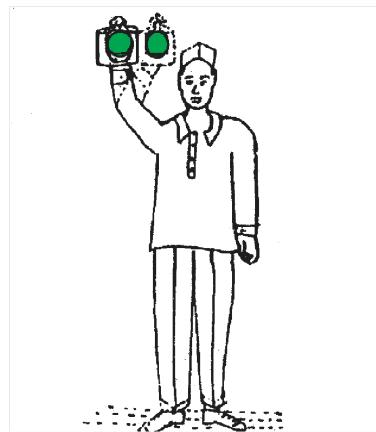
HOW GIVEN BY DAY:

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



HOW GIVEN BY NIGHT :

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



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

3.58 KNOWLEDGE AND POSSESSION OF HAND SIGNALS:-

- (1) Every railway servant connected with the movement of trains, shunting operations, maintenance of 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 signaling 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 signaling.
- (4) Every Station Master shall see that his station is adequately supplied with all necessary equipment for hand signaling.

F. DETONATING SIGNALS

3.59 DESCRIPTION OF DETONATING SIGNALS:-

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

3.60 METHOD OF USING DETONATORS:-

- (1) A Detonator when required to be used shall be placed on the rail with the label or brand facing upwards and shall be fixed to the rail by bending the clasps around the head of the rail.
- (2) In the case of a mixed gauge, detonators shall be placed on the common rail or 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 meters apart, and at least 270 meters 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 meters 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.**

NOTE : It is not necessary to place the detonators where adequate pre-warning is provided ; i.e. at stations where double distant signals are provided. However, it is necessary to place the detonators in Multiple Aspect Signalling, where single Distant Signal is provided.

- S.R.3.61(1)**
- (a) The visibility test object shall be specified in the Station Working Rules.
 - (b) At station situated in localities where fog, or dust storms or heavy rains are generally prevalent, such posts shall be provided separately.
 - (c) Visibility test post will be a vertical post painted alternately black and yellow and illuminated during night and fixed at 180 meters from the centre of the Station Master's office.
 - (d) In foggy or tempestuous weather or in dust storms when station signals cannot be seen, the Station Master on duty shall personally ensure that the station signals are lit, and then sent trained men to act as detonator, (fog) signalmen, one in either direction, to the fog signal post, which are erected at stations at 270 meters in rear of Home Signal.

The fog signal posts will consist of steel rough sleepers or wooden sleepers painted alternatively black and white and fixed vertically on the ground.

Note : The Fog Signal Posts will be provided only at stations where there may be a requirement for placing detonators.

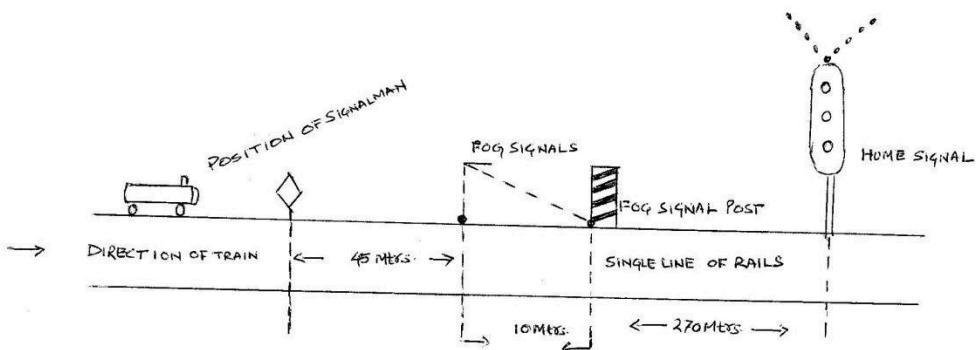
- (e) Each of these men shall be provided with 20 detonating fog signals or such lesser number as may be prescribed under special instructions. The fog signalmen shall place two detonators on the centre of the head of the rail, with the label or brand upwards, which shall be securely fastened to the rail by bending the clasp round the

upper flanges of the rail, about 10 meters apart from each other, which on explosion under the wheels of an engine, will warn the Loco Pilot of his proximity to the Outer, Warner or Distant signal of the station, as the case may be.

- (f) After the passage of each train over the detonating (fog) signals, which have been so placed on the rails, the Fog Signalmen shall immediately replace them by two fresh detonators.
- (g) When a railway servant has placed one or more detonators on the line, he shall withdraw beyond the safety radius of 45 meters from the detonator or detonators before they are exploded by an approaching engine or train. He shall be responsible for warning as far as circumstances permit, any person in the vicinity to stand beyond the safety radius.

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

- (h) The fog signalman shall see that the Distant signal(s) which has/have been cleared for a train to pass is/are replaced at danger/caution after passage of the train. If after five minutes, the signal(s) has/have not returned to danger/caution, the fog signalmen shall have two detonators on the rail and inform the Station Master on duty.
- (i) The position of Fog Signal post, the fog signal and the fog signlamen are shown in the diagram below:-



- (j) Each of the trained men sent out with detonating (fog) signals, shall carry a lighted hand signal lamp.
Should the fog signalman be aware of any obstruction on the line, he shall show a Stop hand signal in accordance with General Rule 3.53 in the direction in which a train is expected or approaching. On single line sections for trains leaving a station, the Fog signal man deputed to place detonators shall show to the Loco Pilot a "Proceed" hand signal in accordance with General Rule 3.54.
- (k) As soon as it is necessary for the Station Master on duty, to take action under S.R.3.61(d) he will immediately call on duty, two of the station Group D staff who are "off" duty. The section master on duty may either use the two men called from "off" duty or two of the men already "on" duty for the purpose of seeing that signals are lit and for sending two men trained in fog signaling duties to either end of the Station limits or he may utilize, if available, two trained Gangmen detailed for the purpose by the JE/SE(P.Way) but in any event, the trained men sent out to the fog signal posts shall be regular employees of the railway and not "**Substitutes**".
 - (l) The procedure in S.R.3.61(k) refers to action to be taken by the station master on duty in an emergency.
 - i) Regional Railway Manager will notify the names of stations at which fog prevails persistently. At each such station, four of the station Group D staff (or if this number is not available, it may be made up by one or a maximum of two Gangmen per station being deputed by the JE/SE(P-Way) shall be posted and detailed to act as Fog Signalmen. All the four men must be fully trained in fog signaling duties and must be regular employee of the Railway and not "**Substitutes**". These four men will be on intermittent duty, one on duty at each end of the station and two resting at the station, each performing three hours "on" and three hours "off" duty. No man is to be on duty as a fog signalmen continuously for more than three hours at a stretch. The four employees detailed as fog signalmen will be replaced by the appointment of two or more Group D staff at the station and by one or two temporary men in the engineering gang from which the permanent men have been withdrawn.
 - ii) At a double line station if the fog appears for about 7 days in the month it should be treated as persistent fog and separate Fog Porters should be appointed. If the Fog is for less than 7 days in a month the Station Master will act according to S.R.3.61(k), that is, he will immediately call out two of the station Group D staff who are "off" duty will be utilised for fog signaling duties. The "off" duty staff will be paid any overtime that is due and will be replaced by "Substitutes" to work during their normal turn of duty. This arrangement will obviate the necessity of retaining Fog Posters permanently and "Substitutes" will be required for permanent staff only when they are actually utilised on fog signaling duty. It shall

however, be noted that only regular employees will be utilised on fog signaling duty.

- iii) At single line stations where the station Porters are required for delivering tokens also, Regional Railway Manager shall examine both the duration of fog and the number days in a month on which, it appears and then taking the overall work into consideration, determine whether special Fog Porters are required or not. If fog appears only on one or two days in a month and for a short duration it would obviously be not necessary to have separate Fog Porters and the procedure stated in sub-paragraph (i) above shall be followed.
- (m) On branch lines or sections on which traffic is light, instead of a Fog Signalman remaining continuously on duty at each signal post, a fog signal man may be sent out to place fog signal for each individual train. This procedure may only be adopted under 'Special Instructions' in such cases. Line clear shall not be given for a train, unless the fog signal man has been sent out at least 30 minutes before the train is due to leave the station in rear.
- (n) The Station Master shall ensure that fresh supplies of detonators are sent to the men in replacement of those used.
- (o) A "Station Detonator Register" shall be maintained at each station, and shall show the names of Fog Signalmen on duty, periods of duty, the stock of detonators, the number of detonators sent out with each Fog Signalman, the number of each train under which detonators have been exploded and the number of unused detonators and used cases (including those which have failed to explode) returned each time by Fog Signalmen to the station Master on duty.
- (p) The Station Master shall obtain in the "Station Detonator Register", the signature or thumb impression of all men deputed and/or posted to his station as Fog Signalmen, as an acknowledgement that they understand the rules relating to the fog signaling of trains.
- (q) In foggy or tempestuous weather or in dust storms, JE/SE (P.Way) or PWS/APWS shall promptly arrange for regular Gangmen to be deputed to place detonators on the rails 270 meters in rear of (i.e. outside) the first caution signal in each direction when cautious driving is necessary due to repairs of the line or other works being in progress.
- (r) During thick, foggy or tempestuous weather when visibility is restricted, the Gateman shall close and lock the gates against road traffic and then protect the signals by

placing detonators in terms of Rule 3.61. After ensuring this on both sides, he shall come back to the gate and perform his normal duties.

- (s) Station warning boards are provided 1200 metres on Boards Gauge & 1000 metres on Metre Gauge short of flag/halt stations, to indicate the Loco pilot working trains during thick or foggy weather, about the approach of the flag/halt station.

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 meters from the obstruction and place on the line one detonator and then proceed to a point 800 meters from the obstruction and place on the line three detonators, about 10 meters 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 Master, Guards, Loco pilot, Track men and all other railway servants on whom this duty is laid by the Railway Administration shall keep a stock of detonator.
- (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 servant in his charge concerned with the use of detonators have a correct knowledge of their use.

S.R.3.64(1) (a) A case containing 10 detonators shall form part of the equipment, when on duty, of every Guard, Loco Pilot on the foot plate, Station Master, Permanent Way PWS/APWS/Unit-in-charge, keyman, Gateman, Bridge Watchman, Cutting Watchman, Patrolman and the official in charge of every push trolley, motor trolley, Gangers trolley and lorry.

(b) Regional Railway Manager shall prescribe the number of detonators which shall be kept in stock at stations and the minimum number below which the stock shall not be allowed to fall.

(c) Regional Railway Manager shall prescribe the number of detonators which shall be kept in stock in each JE/SE/(P-Way)'s office and Running Sheds respectively and also the minimum number below which the stock shall not be allowed to fall.

(d) Station Master, Running Shed/Loco Foremen and JEs/SEs/(P-Way) are responsible for seeing that stock of detonators is never allowed to fall below the minimum.

S.R.3.64(2)

(a) Station Master shall supply detonators to Guard, headquartered at their stations and to Gatemen working under their control.

(b) JEs/SEs/(P-Way) shall supply detonators to PWS/APWS/Unit-in-charge/Keymen, Gatemen (not covered in (i) above), Bridge Watchmen, Cutting Watchmen and Patrolmen

(c) Running Shed/Loco Foremen shall supply detonators to Loco Pilot.

(d) The users of push trolley, motor trolley, self propelled vehicle, lorry etc. shall arrange for the supply of detonators through the Station Masters, JEs/SEs/(P-Way), or Running Shed/Loco Foremen of their headquarters station, as may be convenient.

- S.R.3.64(3)** (a) Detonators shall be carefully handled as they are liable to explode if roughly handled.
- (b) 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, not exposed to dampness or steam or other vapours.
- S.R.3.64 (4)** (a) 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 Running Shed/Loco Foremen or other railway person in charge of such stock shall test atleast one detonator from each tin case issued to the staff. The deficiency in each of these cases shall be made up by a detonator or detonators from another tin case from which one detonator has been tested.
- (b) Transportation Inspectors, Station Masters, Running Shed/ Loco Foremen and JEs/SEs/(P-Way) are responsible to ensure that the detonators in possession of railway servants within their jurisdiction are tested once in 12 months.
- (c) "The normal shelf life of detonators shall be five years reckoned from the year of its manufacture. It can be extended further for a maximum of three years provided that the detonators which are more than five years old are effective. For this purpose, two detonators of each batch/ lot should be tested at the end of five years and if this result of these tests are satisfactory, life of the detonators of that batch / lot should be extended by one more year, on expiry of which similar tests should be conducted annually to extend the life of detonators of that particular batch /lot upto a maximum of eight years from the year of manufacture. The following precautions are to be taken while handling detonators.
- (i) Open the container only at the time of use.
 - (ii) Take out the Fog Signal and straighten the lead stripe.
 - (iii) Lay the Fog Signal Over the rail closest to the inner side of the rail and fix it with the help of lead strips bending inside the rail.
 - (iv) Keep the left over quantity of Fog Signals in closed containers.

- (v) Store the box containing Fog Signals in a dry place away from direct sunlight and water.
 - (vi) All time expired fog signals need not be returned to the stores depots but shall be destroyed at the sites by the concerned stock holders in the presence of an Executive & in no case below the rank of Sr. Supervisor who shall give a certificate in the relevant records to this effect.
- (d) 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 destroyed as detailed in S.R.3.64(7).
- (e) While testing detonators from a tin case, the one which is the oldest as regards the date of manufacture shall be used.
- (f) Detonators shall be tested under an empty wagon moving at 8 to 10 kilometers an Hour. The empty wagon shall be propelled by a locomotive. Test shall not be carried out by an official lower in rank than a Transportation Inspectors, JE/SE/(P,-Way), Loco Inspectors and Running Shed / Loco Foreman. Station Masters at Guard's headquarter station are, however, authorised to test detonators in their charge or issued by them. Care must be taken to ensure that test is not conducted in a crowded locality or near a level crossing where splinters from detonators may cause injury.
- (g) Excepting the crew of the locomotive employed in the test, no person shall be allowed to remain within a radius of 45 meters from the detonator which is being tested. The staff shall, while observing the safety radius of 45 meters place themselves as far as possible in rear of the locomotive or train or wagon passing over the detonator as it has been found in practice that splinters from the detonators seldom fly in a direction towards the rear of the wheel which explodes them. The engine crew shall also keep themselves well within the cab while passing over the detonators. 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, meters safety radius, until the test is completed.
- (h) A record of number of detonators tested and also the results of test shall be maintained in a special register kept for the purpose at the place of testing.
- (i) After the test is completed, results of the test shall be communicated to the issuing officer of the detonators by the official conducting the test.

(j) The staff in possession of the detonators shall not make any improper use of them.

SR.3.64(5) Station Master , Running Shed/ Loco Foremen ,JEs/SEs/(P-Way) are responsible for ensuring that the detonators in possession of the railway servants under them are tested as prescribed under the rules and that the staff know how and when to use them. For gatemen within station limits , this responsibility lies with the Station Master or Transportation Inspector of the section. Such staff as are expected to use the detonators shall be tested once in three months by the inspecting officials and Senior Supervisors in regard to their knowledge of use of detonators.

SR.3.64(6) Each Station Master, Running Shed / Loco Foremen and JE / SE/(P-Way) shall maintain a register of receipts , use and testing of detonators in respect of railway staff to whom the detonators were issued by him.

SR.3.64(7) The time expired detonators shall be destroyed by the following methods :-

- I) By soaking them in light mineral oil for 48 hours and throwing them one by one into fire with due precautions.
- ii) By burning them in incinerator.
- iii) By detonating them under the wagons during shunting operations.
- iv) By throwing them in deep sea.

The destruction of time – barred detonators shall be arranged in the presence of an Executive and in no case below the rank of a Senior Supervisor. He shall ensure that during destruction every care is taken to see that the splinters of detonators do not cause any injury to life and property. In no case the detonators shall be buried or thrown in water at such places where they could be recovered by human beings.

S.R.3.64(8) **Relief** :-JEs/SEs/(P-Way) will arrange for relief force for relieving Fog Signalmen at Stations in areas in which fogs are prevalent, when such men are absent on account of sickness or authorised Leave.

S.R.3.64(9) **Acknowledgement of Rules** :- The station master shall obtain the signature or thumb impression of Fog Signalmen in the ‘Station

'Detonator Register', as an acknowledgement that they know and understand the rules for fog signaling of trains.

S.R.3.64(10)

Record of detonating (fog) signals and exploded cases:

- (i) The Station Master on duty shall be responsible for ensuring that the fog signalmen, before going out on duty to the fog signals posts, count the number of detonating (fog) signals issued to them. This number shall be entered in the "Station Detonator Register" in Form Annexure "A" and the Station Master on duty and the fog Signalmen shall jointly sign this entry.
- (ii) As each train has passed over the detonating (fog) signals placed for it, the Fog Signalmen shall collect the exploded cases (not omitting the cases of detonators which have failed to explode) and when his period of duty is over, or when he is recalled on the weather clearing up, he shall bring all the used detonators and any unused detonators he still has, and make them over to the Station Master on duty. The station master on duty shall enter in the "Station Detonator Register" in Form Annexure 'A' the number of used detonators and unused detonators, and both the Station Master and Fog Signalmen shall sign against this entry. If the Fog Signalmen is illiterate, the Station Master shall take his thumb impression.

Annexure 'A'**STATION DETONATOR REGISTER**
At
INSTRUCTION

1. This Register contains the following parts:-
 - Part-I Particulars of Fog Signalmen posted at the station from time-to-time.
 - Part-II Particulars of receipt or stock of detonating (fog) signals at the station, to be filled in whenever detonators are used or received.
 - Part-III Periods of fogs, Fog Signalmen on duty, and details of detonators used.
 - Part-IV Particulars of issue and Testing of fog signals at Depot, Station, Loco Shed etc.
2. As soon as a man is posted to or detailed for duty at a station as a fog Signalman, the Station Master Shall satisfy himself that the man is fully acquainted with and understands the rules relating to the placing of detonating (fog) Signals at station during thick or foggy weather. As an assurance of this, The Station Master shall take the signature of thumb impression of such men in the appropriate column of Part-I of this Register.
3. The Station Manager shall ensure that the information to be maintained in this register is kept up up-to-date and is accurate in all respects.
4. Transportation Inspector shall check the register, as also the stock of detonator on hand, each time they visit a station and initial with date as an indication of their having done so.

KONKAN RAILWAY
STATION DETONATOR REGISTER
PART – I
FOR SIGNALMEN POSTED

At Station

Period for which worked at the station		Names of Fog Signalmen	Substantive post of Fog Signalmen	Assurance of Fog Signalmen	Signature of Station Master	Date of testing of the Fog Signalmen in his duties by the Station Master	Signature of Fog Signalmen	Signature of the Station Master
From	To							

KONKAN RAILWAY
STATION DETONATOR REGISTER
PART – II
STOCK OF DETONATING (FOG) SIGNALS

At Station

Date	Operating Balance Fog Signals	Stock received on date	Particulars of receipt	Stock used during the day	Closing balance of detonators on hand	Signature of Station Master

KONKAN RAILWAY
STATION DETONATOR REGISTER
PART – III
STATION DETONATER REGISTER

At Station

Date	Duration of Fog		Name of Fog Signal sent out	No. of detonation (fog) signals issued		Sent out for renewal	Signature of Fog Signaller/Staton Master on duty	Trains for which used	Fog Signal alarm Ret urne d to Staton	Unused detonators	No. of detonators returned to Station Master on duty		Signature of		Remarks	
	Time Commenced and control advised	Time cleared and control advised		To Fog Sign al man	No. T	Time					H.M.	Balanc e of detonators not accounted by (12) & (13)	Expla nation not accounted detonators	Fog Sign alman or thumb impr ession	SM on duty	
HM	HM	HM														18
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

KONKAN RAILWAY
STATION DETONATOR REGISTER
PART – IV
STATION DETONATER REGISTER

At Station/Shed/Office

S. No.	Name	Designation	Ticket No. & P.F. No.	Date of issued	No. of detonators issued	Years and month 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 the detonators tested
1	2	3	4	5	6	7	8	9	10	11	12	13

Instructions for the supply and use of detonating (fog) signals at stations to indicate to the Loco Pilots of approaching trains, the location of a signal.

1. **Recruitment :-** Fog Signalmen will be detailed for duty at stations, being recruited partly from the station traffic staff and partly from engineering Trackmen and must not be substitutes but regular employees of the railway.
2. **Relief :-** JE/SE (P-Way) will arrange for a relief force for relieving Fog Signalman at stations in areas in which fogs are prevalent, when such men are absent on account of sickness or authorised leave.
3. **Supply and Method of use:-**
 - (i) Each Fog signalman while being send to the fog signal post will be given 20 detonating (fog) signal (patakha). The Station Master shall ensure that fresh supplies of detonating (fog) signals are sent out as necessary to the men in replacement of those used.
 - (ii) One fog Signalman must be sent to each of the Fog Signal Posts which are erected at all stations in rear of (i.e. outside) the outermost signal.
 - (iii) Each fog signalman on reaching the fog signal post must be sent to each of the fog signal post must at once place and secure on the rails two fog signals (patakha) about 10 metres from each other, one being opposite and on the rail next to the fog signal post and the other beyond it and in the direction from which the incoming train would come.
 - (iv) He will then station himself 45 metres behind the fog signal post (see diagram under S.R.3.61(i)).
 - (v) The Station Master on duty must see that fog signalmen are not kept on duty at fog signal post more than 3 hrs. at a stretch.
 - (vi) Fog signalmen must never leave posts until relieved by another trained Fog signalman, except when he has to report to the Cabinman or the Station in compliance with S.R.3.61(h).
 - (vii) A Fog signalman must never sleep whilst on duty at the fog signal post. He must realise that the lives of many people depend on his alertness and devotion to duty.

(viii)

if a train is approaching at the time a Fog signalman is being relieved at a fog signal post, both men will allow that train to pass and explode the detonating (fog) signals already placed and secured on the line. As soon as the train has passed or if no train is approaching the fog signalman who is being relieved will pick up the last two detonator (fog) signals he had placed on the line and take them with any unexploded detonator or exploded cases he has, back to the station. The fog signalman coming on duty will place two fresh detonators on to the line as laid down in sub-rule (iii) above.

4.

Exception for Branch Lines :-

On branch lines or sections, on which traffic is light, the station master on duty may, under '**special instructions**' send a fog signalman out to the fog signal post for reception of each individual train. This procedure will only be permitted if it is provided for in the Station Working Rules and in accordance with Subsidiary Rule 3.61 (m).

5.

Method of Securing :

Detonating (fog) signals shall be placed on the line with the label or brand upwards, and shall be secured by bending the clasp round the head of the rail.

6.

Placing Detonating (Fog) Signals on a Mixed Gauge:-

Where the use of detonators is necessary under these rules on a mixed gauge detonators shall be placed on rail of each gauge, or on the rail common to both.

Example :-

- (a) Where one rail is common to both gauges.

10 mtrs.

10 mtrs.

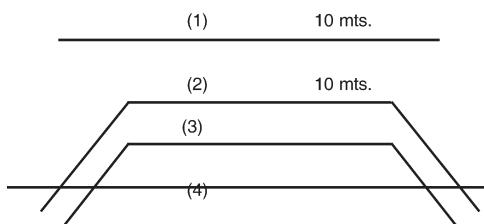
- | | |
|----|-------|
| 1) | _____ |
| 2) | _____ |
| 3) | _____ |

(1) Rail common to Broad Gauge and Metre Gauge.

(2) Metre Gauge Rail. (1 & 2)

(3) Third Board Gauge Rail (1 & 3)

(b) Where there is no rail common to the two gauges.



(c) In case (a) the detonator (fog) signal will be placed at A...(1)....(1)....(1)...A

Note: The detonating (fog) signals must always be placed on the rail common to both gauges irrespective of whether it is nearest to the fog signal post or not.

(d) In case (b) the detonating (fog) signals must be placed A.....A and B.

7.

Renewal of Detonating (Fog) Signals :- On both double and single lines, detonating (fog) signals shall be placed on the rails for each train and shall be renewed each time a train passes over them.

8.

Hand Signal:- (i) The fog signalman shall always carry a lighted hand signal lamp in foggy or tempestuous weather or in a dust storm.

(ii) If the fog signalman is aware of any obstruction on the line, he shall show a danger hand signal to an approaching train. Under no other circumstances shall a fog signalman show a hand signal to the loco pilot of an approaching train, but on single line sections, for a train leaving a station, the fog signal man shall show a 'proceed' (green) hand signal to the loco pilot.

9.

Acknowledgement of Rules:- The Station master obtain the signature or thumb impression of fog signalmen in the Station Detonator Register, as an acknowledgement that they know and understand the rules for signaling of trains.

10. Record of the Detonating (Fog) Signals and Exploded Cases:

- (i) The Station Master on duty shall be responsible for ensuring that the Fog signalman before going out on duty to the fog signal post count the number of detonating (fog) signals issued to them. This number will be entered in the "**Station Detonator Register**" in form Annexure 'A' and the Station Master on duty and the Fog Signalman shall jointly sign this entry.
- (ii) As each train has passed over the detonating (fog) signals placed for it, the fog signalman will collect the exploded cases (not omitting the cases of detonators which have failed to explode) and when his period of duty is over, or when he is recalled on the weather clearing up, he shall bring all the used detonators and any unused detonators he still has, and make them over to the Station Master on duty. The Station Master on duty must enter in the "Station Detonators Register" in form Annexure 'A' the number of used detonators and unused detonators and both the Station Master and Fog signalman will sign against this entry. If the fog signalman is illiterate, the Station Master will take his thumb impression.

G. Signals To Warn Incoming Train Of Danger Ahead

- 3.65 Signals to be used to warn the incoming train of obstruction shall be a red flashing hand signal lamp at night or a red flag during day.**
- 3.66. Use of warning signals :- When it becomes necessary to protect an obstruction in a block section, a signal may be used, as prescribed by 'special instructions under rule 3.65, while the railway servant proceeds to place detonators.**

- S.R.3.66(i)(I)** The red flashing hand signal lamp is to be used in emergency as illuminating signal to exhibit timely in the form of danger signals to Loco Pilots of approaching trains of any obstruction particularly at nights, where Guards and Loco Pilot do not have adequate time to run forward and pin down fog signal to protect the obstruction in the normal manner.
- (2) The Loco Pilot of the approaching Train on observing the red flashing hand signal lamp shall control the speed of his train and be prepared to stop short of any obstruction.

- (3) Mode of showing red flashing hand signal lamp. A quick and intelligent survey shall be made to select a site in the vicinity of obstruction for showing the red flashing hand signal lamp so that signal could be clearly seen by the Loco Pilot of the approaching train from as great distance as possible.
- (4) Guards, Loco Pilots, Patrolman and Gatemen shall be supplied with one red flashing hand signal lamp which will form part of their personal equipments. It should be ensured that the staffs are in possession of one red flashing hand signal lamp before the commencement of their duty.

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 signals 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 Gatekeeper working on the double multiple line, Ghat, Suburban or Automatic block territories with such signals 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)(a) Reporting S & T Gear failures :-

As soon as the Station master becomes aware that any S&T gear at his station has become defective, he shall immediately report such defect with complete particulars to the concerned Electrical/Mechanical and Signal Inspector. The message may be conveyed telephonically to ESM/SI of the section. Subsequently the message to be given to Signal Inspector-in-charge. AS, Chief Controller, SR. RTM and RSTE

(b) Before the work of attending to the defect is undertaken, the signal inspector or Electrical/Mechanical signal maintainer must issue a disconnection memo on Form S&T (T/351) where necessary and obtain the acknowledgement of the station master and take such other precautions as may be necessary in items of G.R.3.51(3), 15.06 and 15.08 to ensure that while reported defect is being attended to, no movement can take place over the affected portion. If during this period any movement becomes necessary action should be taken as prescribed under S.R. 15.06(k).

(c) After the defect has been put right, the person attending to the fault shall issue a certificate on the second foil of form S&T (T/351) and obtain the Station Master's signature. The Station Master before giving such signature, should satisfy himself if necessary, by a demonstration by the person attending to the fault that the defect has been put right. Thereafter, The Station Master shall issue a rectification message addressed to all those who were advised about the failure.

(d) The Station Master and Section Controller shall record full particulars of the failure in the Signal Failure Register maintained at the station and into the Control Office respectively and Signal staff shall send a detailed report the Regional Signal and Telecommunication Engineer.

S.R.3.68(2) The "competent railway servants" referred to in G.R.3.68(1), 3.69 (3)(a), 3.70(1) shall be the Pointsman of the Station.

S.R.3.68(3) When the signals or points at interlocked stations or stations where points are detected by (or key locked) the signals, becomes defective and cease to work properly. The Station Master shall personally inspect the points detected by the defective signal are correctly set, facing points are clamped and padlocked before authorizing movement of any train over them and padlock keys are kept in his personal custody, that all the trailing points are correctly set, the level crossing gates if any are closed and locked against road traffic and that the route governed by the defective signal is clear and free from obstruction.

Note: During failure of signals/ points lying on the route (both facing and trailing points) shall be correctly set and facing points shall be locked. The Station Master shall complete the personal inspection of points before granting line clear for train to be received as per GR 3.69 (3) a) and SR 3.69 (4) or before receiving a train vide GR 3.69 (3) (d) before authorizing the loco pilot on the signal post telephone wherever provided, under special instructions or before handing over the prescribed form to the loco pilot under GR 3.70

“The station master shall also personally ensure before issuing authority to the train for passing the first stop signal to enter into the station that the line on which, it is intended to receive the train should be kept clear up to the place at which the train is required to come to a stand”

The responsibility devolving on the Station Master under SR 3.68(3) shall not be delegated to any other member of station staff.

S.R.3.68(4) If a shunting signal becomes defective, the Station Master on duty shall post a Railway Servant with hand signals at the foot of the defective signal for displaying hand signals for the purpose of controlling shunting movements. Besides, a written advice, shall also be given to the Loco Pilot to pass the defective shunting signal in the ‘on’ position, as under:-

From Station Manager

To : Loco Pilot

.....Station
Train No.....

Shunting Engine No.
at Station

Shunting signal NO at my Station is defective and you are authorised to pass the same at ‘on’ observing Hand signals until further advice.

Received
Name & Signature of
Shunting Loco Pilot

Name & Signature of Stationer Master

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 Pilot 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 prescribed by special instructions under rule 3.65, advised of the defective signal at a station in rear by deputing a competent railway servant in uniform under clause (b) of sub-rule (1) of Rule 3.68,to exhibit Proceed hand signal at the foot of the defective signal to the approaching train. In such cases, the Station Master shall not give Line Clear to the station in rear unless the conditions for taking 'Off' the signal which has become defective, have been compiled 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 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) In the event of a Home signal of a station becoming defective, the Station Master on duty shall advise the station master in rear and also the station master of the nominated station in rear supported by a Private Number intimating the particulars of signals in detail. Station Master shall again advise the Station Masters in the rear and the nominated station in rear when the signals are rectified.

S.R.3.69(2) On receipt of advice of the defective signals the Station Masters in rear and nominated Station in rear, they should immediately acknowledge it supported by private number, specifying the number of the first train which will be notified regarding the defective signals. Again on receipt of advice that the defective Signals have been put into proper working order shall advise the number of the last train so notified.

S.R.3.69(3) The Station Master of the station in rear will issue written authority to the Loco Pilot of each train to pass such defective signals(s) on receipt of "Proceed" hand signal at the foot of the defective signal, till he receives advice of the defective signal having been rectified and put into proper working order supported by a Private Number. In case of trains not scheduled to stop at the station in rear, the written authority shall be issued by the Station Master of the Nominated station in rear till he receives advice of the defective signal(s) having been rectified and put into working order supported by a private number.

S.R.3.69(4) Written authority, issuing of, by the Station Master of the station in rear and "nominated" station in rear shall be issued in the following form:-

From No. T/369(1)
Sr. No.

KONKAN RAILWAY

ADVANCE AUTHORITY TO PASS DEFECTIVE SIGNALS AT STATION _____
(Record/Loco Pilot)

Station _____

Date _____

To,

The Loco Pilot of Train No. _____ Up/Down

As per advice of Station Master, _____ Station. "Up/Down _____

Signal/s *is/are out of order at _____

Station. You shall, therefore, stop at the first Stop Signal and after being Hand Signalled past the approach Signal proceed at a restricted speed not exceeding 15KMPH.

Signature of Loco Pilot

Signature of Station Master
Station Master Stamp

Date _____

* Strike out whichever is not applicable

S.R.3.69(5) The Station Master on duty shall prepare the authority in duplicate and obtain the signature of Loco Pilot on the carbon copy, retaining the same as a station record.

3.70. DUTIES OF STATION MASTER WHEN A DEPARTURE STOP SIGNAL IS DEFECTIVE-

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

- (2) In the event of an Advanced Starter becoming defective, hand signals may be dispensed with and the Station Master may authorise the Loco Pilot to pass such signal by a written authority, which shall be handed over to the Loco Pilot at the station, where the defective signal is located; provided that in exceptional circumstances where, under approved special instructions, an Advanced Starter protects any points, hand signals shall not be dispensed with.
- (3) For the purpose of handing over the written authority mentioned in sub-rules (1) and (2), the train shall be stopped at the station where the defective signal is located. The written authority to pass a defective departure stop signal shall not be handed over to the Loco Pilot unless all the conditions for taking 'Off' such signal have been fulfilled.
- (4) Where under approved special instruction 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) -

All trains must be stopped at the station for handing over the authority to the Loco Pilot for passing defective starter and Advanced starter at on position.

The Loco Pilot shall verify the authority and sign on the counter foil. The station master shall comply provision of G.R. 3.68 and 3.69 regarding the setting and locking of points and GR 3.70 (1) regarding showing of hand signals at the foot of starter signal before handing over such authority. The station master shall dispense Group 'D' staff at the foot of the starter signal if it is confirmed that the points are correctly set and locked for the nominated route by observing the visual indication in the panel.

S.R. 3.70.(2)

Whenever Last stop signal fails, then the Station Master shall deliver the authority to pass the last stop signal in 'on' position along with Paper Line Clear Ticket.

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 lights of the signal shall 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 stations 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 defective or ceases to work properly at a station provided with 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 and stop short of the level crossing .
 - (b) He shall then be hand-signalled 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 or by the Guard of the train after ascertaining that the gates are closed against road traffic.

3)

If the Loco Pilot finds, after stopping at the signal, that there is no 'G' marker, he shall proceed further only in accordance with the procedure laid down under special instructions.

S.R. 3.73 (1)

The Loco Pilot shall give one long continuous whistle while coming to a stop at the gate stop signal with 'G' marker. When he passes the gate Stop signal at 'on', he shall stop 30 meters short of the level crossing. Whenever he is hand-signalled past the level crossing by the Guard or one of the members of the engine crew, he shall stop his train with the last vehicle clearing the level crossing by two 'vehicles' length to enable the Guard or engine crew to open the gate for road traffic and then board the train. The Guard and Loco Pilot shall report the occurrence at the next block station.

3.74. ABSENCE OF A FIXED SIGNAL OR A SIGNAL WITHOUT A LIGHT -

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

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

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

3.75 PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT 'ON':

- (1) When a Loco Pilot finds an intermediate Block Stop signal at 'on', he shall Stop his train in rear of the signal and contact the Station Master of the block station in rear on the telephone 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 kilometers per hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometres per hour and report the failure to the Station Master at the block station ahead.
- (4) The Station Master on the block station working the intermediate Block Stop signal on becoming aware that such a signal is defective shall, before despatching a train, treat the entire section upto 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 Post as one lock 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.

3.76 INTIMATION TO OFFICIALS WHEN DEFECTS REMEDIED:

As soon as a defective signal has been put into good working order, the Station Master shall intimate the fact to the officials who were advised of its being defective.

3.77 DEFECTIVE OR DAMAGED POINTS, ETC:-

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

3.78. DUTIES OF ENGINE CREW IN RESPECT OF SIGNALS –

- (1) (a) The Loco Pilot shall pay the 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 signals, but always be vigilant and cautious.'
- (2) (a) If the Loco Pilot shall whistle intermittently when his engine explodes detonator(s) and take every possible caution including reduction of speed as necessary, so as to have the train well under his control and be able to stop short of any obstruction on the line;
- (b) After proceeding 1.5 kilometers from the place where his engine exploded detonator(s), he may then resume authorized speed; and
- (c) report the incident to the next station or cabin.
- (3) If in consequence of fog or storm or any other reason, the view of the signals 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 signal 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 the railway over which he is to work, obtain the services of a qualified railway servant who is conversant with it to assist him.

S.R. 3.78 (1)

- (a) Every Loco Pilot/ Assistant Loco Pilot / Guard should be given three trips (Up and Down direction separately) for learning road, out of which one must be by night, to familiarize himself with the section(s) on which he is rostered for duty. On ghat section and Automatic territories minimum 6 trips of road learning shall be provided in both the directions. If more than one line is available in a section, at least one trip road learning in each line shall be provided.
- (b) On promotion to or officiating as Loco Pilot (Goods) road learning as prescribed in SR 3.78 (1) above has to be provided to Loco Pilot to understand train dynamics.
- (c) If the Loco Pilot / Assistant Loco Pilot / Guard has not operated on a section for over three months, he should be given road learning trip/s as per the schedule given below:

Duration of absence	No. of trips	No. of trips on Ghat section and Automatic territories
3 to 6 months	One trips	Three trips
6 months to 2 years	Two trips	Three trips
Over 2 years	Three trips	Six trips

In case of commissioning of New IBS, one trip may be provided.

(d) Any additional trip/s considered necessary should be provided with the approval of the controlling Branch Officer of the division / Region.

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

3.78(2) (a) A register should be maintained at the crew booking points. A Loco Pilot/Asst. Loco Pilot should record in the register 15 days in advance that he is lapsing road learning in a section. Also, the base depot should keep a record of the date of the last trip performed by a Loco Pilot/Asst. Loco Pilot on different sections and update it every first of the month. On the basis of these records, depot in-charge should book Loco Pilot / Asst. Loco Pilot for road learning on a section where it is required.

(b) The record of the road learning may also be kept in Crew Management System.

S.R. 3.78 (3).Precautions to be taken by the Loco Pilot when view of signals is obstructed :

In thick, foggy or tempestuous weather impairing visibility or when the view of signals is obstructed, the Loco Pilot shall whistle continuously (as per item 9(a) of the unified code of Engine whistle S.R. 4.50 and take every possible precautions including reduction of speed as necessary so as to have the train well under control and be able to stop short of any possible obstructions on the line.

3.79. DUTIES OF LOCO PILOT IN RESPECT OF A CALLING ON SIGNAL -

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

3.80. DUTIES OF LOCO PILOT WHEN 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 received a proceed hand signal from 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 per hour.

3.81. DUTIES OF LOCO PILOT WHEN A DEPARTURE STOP SIGNALS 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, 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 Starter, or Advanced Starter protecting points, he shall not pass such signal, 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.
- (3) In the case of 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.

3.83. ASSISTANCE OF THE ENGINE CREW REGARDING SIGNALS –

- (1) The Loco Pilot and the first Fireman or the Assistant Loco Pilot, as the case may be, shall identify each signal affecting the movement of the train as soon as it becomes visible. They shall call out the aspect of the signals to each other.
- (2) The Assistant Loco Pilot or the Fireman shall, when not otherwise engaged, assist the Loco Pilot in exchanging signals as required.
- (3) The provisions of sub-rules (1) and (2) shall, in no way, absolve the Loco Pilot of responsibility in respect of observance of and compliance with the signals.

3.84. DUTIES OF LOCO PILOT AS TO SIGNALS WHEN TWO OR MORE ENGINES ARE ATTACHED TO TRAIN-

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

3.85. REPORTING OF DEFECT 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 causes, 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.

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 MAIN server time to be synchronized with Indian standard time.

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.

4.04. TIME OF ATTENDANCE FOR TRAIN CREW - Every Guard, Loco Pilot, Assistant Loco Pilot or Fireman shall be in attendance for duty at such place and at such time as may be prescribed by special instructions.

4.05. PROPER RUNNING LINE - The Loco Pilot shall take his train along the proper running line.

4.06. DIRECTION OF RUNNING –

- (1) On a double line, every train shall run on the left hand line unless otherwise prescribed by special instructions.
- (2) If there are two or more parallel lines, the direction in which trains are to run on each line shall be prescribed by special instructions.

4.07. SUPPLY OF WORKING TIME TABLE AND SCHEDULE OF STANDARD DIMENSIONS.

- (1) A copy of the working Time Table for the time being in force shall be supplied to each Station, Guard, Loco Pilot, Inspector of Way or Works and any other railway servant requiring the use of the working Time Table during the course of his duties.
- (2) A copy of the Working Time Table shall, on issue, be supplied to the Commissioner of Railway Safety.
- (3) A copy of the Schedule of Standard Dimensions for the time being in force shall be supplied to each Inspector of Way or Works and Train Examiner.

S.R.4.07 (1) Working Time Table will be issued concurrently with public time table

B. SPEED OF TRAINS

4.08. LIMITS OF SPEED GENERALLY –

- (1) (a) Every trains 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.
- (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.

S.R.4.08 (1) Subject to all temporary and permanent speed restrictions, the maximum permissible sectional speed are laid down in the working Time Table for each section concerned for the guidance of staff.

S.R. 4.08 (2) Engineering Fixed indicators where special precaution is necessary-

The engineers will provide engineering speed restriction indicators, both by day and night, to indicate the place where a stop or a reduction of speed is required, permanently or temporarily. in terms of G.R. 15.09

- (i) **Caution Indicator** - This shall consist of a horizontal board 1.371 metres wide and 0.381 metres deep fish tailed at one end and pointed at other end. This is shown in diagram 'A'. By night the indicator for temporary restrictions shall display two yellow lights in the horizontal line, the indicator for permanent restrictions will, however, not display any lights.
- (ii) **Continuous Falling Gradient Indicator** - This shall consist of a disc 0.91 metre diameter painted yellow and bearing 0.3 metre high letter 'C' with an arrow pointing downwards alongside in black as shown in diagram 'B'. This indicator will be provided at the beginning of a long continuous falling gradient in order to warn the Loco Pilot to keep his train under proper control and within permissible speed limit.
- (iii) **Speed indicator** - As shown in diagram 'C' this shall consist of a yellow equilateral triangular board, with 0.914 metre sides painted yellow and it shall indicate in kilometres the speed at which a train is to proceed past the indicator. The Speed indicator shall be provided for both permanent and temporary restrictions.

The indicator for temporary restrictions shall be illuminated by night fixing a hand signal lamp in front of it; the indicator for permanent speed restrictions will not be illuminated.

- (iv) **Stop indicator** - This shall consist of a horizontal board 1.371 metres long and 0.381 metre wide and painted with red and white vertical stripes as shown in diagram 'D'

The indicator will display two red light by night in horizontal line. This indicator will be used when trains are required to stop.

- (v) **Termination indicator** - This shall consist of a 0.914 metre diameter disc painted yellow and bearing 0.304 metre high letters 'T/P' for passenger trains, and 'T/G' for goods trains, in black as shown in Diagrams 'E' & 'E-1'. On the section where trains run at night the lamps of the termination indicators should be kept lit from sunset to sunrise, in case of temporary speed restriction.

Two termination indicators are provided one for passenger trains (T/P) at a distance equal to the length of the longest passenger train, and the other for goods trains (T/G) at a distance equal to the length of the longest goods train, from where the Loco Pilots of passenger trains and goods trains shall resume the normal speed respectively.

In case the light engine or single unit rail car, the Loco Pilot shall resume the normal speed after clearing the restricted length.

The Guard of the shorter load shall also show an 'All Right' signal to indicate to the Loco Pilot to pick up the normal speed after the last vehicle has cleared the restricted length.

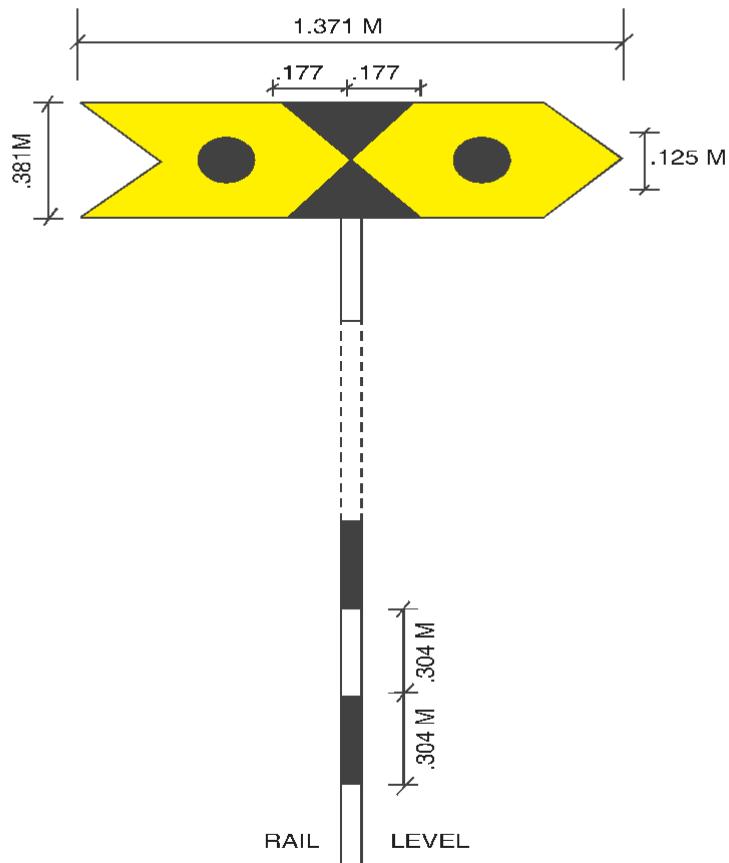
- (vi) **Caution Indicator at Tunnel** - This shall consist of 1 metre diameter disc painted yellow and bearing 0.25 metre height letters-Blue Retro reflective Engg. grade lettering C/T. This is shown in Diagram 'F' This indicator board shall be placed at 30 metre distance from the portal of tunnel on the left hand side in the direction of the train, when a speed restriction is imposed inside tunnel.

WORKING OF TRAINS GENERALLY

Diagrams 'A', 'B', 'C', 'D', 'E', 'E-1' and 'F' printed on following pages show the prescribed standard types of indicators :

Diagram "A"

CAUTION INDICATOR

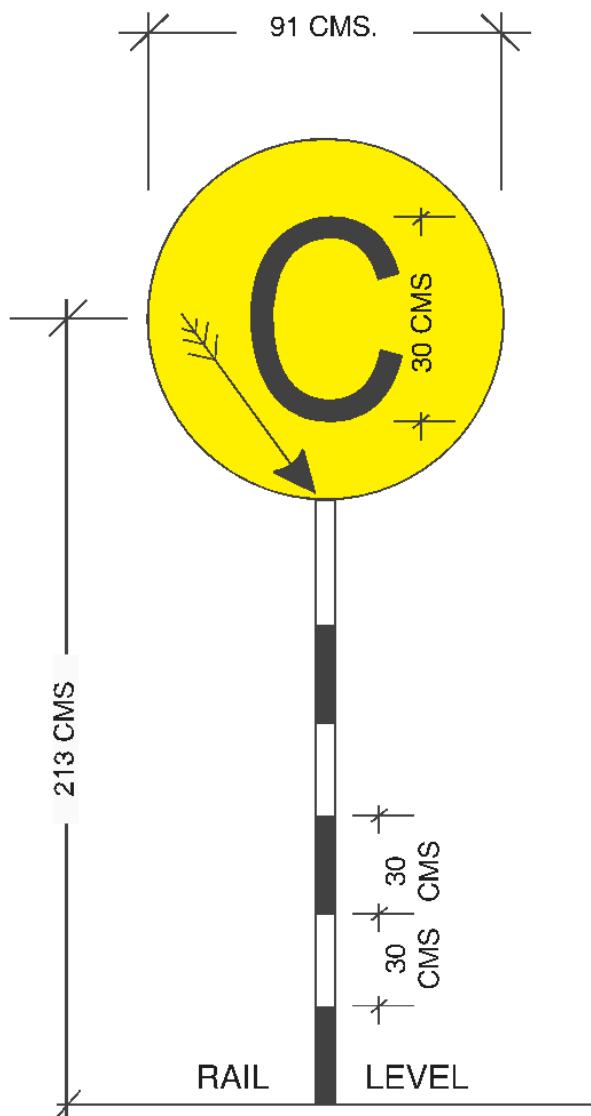


Measurements are in metres

Measures are in metres

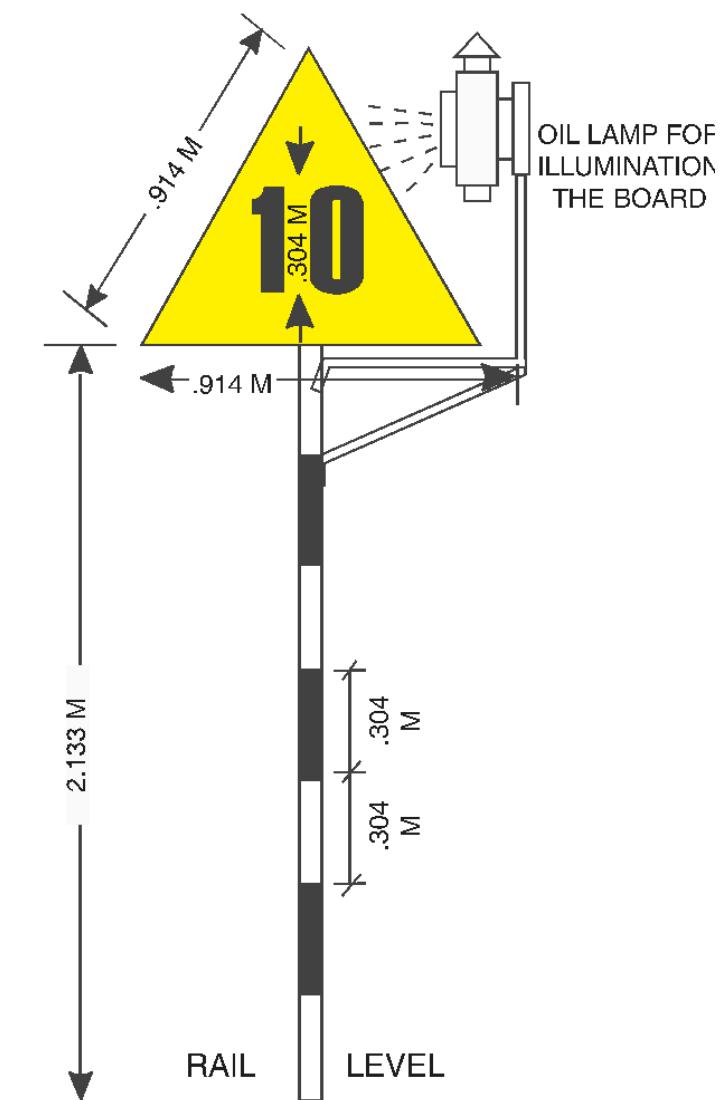
WORKING OF TRAINS GENERALLY

Diagram "B"

CONTINUOUS DOWN GRADIENT INDICATOR

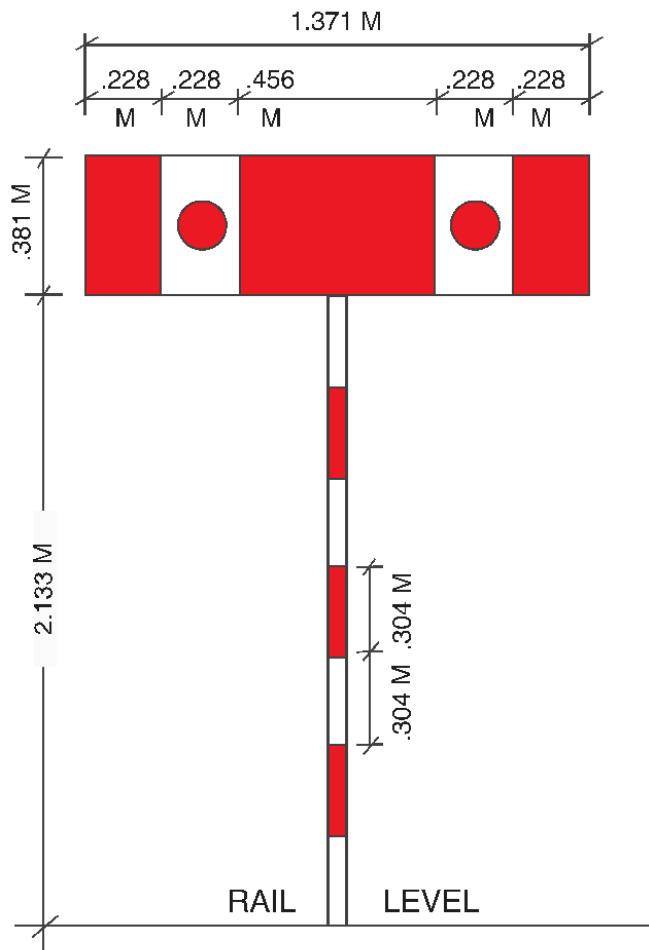
WORKING OF TRAINS GENERALLY

Diagram "C"

SPEED INDICATOR

WORKING OF TRAINS GENERALLY

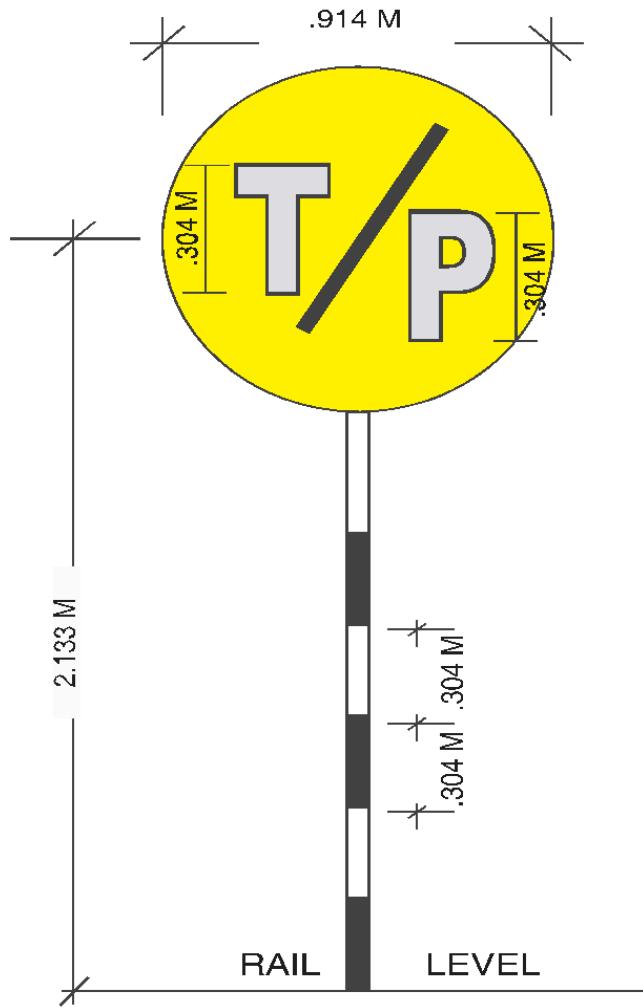
Diagram "D"

STOP INDICATOR

Measurements are in metres

WORKING OF TRAINS GENERALLY

Diagram "E"

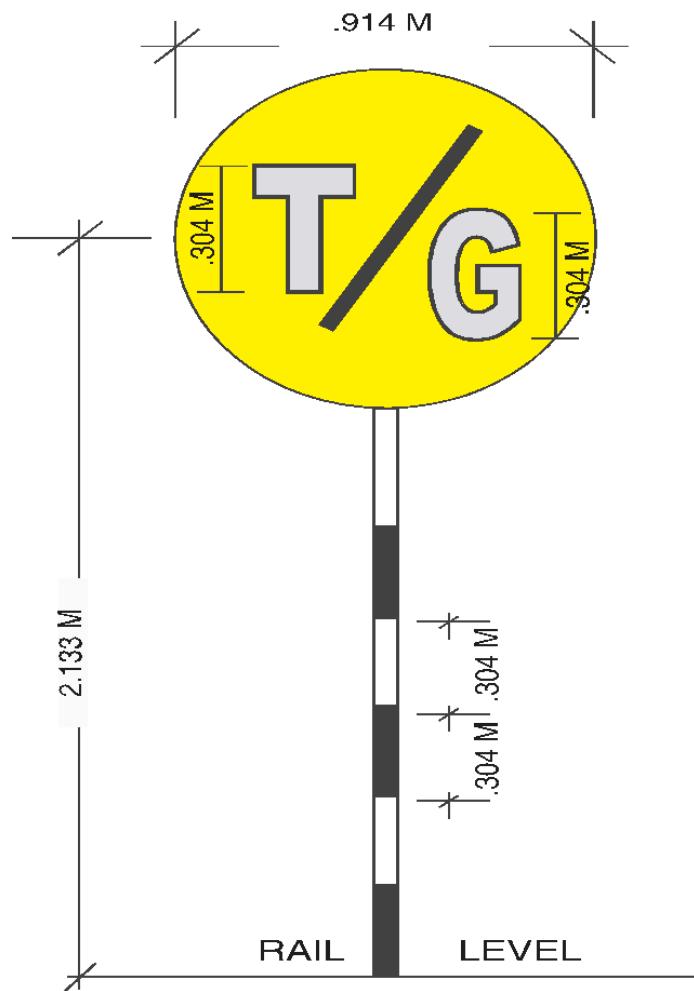
**TERMINATION INDICATOR
PASSENGER TRAINS**

Measurements are in metres.

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WORKING OF TRAINS GENERALLY

Diagram "E-1"

**TERMINATION INDICATOR
GOODS TRAINS**

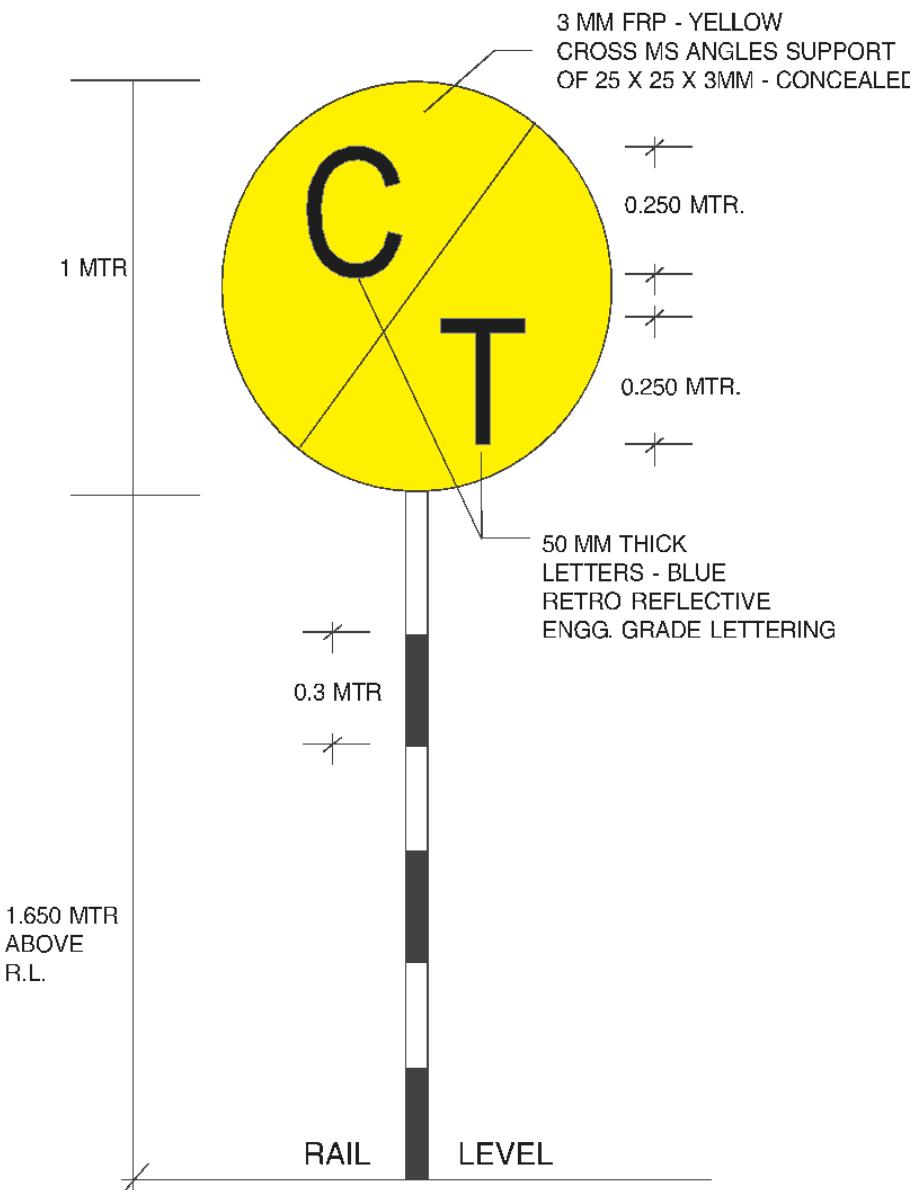


All dimensions are in metres

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WORKING OF TRAINS GENERALLY

Diagram "F"

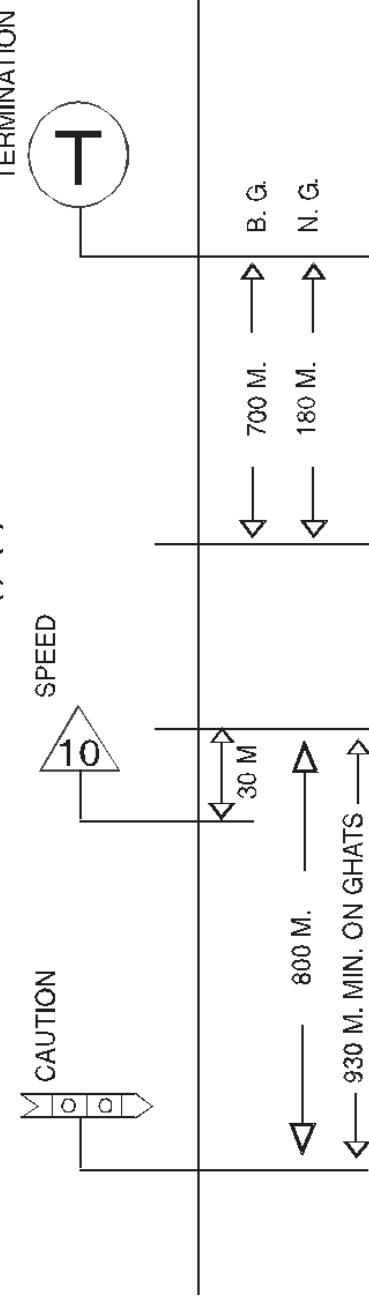
CAUTION INDICATOR AT TUNNEL



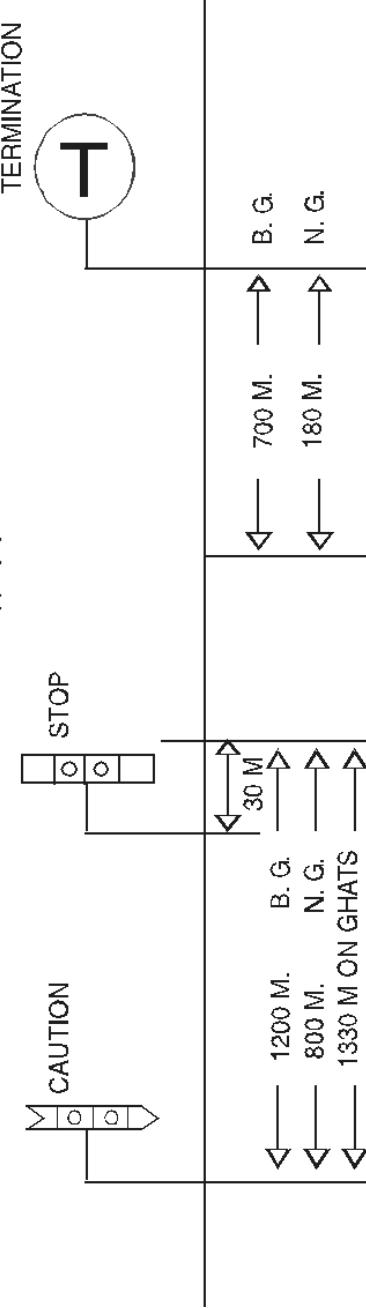
Measures are in metres

Sketch I.

**SPEED INDICATOR WHEN THE TRAIN IS NOT REQUIRED TO STOP IN TERMS OF
G. R. 15.09. (I) (d)**



**STOP INDICATOR WHEN THE TRAIN IS REQUIRED TO STOP IN TERMS OF
G. R. 15.09. (I) (b)**



4.09.

CAUTION ORDER –

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

S.R. 4.09 (1) I. A caution order shall usually be issued in the following contingencies :-

- (1) When works on track, signalling, equipment are taken up under intimation from the official concerned.
- (2) On intimation after rail fracture is repaired.
- (3) Imposition of Temporary Speed Restrictions.
- (4) Material Lorry working on partial Block.
- (5) Motor Trolley following another motor trolley.
- (6) Thick and foggy weather or dust storms which obscure visibility of signals.
- (7) Abnormal jerk experienced and reported by Loco Pilot.
- (8) Reception of a train on an obstructed line.

- (9) Anything unusual with the train.
- (10) When crane is working on one of the line on double line Section.
- (11) When crane is working on a running line within station limits.
- (12) Reception of trains over defective or damaged points
- (13) Engineering Patrolman does not arrive in time.
- (14) As specified in Traffic working order.
- (15) Signal line working introduced on double line section.
- (16) During total interruption of communications on double line sections.
- (17) During total interruption of communications on single line.
- (18) During signal line working on double line during total interruption.
- (19) Sending of a second train to the site of accident.
- (20) When fixed signal is shifted.
- (21) Private number could not be obtained from station in advance though line clear obtained.
- (22) A train carrying passenger or a goods train: does not arrive within 10 and 20 minutes respectively after allowing for its normal running time on double line and parallel section .
- (23) Station Master unable to contact Gateman in mid-section on telephone.
- (24) Any other cause or occurrence warranting the exercise of Special Caution viz., Blanking off and alarm chain apparatus, ODC train, etc.

II. Sending of Information:-

- (i) Whenever in consequence of the line, including OHE, being under repairs or for any other reasons special precautions are necessary, or when any danger to safety of trains is apprehended, the Station Master or the other end of the effected block section, the controller, the centralised Traffic control Operator, the power Controller, the Traction Power Controller, the Loco Foreman, other railway servants concerned and the Notice Station or Stations (to be specified in the Working Time Table) of such conditions under exchange of private numbers.
- (ii) The controller/the Centralised Traffic Control Operator/Traction Power Controller/Power Controller shall in turn ensure that all the Station Master and the Loco Foreman concerned have been advised of such conditions.

III. Procedure for Issue of Caution Order.

1. By the Station Masters at either end of the affected block section:-

- (i) The Station Master receiving advice about the line being under repairs, or any other eventuality endangering safety of trains, necessitating exercise of caution shall not permit any train or any vehicle running under block protection to enter the affected block section either from his station or from the other end, unless.
 - (a) the Station Master at the other end has acknowledge receipt of such information.
 - (b) he has warned the Loco Pilot and the Guard of the danger ahead and its location by the issue of a Caution Order except in case of permanent speed restrictions which are notified in the Working Time Table; or
 - (c) he has ensured that Caution Order has been issued by the Notice Station concerned; or
 - (d) he has received advice about restoration of normal working.

- (ii) The Station Master at the other end of the affected block section shall also take action in accordance with sub-clauses (b) to (d) of the clause 1 (i) above.
- (iii) Run through trains shall be stopped out of course for issue of Caution Order till such time it has been ensured that a Caution Order has been issued by the Notice Station concerned.

Note:- All work trains, Departmental trains and light engines should be treated as scheduled stopping trains for the purpose of issuing Caution Order.

2. By the Station Master of Notice Station :-

- (a) on receipt of advice of the line being under repairs or any other eventuality endangering the safety of trains, necessitating exercise of caution, the Station Master of the Notice Station shall acknowledge the same and shall not allow any train which has to pass through the affected block section, to leave his station unless he has warned the Loco Pilot and the Guard of the danger and its location through the issue of a Caution Order. He shall also advise the Station Master of the station in rear of site of restriction of the particulars of the first train to which the Caution Order has been issued.
- (b) The Station Master of a Notice Station shall issue 'NIL' Caution Order to the Loco Pilot and the Guards of all trains leaving his station if he has received no intimation of any special precautions: to be observed between his station and the next Notice Station of the train in the direction of movement.

Note: The Loco Pilot shall not start the train and the Guard shall not give signal to start the train from a Notice Station until they have received the Caution Order.

3. **In case of trains originating from stations other than Notice Stations :-** In case of a train originating from a station which is not a Notice Station, the Station Master shall consult the Controller or the Centralised Traffic Control Operator or the Traction Power Controller or the Notice Station in rear or the Notice Station in advance (on single line sections only) 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 control or the Notice Station in rear or the Notice Station in advance (on single line sections only) and it becomes absolutely necessary to start the train originating from the station, the train should be started after issuing a Caution Order for restrictions, if any, or a 'Nil' Caution order 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 which can obtain particulars of all restrictions upto the Notice Station in advance.
4. **Change of train crew en-route** - In case of change of train crew en-route, the Loco Pilot/Guard taking over charge must take over all Caution Orders relating to his train to acquaint himself of the conditions on the line giving due acknowledgment to the Loco Pilot/Guard who is being relieved.
5. **Attaching of Assisting / Banking engine en-route** - In case of assisting or a banking engine being attached at a station en-route, the responsibility for acquainting himself about restrictions, shall lie on the Loco Pilot of such an engine who shall contact the train engine Loco Pilot or the Guard. as the case may be and get the necessary information.
6. **During failure of communication** - During failure of communication the Station Master of the station immediately in rear of the affected block section shall issue Caution Order to trains of all descriptions irrespective of whether it is a single line section or a double line section and irrespective of the system of working force on the section.
7. **In case of power blocks on electrified sections:-** In case it becomes necessary to permit movement of vehicles hauled by steam or diesel locomotives on a section, under power block for a running line, a Caution Order must be issued as per rules, irrespective of the nature and duration of work and whether it has been asked for by the line staff or not.

8. **In case of local/suburban trains :-**

In case of trains running on suburban sections Caution order shall be issued to the Loco Pilot and guard by the station Masters only of such stations as are indicated and specified in the Working Time Table except in case of emergency necessitating sudden imposition of speed restrictions. In respect of these trains, the Caution Order may be either typed, cyclostyled or printed as considered necessary, covering the entire section on which the train is to run and shall be issued only once unless some speed restriction/restrictions is / are required to be cancelled or some further speed restriction/restrictions is / are required to be imposed.

9. **In case of station where no train is booked to stop -**

- (a) A Caution Order shall normally not be issued except in an emergency necessitating sudden imposition of speed restrictions; and
- (b) If any information warranting issue of Caution Order is received by the Station Master of such a station, he shall immediately advise the adjoining block stations for the issue of Caution Order and only after obtaining their acknowledgments in this regard under exchange of Private Numbers, shall acknowledge the message requiring imposition of speed restrictions.
- (c) On receipt of such information, the Station Master of the adjoining station who receives the information first, shall act as if he had himself received the message for imposition of the restriction.

IV

Description and preparation of Caution Order:-

- (a) Caution Orders shall be prepared in the prescribed form on white paper, in blue or black font or typed or made out on computer with the words "CAUTION ORDERS" written on top of the form in bold letters in appropriate font size to draw attention distinctly and signed in full except as specified in para(e).

All forms should be serially numbered and the name of the station issuing it shall be stamped on each foil. It shall be in three foils – one each for the Loco Pilot, the Guard and the Station record. In case of trains working by engines manned by Loco Pilots and Co-Loco Pilots, the caution Order shall be prepared in four foils, one each for the Loco Pilot, Co-Loco Pilots, the Guard and for the Station record. It should be prepared neatly and legibly in triplicate or quadruplicate.

- (b) The printing of Caution Order should be bilingual, i.e., in English and Hindi/regional language.

Note : These may be printed trilingual also, viz, Hindi, English and regional language if so warranted by local conditions.

- (c) A Caution Order should have space enough at least for three restrictions. No entries should be made on the back of the Caution Order. If more than one Caution Order form is used, pages should be serially numbered as Page 1, Page 2, Page 3, etc.
- (d) It shall specify the kilometrage and the station at which the Station between which caution is required to be observed, the reason therefore, and the speed at which the train will travel on the restricted zone. Station code should not be used. Names of the station concerned should be written In full.
- (e) Caution order shall be specifically made out for each train separately except at specified stations and for specify train, e.g., rajdhani Express, through good train with long run, local suburban train, etc., in which case it may be typed, cyclostyled or printed provide that it shall be checked up again at the time of service to ensure that all locations where caution is required to be observed have been incorporated therein.

Necessary provision in this regard shall be made in the station working rules of the station concerned and such station/train shall be specified in the Working Time Table. Wherever speed restrictions are required to be observed at two or more location, the kilometrage of all station should be indicated in geographical order in relation to the direction of movement.

- (f) It shall always be dated and signed in full.
- (g) In case of any error or overwriting, it shall be cancelled and a fresh one prepared.

- (h) Reminder caution orders should also be issued by the station master of the block immediately in rear of the affected block section to only the loco pilot of all scheduled stopping trains and of those trains, which may be stopped out of course.

On single line sections where a tangible authority to proceed is given, reminder caution order should be given on the loco pilots of through trains also along with the authority to proceed while running through the station

V. Serving of Caution Order –

- (1) The Caution Order shall be delivered to the Loco Pilot and the Guard of a train by the Station Master either personally or through a competent railway servant deputed by him and the signatures of Loco Pilot and Guard obtained on the record foil in token of their having received and understood it. When more than one foil is served, each counter foil will be signed by the Loco Pilot / Guard.
- (2) In case Loco Pilot is unable to understand the contents of the Caution Order, he shall call upon the Station Master to have it explained. Under special instructions, the responsibility for explaining the contents of the Caution Order may be entrusted to the Guard of the train in big yards. RRM will nominate the yards where responsibility for explaining the contents of the Caution Orders to Loco Pilots shall rest with the Guards.
- (3) Where there is more than one leading engine, the Caution Order shall be given to Loco Pilot of the foremost leading engine and his signature obtained in accordance with sub-rule (1). Above However, before delivering the Caution Order to the Loco Pilot of the foremost leading engine, it shall be shown to the Loco Pilot or Loco Pilots of other engine or engines on the train and his or their signature or signatures obtained, in token of his or their having gone through it and understood its contents. In case, there is a banking engine or engine in rear, the caution order intended for the Guard shall before being handed over to the guard be shown to the Loco Pilot / Loco Pilots of banking engine/engines and his /their signatures / signatures obtained in token of his/ their having gone through it and understood its contents.
- (4) A duplicate Caution Order shall be given to the Guard of the train at the block station immediately in rear of the affected block section if the train is being worked by an engine pushing it

VI Method of notifying/cancellation of- Special precaution-

1. When a competent railway servant finds it necessary to impose any speed restriction or any special precaution on a portion of a line, including OHE, due to repairs or work or for any other reason, he shall-
 - (i) (a) advise in writing the Station Master of the nearest block station (preferably the block station) controlling entry into the block section concerned, its nature and likely duration, the method of protection of the place of restriction together with the location where engineering indicators are to be exhibited, etc., and also advise other railway servants concerned as per clause (i) of paragraph II who are required to be notified in this regard; and
 - (b) not commence such operation until written acknowledgement received from the station Manager.
 - (ii) The station Master receiving the advice shall not acknowledge it until he has advised the Station Master of the block station at the other end of the block section, if any; to be affected and obtained his acknowledgement.
2. When the cause of such restriction or special precaution has removed, the competent railway servant shall advise this fact to the Station Master of the nearest block station under exchange of private numbers and other officials concerned who were notified earlier at the imposition of restriction.

VII. Action by the station Master after cancellation of the speed restriction:-

1. The station Master receiving advice regarding the removal of the restriction, shall advise this fact to the station Master at the other end of the block section concerned, Station Master of Notice Station and other railway servants who were advised about it earlier. After issue of the advice regarding cancellation of the Caution Order, the Station Master may discontinue the issuing of the Caution Order.
2. If no train is booked to stop at the station, the advice regarding the removal of restriction shall be sent to one of the adjoining block stations who should take action in accordance with Para 1 above.

VIII. Record of Caution Orders:-

- (a) At all station where Caution Orders are issued, the Station Master shall keep an upto-date record of all the speed restriction imposed with the dates of their enforcement and cancellation, authority, nature, etc., in the Caution Order Register and bring forward every Monday, in geographical order in relation to the direction of movement, the Caution Order due to be issued. No code may be used, except station codes in these register.
- (b) Similar records should be kept at other place like Control Offices, Loco sheds, etc., also where information in this regard is received.

- (c) The Loco Pilots and the Guards should handover the Caution Orders to the Loco Foreman and Station Master respectively at the end of their journey along with other train paper.

IX. Preservation of Caution Orders:-

Records foils of the Caution Order shall be preserved for a period of twelve months after issue.

4.10. LIMITS OF SPEED OVER FACING POINTS –

- (I) The speed of trains over non-interlocked facing points shall not exceed 30 Kilometres an hour in any circumstances and the speed over turn-outs and cross overs shall not exceed its permissible speed or 30 Kilometres an hour whichever is less, 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,

Note : Speed can be raised upto 30 Kmph subject to following precautionary conditions are satisfied –

- i. Speed can be raised upto 30 KMPH with clamp padlocking of points by using suitable clamps.
- ii. No separate temporary panel is needed and only free home signal shall be given.
- iii. Integrity of point shall be checked by Operating Staff and normal detection of facing points shall be proved in the concerned signal by suitable circuit wiring.
- iv. Physical verification of track shall be done by ASM physically.
- v. Necessary safety directions should be incorporated in temporary working instructions for non interlocking at 30 KMPH under approved special instruction with suitable infrastructural support as deemed necessary.

S.R.4.10.(I) Speed at which trains may run over the facing points at stations is shown in the Working Time Table.

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 conditions during the passage of the train.

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

S.R.4.11(i) Speed over points must not exceed for

- (a) Non – interlocked points 15 Kmph.
- (b) Interlocked when the train takes a turn out from one line turnout with curved symmetrical split switches 15 Kmph
- (c) Motor trolley while passing over points and crossings. 15 Kmph
- (d) Interlocked , when the train takes,
 - (I) 1 in 12 turnouts / crossovers with 52 kg Thick Web curved switches on PSC sleepers is subject to any other speed restriction in force. 30 Kmph.

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 kilometer an hour: .

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

Provided further that no train which is not equipped with continuous vacuum shall be pushed outside station limits except in case of emergency;

Provided also 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 kilometer an hour.

- (2) For movement of trains outside station limits with engine pushing during 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) & (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) In case of an accident or from any other unavoidable cause, if it becomes necessary to push a train back to the station in rear, the Loco Pilot shall do so only after he obtains the Guard's permission in writing. On receipt of this written permission the Loco Pilot shall push back the train upto the first stop signal of the station in rear at a speed not exceeding 25 kilometer per hour during day and speed restricted to 8 Kmph during night. The Guard shall remain in the brake-van exhibiting hand signals to the Loco Pilot. The train crew must keep a good look out specially in the direction in which the train is moving and must be prepared to stop short of any obstructions. All the subsequent movements inside first stop signal shall be controlled by the Station Master, who must furnish the Guard with a written order to shunt back into the station, will take 'Off' the requisite approach signals for the train.

S.R.4.12 (2) The Loco Pilot shall sound engine's whistle intermittently to warn the road traffic passing across the level crossing. The Guard shall keep a sharp lookout in front and take measures to stop the train. if circumstances so warrants.

4.13 LIMIT OF SPEED WITH ENGINE TENDER FOREMOST:-

- (1) (a) A passenger train or a mixed train shall not be drawn outside station limit by a steam engine running tender foremost, except-
 - (I) under a written order issued by the authorized 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 kilometers and hour, or such higher speed, not exceeding 40 kilometers an hour, as may be authorised by approved special instructions.
- (2) in case of unavoidable necessity, goods trains may run with steam engins tender foremost at a speed not exceeding 25 kilometers 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 (1) of clause (a) of sub – rule (1) and sub – rule (2), the head light and marker lights as prescribed in rule 4.14 shall be provided on the tender.

C. EQUIPMENT OF TRAINS AND TRAIN CREW

4.14. HEAD LIGHT, MARKER LIGHTS AND SPEEDOMETER -

- (1) A train shall not be worked at night or in thick, foggy or tempestuous weather impairing visibility or in long tunnels, unless the engine carries an electric head light of an approved design and, in addition, two oil or electric white marker lights.
- (2) An engine employed exclusively on shunting at stations and yards shall, at night or during thick, foggy or tempestuous weather impairing visibility, display such head lights as are prescribed by the Railway Administration, and exhibit two red marker lights in front and in rear.
- (3) The electric head light on the engine shall be fitted with a switch to dim the light and shall be dimmed -
- (a) when the train remains stationary at a station
 - (b) when the train is approaching another train which is running in opposite direction on double or multiple track of same or different gauge; 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 speedometer/recorder 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) The Loco Pilot must test the electric head light and satisfy himself that it provides sufficient illumination to enable him to see ahead clearly for a distance of 240 metres or more.
- S.R.4.14 (2) Before entering a long tunnel during the day, the Loco Pilot should switch “on” the electric head light and electric marker lights.
- S.R.4.14 (3) The Loco Pilot of an incoming train shall dim the electric head light on approaching the Home Signal and keep it deemed until the train passes the Home signal, outer most points, while leaving the station.
- S.R.4.14 (4) The Loco Pilot shall dim the electric head light, when it is necessary to avoid dazzling cattle or to enable the aspect of signals (lights) to be picked up. The Electric head light shall be switched “on” again after passing the cattle or after observing signal aspects.

- S.R.4.14 (5) If the electric head light becomes defective en route, during the house 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 speed not exceeding 40kmph subject to any other speed restriction is in force. And sound the engines whistle freely. The Loco Pilot shall also inform the Station Master of the nearest block station in advance of the incident, so that the latter may inform the controller.
- S.R.4.14 (6) Switching ‘ON’ of Loco Flasher Light/ Self Propelled Vehicle Flasher Light.
- (a) All Locomotives, EMUs , DMUs, MEMUs, and other self propelled vehicles should not be turned out from the shed or maintenance depots if the “Flasher Lights ” are in defective condition. If the same is found non- functional at any stage of working, the locomotive, EMUs, DMUs, MEMUs, and other self propelled vehicles should be treated as “failed”.
 - (b) During the course of his run in all cases stipulated, as under Loco Pilot should immediately switch “ON” the flasher lights as indicated at Para 3 below. The cases where flasher is to be switched “ON” are-
 - I) Sudden jerk with drag and /or drop in pressure or vacuum of the train,
 - II) Sudden increase in air flow indicator reading;
 - III) train parting/derailment of the train;
 - IV) rail fracture/weld failure;
 - V) fire in train; and
 - VI) Any other situations warranting protection on the adjoining track.

- (c) In all cases enumerated in Para 2 (I) to (VI) above' the train crew should assume that some portion of his train has derailed and should immediately switch "ON" the "flasher light" to warn the driving crew of the oncoming trains on the opposite track. Simultaneously, the train crews should switch "OFF" the headlights. The operation of the flasher lights may be suspended only after the crew have verified physically that the neighboring track is not infringing. Similarly' the crew observing the flasher light should take immediate action to stop the train even with emergency application of brakes if necessary to stop short of flasher location and should only restart after the physical verification of the infringements.
- S.R.4.14 (7) In case when a speedometer/recorder becomes defective of a loco of a train, the loco pilot should run at 10 KMPH less than the maximum permissible speed of the section for the remaining journey. He should inform Traffic Control and power control through the station Master of the next halting/stopping station.

4.15. TAIL AND SIDE LIGHTS _

- (1) **At night or in thick, foggy or tempestuous weather impairing visibility, no trains shall be worked outside station limits unless it has -**
- (a) **in the case of an engine with vehicles attached, same 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 certifies 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 within accordance with special instructions.
- (5) Within station limits or in a siding an engine employed in shunting shall have tail lights in accordance with special instructions.

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 sign displaying a flashing red light to indicate last vehicle check device, or"
 - (c) such other device as may be authorised by special instructions.

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

(3) In emergencies only, and under special instructions in each case, a red flag may be used in lieu of a tail board or an unlit tail lamp.

S.R.4.16 (1) Light engines, single or coupled must carry in the rear a red tail board of approved design or an unlit red painted tail lamp of approved design on the rear engine and a red tail lamp of approved design displaying a flashing a red light. Coupled engines must carry a tail board of approved design or an unlit red painted tail lamp of approved design on the rear engine and a red tail lamp of approved design displaying a flashing red light and tail board /tail lamp on the leading engine must always be removed.

(2) A red flag in place of a tail board or an unlit tail lamp during the day may be used in emergencies with the approval of an officer of Operating Department.

SR4.16(3): “Due to presence of number of tunnels in Konkan Railway, a FLASHER type tail lamp shall be fixed in rear of every train in addition to tail lamp/tail board, to indicate the last vehicle. It must be ensured the tail lamp is lit in the rearmost vehicle and tail lamps of intermediate coaches, if any, are switched off.”

(a) During night, a red light flashing tail lamp shall be fixed on the last vehicle of every train. In the day, a self reflective tail board of approved design shall also be fixed along with the red flashing tail lamp.

- (b) Guard of the Train shall ensure that in built tail light, if provided on any vehicle, is switched off before starting the train, irrespective of its marshaling position, except last vehicle.
- (c) On Rajdhani express and Shatabdi express trains, the last vehicle inbuilt tail lamps need not be switched off as they are sufficiently powerful and adequately visible (In absence of guard at the train originating station, the responsibility will lie with the station master.)"

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 insure that no train is allowed to enter the block section from the station in rear. Provided that where in a section, a block proving axle counter or track circuit and complete track circuiting of station yard, excluding non running lines on either end is provided and where block section clear indication provided with such equipment shall insure clearance of block section automatically, the withholding may not be necessary, and
 - (c) Unless the station in advance has advice that the train is complete, neither consider the block section in rear as clear nor close it.

S.R.4.17(1)

- (a) When a train passes a station without tail lamp or tail board being visible to the Station Master, he must at once send "Train passed without tail lamp or tail board" signal on the block instrument to the station in advance, and also inform the controller.
- (b) The Station Master must not give "Train out of block section" signal to the station in rear, but must give the "Train passed without tail lamp or tail board" signal in the bell code.
- (c) The Station Master of the station in advance on receiving the "Train passed without tail lamp or tail board" signal must acknowledge it and place fixed signals at "On" to stop the train.
- (d) The Station Master shall ascertain from the Guard about the complete arrival of train.
- (e) If the train is complete, send the "Train out of block section" signal to the station in rear and clear the block section.
- (f) If the train is incomplete, advise the controller and Station Master in rear and take action in accordance with GR 6.09.
- (g) Instruct the Guard to light up the tail lamp, if it is extinguished or fix a tail lamp/Board.

4.18. MEANS OF COMMUNICATIONS -

- (1) **No passenger train or mixed train shall be despatched from any station, unless every passenger carriage is provided with means by which communication can be made with the Guard or the Loco Pilot.**
- (2) **Sub-rule (1) shall not apply to -**
 - (a) **passenger or mixed trains in case of complete or partial failure of ; 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 communications 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 means of this rule.

S.R.4.18 (i) Alarm Chain Pulling

- (a) Loco Pilot on observing a drop in Air pressure/vacuum Indicator must sound two short, one long whistle and bring the train to stand clear of bridge, viaducts, tunnels, cuttings and other vulnerable spots. This whistle code must be repeated until the Guard shows a red flag during day and a red light by night indicating that he understood the situation.
- (b) When the train comes to a stand, the Guard must immediately show a red hand signal and leave his brake van on the left side of the train, unless the train is standing on right hand curve, in which case he will detrain on the right side and proceed to the carriage from which the alarm chain has been pulled. Assistant Loco Pilot shall leave the engine on the right side of the train, unless the train is standing on left hand curve in which case he will detrain on the left side and proceed to the carriage from which alarm chain was pulled.
- (c) When the alarm chain is pulled, a red disc projects outside on some carriages or revolves from horizontal to vertical position in others on either side at the end of the carriage where the clappet valve is fitted. This can be ascertained by the slackness of the chain inside the compartment.
- (d) Guard/Assistant Loco Pilot shall ascertain from the passenger who has pulled the alarm chain, its cause and requirements if any. If it is necessary to halt the train more than 10 minutes, the train must be protected in a guidance to G&SR 6.03.

- (e) Should it be found that the alarm chain has been pulled for an unjustifiable cause, the Guard must ascertain the name of the person who pulled the chain. His name, address and address of those other occupants must be obtained and report the matter at the next station where the passenger can be dealt with.
- (f) Guard should satisfy that the correct amount of vacuum / air pressure is available on the train before starting the train.
- (g) Guard shall record the fact in his Journal and also send a detailed report to R.R.M.

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 portion there of 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 flags 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 train 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). In addition to the equipment prescribed in Rule 4.19 Guards shall also be provided.

(a) Passenger trains :-

1. General and Subsidiary Rule Book (Extracts)
2. Accident Manual (Extracts)
3. One red flashing hand signal lamp.
4. A case containing 10 detonators
5. Guards Journal Book
6. Padlock and keys
7. Tail board.
8. Two red and one green flags mounted on sticks.
9. LED based Tail Lamp.
10. Complaint Book
11. A first aid box

(b) Goods Trains :-

1. General and Subsidiary Rule Book (Extracts)
2. Accident Manual (Extracts)
3. A case containing 10 detonators.
4. Guard Journal Book
5. Tail board.
6. Led best Tail lamp
7. Two red and one green flags mounted on sticks
8. One red flashing head signal lamp.
9. Vacuum gauge and adopter
10. One dry cell torch (on section where there is significant volume of P.O.L. traffic)
11. Detachable pressure gauge with adaptor
12. Two small size wooden wedges.

S.R.4.19(2) In addition to the equipments prescribed in Rule 4.19, Loco Pilot shall also be provided :-

1. General and subsidiary rule Book (Extracts)
2. Accident Manual (Extracts)
3. A case containing 10 detonators.
4. Loco Pilot Journal Book.
5. Tail Board
6. Tail lamp
7. Spare Head Light and cab light bulbs.
8. Two red and one green flags mounted on sticks.

- 9. One red flashing hand signal lamp.
- 10. Trouble shooting guide (for diesel Loco Pilot).

S.R. 4.19(3) On diesel locomotive two fire extinguishers (CTC type) should be provided.

S.R.4.19(4) **Brake-van equipment** : Guards of passenger train should ensure that following equipment are provided in their brake-vans.

- (a) 2 wedges in each brake-van.
- (b) 2 chemical fire extinguishers,
- (c) Stretchers.
- (d) Portable Field Telephone with instructions for use.
- (e) Emergency Lighting Equipment.

4.20. MANNING OF ENGINE IN MOTION -

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

S.R.4.20 (1) Shunting Engines at stations/yards shall be worked by a Competent person not below the rank of Assistant Loco Pilot.

4.21 DRIVING AND 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 or any running line except as otherwise prescribed in these rules.
- (2)(a) In the case of single or multiple unit train, if the driving apparatus in the leading driving compartment becomes defective, the train shall be driven cautiously from the nearest driving compartment which is serviceable; in this event, the Guard shall travel in the leading driving compartment and shall convey the necessary signals to the Loco Pilot, the Guard shall also sound the horn or whistle as necessary and apply the brake in case of emergency and shall be responsible for stopping the train correctly at signal, 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.

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 engine crew shall be authorised to enter any driving compartment of a single or multiple unit train or a train propelled by electric, diesel or petrol engine.
- (3) No unauthorised person shall manipulate any apparatus contained therein.

S.R4.22.(1) - The following persons may travel on the engine-

- (a) Loco Pilots learning road under the authority.
- (b) Staff who are specially authorised by the other rules in the book or by the instructions specially issued by the Regional Railway Manager.

- (c) Traffic staff carrying out stunting operations
- (d) Officers on duty.
- (e) inspecting officials on duty authorised by a Engine pass or permit.

Note :-Except where otherwise provided specifically not more than two persons other than the engine crew be allowed to travel on the engine

4.23. BRAKEVANS -

- (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) In an emergency goods trains can be worked without brake-van under special sanction of operating officer for each case, details of which shall be recorded in a register in control office with reasons. When goods trains are permitted to run without brake van the following safety precautions are taken : -

- (a) The train shall be fully vacuum/air braked.
- (b) The Guard shall travel on the engine.
- (c) The Guard shall relay the number and description of the last vehicle of the train, in writing to the Station Master of the originating station.
- (d) Station Master shall intimate the painted number of the last vehicle to the Controller (under private number). The Controller shall ensure that he gets the painted number of the last vehicle from -Station Master before giving permission to start the train.
- (e) Each Station Master on duty on the section shall intimate the painted number of the last vehicle to Station Master on duty ahead while obtaining , granting line clear, transmitting train entering Block Section bell and get acknowledgment and enter the same in the Train Signal Register.

- (f) Tail board or tail lamp shall be fixed on the last vehicle.
- (g) Guard, Loco Pilot, Assistant Loco Pilot shall look back frequently to ensure the train is running in a safe proper manner.
- (h) When the train stops at a station for crossing or other purpose Station Master on duty shall verify the painted number of the last vehicle and communicate the same to the Controller in confirmation of his verification. The Controller shall confirm at each stoppage from the Station Master the number of the last vehicle. Thereafter Station Master shall close the block section.
- (i) In the event of Station Master is unable to tally the last vehicle number with that obtained from the station in rear/Controller or is unable to read the number of last vehicle, he should stop the train and verify the last vehicle number. If station Master fails to stop the train, he shall advise the Station Master ahead to stop the train and verify the last vehicle number. In such cases, till the last vehicle number is verified by stopping the train and complete arrival of the train is ensured the block section in rear should not be closed.
- (J) Such trains shall be treated at par with trains running with brake-van fitted with tail lamp or tail board. However, in thick or foggy; tempestuous weather, such train shall be run, duly observing the precautions laid down when visibility is impaired.
- (k) The Loco Pilot shall observe a speed restriction of 25 kmph while passing through station and look back frequently while on run.

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 case of passenger or a mixed or a goods train worked with vacuum / air pressure throughout, two bogies or their equivalent (4 four wheelers) may be attached behind the rear brake van provided these are fitted with vacuum / air brake in good working order.

In the event of there already being two bogies or four 4 wheelers vehicles behind the rear brakevan on a train carrying passengers, an Inspection Carriage having vacuum / air brake in working order may be attached in rear in addition, provided the type of braking system is matching with the train.

S.R. 4.24 (2) In all cases where vehicles are attached behind the rear brake van , the last vehicle must carry a red tail board or an unlit red painted lamp during day time and a red tail lamp by night.

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) In an emergency, Regional Operating Officer may authorise the goods train to be run without Guard.

S.R. 4.25(2) When Goods train run without guard and in case of an accident or obstruction the train becoming disabled, the responsibility of protecting the train in the block section would devolve on the engine crew. In case of single line, the Loco Pilot shall protect in front and and Asst. Loco Pilot in the rear .

S.R. 4.25 (3) Where the train is required to be worked without Guard, the Loco Pilot shall be provided with extra set of detonators, and signal lamp and red flag.

- S.R. 4.25 (4)** Tail board/Tail lamp should be fixed by the Loco Pilot.
- S.R. 4.25.(5)** Caution Order shall be issued to the Loco Pilot by the Station Master starting the train that it shall run without Guard and the Controller shall also be advised of the fact under exchange of private numbers who will inform the station enroute.
- S.R. 4.25. (6)** While obtaining or granting line clear of the train run without Guard, the number of the last vehicle of the train shall be transmitted under private number and be recorded in the Train Signal Register. .
- S.R. 4.25 (7)** Loco Pilot / Assistant Loco Pilot shall look back frequently to ensure that the train is running safely and complete.
- S.R. 4.25. (8)** Station Master shall ensure that the train has arrived complete and is standing clear of the fouling mark.
- S.R. 4.25 (9)** Running of trains without Guard is strictly prohibited during thick foggy and tempestuous weather and total failure of communication.

4.26. COUPLINGS - No vehicles that is not fitted with a coupling or couplings of approved patterns 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.**

- S.R. 4.27 (1)** Only person having competency certificates granted by Regional Mechanical Engineers shall be authorised to supervise crane operation. The duly authorised person is the parent Loco Foreman when the crane is moved out from the Loco Shed or the Crane Supervisor for the trip from Work Spot.

S.R. 4.27 (2) Crane can be attached to all goods train and should be as far as possible, be attached with dummy truck and the crane itself next to Engine.

S.R. 4.27 (3) 140 tonne crane can be permitted to run at speed of 90 kmph and 75/65/40 tonnes crane at a speed of 65 kmph or at the sectional speed which ever is less on all section subject to the observance of all permanent and temporary restrictions that may be in force from time to time.

S.R. 4.27 (4) Crane working within station limits :-

- (i) Before commencing the operations, the Supervisor will notify the Station Master in writing, the nature of work, the line or lines likely to be fouled during the period of operation and time required for the work. He will commence the operations only after obtaining the written permission from the Station Master. Where running lines are fouled, the Station Master on duty will not give the permission except with the approval of the Controller on duty. Record of such approval and permission asked for and given must be entered in Red ink in the Train Signal Register.
- (ii) Once permission is given to the supervisor of the crane to commence operations, the Station Master will be responsible to see that no shunting or other movements are allowed which will interfere with the crane working.
- (iii) Before commencing the work, the Supervisor shall have the line on which the crane will work as well as the lines which are likely to be fouled in the course of operation blocked and protected by banner flags on both sides.
- (iv) Crane operations within station limits will be deemed 'obstruction' on the line or lines connected for purpose of taking off signals.

- (v) If during the course of crane operations train movement or other operations are required to be performed on the line blocked or on line which may foul crane working, all crane working shall be stopped by Supervisor on obtaining a written request from the Station Master to suspend the operation. After doing so, the supervisor will give written memo to the Station Master that crane working is suspended, that the jib of the crane is parallel to the track and tail locked and no obstruction is fouling the line or lines where trains movement or shunting movements are to take place. On receipt of the memo, the Station Master will take off signals concerned for the train or to perform other movements.
- (vi) After the crane work is over the Supervisor will issue a memo to the Station Master on duty to the effect that the work is over and the lines blocked and/or fouled are clear of obstructions and are safe for passage of trains.

S.R. 4.27. (5) - Crane operations in Block Sections -

- (i) A travelling crane operating in a block section will work under the normal train working rules, the section being block for the duration of work.
- (ii) When a travelling crane is working on a double line block section, the supervisor in charge should see that the adjacent line is not infringed and any infringement is required, the adjacent line should also be blocked. Trains passing on the adjacent line should be issued Caution Order.
- (iii) Banner Flags should be provided to protect the line on which the crane is working and also the adjacent line in the case of double line. Such banner flags shall be removed only when the jib is turned parallel to the track and tail locked. The supervisor in charge of the crane will hand signal the Loco Pilot past the site of crane operation.

S.R. 4.27 (6) Caution Order :-

Loco Pilot of trains passing stations where any running line are "blocked" for crane operations, shall be issued Caution Order, as directed on S.R. 4.09(1). Likewise on double line Loco Pilot of trains passing by a site of crane operations shall be issued Caution Order.

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 truck an additional truck shall be attached to act as a dummy.
- (4)** The Guard shall, unless this duty is by special instructions imposed on some other railway servant, carefully examine the load of any open truck which may be attached to the train, and if any such load has shifted or requires adjustment, shall have the load made secure or the truck removed from the train.

S.R. 4.28 (1) Care should be exercised that goods are so loaded that, as far as possible there shall be the same weight borne by each wheel.

S.R. 4.28 (2) Normally an over dimensional consignment (ODC) is one which when loaded upon a wagon would infringe the following maximum moving dimension at any point on the entire route from the booking station to the destination including via break of gauge. Therefore, any consignment exceeding the dimensions quoted below shall not be registered for booking unless prior sanction for its acceptance has been obtained from the Chief Operations Manager. Who will, if necessary, obtain the sanction of the Commissioner of Railway safety through Chief Engineer.

- (i)** **Standard (maximum) moving dimensions :**
Board Gauge-

Height at Centre	4115 mm
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Height at sides	3505 mm
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Maximum width	3200 mm
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(ii) Metre Gauge-

Height of centre	3430 mm
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Height at sides	3200 mm.
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Maximum Width	2590 mm.
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(iii) Narrow Guage

Height at centre	762 mm.
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Height at sides	3200 mm.
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Maximum Width	2895 mm.
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	2290 mm.
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Note: 1) The heights given in (i) above is from rail level.

2) The above dimensions include lashing and packing.

4.28. (4) Loads Infringing Standard Moving Dimensions (I.S.M.D.) shall be moved by through trains and not shunting trains. Shunting trains with I.S.M.D. shall be avoided as far as possible. The wagon containing I.S.M.D. shall be attached next to engine or ahead of Brake-van. A carriage and wagon staff shall accompany the load on the engine or Brake-van as the case may be. Specific Sanction shall be obtained for movement of the I.S.M.D. from the loading point or 'interchange' point without first being examined by a Train Examiner. The train/trains by which the I.S.M.D. moved shall be nominated by the control. The consignment should be routed strictly by the authorised route. At stations 'where Train Examiners are employed, I.S.M.D. shall be specially examined and certified before despatch. (JE/SE (P-Way) shall accompany the load in case the clearance of load from structure is less than 15 cms on the section. Guard and Loco Pilot shall be clearly notified of all the conditions for the carriage of the load. The Guard before starting the train should contact the Controller on duty and inform him about the load I.S.M.D. being on train giving the number, position of the wagons and details of carriage of wagon staff accompanying the train.

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 considered 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) Whenever any unsafe condition of train such as hot axles, loose wagon/vehicle under-gear hanging etc is noticed the Station Master should attract the attention of train crew and Guard of the train by exhibiting danger hand signal and putting the fixed signal at 'ON'. If the station staff fails to stop the train, he should immediately transmit "stop" and examine train" Signal to station in advance on block instrument, telephone attached to block instrument and controller on duty to stop the train at the station and ascertain the cause.

S.R.4.29(2) The Station Master on receipt of "stop and examine train" signal, shall not admit the train directly unless' it is ensured that the train has been brought to stop outside the first stop signal. The approach signals may be taken "OFF" for admission of the train can be received on the main line.

S.R.4.29(3) In the event of the main line being not available and the train is to be received on a loop line, the Station Master, after ensuring that the train has come to halt outside the first stop signal shall arrange to advise the Loco Pilot of the train of the reason of the train being so stopped through a member of the staff. The Loco Pilot on being so advised shall examine the train to ascertain if it would be safe to work the train upto the station negotiating cross over for entry into the loop line. After the Loco Pilot certifies that it is safe to admit the train in loop line, the train thereafter may be piloted upto the station after fixed signal have been taken 'OFF'.

The Loco Pilot while negotiating the facing points shall observe the speed restriction which under no circumstances shall exceed 10 Kmph.

- S.R.4.29(4)** In the event of any vehicle derailing or meeting with an accident, no repairs except those absolutely necessary, shall be carried out. No such vehicles 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 site except with the permission of the RRM. The vehicle before being moved shall be examined and certified by the Train Examiner as fit to run.
- S.R.4.29(5)** When a vehicle has been detached from a train due to defect or damage, the nearest Train Examiner shall be advised by telephone. This vehicle shall be stabled and secured separately. Shunting with or against this vehicle shall be avoided. The vehicle shall not be accepted again for traffic use or worked away from the station until certified fit for the purpose by the Train Examiner.
- S.R.4.29(6)** When a vehicle has to be taken out of traffic for repairs, it must be stenciled 'NOT TO RUN' on both sides as near the label holder as possible in the case of goods stock and on the sole bars in the case of coaching vehicles. In addition, the prescribed "Damaged Not to Go" labels must be pasted on both sides of a goods and coaching vehicles by Train Examiner.
- S.R.4.29 (7)** When a vehicle or wagon has been marked sick for placement in a sick siding, the Train Examiner will send a written memo to Station Master giving the number of vehicle, owning railway, time and date marked sick and reasons. A Register will be maintained in the station master's office in which particulars of such vehicles will be maintained and also the date and time at which a vehicle was marked fit for the traffic.
- S.R.4.29(8)** Station Master, Guard, Train Examiner are jointly responsible to see that no sick vehicle is worked away until certified fit to run. After the repairs are carried out, the stencil marks & labels must be removed.
- S.R.4.29(9)** One damaged vehicle, certified as fit to run and accompanied by a competent railway servant; may under special instructions of the Regional Operating Manager be attached in rear of the rear brake van of a goods train during day light hours only.

E. PRECAUTIONS BEFORE STARTING TRAIN.**4.30. LOCO PILOT AND GUARD TO EXAMINE NOTICES BEFORE STARTING -**

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

4.31. EXAMINATION OF TRAINS BEFORE STARTING-

- 1) 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.
- 2) At station where no Train Examiner is posted or at way side station while clearing the stabled load, the Guard and the Loco Pilot, -
 - (i) shall ensure vacuum or air pressure continuity and adequate brake power by counting operative or non- operative pistons before starting;
 - (ii) shall ensure by visual examination that there are no loose fittings in the under gear including brake blocks, safety brackets, track area pins, brake gear pins which may endanger the safe running of the train;
 - (iii) shall check up the validity of the Brake Power Certificate. In case validity period is over, shall work the train up to the next Train Examiner point in the direction of movement and Control shall be informed through the Station Master by making endorsement on joint memo which shall be prepared as specified in clause (iv);
 - (iv) shall prepare the memo jointly on plain sheet in triplicate indicating the brake power and deficiency, if any, and shall append their signatures on the same and both of them shall retain a copy of the same. Third copy thereof shall be handed over to the Station Master.

- (3) The Station Master shall not permit the Guard and the Loco Pilot to start the train until he has received a joint memo from both of them to the effect that the train is fit to proceed.**

S.R.4.31(I) Staff working under vehicle whenever it is necessary for the Carriage and Wagon or Electrical staff to work underneath or between carriages/wagons or in any other dangerous position, where they are likely to be injured by the movement of such vehicle or train they must –

- (a) First protect themselves by placing two red flags or lamps at each end of the train.
- (b) These flags/lamps should be placed so as to be clearly visible on both sides and in both direction and may only be removed by the person who puts them in position under his direct instructions.
- (c) These instructions also apply to all vehicles standing alone or forming part of a rake on any road or siding other than recognised repair lines under the control of the Train Examiner.

S.R. 4.31 (2) At stations where no train examining staff are posted or at way side stations while clearing a stable load, the guard and Loco Pilot shall be jointly responsible for checking the adequacy of brake power of the train. For this purpose the SM will hand over the last BPC if available and a memo book to the guard. The Loco Pilot will then create not less 44 cm / 5 kg per cm² and 36cm/4.8 per kg cm² of vacuum/air pressure in train engine and rear brake van respectively.

On seeing 36 cm/4.8 kg per cm² of vacuum/air pressure in the rear brake van the guard shall show red hand signal to the Loco Pilot to destroy vacuum / air pressure . After the destruction of the vacuum/air pressure, the guard and Loco Pilot will jointly check the train to ascertain the brake power. Thereafter the guard shall prepare the memo in triplicate indicating , the number of operative and inoperative pistons as well as number of train piped vehicle which shall be signed jointly by the guard and the Loco Pilot . One copy of this memo shall be handed over to the Loco Pilot along with the last BPC if available while the other copy will be kept by the Guard. The office copy in the SM's memo book shall be authority for such examination to the effect that the train is fit to proceed and has the prescribed brake power.

In addition the following shall be ensured by the Guard and Loco pilot before start of air braked train with roller bearing.

- (i) Hand Brakes of all wagons are fully released.
- (ii) Operating Handle of Empty wagon box is in correct position i.e. Empty position when wagon is empty or when lightly loaded and in loaded position when wagon is loaded beyond the specified value.
- (iii) Hose coupling of Brake pipe on consecutive wagons are coupled to one another to form a continuous air passage from the locomotive to the rear end of the train.
- (iv) All the angle cocks except those at the rear end of the train are kept open.
- (v) Hose coupling at the rear end of the train is placed on its respective hose coupling support. Before starting the train carry out BRAKE CONTINUITY TEST and ensure continuity of the brake pipe pressure out the train.

4.32.

EXAMINATION OF TRAIN BY LOCO PILOT - The Loco Pilot shall, **before the commencement of the journey and after performing any shunting en-route, ensure-**

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

SR.4.32(1)

Following procedure should be observed for testing the brake power of DMU Rakes :-

To be done by Loco Pilot**To be done by Guard**

- | | |
|---|--|
| (i) Start the air compressor and when the main reservoir is normal (5.8kg/Sq.cm.) to 7kg/Sq.cm) open the isolating cock switch to charge the brake pipe | (i) When the brake pipe pressure is 4.2 kg/sq.cm. give 5 (five) rings to the Loco Pilot. |
|---|--|

- | | | | |
|-------|---|-------|---|
| (ii) | Apply the automatic brakes by reducing the brake pipe pressure to 3kg/Sq. cm. | (ii) | Observe the drop in brake pipe pressure on the gauge then give one ring |
| (iii) | On receiving one ring from the Guard, move brake controller handle to the "release" position | (iii) | When the brake pipe pressure is 4.2kg/sq.cm. open the Guardsemergency valve (i.e. move the handle) to 'ON' after giving one ring |
| (iv) | On observing the drop in brake pipe pressure move brake controller handle to emergency | (iv) | When all air noise stops observe the brake cylinder gauge showing 1.8kg/sq.cm Then move the emergency handle to 'OFF' position and give on ring |
| (v) | On receiving one ring and when brake handle to release position and when the brake pipe pressure is normal again make an electrical application to reduce B.C. pressure to 1 kg/Sq.cm | (v) | On observing 1kg/sq. cm. pressure in the Brake cylinder gauge, give one ring. |
| (vi) | On receiving one ring make a full emergency brake application | (vi) | On observing 1.8 kg/Sq. cm. pressure in the brake cylinder gauge, give one ring. |
| (vii) | On receiving one ring, move the brake controller handle to release position. | | |

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 all control and power apparatus and brakes of the complete train are in proper and prescribed working order.

S.R.4.33 (1) The following conditions shall be satisfied before attachment of dead locomotive to any train/light engine.

- (A) Conditions of attachment of dead locomotive:-
- (I) Certificate for 'FIT to run' is issued by Section Engineer /Loco Inspector /Power Controller for Passenger/Goods train. (ii) The dead locomotive is escorted by a competent person not lower than Asst. Loco Pilot. Escorting of locomotives (diesel as well as electric) attached to freight and passenger carrying trains is not necessary if the brakes including proportionate are fully operational and the dead locomotive is attached next to train engine. The dead Locomotive will continue to be escorted if attached in the rear of brake van or has defect in under gear equipment.
- iii) Maximum permissible speed of the dead locomotive shall not be less than maximum permissible speed of the train.
- (iv) Arrangement have been made to ensure that brakes can be applied on dead locomotive in synchronization with working locomotives.
- (v) Running of double / triple headed is permissible on the section over which the dead locomotive is to be hauled.
- (vi) When a dead electric locomotive has to be moved on a non – electrified section, special check shall be made regarding its infringement to the schedule of maximum moving dimensions. In the case of any infringement , the dead locomotive shall be treated as on ODC.
- (vii) As a final check , the coupled should be run for about 500 meters and the Loco Pilot shall check for any abnormal rise in the temperature of the wheels of the dead locomotive and shall also check it at subsequent stops during the journey.

In addition to the above the following precautions should be take for hauling the dead locomotives :

- (B) Attaching / hauling of dead locomotive by Passenger Trains .
- (i) only one dead locomotive (diesel/electric) can be attached .
 - (ii) Brake Power of the train should be 100% excluding dead locomotive.
 - (iii) The dead locomotive can be attached next to train engine only.
 - (iv) As per as possible brake should work on dead locomotive . However , if it is not possible , then in the case of air - braked train , brake pipe and feed pipe of working locomotive shall be connected to brake pipe and feed pipe of trailing stock and dead locomotive will work as piped vehicle.

In the case of vacuum braked train, vacuum pipe of locomotive shall be connected with vacuum train pipe of trailing stock and the dead locomotive shall be treated as a piped vehicle. If the 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.

- (v) “A dead locomotive can also be attached to Mail/Express trains including Super fast trains but excluding Rajdhani and Shatabdi if the locomotive brakes including proportionate brakes are operational and maximum permissible speed of the locomotive is not less than the booked speed of the train in which it is being attached. Locos with inoperative brakes can be attached subject to the brake power of the train being within the permissible limits. Locomotive with defects in under gear equipment can be attached only in freight trains.”
- (c) Attaching /Hauling of dead locomotives by goods trains;

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

4.34. DUTIES OF GUARD WHEN TAKING OVER CHARGE OF A TRAINS-

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

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

S.R. 4.34. (1) The Guard must also satisfy himself, when taking over charge and on the run that his hand brake is in working order ; that the side chains of vehicles are placed on the hooks provided for the purpose or hooked to each other and are not allowed to drag on the ballast.

S.R. 4.34 (2) The Guard shall ensure that side and end doors of all stock that open outwards are properly secured or locked so that they cannot swing out and the station staff will assist the Guard in this duty.

S.R. 4.34 (3) At starting and engine changing stations, the traffic staff should couple the engine to the train. Whenever engines have to be uncouple from their train for locomotive requirements, the engine staff will uncouple or recouple them.

S.R. 4.34 (4) When taking charge of the train and before signing vacuum/air pressure certificate the Guard of the train shall ensure that the prescribed vacuum/air pressure is registered in the vacuum / air pressure gauge of the rear brakevan.

S.R. 4.34 (5) The Guard of a passenger train must ensure that the Electric lights in coaches are "Switched on" while the train is passing through tunnels.

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 unauthorised 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 section of a Railway as may be specified by special instruction.
- (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) Starting of Trains - Station Master's permission to Guard -

- (A)
 - (1) No train shall be started from a station by the Guard of a train unless the Station Master has permitted the train to leave ..
 - (2) The Station Master will give permission to start a train only when the following condition are fulfilled :
 - (a) Line clear has been obtained from the station ahead
 - (b) Correct starting signal has been taken off or starting permit has been sent to the Loco Pilot
 - (c) The last stop signal has been taken off
 - (d) In case Starter and or Advanced Starter signals being defective, the provision of G.R. 3.70 have been complied with,

- (B) For passenger trains: The Station Master shall ensure that all the work of a passenger train is finished, mail work is over, and passengers in refreshment rooms are warned by means of the warning bell before the starting bell is rung.
- (C) For goods trains –
 - (i) Taking 'off' the Starter and the Advanced Starter signals, will be considered as the Station Master's permission to start the train, Where Starter signal is not provided, the Loco Pilot must also be in possession of a Starting Permit.
 - (ii) When the conditions laid down at C(i) are fulfilled, the Loco Pilot of a goods train will sound the engine whistle, in token of having observed that the correct signal have been taken off for his train or in the event of defective starter and/or Advanced Starter signal, that he is in possession of the prescribed authority to pass the signals at danger, on which the Guard will give the permission to start.
- D) The Guard's signal to the Loco Pilot to start the train shall be by the exhibition of a green flag or light waved horizontally by movement only of the wrist at full stretch of the arm above the head. When the Guard's (all right signal cannot be seen by Loco Pilot for any reason, the Station Master shall arrange for the Guard's signal to be repeated to the Loco Pilot.

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 purpose. In the case of any self - propelled vehicle, such as a motor coach without a trailer and unaccompanied by a Guard, the duties of the Guard shall devolve on the Loco Pilot.

4.37. SUBORDINATION OF GUARDS IN STATION LIMITS - When a train is within station limits, the Guard shall be under the orders of the Station Master.

4.38. FIREMAN AND ASSISTANT LOCO PILOT TO OBEY LOCO PILOT - The Firemen or Assistant Loco Pilot shall obey the lawful orders of their Loco Pilot 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 traffic purposes, and
- (b) all order 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 FIREMAN OR ASSISTANT LOCO PILOT TO KEEP A GOOD LOOK OUT –

Every Loco Pilot shall keep a good look-out while the train is in motion, and every Fireman or Assistant Loco Pilot shall also do so when he is not necessarily otherwise engaged.

S.R. 4.40 (1) The Loco Pilot and Assistant Loco Pilot shall identify and call out the aspects to each other displayed by the signals as well as engineering indicator boards affecting the movement of train immediately it comes into view.

S.R. 4.40 (2) This shall however, in no way, absolve the Loco Pilot of his duty to observe signals and to be vigilant and cautious.

S.R. 4.40 (3) If a train on run be caught in a strom of a severe intensity which in the opinion of Guard and Loco Pilot is likely to endanger the safety of passengers/train, they should immediately bring the train to a halt. Stoppage of train over major bridges, high embankment, cuttings and sharp curves must be avoided.

4.41. LOCO PILOT AND FIREMAN OR ASSISTANT LOCO PILOT TO LOOK BACK-

The Loco Pilot and the Firemen or the Assistant Loco Pilot shall look back frequently during the journey to see whether the train is following in a safe and proper manner.

S. R. 4.41 (1) An Engineering Indicator W /T board has been fixed at a distance of 1.5. kilometrs on either side, ahead of the portal of tunnels. Loco Pilot/Assistant Loco Pilot shall identify and sound long continuous whistle and look back to satisfy that the train is following complete, in a safe and proper manner and exchange all right signals with the Guard. Loco pilot shall ensure that the head light and marker light are burning brightly before entering into the tunnel. Loco Pilot/Assistant Loco Pilot shall be alert and vigilant on run.

SR.4.41(2) Loco pilot and Assistant Loco Pilot should specially look back when a train passes a gang working on line or a manned level crossing gate to ascertain if every thing is all right with the train and if any hand signal being exhibited warning them of any danger.

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 time 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) The Guard and the Loco Pilot shall exchange "All Right signals" -

- (i) when a train starts after stopping at a station
- (ii) When a train starts after stopping between stations
- (iii) When a train run through a station.
- (iv) When speed restriction is in force in a section and as soon as the train cleared the speed restriction zone.
- (v) While approaching important girder bridges, entering a long tunnel and negotiating Curves where the affordable view is available.

All right signals shall be exchanged when the train passes the Advance Starter signal of the station, if the Loco Pilot does not get the signal from the Guard, he shall whistle and if there is no response he shall stop the train and ascertain the cause.

S. R. 4.42 (2) While exchanging signals with the Loco Pilot, the Guard shall wave the green hand signal horizontally at a level above his head before the train starts and will just hold it out when the train is in the motion.

S.R. 4.42. (3) The Loco Pilot may depute the Assistant Loco Pilot to exchange "All right" signals on his behalf when a train starts from a station, after stopping or run through a station, hand signal be exchanged on the platform side unless the track is on a curve and signals cannot be seen from the side. When a train starts after stopping outside station limits, signals must be exchanged on the left hand side, unless the track is on right hand curve in which case signals shall be exchanged from the right side.

S.R. 4.42 (4) In case of a train starting from a station, when the Guard's all right signal cannot be seen by the Loco Pilot for any reason, the station master shall arrange for the Guard's signal to be repeated to the Loco Pilot.

- S.R.4.42(5)** When a train, either stopping or non-stopping at a station has passed a station, inclusive of a train halt, the Guard shall look back and satisfy himself that no danger signal or other indication is given by any of the station staff as a warning that there is any thing wrong with the train.
- S.R 4.42(6)** When a train has come to a stand in the block section, the Loco Pilot must not start his train until the Guard has signaled from the brakevan to proceed.
- S.R 4.42(7)** When a train is booked to run through a station, a green hand signal shall be exhibited by the Station Master from the platform side and pointsman on the offside of the station when the train is running safely and proper manner. The Station Master/Pointsman shall be vigilant and observe any dangerous condition on the train such as contents falling off, vehicle on fire, hot axle, or anything which is likely to foul or obstruct the running line. He should attract the attention of train crew and Guard by exhibiting a stop hand signal to stop the train and rectify the defects.
- S.R.4.42(8)** If the Loco Pilot/Assistant Loco Pilot/Guard fails to exchange "all right" signal with the Station Master on duty, the Station Master shall verify with the staff on the offside and if it is known' that the engine crew and or the Guard failed to exchange "All right" signal with anyone of the station staff, the train shall be stopped at the next block station treating it a run-away train. The block section in rear shall not be cleared until it is ascertained that every thing is all right and train may be allowed to proceed further.
- 4.43.** GUARD TO KEEP A GOOD LOOKOUT - 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 lamps"
- S.R. 4.43 (1)** Guard will be responsible to watch any train passing on the adjacent line and to attract of the Guard or the Loco Pilot of the latter train, by exhibiting danger signal should any condition be noticed in that train which may endanger its safety.
- S.R.4.43(2)** Whenever a train has been stopped out of course by station staff by exhibiting a hand danger signal or by other means, Guard of the train shall not authorise the train to restart unless he has personally ascertained from the Station Master on duty of the cause of the train being stopped. The train shall be started only after it has been ascertained that everything is safe for the train to proceed.

S.R.4.43(3) When passing a manned level crossing gate the Guard shall look back to see if the gateman is exhibiting any danger hand signal.

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 Brakeman shall proceed to the cabin or station to warn the Station Master. If there is no Brakeman the Loco Pilot shall depute a Fireman or Assistant Loco Pilot to proceed to the cabin or station to warn the Station Master. The Brakeman or Fireman or Assistant Loco Pilot proceeding to the cabin or station shall show a Stop hand signal towards the station. The Guard shall, as soon as the train is stopped at the first stop signal, check up that the tail board or tail lamp is correctly exhibited and shall maintain a vigilant attitude in rear of the train. After fifteen minutes or such less time as may be prescribed by special instructions, the Guard shall, irrespective of whether the cause is apparent or not, proceed to protect the rear of the train in accordance with instructions laid down in Rule 6.03. If in the meantime the signal is taken "Off", or the Loco Pilot receives the necessary authority to pass the signal in the 'On' position, he shall sound the prescribed code of whistle to recall the Guard and exchange hand signal with him before starting the train.
- (2) In the case of a train not accompanied by a Guard, these duties shall devolve on the Loco Pilot.

S.R.4.44(1) The Loco Pilot shall sound one long whistle (continuous) to warn the Station Master and the Guard. The Guard should acknowledge this by waving red flag or red lamp up and down until the Loco Pilot repeats his whistle.

SR.4.44(2) Assistant Loco Pilot must invariably be sent to the station to enquire the cause and remain in the Station Master's Office until the train is admitted.

SR.4.44(3) If the train has to be detained at the signal for a considerable period, the Station Master shall send a written memo through Assistant Loco Pilot indicating the cause of detention. Assistant Loco Pilot shall go to the train and show the memo to Loco Pilot , who shall initial and pass it on to the Guard who shall retain it.

S.R.4.44(4) If the stoppage of the train is likely to exceeds 15 minutes the Guard shall proceed to protect the rear of train in accordance with G.R.6.03.

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 attention shall apply his hand brake sharply and as suddenly release it, and wherever possible, he shall reverse the sidelamps 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.

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 immediatly apply their hand brakes.
- (2) When a train is travelling down a steep incline, the Guards shall, if necessary to steady the train, assist the Loco Pilot with their hand brakes.

4.48.**PERMISSION OF GUARD TO DETACH ENGINE FROM TRAIN. -**

When a train has been brought to a stand outside station limits or any where 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 instruction.

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 or the train parted in section except in an emergency as given below :-

Whenever it is necessary to detach the engine of a train carrying passengers for testing a bridge or for isolating a burning coach or coaches on a train carrying passengers, the following precautions shall be taken before the engine is detached or train parted-

- (i) Hand brakes in the Guard's brakevan at the rear and in the brakevan wherever provided shall be securely screwed on,
- (ii) Hand brakes of any goods wagons on the train shall be securely pinned down.
- (iii) Hand brakes if provided on any coaching vehicle shall be securely applied,
- (iv) The wedges provided in the Guard's brakevan shall be securely jammed under the farthermost wheels of the rakes in the direction of the falling gradient. Vacuum/air pressure shall be created to the maximum extent possible by blowing up with the large ejector / exhauster 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 had been ensured that the load is securely restrained against movement, will the vacuum/air pressure be dropped and concerned angle cock is closed the engine detached. The interval from the time engine is detached to the time it is. Again attached to the train shall not exceed 45 minutes.
- (v) On the Ghat/Gradient section with the steeper than 1 in 150, locomotives shall not be detached from trains between stations.
- (vi) In the case of fire, when it is necessary to isolate a burning coach and where the precautions as in S.R.4.48(I) (iv) cannot be undertaken in detail, the Guard and the Loco Pilot of the train will be responsible for using the wedges supplied in the Guard's brakevan to the best advantage in order to prevent parts of the train colliding against each other by running away.

S.R.4.48(2) The Loco Pilot of a goods train shall, before detaching his engine from the train, call for the Guard's brake by sounding three short whistles. The Guard shall, irrespective of whether the train is vacuum/air pressure braked or not, apply the brakes as under-

Inside station limits :- If the gradient is steeper than 1 in 400, apply the hand brake of his brake van and also the hand brakes of at least six vehicles on the train; if the gradient is 1 in 400 or flatter apply the hand brake of his brakevan.

If, after the engine has been detached from the train, the brake van is also required to be detached for attaching vehicles to or detaching vehicles from the train or for any other reason, the Guard shall before detaching the brake van, apply (in lieu of the hand brake of brake van) the hand brakes of at least six more vehicles if the gradient is steeper than 1 in 400 or at least six vehicles if the gradient is 1 in 400 or flatter.

Outside station limits :- If the gradient is steeper than 1 in 400 apply the hand brake of his brake van and also the hand brakes of all the vehicles on the train; if the gradient is 1 in 400 or flatter apply the hand brakes of at least twelve vehicles on the train.

S.R4.48(3) The Guard shall, after satisfying himself that the train is braked as required show a 'proceed' hand signal to the Loco Pilot. Only after getting this signal the Loco Pilot may detach his engine or permit his engine to be detached from the train. The train shall remain so braked until the engine is again attached to the train.

4.49. STARTING AND STOPPING OF TRAIN - The Loco Pilot shall start and stop his train carefully and a without jerk.

4.50. SOUNDING OF ENGINE WHISTLE -

(1) Except under special instructions, the Loco Pilot shall always sound the whistle of the engine according to the prescribed code of whistle-

- (a) before putting an engine in motion;
- (b) when entering a tunnel; and
- (c) at such other times and places as may be prescribed by special instruction

(2) Engine whistle code shall be prescribed under special instructions.

SR.4.50(1) The circumstances in which the Loco Pilot shall sound the engine whistle and the code therefore are given below.

WHISTLE CODE

Sl. No.	Whistle code of engine	Indication
1	0	<p>(a) Before starting :-</p> <p>(i) Indication to Loco Pilot of assisting/Banking engine that the Loco Pilot of leading engine is ready to start.</p> <p>(ii) Acknowledgment by the Loco Pilot of assisting/banking engine to leading-engine</p>
Sl. No.	Whistle code of engine	Indication
		<p>(iii) Engine ready to leave loco yard or after completing loco work.</p> <p>(iv) Engine ready to go to loco</p> <p>(b) On run ---</p> <p>(i) Assistance of other engine not required.</p> <p>(ii) Acknowledgement of Loco Pilot of assisting/banking engine that assistance stopped.</p>

2	00	(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	000	(a) Guard to apply brakes. (b) Train is out of control, Guard to assist ..
5	0000	(a) Train cannot proceed on account of accident failure, obstruction or other exceptional cause. (b) Protect train in rear. Call for Guard to come to engine.
6	-- 00	(a) Token not received. (b) Token missed (c) With wrong "authority to proceed".
7	0 - 0	(d) Passing Stop signal at 'On' on proper authority

Sl. No.	Whistle code of engine	Indication
8	—	<p>(a) Before starting - vacuum recreated on ghat section remove, sprags.</p> <p>(b) Passing Automatic Stop signal at 'On'</p>
Sl. No.	Whistle code of engine	Indication
9	(continuous)	<p>(c) Passing an Intermediate Block Stop signal at 'On' when the telephone provided on the signal post is out of order and the Loco Pilot is thus unable to contact the station in rear.</p> <p>(d) On run - Acknowledgement of Guard's signal.</p> <p>(a) Approaching tunnels or area of restricted visibility or curve or cutting or site of accident or when in consequences of fog storm, or any other reason the view of signals is obstructed.</p> <p>(b) Recall railway servant protecting train in rear.</p> <p>(c) Material train ready to leave.</p> <p>(d) Running through a station.</p> <p>(e) Approaching a Stop signal at 'On'.</p> <p>(f) Detained at a Stop signal.</p> <p>(g) Or in consequence of fog, storm or any other reason the view of signals is obstructed.</p>

10	-0-0	(a) Train parting (b) Train arriving incomplete
11	00 -	(a) Alarm chain pulled. (b) Insufficient vacuum in engine
12	--	(c) Guard applies vacuum brake. Raise Pantograph. To be acknowledged by the other engine
13	- 0 -	Lower Pantograph. To be acknowledged by the other engine
14	- 00	(a) Signal arm lowered but light extinguished. (b) Signal arm improperly/insufficiently taken "Off." (c) Defective Signal.
15	---	Fouling mark not cleared.
16	000 000 000 00 (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 failure of communications or when single line working is introduced on a double line section

Sl. No.	Whistle code of engine	Indication
17	----- (intermittent)	<p>(d) Moving in wrong direction on double line or against the signalled direction in the Automatic Block signalling territory on Double Line or against the established direction in the Automatic Block signalling territory on Single Line.</p> <p>While approaching or passing through a level crossing.</p>

Note: The signals above are illustrated by “0” for the short whistle and “—” for a long

S.R. 4.50 (2) Loco Pilot shall sound intermittent whistle when approaching a level crossing (**W/L** board) and in case visibility is restricted the intermittent whistling may continue till he passes the level crossing.

Loco Pilot shall sound continuous whistle when approaching and entering tunnels (**W/T** board), curves, and cuttings (**W** board) where the view ahead is obstructed. They shall also act likewise when crossing a train at a station and when approaching all other places where obstructions are likely to occur.

S.R. 4.50 (3) Whistle boards are of two kinds.

They are whistle boards with the letter “**W/L**” and Whistle board with the letter “**W**” as shown in the diagram below



S.R. 4.50 (4) Whistle boards with the letter “W/L” are provided.

- (i) On the approaches of all the unmanned level crossings, and
- (ii) On the approaches of manned level crossings inside or outside station limits where a clear view of the line from the level crossing is not available.

Loco Pilot of approaching train on noticing these whistle boards shall sound their engine whistle continuously from the time they approach a whistle board till they pass the relevant level crossing.

- S.R. 4.50 (5)** Whistle boards with the letter "W" are provided in rear of all places where the view of the track is obstructed by curves, cuttings or tunnels. Loco Pilot of approaching trains on noticing these whistle boards shall sound their engine whistle continuously from the time they approach a whistle board till they get clear view of the track ahead.

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) Bell Signals between Loco Pilot and Guard

Sl. No.	Code of Bell Signals	Indication	Acknowledgement
1	0	Stop train	0
2	00	Start train	00
3	000	Guard required by the Loco Pilot	000
4	0000	Protect train in rear	0000
5	0 Pause 0	Zone of speed Restriction over resume prescribed speed	0 Pause 0
6	00 Pause 00	Passing automatic signal at 'ON'	00 Pause 00
7	000 Pause 000	Guard's warming when Loco Pilot Exceeds the speed prescribed	000 Pause 000

S.R.4.51 (2) In the event of failure of bell code communication between motorman and Guard of D.M.U. train the former must take use of horn (0000) as a code signal for protection of train by the Guard, When a train stops in the section and can not proceed due to an accident, failure or obstruction.

4.52 **THROWING OUT WATER, FIRE OR CINDERS :-** A Loco Pilot or Fireman shall not throw out water, fire or cinders, when passing through a station yard or tunnel, or when on a bridge.

4.53 **HOSE OR WATER CRANE:-** After taking water from a tank or water column, the Loco Pilot shall see that the hose or arm is left clear of the line and, when it is provided with 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 shall see that the train is complete and standing clear of fouling marks. The Guard shall exchange "all right" signals with Station Master by waving an arm by day and a white light by night.

S.R.4.56(2) In case the Guard observes that the fouling marks is not cleared, he shall then display a hand danger signal to Station Master. He shall then proceed exhibiting a danger signal towards the station to prevent movement on the fouled line.

- 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.
- 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(I)** When the train comes to a stand, if the Loco Pilot finds that his engine is not clear of fouling marks, he must at once sound his whistle and attract the attention of the Station/ staff and take steps to inform the Station Master that the fouling marks are not clear.
The Station Master shall get the fouling marks cleared. Till then the Station Master shall not allow any movement on the adjacent lines which are infringed. The Loco Pilot shall also remain alert to protect the infringement against any movement.
- 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 at the along side, 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.
- 4.61.** **LOCO PILOT NOT TO LEAVE ENGINE WHEN ON DUTY** - No Loco Pilot shall leave his working locomotive or his self propelled vehicle when on duty, whether at a station or on a running line, except in case of absolute necessity and after a competent railway servant has been placed in-charge of the locomotive or self- propelled vehicle. In the case of a self propelled vehicle manned by a Loco Pilot only, a Loco Pilot may leave it when necessary, provided he has locked the cabs and has put the vehicle in low gear with the ignition switch in the off position and has screwed down and locked the hand brake.
- SR.4.61(1)** The Loco pilot , on arrival at the destination or completion of his duty hours shall not leave locomotive unless he has been properly handed over the charge of Locomotive to his reliever crew , if available , or if relieving crew is not available and Locomotive is required to be shut down , on getting written advice from SM on duty in consultation with section controller and ensure that locomotive / train is properly stable and secured.

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)** On receipt of advice from the engineering department, the Regional Operating Manager shall order the material train advising all concerned about the sections over which the material train will work, the date on which it will commence working, the stations at which it will be stabled and the official who will be incharge of train.
- S.R.4.62(2)** Material trains must not be worked at night or in thick, foggy or tempestuous weather except under special circumstances, when the special permission of the Regional Railway Manager must be obtained.
- S.R.4.62(3)** In case of special emergency, a material train may be run anytime under the authority of the Engineer-in-charge.
- S.R.4.62(4)** Material coolies are permitted to travel by material trains during day only. They should not be allowed to travel by material trains at night except when accommodated in covered or second class carriages. The work spot shall be well lit.
- S.R.4.62(5)** A material train shall always be worked under the ordinary line clear Rules in force.
- S.R.4.62(6)** When a material train is running through between block station and when running with engine leading the speed of the material train must not exceed that prescribed for goods trains of similar weight.
- S.R.4.62(7)** In case a material train has to run out part of the way between two stations and then push back to the station from which it started, the Loco Pilot must obtain written permission from the Station Master to be allowed to push back into the station.
- S.R. 4.62 (8)** When the engine is pushing the train or is placed in an emergency or in exceptional circumstances, somewhere in the middle of the train and the brakevan leading.
 - (i) the speed must not exceed 25 kilometers per hour on the straight line, and 8 kilometers per hour over a turnout.
 - (ii) the Guard must travel in the leading brakevan and must exhibit hand signals to the Loco Pilot.

- (iii) The train crew must keep a good look out especially in the direction in which the train is moving and must be prepared to stop short of any obstruction or level crossing.
- (iv) When approaching turnouts, the Guard must stop the train and satisfy himself that the points are correctly set.

S.R. 4.62 (9) When the engine is pushing the train and brakevan is not leading :-

- (i) the speed must not exceed 8 kilometres per hour
- (ii) the Guard must travel in the leading vehicle which is fitted with a vacuum brake valve or hand brake and exhibit hand signals to the Loco Pilot; and
- (iii) sub clauses (iii) and (iv) of S.R. 4.62 (8) must strictly complied with.

S.R. 4.62 (10) The Guard must advise the Station Master of the station immediately short of the place where the work has to be done in writing of the intended stoppage and its duration. He will be responsible to ensure that no delay is caused to other trains, through this time being exceeded.

S.R. 4.62 (11) On the return of the material train the Guard will intimate that the whole of the train has returned to the station complete from the section and sign the Train Signal Register to that effect and return the "authority to push back" to the station Master which must be cancelled by the latter. The Station Master shall then give "obstructions removed" signal on the block instrument and endorse the following remarks in the Train signal Register "train pushed back" against the entry of train in red ink.

S.R. 4.62 (12) The Station Master at a station where the train starts and pushed back to must advise the station in advance on the block telephone and also the controller that the train will push back to the station. He will also obtain the acceptance of the Station Master in advance in the block instrument and then give the "Train Entering Section" signal in the usual way.

S.R. 4.62 (13) When it has been arranged for a train to push back from the section, it must, always do so and not go through to the station in advance.

S.R. 4.62 (14) Material train must not be divided outside station limits for convenience of loading or unloading.

S.R. 4.62 (15) Material train are not to be divided also within the station limits, if there is a falling gradient and any possibility of wagons escaping from the station yard.

- S.R. 4.62 (16)** Material trains must not be unloaded while in motion except in the case of specially constructed trucks and under the order of the Engineer-in-charge.
- S.R. 4.62 (17)** The unloading and loading of materials train will be done under orders of the Engineering official In-charge who will be responsible for leaving the tracks and other S & T apparatus close to the track clear of obstruction.
- S.R. 4.62 (18)** The Engineering Department will arrange for the protection of the train by danger signals which must be supplemented by detonators in the manner prescribed in G.R. 3.62
- S.R. 4.62 (19)** Before entering a section on which a material train is required to stand on a grade of 1 in 50 or steeper, the engine should be attached so that when the train is standing the engine is at the down hill end of the gradient.
- S.R. 4.62 (20)** On down gradient steeper than 1 in 100 "pushing is not permitted". On gradients flatter than 1 in 100 ascending or descending "Pushing" may be permitted.
- S.R. 4.62(21)** The Station Master shall issue a memo (in duplicate) in the following form to the Loco Pilot of every material train which is required to work outside station limits :-

The Loco Pilot of Material Train No You are required to proceed to the station at the other end or you must return to station (as the case may be).

You should clear the block section by hours mts for the passage of other trains .

Station

Date Guard 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 Train Signal Register against the entry of the train in red ink.

SR.4.62(22) Material Train shall be examined and certified fit to run by concerned train Examiners once in 30 days if the stock of such material train is Air brake stock. If the stock is not Air brake the certificate will continue to be issued by the concerned train examiner once in a week which shall be ensured by the inspector in –charge of the material train rake.

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.

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 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.

SR.4.64 (1) The Station Master and the Guard of the material train are jointly responsible for ensure. :

- i) That the train is berthed clear of fouling mark at each end of the line on which it is stabled. Load shall be secured by use of Safety chains , Padlocks and pinning down of hand brakes of wagons.
- ii) That the points leading to the line on which the material train is stable are set against the blocked line and locked in that position with clamps and padlocks.

- iii) Button collars must be placed on the buttons pertaining to the blocked line at station provided with route relay/panel interlocking.

S.R.4.65(1) GENERAL INSTRUCTIONS

WORKING OF TRACK MAINTENANCE MACHINES: Track laying or on track tamping or maintenance machines shall be worked only with the permission of the Station Master and in accordance with special instructions.

SR 4.65(1)

1. Track Maintenance Machines (TMMs - which includes Unimat/CSM/BCM /DTS/ BRM/TRT/ PQRS/UTV/Tower Wagon) are self propelled. There need not be any Guard or Brake Van attached to the Machine. Rail Maintenance Van (RMV)(earlier known as Gangers Lorry) is also deemed as a self propelled on par with TMM.
2. In case of movement from one station to another station only one / coupled TMM(s) may be allowed under one authority to proceed.
3. Up to five TMMs may be allowed for working within the Block section. All TMMs must leave / arrive station in convoy.
4. During integrated block, Material Train / TRT/ PQRS, TMMs, Tower Wagons will be allowed to work in the same block section, however the composition of group should not be more than five.
5. TMMs shall not be permitted to follow a train, however during integrated block, TMMs shall be allowed to work following Material Train / TRT/ PQRS/ Tower Wagon. While working in integrated block distance to be maintained.

Between		Distance to be maintained
Material Train	TMM	500 m
TMM	TMM	200 m

During integrated block sequence to be maintained as Material Train / TRT/ PQRS and TMM(s)

6. During TMM block or integrated block, “Work and Proceed“ movement will only be permitted.
7. In case of thick, foggy and tempestuous weather as well as during total failure of communication, these machines are not permitted to work on line.

8. Incharge during block:

During Block working	Incharge
Material Train	PWS/JE/SE/SSE(P-way) / Electrical
Tower Wagon	JE/SE/SSE - Electrical
Single Track Maintenance Machine	JE/SE/SSE(P-way) or an authorized Competent Engineering Supervisor herein after called as Official Incharge (TMM)
Group of Track Maintenance Machines	JE/SE/SSE(P-way) herein after called as Official Incharge (TMMs)
Integrated block	JE/SSE(P-way) herein after called as Overall Incharge (Integrated block)

9. No Railway Servant is permitted to operate TMMs/RMV unless he is in possession of valid Competency Certificate.

10. Competency certificate / Medical / Road learning / refresher Course for operator.

Sr No	Competency Certificate for Operation & Train Working Rules	Issued by	Validity	Medical	Road learning	Refresher course
1	Track Maintenance Machines (TMM)	Branch Officers of Mechanical & Operating Department	3 years	A3	As prescrib ed for LP	Once in 3 years
2	Rail Maintenance Van (RMV)	Branch Officers of Engineering & Operating Department	3 years			
3	Tower Wagon	Branch Officers of Electrical & Operating Department	3 years			

11. Every TMM/RMV/Tower Wagon must have painted on it, its number, designation and Head-Quarter station of the official to whom it is allotted. These particulars will be conspicuously painted on its both sides, in white letters on a red background

SR 4.65(2) EQUIPMENT:

The operator of the machine will be responsible to ensure that the following equipment complete in all respects and in working condition , are available on each Track Maintenance Machine before the machine is put on a running line.

H S FLAG RED	= 2
H S FLAG GREEN	= 2
TRICOLOUR LED BASED FLASHING H S LAMPS	= 2
CHAINS WITH PAD LOCKS	= 2
CLAMPS WITH PAD LOCK	= 2
DETONATORS (IN A TIN CASE)	= 10
TAIL LAMP AND TAIL BOARD	= 2
BANNER FLAGS	= 2
EMERGENCY FIELD TELEPHONE	= 1
SKIDS (WEDGES)	= 4
FIRST AID BOX	= 1
FIRE EXTINGUISHER	= 1
4 CELL FLASHER LIGHT	= 1
PETROMAX/LPG LAMP	= 1
COPY OF WORKING TIME TABLE	= 1
G&SR BOOK (UPTO DATE)	= 1
ACCIDENT MANUAL	= 1
TRACK MACHINE MANUAL	= 1
SAFETY HELMETS (FOR ALL MACHINE STAFF)	

Each Track Maintenance Machine must be equipped with prescribed head light and tail light, marker light and flasher light as per GR GR4.14 to 4.16 and SR's thereto.

SR 4.65(3) (A) Working of Track Maintenance Machine (TMM):

Only work and proceed in Single line and double line (via right line) is permitted for working of TMM. Procedure to be adopted are as under:-

Sr No	Description	Action to be taken
1	Block requisition	Official Incharge (TMM) will submit block requisition (Annexure-I T465) to SM in duplicate. SM will advise Section Controller.
2	Block permission	After getting permission from on duty SCOR, concerned Station Master shall advise to the Station Master at the other end of the block section under the exchange of Private Number. SM will endorse on Annexure-I T465 and hand over it to Official incharge (TMM)
3	Dispatch of TMM	TMM will be dispatched by taking 'OFF' last stop signal Concerned SM should extract SH Key from Block Instrument and keep in his safe custody till the block section is cleared of all vehicles.
4	Reception of TMM at station.	TMM will be admitted by taking 'OFF' reception signal(s). Official Incharge (TMM) shall ensure that TMM will get reception signal(s) in 'OFF' position During reception of TMM, SM will not alter any point in the route till complete arrival of TMM. He shall use button collar / lever collar.
5	Safety Certificate	On reaching the Station, Official Incharge (TMM) will hand over Track Maintenance Machine permit (Annexure-I T465), as well as token (if any on Single line) to SM only when the TMM clears the block section. He will also certify that the track is fit for train moment and issue Track Safe Certificate (Annexure-IV T465 III).
6	Clearance of Section and Block cancellation	On receipt of Track Safety Certificate (Annexure-IV T465 III) and TMM permit (Annexure-I T465), SM of station shall insert the SH Key in the Block Instrument & will clear back the section and cancel block under exchange of private number with SM of adjacent station

Note: If TMM/RMV is proposed to clear the section at dispatching station, the SM shall take OFF the reception signal after inserting SH Key.

SR 4.65(3) (B) Working of Track Maintenance Machine(s) (TMMs):

Sr No	Description	Action to be taken
1	Block requisition	Official Incharge (TMMs) will submit block requisition (Annexure-II T465 I) to SM in duplicate. SM will advise Section Controller.
2	Block permission	After getting permission from on duty SCOR, concerned Station Master shall advise to the Station Master at the other end of the block section under the exchange of Private Number. SM will endorse on Annexure-II T465 I and hand over it to Official incharge (TMMs)
3	Dispatch of TMM(s)	All TMMs will be dispatched in convoy by taking 'OFF' last stop signal (issuing token if any) i.e. first TMM will get Last Stop Signal in 'OFF' position and subsequent machines will be authorised to pass Last Stop Signal at 'ON' position by endorsing the same on Annexure-II T465 I
		Concerned SM should extract SH Key from Block Instrument and keep in his safe custody till the block section is cleared of all vehicles.
4	Reception of TMM(s) at station in Advance.	All TMMs will be admitted by taking 'OFF' reception signal(s). Official Incharge (TMMs) shall ensure that all TMMs enter in convoy. First machine will get reception signal(s) in 'OFF' position and subsequent machine shall pass reception signal in 'ON' position by observing green hand signal displayed by Pointsman in uniform at the foot of Reception signal(s). During reception of TMMs, SM will not alter any point in the route till complete arrival of all TMMs. He shall use button collar / lever collar.
5	Safety Certificate	On reaching the Station, Official Incharge (TMMs) will hand over Track Maintenance Machine permit (Annexure-I T465 I), as well as token (if any on Single line) to SM only when the last TMM clears the block section. He will also certify that the track is fit for train moment and issue Track Safe Certificate (Annexure-IV T465 III).
6	Clearance of Section and Block cancellation	On receipt of Track Safety Certificate (Annexure-IV T465 III) and TMM permit (Annexure-II T465 I), SM of station in Advance shall insert the SH Key in the Block Instrument & will clear back the section and cancel block under exchange of private number with SM of adjacent station

Note:

1. If TMM/RMV is proposed to clear the section at dispatching station, the SM shall take OFF the reception signal after inserting SH Key.
2. When block is permitted in station section, the movements of machines shall be carried out by issuing T/806 to every individual machine under the supervision of Official Incharge(TMMs).

SR 4.65(4) Working during integrated block- Material train / TRT/PQRS/TMMs.

1. Sequence during integrated block will be - Material train /TRT/PQRS/TMMs and the composition of group should not be more than five. Only work and proceed in single line and Double/ Multiple line (via right line) is permitted.
2. Procedure to be adopted as under:- Material Train / TRT/PQRS/TMMs are allowed to leave the station in convoy under one authority to proceed (i.e leading Material train / TMM will get last stop signal in 'OFF' position, however, above mentioned subsequent TMMs are allowed to pass last stop signal at 'ON' position).

Sr no.	Description	Action to be taken
1	Block requisition	Overall incharge (integrated block) will submit block requisition(Annexure-III T465 II) to SM in duplicate. SM will advise section controller.
2	Block permission	After getting permission from on duty SCOR, concerned Station Master shall advise to the Station Master at the other end of the block section under the exchange of Private Number. SM will endorse on Annexure-III T465II and hand over it to Official incharge (TMMs)
3	Dispatch	Material train / TRT/PQRS/TMMs will be dispatched in convoy by taking 'OFF' last stop signal (issuing token if any) i.e leading Material train/ TMMs will get last stop signal in 'OFF' position, however, above mentioned subsequent TMMs are allowed to pass last stop signals at 'ON' position, by endorsing the same on Annexure-III T465 II.
4	Reception at station in Advance	Concerned SM should extract SH Key from Block Instrument and keep in his safe custody till the block section is cleared of all vehicles. Material train / TRT/PQRS/TMMs will be admitted by taking 'OFF' reception signal(s). Overall incharge (integrated block) shall ensure that Material train / TRT/PQRS/TMMs enter in convoy. Leading Material train /TMMs will get reception signal(s) in 'OFF' position and subsequent TMMs shall pass reception signal in 'ON' position by observing green hand signal displayed by Points man in uniform at the foot of Reception signal(s). During reception SM will not alter any point in the route till complete arrival of all Material train / TRT/PQRS/TMMs. He shall use button collar/ lever collar.

- 5 Safety Certificate On reaching the Station in advance, Overall Incharge (integrated block) will hand over integrated block permit(Annexure-II T465 II), as well as token (if any on Single line) to SM only when the last TMM clears the block section. He will also certify that the track is fit for train moment and issue Track Safe Certificate (Annexure- III T465 III).
- 6 Clearance On receipt of Track Safety Certificate (Annexure-IV T465 III) and TMM permit (Annexure-III T465 II), SM of station of Section in Advance shall insert the SH Key in the Block Instrument and Block & will clear back the section and cancel block under cancellation exchange of private number with SM of adjacent station

SR 4.65(5) PRECAUTIONS.

1. The Official Incharge (TMMs) / Overall Incharge (Integrated Block) is responsible for the protection of the site of the work and also for protection of adjoining track in case of infringement, if any. He shall also be responsible for safety of track after the working.
2. The SM on either side shall inform all the level crossing gates falling in this block section about the total number of Material train / TRT / PQRS, TMMs permitted to work in the block section under exchange of Pvt.No.
3. In course of working, when required to pass a level crossing gate, each Material train / TRT / PQRS, TMMs shall stop short of the level crossing gates and pass only
after ensuring the safety at the Level Crossing gate.
4. The Official Incharge (TMMs) / Overall Incharge (Integrated Block) shall always take four efficient flagmen equipped with banner flags, 10 detonators and red hand signal each to protect the machines. One flagman shall exhibit banner flag at a distance of 600 meters on either side of the site of the work and one flagman showing a stop hand signal at a distance of 1200 meters on either side of the work.
5. Some machines tend to foul the adjacent lines while working on double line section or in the yard. If any part of a machine is likely to foul the adjacent line while working, the official incharge (TMMs) / Overall Incharge (Integrated Block) shall request SM in writing to block both the lines and such work should only be undertaken, if blocking of both the lines has been permitted and both the lines have been protected.

6. The Official Incharge (TMMs) / Overall Incharge (Integrated Block) is responsible for the protection of the work site and also for protection of adjoining track in case of infringement, if any. He will also ensure the following during dusty atmosphere, heavy noise, pollution and mass labor working:-

 - i. Safety of track after the working of the machine.
 - ii. Temporary whistle board should be fixed on the adjoining track, which can be moved along with track machine at work site.
 - iii. Imposition of speed restriction for adjacent line(s) during block of BCM/TRT/PQRS is technically not required for machine working. However , depending upon local site condition P/way officials may impose suitable speed restriction on adjacent line(s). such speed restrictions should be within overall Engineering allowance of the concerned section.
 - iv. During integrated block, overall incharge (integrated block) will co-ordinate with incharge (material train), machine operators and ensure safety.
 - v. SCOR will advice Engineering control and TPC regarding permission granted for integrated block. Engineering control and TPC will monitor the block in control office.
 - vi. SM will make the necessary entries in the Engineering block register, Power block register and Train Signal Register(with red ink).

**SR 4.65(6) PROTECTION OF TRACK MAINTANANCE
MACHINES(TMMs) WHEN STABLED AT STATION**

1. The track machine shall normally be stabled on a non running line.
2. While stabling the TMMs , GR 5.23 and SRs there under shall be followed. The operator shall be responsible for ensuring that machine is stabled by clearing the fouling marks and traps and without obstructing the adjacent lines. He will apply the hand brakes and wooden wedges to prevent the movement.

SR 4.65(7) FAILURES AND ACCIDENTS

1. Failures in block sections of the track machine will be treated as accident under class R-5. Accidents involving track machines shall be treated as train accidents under the appropriate class and action to be taken as per the rules in force.
2. In case failure of track machine in block section, the official incharge(TMMs)/ overall incharge(integrated block) may decide to clear the disabled unit to next station either by pushing or pulling with the help of other machine provided the brake power is in good condition.
Otherwise, intimation shall be sent to the nearest station master through a messenger and to control through emergency field telephone asking for a light engine to tow the unit.
3. In the event of break down, the machine shall be protected as per GR 6.03 and SR there under. Incase, official incharge(TMMs)/ overall incharge(integrated block) of machine feels that clearance of section going to take long time, assistance like accident relief train shall be asked immediately.

SR 4.65(8) SPEED

Speed - Maximum Permissible Speed of TMMs and RMV should be as approved by Commissioner of Railway Safety / Competent Authority subject to any other lower speed restrictions in force. This speed shall not exceed 15 KMPH while entering and leaving the station yards namely from Home Signal till such time they are fully received on berthing line as well as from Starter Signal till such time they cross the Advanced Starter signal.

SR 4.65(9)

ANNEXURE-I T 465	Block requisition notice and permit for Single TMM
ANNEXURE-II T 465 I	Block requisition notice and permit for more than one TMM
ANNEXURE-III T465 II	Integrated block requisition notice and permit
ANNEXURE-IV T465 III	Track safe certificate

BLOCK REQUISITION NOTICE & PERMIT

From To

Official Incharge (TMM) at -----station.

SM -----station.

Notice No..... Date..... Time.....

The line (Up/Dn) between station and station at Kms to is required to be blocked for the duration of hrs for working the of TMM.

The machine will enter the Block section in convoy from station on Up / Dn line and clear atstation (Work and Proceed)(on Right line in DL section).

.....
Signature of Official Incharge (TMM)

To

Official Incharge (TMM)

You are hereby permitted to work as per above and for hrs from to hrs.

Private Number (In token of obtaining Line Clear)

Caution order if any (separately given)

Received.....

Signature of Official Incharge (TMM) Date.....Time.....

Signature of Station Master.

Note: TMM is allowed to leave the station under authority to proceed (i.e. Machine will get Last Stop Signal in 'OFF' position)

Signature of Operator.....

Signature of Official Incharge (TMM).....

It is the responsibility of Official Incharge (TMM) to apprise the Operator regarding working

Annexure-II T465I

(Official Incharge (TMM), SM /
Record)

BLOCK REQUISITION NOTICE & PERMIT

From
Official Incharge (TMMs) at -----station
To
SM -----station

Notice No..... Date..... Time.....

The line (Up/Dn) between station and station at
Kms to is required to be blocked for the duration of hrs
for working the Nos of TMMs.

The sequence in which machine will work is as under:-

(i)..... (II)..... (iii)..... (iv).....(v).....

All the machines will enter the Block section in convoy from staton on Up / Dn
lineand clear atstation (Work and Proceed)(on Right line in DL
section).

.....
Signature of Official Incharge (TMMs)

To

Official Incharge (TMMs)

You are hereby permitted to work as per above and for hrs from to hrs.
Private Number (In token of obtaining Line Clear) Caution order if any (
separately given)

Signature of Station Master.

Received.....

Signature of Official Incharge (TMMs)

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

Note: TMMs are allowed to leave the station in convoy under one authority to proceed (i.e.
First machine will get Last Stop Signal and in 'OFF' position, however, above
mentioned subsequent TMMs are allowed to pass Last Stop Signal at ON' position)

Signature of Operators i).....; ii).....; iii).....; iv).....; v).....

Signature of Official Incharge (TMMs).....

It is the responsibility of Official Incharge (TMMs) to apprise all the Operators regarding
working of TMMs during the block and obtain the signature on his record copy

INTEGRATED BLOCK REQUISITION NOTICE & PERMIT

From

Overall Incharge (integrated Block) at -----station

To

SM -----station

Notice No..... Date..... Time.....

The line (Up/Dn) between station and station at Kms to is required to be blocked for the duration of hrs for working the Nos of Material Train; Nos of TMMs (Total not exceeding five)

The sequence will work is as under:-

(i)..... (II)..... (iii)..... (iv)..... (v).....

Material train / TRT/ PQRS, TMMS, Tower Wagon will enter the Block section in convoy from station on Up / Dn lineand clear atstation (Work and Proceed)(on Right line in DL section).

.....
Signature of Overall Incharge (integrated Block)

To

Overall Incharge (integrated Block)

You are hereby permitted to work as per above and for hrs from to hrs.

Private Number (In token of obtaining Line Clear)

Caution order if any (separately given)

Signature of Station Master

Received.....

Signature of Overall Incharge (integrated Block)

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

Note: Material train / TRT/ PQRS, TMMS, Tower Wagon are allowed to leave the station in convoy under one authority to proceed (i.e. Leading Material Train / TMM will get Last Stop Signal and in 'OFF' position, however, above mentioned subsequent TMMs are allowed to pass Last Stop Signal at 'ON' position).

Signature of Operators / LP i).....; ii).....; iii).....; iv).....; v).....

.....
Overall Incharge (integrated Block)

.....
Material Train Incharge

It is the responsibility of Overall Incharge (Integrated Block) to apprise all the Operators and Material Train Incharge regarding working of Material train / TRT/ PQRS, TMMs Tower Wagon during the Integrated block and obtain the signature on his record copy.

Annexure-IV T465III

(SM / Record)

TRACK SAFE CERTIFICATE

No. Date..... Time.....

From

Overall Incharge (in case of Integrated Block)/

Official Incharge (TMMs)

H.Q at station.

To

SM/station

Refer my notice No..... dated..... and your No..... dated..... The block imposed between station and station at Kms to from hrs to hrs is cancelled, and TMM / all TMMs (Material Train / TRT/ PQRS, TMMS, Tower Wagon in case of integrated block) have arrived completely within foulng mark and the line is certified safe for normal working.

.....
Signature of Official Incharge (TMMs)

Or

.....
Signature of Overall Incharge (In case of Integrated Block)

Received

Signature of SM

Date.....Tim

e.....

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****RESPOSIBILITY OF THE STATION MASTER FOR WORKING:-**

- (1) The Station Master shall be responsible for the efficient discharge of the duties devolving upon the staff employed, either permanently or temporarily, under his orders at the station or within the stations limits and such staff shall be subject to his authority and direction in the working of the station.
- (2) The Station Master shall see that all signals, points, gates of level crossings and the whole machinery of his station are in proper working order and shall immediately report all defects therein to the proper authority.
- (3) The Station Master shall also be responsible to see that the working of the station Is carried out in strict accordance with the rules and regulations for the time being in force.
- (4) No person other than the Station Master shall ask for or give Line Clear, or give authority to proceed.

S.R.5.01(1)

The Station Master must daily inspect the station which must include level crossing gates, weighing machines, lamps and vehicles standing in station yard and sign the Train Signal Register.

S.R.5.01(2)

The Station Master must ensure that goods, parcels and other material are not left scattered around on the platform. Packages to be loaded should be neatly stacked at a safe distance from the edge of platform.

S.R.5.01(3)

When changing duties the outgoing Station Master shall specifically record in the station diary whether the running lines, both passenger and goods are clear or obstructed and if obstructed the cause of obstruction. The incoming Station Master shall sign in the station diary in token of his being aware of the condition of the running lines both passenger & goods. However, this will in no way absolve the Station Master on duty of his responsibility to ensure that the line is clear before receiving or dispatching a train.

S.R.5.01(4) Immediately after giving line clear for a stopping passenger train, the station bell shall be loudly rung. Followed by the description beats, as prescribed below, to indicate the direction from which the train is approaching.

Direction	Descriptive beats
Down trains	Two distinct beats
Up trains	Three distinct beats

S.R.5.01(5) In case of crossing on single line, the first arriving train should always be received on to loop line duly setting the trailing end (far end) point to the snag dead end/sand hump (wherever provided) if it does not involve reception of a stopping passenger train on non-platform line.

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 unauthorized 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) SWRs of each station to be prepared with utmost care and verified with site condition. It should be complete, correct and self sufficient for safe operation. It would be issued and amended whenever required jointly by officers incharge of the operating (safety) and signal and telecommunication branches of the Corporate Office.

S.R.5.06(2) It is the responsibility of the Station Master-in-charge to ensure that the Station Working Rules confirm the conditions at site and to bring discrepancy if any, to the notice of the officers-in-charge of Operation/Safety of the Region immediately for rectification. He shall also see that a copy of the Station Working Rules together with the Rule Diagram is kept in each Station Master's Office, where block instruments are installed. In addition, he shall keep a spare copy of the Station Working Rules with the Rule Diagram in his custody. Each copy of the Station Working Rules shall have an index for the amendment memo(s) issued. A copy of the Station Working Rules relating to the working of level crossings shall be kept in the gate lodge.

The Station Working Rules file shall contain the following

- (i) A copy of the correct Rule Diagram,
- (ii) A copy of the Station Working Rules duly signed by the Officers-in-charge of the safety and the Signal and Telecommunication branches of the region, including all appendices.
- (iii) An index for the amendment memo issued with number and date of amendment memo and reference on the page(s) replaced by the amendment in the Station Working Rules, wherein the corrected page has been inserted. All Station Working Rules shall have a proforma index of amendment memo and not more than **five** amendment memo may be issued to any Station Working Rules.

The Station Working Rules should be issued afresh after every five years or whenever a sixth amendment becomes necessary, fresh Station Working Rules shall be issued incorporating all the Amendments made earlier as also the proposed Amendment. Amendments shall be made by replacing a whole page(s) and not by replacing only a part of a page.

If in the process, additional pages become necessary such additional pages shall bear the same page number, as before, with the additional pages being suffixed with A,B,C, etc, as required.

Important circulars and instructions issued in connection with the reception and dispatch of trains passing duties pertaining to the Working of the Station shall be maintained in a separate file and the same shall be kept along with the Station Working Rules file for ready reference.

- S.R.5.06(3)** Railway servants connected with train working shall pass an examination before the authorised official. It is the responsibility of Regional Officers, Inspectors and Station Masters and other supervisory officials like Train Examiner, Loco Foreman etc., to satisfy themselves that the staff working under them maintain their knowledge of rules up-to-date and are duly instructed in all additions thereto or alterations thereof. The Station Master-in-charge of the station is responsible for seeing that no staff posted to the station, permanently, temporarily or as relief, are permitted to take up independent work unless they declare in the Assurance Register, provided for the purpose, that they have read and understood their duties and the working rules, including the Station Working Rules pertaining to their duties at their station.

- S.R.5.06(4)** In the case of staff detailed for the operation of block instruments, either in the regular course or in an emergency, it shall also be ensured that they possess a valid Block Competency Certificate. The details of the current certificate, with the number and date of the certificate and the authority who issued or renewed the same shall also be recorded in the Assurance Register by the staff concerned along with an endorsement assuring that they are competent in the duties of reception and dispatch of trains.
- S.R.5.06(5)** Separate portions of the Assurance Register shall be allotted for each category of staff connected with train working and each individual employee shall affix his full signature in the column provided for the purpose in the register.
- S.R.5.06(6)** The Station Master-in-charge shall certify each declaration individually. In the case of staff, other than Station Masters, he shall also specially make an endorsement that the relevant paragraphs of the working rules and instructions have been explained to the staff concerned.
- S.R.5.06(7)** Whenever there is any change in the Station Working Rules, fresh declaration shall be obtained from the staff concerned.
- S.R.5.06(8)** In case of staff taking up duty at a station after a period of absence of fifteen consecutive days or more, a fresh declaration shall be obtained on every such occasion.
- S.R.5.06(9)** The declaration to be effected by train passing staff before taking up duty shall be as follows:-

FOR GROUP C STAFF

I hereby declare that I am a duly qualified Station Master and I have read and understood my duties and Station Working Rules Number dated and Amended Slips Nos..... dated..... and that I have read and understood the gradients indicated in the Station Working Rule Diagram and other instructions pertaining to my duties at Station and I affirm that I am competent to receive and dispatch trains safely.

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 authorized printed form is not available for any reason or in exceptional circumstances a manuscript form containing all particulars as contained in the prescribed form is issued as an emergency measure, reasons therefore shall be recorded in the station diary.

5.08**ACCESS AND OPERATION OF EQUIPMENT:-**

No unauthorized 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 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 competent railway servant.
- (4) A stop hand signal shall be exhibited at a distance of not less than 45 meters 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.

5.10.

RECEPTION OF A TRAIN ON A NON-SIGNALLED LINE

- (1) Should it be necessary, in an emergency, to receive a train on a line which is not signalled for reception, the Station Master shall ensure that -
 - (a) the train is brought to a stand at the first Stop signal;
 - (b) the line on which it is intended to receive the train is clear upto the trailing points or upto the place at which the train is required to come to a stand;
 - (c) all the points over which the train has to pass are correctly set and 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.

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 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.

S.R.5.11(1) The written authority referred to G.R.5.11(1) shall be in the following forms:-

Form No. T/511

Sr. No. _____

_____ RAILWAY

AUTHORITY START FROM A NON-SIGNALLED LINE

(Record/Loco Pilot)

Station _____

Date _____ Time _____

The Loco Pilot of Train No..... UP/DOWN.

You are authorised to pass *Starter/Advanced Starter in the 'ON' position and leave the yard cautiously duly piloted out up to last set of points of non signaled line by the Competent Railway servant at a speed not exceeding 15 kmph over the points as your train is started from non-signalled line No (in words) _____ (in figures) _____

Token/Line clear ticket No._____

Private No. received (in words) _____ (in figures) _____

Signature of Station Master

Signature of Loco Pilot _____ Date _____ Station Master Stamp

* Strike out whichever is not applicable

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 facing points locked.

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) When shunting is to be done for attaching or detaching coaches of passenger carrying trains, the Shunting Engine must be first come to halt 20 metres from the train and thereafter perform shunting carefully.

S.R 5.13 (2) Train Engine should come to stop 20 meters from the train and then proceed very cautiously for being attached to the train.

S.R 5.13(3) No Shunting operations which may foul or extend on to any of the running lines of a station must be permitted, unless the relevant approach signals applicable to those lines are at danger.

S.R 5.13 (4) During shunting operations, a Loco Pilot is not to act on the fixed signals mentioned in G.R. 5.13 until he has received a Hand signal exhibited by the railway servant conducting the operation.

- S.R 5.13 (5)** At stations, where a special shunting staff is employed, all shunting operations in connection with running trains and also with yard shunting shall be conducted by such staff, under the orders of the Station Master.
- S.R 5.13 (6)** At stations, where a special shunting staff is not provided, shunting operations in connection with running train shall be conducted under the orders of Station Master and supervised by the Guard-in-charge of the train, Supervision includes assurance that the points are correctly set and facing points locked that correct Hand Signal are shown to the Loco Pilot, the correct vehicle is attached or detached and that the safety rules are observed.
- SR.5.13(7)** 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 5.13 (8)** No attempt must be made to couple or uncouple vehicles in motion. Riding on buffers, hand brake gear, screw coupling of vehicles or on the cow-catcher of an engine is strictly prohibited. Passing under vehicles during shunting operations is also prohibited.
- S.R 5.13 (9)** No engine should be allowed on any running line at the station occupied by a train carrying passengers except the train engine or banking engine or shunting engine required to perform shunting on the formation and whenever it becomes necessary to do so the engine must be piloted by a competent staff under proper instructions. In an emergency placing of Engine/ self propelled vehicle (s) /vehicles may be allowed on the same line provided it must be piloted by a competent staff under proper instructions.

5.14. RESPONSIBILITY FOR SHUNTING –

The Station Master shall see that the shunting of trains or vehicles is carried on only at such time and in such manner as will not involve danger.

- S.R. 5.14 (1)** The speed during shunting operations shall not exceed 15 kilometer per hour when shunting or marshaling of wagons loaded with live stock, explosive, dangerous and inflammable goods, wagons loaded with petrol, kerosene oil, liquid fuel, spirit wagons loaded with acids, gases, poisons (toxic) the speed is restricted to 8 kilometers per hour.
- S.R. 5.14 (2)** Fixed signals except Home and Advanced starter may be taken 'Off' for shunting purpose.
- S.R. 5.14 (3)** Screw couplings must not be allowed to hang down and drag during shunting operations vacuum hose pipes / air brake pipes must be placed on dummy plugs before the screw coupling is unhooked.
- S.R. 5.14 (4)** Vehicles containing passenger shall not be removed for shunting purpose without the personal instructions of the Station Master, who shall satisfy that necessary precautions are taken to prevent accidents.

5.15 SHUNTING AT STATIONS UNDER CENTRALISED TRAFIC 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 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 the special instructions.

5.16 SHUNTING DURING RECEPTION OF TRAINS:-

When signals have been taken 'off' for an incoming train on to a line which is not isolated, no shunting movement shall be carried out towards points over which the incoming train is to pass.

5.17 SHUNTING NEAR LEVEL CROSSING

The railway servant incharge 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 AT NIGHT OR IN THICK, FOGGY OR TEMPESTOUS WEATHER IMPAIRING VISIBILITY:

- (1) A train waiting for an authority to proceed shall not be allowed to draw out upto an advance starter for dispatch, except where track circuit or Axle counter has been provided between starter and Advance Starter to indicate the presence of a train In a 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. OBSTRUCTIONS 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 sanctions 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) When a running line is blocked by stabled load, wagon, vehicle, . or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points in rear on double line section and at either end on single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line.

S.R. 5.19 (2) If all the lines at a station happen to be blocked when line clear has been granted to a train, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of a mishap, the chances of casualties are minimised. In case all the lines at a station are occupied by passenger trains, points should be set for a loop line, to negotiate by which the speed of the incoming train would be reduced which in turn would minimise the consequences/casualties. While doing so, points may be set for a loop occupies by a train if any, whose engine is facing the direction of approach of the incoming train rather than for the loopline occupies by a train where a passenger coach will, in case of collision receive the impact.

Note: The above precautions shall be taken in addition to the observance of other precautions like use of stop collars etc.

- S.R. 5.19 (3)** Hand shunting of vehicles beyond station section is strictly prohibited.
- S.R. 5.19 (4)** Hand Shunting on the mainline within station limits at double line stations for the purpose of loading or unloading goods or railway materials is also prohibited.
- S.R. 5.19 (5)** Stop collars must be placed on the points/ signal buttons pertaining to the obstructed line to give a visual warning to Station Master that a particular running line is occupied or otherwise obstructed.

5.20. SHUNTING ON GRADIENTS -

When shunting is being performed on a gradient, the railway servant in-charge of the shunting shall ensure that -

- (a) sufficient number of brakes are put on, sprags are used, where necessary, slip siding points or traps, where provided, are set to ensure safety and that all precautions are taken to prevent vehicles getting out of control, and
- (b) in case of shunting over a portion of line on steep gradient, neither isolated nor protected by slip sidings, an engine is also attached towards the falling side of the gradient.

Note: For purpose of this rule a steep gradient shall be 1 in 260 or steeper except in case of vehicles fitted with roller-bearings, when it shall be 1 in 400 or steeper.

- S.R. 5.20 (1)** Hand shunting of vehicles occupied by passenger is strictly prohibited.
- S.R. 5.20 (2)** Hand shunting shall not be done once line clear has been given for a train, unless such line is isolated from running lines. If hand Shunting is in progress, line clear shall not be given for any train until it is completed
- S.R. 5.20 (3)** Hand Shunting of wagons/vehicles may be permitted when the station section on a gradient flatter than 1 in 400 on the following conditions
- (a) The layout of the yard shall be such that no vehicle/wagon can escape into the block section.
 - (b) The Station Master or an authorised railway servant shall personally supervise shunting,
 - (c) Not more than one bogie or two units shall be moved at a time

- (d) The vehicles/ wagon shall be fitted with a hand brake in good conditions.
- (e) It shall be manned by a competent railway servant to apply hand brake as and when necessary.
- (f) The wagon shall be moved at a speed not exceeding 5 kmph.

5.21. LOOSE SHUNTING -

Cranes, vehicles containing passengers, workers, explosives, dangerous goods or livestock 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/ wagons being pushed by an engine and being allowed to run forward unattached on to a particular line.

S.R. 5.21 (2) Loose shunting is prohibited in the following cases also- (a) Dead engines, (b) Infringing Standard Moving Dimensions load, (c) Wagons with defective hand brakes, (d) wagons loaded with heavy machinery, (e) vehicles containing articles mentioned in the Indian Explosives Act including petrol and oil tank wagons, (f) damaged vehicles (g) BOX, BOB and other wagons of this type (h) wagons containing fragile goods (i) Coaching vehicles, (j)Track Maintenance Machines and (k) Tower wagons.

S.R. 5.21 (3) “**FLY SHUNTING**” is a shunt movement in which two or more vehicles/wagons to be moved, after being given an impetus by an engine (with or without other vehicles/wagons attached) are separated at the points, by the points being reversed smartly between the vehicles/wagons, in order to send them on to different lines, Except at hump yards, fly shunting is strictly prohibited.

5.22 LEAVING VEHICLES 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 there of 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 instruction.

- S.R. 5.23 (1)** Station Masters are responsible for seeing that vehicles/wagons standing at their station are secured in such a manner that they cannot be moved so as to obstruct the running line.
- S.R. 5.23 (2)** Vehicles/wagons standing on a siding shall be coupled together and all hand brakes shall be applied. Vehicles / wagons /standing on a running line shall be coupled together and hand brakes applied. They shall be placed inside fouling- marks, Scotch blocks, derails, derailing switches or trap points where provided. If the siding/running line is not trapped or if the trapping arrangements are temporarily suspended or if the siding / running line is situated on a gradient steeper than 1 in 600 or if the vehicles stabled are not fitted with hand brakes or during high winds the vehicles / wagons shall in addition be secured with safety chains fastened to rail and padlocked.
- S.R. 5.23 (3)** All cross-overs which give access to running lines shall be kept clear of vehicles. Scotch blocks and Haye's derails. And coupled with points, shall be locked across the rail.
- S.R. 5.23 (4)** Vehicles detached from train or waiting to be attached to trains shall be coupled together and all hand-brakes shall be applied. Vehicles not fitted with hand-brakes shall be secured with safety chains fastened to the rail and pad-locked. The hand brakes of brake- vans of passenger rakes shall be screwed down. At night, the 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 the Up and Down directions ..
- S.R. 5.23 (5)** If, for some reason, any vehicles 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 Train Signal Registers indicating the time and 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 Train Signal Registers and the Station Diary.
- S.R. 5.23 (6)** Securing of wagons/vehicles fitted with roller bearings :- Whenever one or more wagon/vehicle fitted with roller bearings are detached from a train and stabled on running line or siding on a track with a gradient of 1 in 400 or steeper, before such wagons are uncoupled, the hand-brakes shall be applied. Sprags or wooden Wedges shall also be used to prevent such wagons rolling down. whenever possible, such wagons shall be stabled on lines which are isolated

from the other running lines. When these wagons are kept on running lines, the Station Master on duty shall ensure that all points are set, clamped and padlocked against these lines keeping the key in his personal custody.

Whenever such wagons are stabled within the protection of a dead end siding or slip siding or derailing switch etc., they shall be secured by pinning down at least six hand brakes at each end of the load and fastening safety chains on either end under the personal supervision of the Station Master / Guard of the train.

S.R. 5.23 (7) TRAIN WORKING IN LONG TUNNELS

- (i) The tunnel ventilation system is provided for long tunnels. The Tunnel Control is to be manned round the clock by trained Tunnel Control Room Operator (TCRO) and asst. Tunnel Control Room Operator (ATCRO)Remote Control of Tunnel Ventilation System is being implemented and is under testing. Till the time it is stabilized the ventilation control operations shall be as under :

The control/operation of tunnel ventilation system of Karbude and Parchuri tunnels is to be done locally and that of Natuwadi, Tike and Berdewadi tunnels is to be done remotely by the TCRO/ATCRO from the tunnel control room located at the top of shaft at Karbude tunnel. Similarly, the control / operation of tunnel ventilation system of Karwar tunnel is to be done locally and that of Barcем tunnel is done remotely by the TCRO/ATCRO from tunnel control room located at North portal of Karwar tunnel.

- (ii) The passage of train inside along tunnel is to be indicated on the mimic panel by illuminating the segment corresponding to the train occupation on the track inside the tunnel. The normal passage of the train from any direction is indicated by movement of the illuminated segments from left to right or right to left. Occupation of the track by the train inside the tunnel is to be indicated by red colour and non occupation by yellow colour.
- (iii) For normal train operation in block sections which have long Tunnels with Artificial Ventilation system Control Room as mentioned in clause (1) above, the Station Master of either end of the concerned block section shall exchange private numbers with TCRO /ATCRO of the tunnel control room from where the ventilation system of such tunnels is controlled/ operated, before granting line clear to the other end station master. TCRO /ATCRO shall ensure that the ventilation parameters are within the permissible threshold values while exchanging the private numbers with the Station Masters.
- (iv) Movements of trains, trolleys and other rail vehicles inside the Tunnels are allowed with the permission of TCRO.

Whenever trolley, RMV, self propelled lorry etc. are required to enter such tunnels line block shall be obtained from either end Station Master under intimation to ventilation control operator who will give his private number, for this purpose the ventilation control operator shall ensure that the ventilation parameters are within the permissible threshold values before maintenance staff are allowed to enter the tunnel. Tunnel lights which are normally "OFF" shall be switched "ON" to facilitate maintenance work on request of maintenance staff.

(v) Any obstruction noticed by the maintenance staff inside the tunnel shall be immediately brought to the notice of the TCRO/ACTRO and section controller through the emergency telephone sockets provided in the tunnels, who shall advise the concerned for immediate action for clearing the obstruction. Clearance of obstruction shall also be brought to the notice of the TCRO/ATCRO and section controller through the emergency telephone sockets provided in the tunnels.

(vi) Maintenance staff of Engineering , Electrical , S&T Dept etc, when entering the tunnel on foot shall intimate TCRO/ATCRO of the tunnel control room from where the ventilation system of such tunnels is controlled and operated, through emergency Telephone. They shall intimate the name of maintenance gang in-charge, number of staff / labours , location of maintenance to the TCRO/ATCRO who shall record the same in a register along with the time when they entered in and came out from the tunnel. Maintenance gang in charge of respective department shall also maintain a register containing the name and other required details of staff /labours entering the tunnel along with the time when they entered in and came out from the tunnel. Tunnel Lights of the particular segment which are normally "OFF" shall be switched "ON" by the TCRO / ATCRO to facilitate maintenance works.

(vii) If a train is to be passed when the maintenance staff is working inside the tunnel the Ventilation Control operator shall alert the staff by operating siren twice for 1 minute duration with a interval of 1 minute in between, as soon as they exchange the private number with the Station Master. In addition to sounding siren for drawing attention of the maintenance staff inside the tunnel TCRO shall switch tunnel lights "OFF" & "ON". Loco Pilot of the train shall blow the whistle while passing in the tunnel

(viii) The tunnel control room must have uninterrupted communication facilities to contact central Control, section control and Outside agencies. The Communication system through emergency telephones to contact TCRO/ATCRO by the guard/loco pilot/working parties inside the tunnel shall also be maintained so as to ensure uninterrupted communication. TCRO/ATCRO shall immediately report the failures if any noticed by them or brought to their notice by the working parties etc. to the concerned S&T control , and central control and shall maintain a record of same along with the date and time of restoration. S&T dept. shall attend such failures on top priority and advise the restoration to TCRO/ATCRO , S&T control , in charge electrical supervisor , central control and section controller.

SR.5.23(8) A) CONDITIONS FOR OPERATION OF TUNNEL VENTILATION.

- (i) The tunnel ventilation system shall be operated in the following condition (detailed procedure for operation of ventilation system under various conditions like stalling , derailment , fire in train etc. and depending upon the type of ventilation system as given in the booklet for operation of trains in long tunnels shall be followed):
- (ii) After clearing of the train from inside the tunnel and not during the passage of train inside the tunnel.
- (iii) Incase of pollution/ visibility / temperature levels increasing beyond the pre-set values ie. CO: 50PPM, Temperature : Dual range ie. 40 degree centigrade during passage of train and 60 degree centigrade due to fire inside the tunnel.
- (iv) In case of stalling of train inside the tunnel
- (v) In case of emergency when the work parties are required to work inside the tunnel.
- vi) In case of train / locomotive fire inside the tunnel.

B) The Ventilation Controller has to ensure that :

- i) Power supply either normally from local electric supply or from the DG sets wherever provided for this purpose is always available for operating of the ventilation system to the extent possible .
- ii) All Control parameters are operative from the control console.
- iii) Tunnel environmental parameters such as temperature and toxic gases (CO)levels are within the permissible threshold limits.
- iv) Prompt reporting of failures in Communication facilities as per the given procedure and chasing as in clause (viii) of S.R. 5.23 (7) above.
- (v) Prompt reporting of obstruction noticed & reported by the maintenance staff to TCRO / ATCRO and chasing for cleaning of same.
- vi) Periodical updating of contact numbers of hospitals, fire stations, ambulance services, power supply authorities etc. on the boards displayed in the control room.
- vii) The siren provided inside the tunnel are in working order to warn the staff /work parties inside the tunnel well before passage of the train.

- viii) Permanent lights provided near the trolley refuges at an interval of 100 m are normally kept "ON" all the times so that in case of stoppage of train inside the tunnel, Loco Pilot /Guard can contact TVCRO immediately.
- ix) All the tunnel lights are switched "ON" in case of stalling of train or train fire /derailment inside the tunnel in co-ordination with the train crew / running staff.
- x) Tunnel lights in the vicinity are also switched "ON" as and when work parties working inside the tunnel request.

C) OPERATION OF TUNNEL VENTILATION DURING ABNORMAL CONDITION-

- I) In case the adjacent station master is not able to exchange pvt. No with the concerned TVCRO / ATVCRO. The train shall be given line clear with caution order to approach the tunnel portal with 15 KMPH and ready to stop the train. If the Loco Pilo finds that the tunnel is clear of smoke and that lights ars ON, he shall clear the rest of the section with normal speed.
- ii) In case of total communication failure, the standard procedure for opening up of communication shall be adopted.
- iii) In case of failure of remote operation of the Ventilation system. The TVCRO / ATVCRO from the controlling TVCR shall send a competent person to the remotely controlled tunnel portal /TVCR for local operation of the ventilation system. Till the time staff reaches the remotely operated tunnel portal / TVCR the trains in the section shall be operated as given in para above.

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) When the Station Master received information regarding an accident or obstruction or any condition which is likely to endanger safe working of trains on a section, he shall immediately apprise the Station Master of the adjacent station, Controller on duty and all concerned, by telephone and take further action for prompt relief and assistance.

S.R. 6.01 (2) (a) If trains can be passed over such a section without endangering safety, the Station Masters shall issue Caution Orders, with the necessary information to Loco Pilot of train entering the section from either end, in accordance with Rule 4.09.

(b) if the passing of trains over such a section is considered dangerous to safety and should be prevented, the Station Masters shall not allow any train to enter such a section, from either end, until advice is received from a responsible Engineering Official that the section is safe for the passage of trains.

c) "Rail fracture " or "Weld failure" should be treated as an obstruction and track protection shall be arranged till the obstruction is cleared and a "Fit Certificate" issued by an Engineering Official, not below the rank of Track Safety Man (TSM).

In case of "weld failure" reported by patrolman/any other railway servant, after protecting the site by Engineering official, the following action shall be taken by station Master on duty.

In the absence of RMV, Motor trolley or a Road vehicle the train can be allowed in the obstructed block section upto the affected spot only in case of weld failure, along with engineering official, not below the rank

of PWS along with the material required for emergency repairs. The Station Masters on duty on either side, who will despatch the train indicating the chainage of the weld failure will issue a caution order with SR of 20 KMPH to pass the affected spot provided after attending and ensuring safe certificate given by the accompanied engineering official for that purpose.

"Fit Certificate" shall be issued by the' Engineering Official after necessary emergency repairs by provision of fish plates/screw clamp (with or without rail closures) adjusting sleepers close to the rail fracture/weld failure and spiking.

Once the emergency repairs have been completed obstruction shall deemed to have been removed, on the issue of "Fit Certificate" by the Engineering Official. The speed of all trains over the fractured rail/failed weld where emergency repairs have been completed and "Fit Certificate" issued by authorized Engineering Official will be 20 Kmph. Raising of the speed upto 30 Kmhp can be authorised subsequently by the Engineering official not below rank of PWS after his inspection, execution of temporary repairs and certification, pending permanent repair and restoration of normal speed.

Note :- In case of fracture of fish plates/combination fish plates, an Engineering Official not below the rank of Tract Safety man is authorised to replace the defective fish plate and to certify the tracks as fit for passage of trains with or without speed restrictions.

S.R. 6.01 (3)

When an assisting train or engine is ordered in these circumstances, it shall run as an untimed-hour special, on line clear upto the station at the near end of the obstructed section; but it shall enter the obstructed section on the "Authority to proceed without Line Clear".

S.R. 6.01(4)

The official in-charge of the relief operations shall arrange for the clearance of the obstruction, On removal of obstruction the speed at which through running is to be resumed shall be advised by the concerned Engineering / Electrical official as the case may be. On receipt of this. written advice. The Station Master shall resume traffic, advising all concerned.

6.02.

WORKING IN CASE OF ACCIDENT OR FAILURE OF COMMUNICATION:

In case of accidents to the line or to any train, or of failure or interruption of communication or in an emergency, train shall be worked between stations in accordance with special instructions.

S.R. 6.02 (1) (i) On single line section, in case of an accident to the line or to any train involving the complete blocking of running line, if it is considered necessary to run a train out to the site of the accident for relief or transhipment purposes, such a train may be despatched into the obstructed section by issuing to the Loco Pilot an "Authority to Proceed without Line Clear" on the prescribed form. However, before issuing such an "Authority" the Station Master concerned, must be in possession of written order to this effect from the Operating Officer / inspector and if neither is present, then from the Senior-most Officer /inspector of the Engineering or Mechanical Branch.

- (ii) The "Authority to Proceed without Line Clear" given to the Loco Pilot, shall be his authority, to proceed upto the point of danger and return there from to the Station. On this authority form. shall be recorded the kilometrs upto which the Loco Pilot shall proceed into be obstructed section.
- (iii) While proceeding into or returning from the obstructed section with engine leading, the speed of the train must not exceed 15 Kmnh during day and when the view is clear, and 10 Kmnh during hours of darkness and when view is not clear. when the brake-van is leading the speed of the train must be restricted to 8 Kmnh and the Guard of the train, shall travel in the leading brake-van showing necessary hand signals to the Loco Pilot. When proceeding at a restricted speed of 10 Kmnh and 8 Kmnh, the engine whistle must be to constantly sounded. Train sent out to the place of danger in the obstructed section must be protected as laid down in G.R. 6.03 in rear.
- (iv) It shall be clearly stated on the "Authority to Proceed without Line Clear" whether the train is to return after completion of the work or wait at the place of obstruction for the arrival and return of following train which may be required to be sent out. The Loco Pilot of the second train shall also be given an "Authority to Proceed without Line Clear" and an endorsement will be made on this form that another train has gone into the obstructed section at ---- hrs.
- (v) While proceeding into the obstructed section the speed of the train shall be restricted to 8 Kmnh and Caution Order to this effect shall be issued to the Loco Pilot of the second train.
- (vi) On the Double line section, if both lines are blocked, trains can be despatched. If required both the lines, in accordance with S.R. 6.02 (I) (i) above, but there should be only one train at a time on each line in the obstructed section. If only one of the two lines is obstructed, then a train must be sent out into the section on the obstructed line.

S.R. 6.02 (2) If the adequate distance necessary for granting line clear, i.e. "Block overlap is obstructed, the Station master shall not grant the same, but should advise of the fact to the station in rear on electrical communication instrument and trains will be worked on an "Authority to proceed without Line Clear".

S.R.6.02(3) An "Authority to proceed without Line Clear" does not permit any stop signal passed at danger. If on approaching a station, the Loco Pilot finds the approach signals are at danger he must stop outside, Home signal and send his Asstt. Loco Pilot with a memo to the Station Master intimating his arrival. The Guard should take immediate steps to protect the rear of the train.

S.R6.02(4) RULES AND REGULATIONS FOR WORKING OF TRAINS DURING TOTAL INTERRUPTION OF COMMUNICATION OF DOUBLE LINE SECTIONS.

(1) In the event of total interruption of communications occurring between two stations on a double line section, i.e., when "line Clear" cannot be obtained by anyone of the following means stated in the order of preference, viz.

- i) Block instrument ; Track circuits or Axle counters
- ii) Telephones attached to the Block Instruments
- iii) Station to station fixed telephones wherever available
- iv) Fixed telephone such as Railway autophones & BSNL phones
- v) Control Telephone
- vi) VHF sets.

Note :-

- a) When 'line clear' is obtained through the fixed telephones such as railway auto phones & BSNL phones or indirectly through controller of VHF sets, the system of establishing identity of the station master on duty by cross checking private number given for line clear to preceding three trains a stipulated in the SR 14.13(1) & (2).
- b) BSNL/MTNL telephone if not provided separately to station master on duty , should have extension to his office so as enable him to communicate with his counterpart at the other end from his own seat and its record should be maintained on the prescribed forms and the Train Signal Register

- c) The Railway auto phone and / or BSNL/MTNL telephone instruments should be provided with Caller ID wherever feasible so that station master on duty can identify the calling station master at the other end.

The following procedure shall be adopted for train passing.

- (2) Before 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 an authority for working of trains during total interruption of communication on double line section to the Loco Pilot of each train which shall include :-
- (a) An Authority to Proceed Without Line Clear.
 - (b) A Caution Order restricting the speed of 25 kilometres per hour over the straight and to 10 kilometres per hour 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;
 - (c) An authority to pass the Last Stop Signal 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 the 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 last Stop signal may be taken off' for the reception and departure of trains. The first stop signal 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 hand danger 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 hand danger signal towards the rear and check up that the tail board or the tail lamp 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 meters from the train on the way out and two detonators 10 meters apart at 500 meters 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 first Stop signal and sound continuous whistle (or any other code prescribed by special instructions). 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 "Authority to Proceed Without Line Clear" 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 Transportation 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 Regional Railway Manager within 7 days of communications.
- (14) A record of all trains passed over the blocked section on "Authority to proceed Without Line Clear" during the course of total interruption' of communications, shall be maintained on the Train Signal Register Books at both the stations concerned.
- (15) Trains must continue to work on this system until anyone of the means of communications, mentioned in rule (1) above, is restored by the competent authority.

- (16) As soon as anyone 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 following Form : -

From: Station Master

To : Station Master

Message NoTrain (number and description).....

Arrived complete athours.....minutes. Last train..... (number and description) despatched to your station.....at hours.....minutes. Cancel the present method of working the trains. Line Clear must obtained by means ofAcknowledge.

Private No. (in words).....(in figures).....

On receipt of the above message, the Station Master at the other end of the section must acknowledge in the following form :

From: Station Master

To: Station Master

Message No.Your Message No.Understand that Train (No. and description)Which was the last train to leave my station has arrived complete at your station, Train No..... which left your station has arrived complete at my station at hoursminutes not arrived. Present system of train working being/will be clear for the next train will be obtained by means ofPrivate No (in words).....(in figures).....

- (17) Line Clear shall not be obtained or given by means of communications restored until both the stations are satisfied that all trains and engines, etc., despatched from their stations have arrived complete at the other stations. When the trains referred to in para (16) above arrive complete at the stations, after restoration of communication, their No. and their arrival time will be communicated to the other Station Master concerned under exchange of Private Numbers, Thereafter in intimation about this shall be given to Section Controller also, on controlled sections, if communication with the Section Controller has also got restored, and normal working resumed. If however communication with Section controller has not got restored along with restoration of communications between two stations, the Section Controller shall be advised of the position immediately on restoration of communication with him.

S.R.6.02 (5) RULES AND REGULATIONS FOR WORKING OF TRAINS DURING TOTAL INTERRUPTION OF COMMUNICATION ON SINGLE LINE.

- 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 one of the following means stated in order of preference viz:-

 - a) Block instrument ; Track circuits or Axle counters
 - b) Telephones attached to the Block Instruments
 - c) Station to station fixed telephones wherever available
 - d) Fixed telephone such as Railway autophones & BSNL phones
 - e) Control Telephone
 - f) VHF sets.

Note :-

- a) When 'line clear' is obtained through the fixed telephones such as railway autophones & BSNL phones or indirectly through controller of VHF sets, the system of establishing identity of the station master on duty by cross checking private number given for line clear to preceding three trains a stipulated in the SR 14.13(1) & (2).
 - b) BSNL/MTNL telephone if not provided separately to station master on duty, should have extension to his office so as enable him to communicate with his counterpart at the other end from his own seat and its record should be maintained on the prescribed forms and the Train Signal Register.
 - c) The Railway autophone and / or BSNL/MTNL telephone instruments should be provided with Caller ID wherever feasible so that station master on duty can identify the calling station master at the other end.
- (2) The Station Master who has a train to despatch through the affected block section shall open communications 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.

- (I) Light engine:
 - (ii) Train engine, after it is detached from the train by the Loco Pilot on instructions from the Station Master on duty;
 - (iii) Motor trolley/Tower wagon duly accompanied by Guard or by a Station Master other than the Station Master on duty.
 - (iv) Trolley/Cycle Trolley/Moped trolley duly accompanied by a Guard or by a Station Master other than the Station Master on duty;
 - (v) Diesel Car / Rail Motor Car / EMU Rake 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 failure of communications on the single line. If the Loco Pilot / Motorman /Guard/Station Master who is being sent to open communications line is not conversant with the rules for working of trains during total failure 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 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 failure of communications on single line.
- 4.1 Before despatching the light engine/train engine/Motor Trolley /Towerwagon/Trolley Cycle Trolley / Moped Trolley / Diesc Car / Rail Motor Car / EMU rake, the Station Master on duty shall hand over 'Authority for opening of communication during total interruption of communication on single line section to the Loco Pilot/Motor Man /Guard/Station master who is being sent to open communications, which includes :-

- (I) An "Authority to Proceed Without Line Clear"
- (ii) A Caution Order, specifying the speed upto which the engine or self-propelled vehicle or other vehicle referred to in para 2 may run to the affected block section.

- (iii) An Authority to pass the last Stop signal in the "On" position in case there is a last Stop signal at the station.
- (iv) 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.
- (v) A conditional Line Clear Message to the Station Master of the block station at the other end of the affected block section permitting him:-
 - (a) 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
 - (b) To return wagon/diesel car/rail motor car/EMU/ DMU rake running by itself; or
 - (c) To return Motor Trolley / Cycle Trolley / Moped Trolley either running by itself or loaded in a train waiting to be despatched from his station.

(4.2) The Line Clear Enquiry Message asking Line Clear for the trains to be despatched through the affected block section, and the conditional Line Clear message for the return journey of the engine or self-propelled vehicle or other vehicle referred to in para 2. as the case may be, shall be written out on telegraph forms for being sent through the Loco Pilot / Motorman / Guard / Station Master going to open communication, and these messages shall also be entered in the Line clear Books.

(i) The Lines Clear Enquiry Message Shall be worded as follows :-

Message No..... on return of* line will be Clear and kept clear for train No.waiting to proceed.

* The particulars of the engine either returning light or attached to a train or attached to another engine/tower wagon/ diesel car / rail motor car / EMU rake / motor trolley or trolley or cycle trolley or moped trolley running by itself or loaded in a train, as may be applicable, shall be correctly filled in while preparing the message.

ii) The conditional Line Clear message for return journey of the engine or self-propelled or other vehicle referred to in para2 as the case may be, shall be worded as follow : -

Message No.

on arrival of* at yours, line will be clear and kept clear for** Engine to return with/without attached to a train on another engine or self propelled vehicle / trolley etc. (complete particular)Private no. (in words).....(in figures).....

* The particulars of engine / tower wagon / diesel car / rail motor car / EMU rake / motor trolley / cycle trolley / moped trolley, as may be applicable, shall be correctly filled in.

**The particulars of the engine either returning light or attached to a train or attached to another engine / tower wagon / diesel car / rail motor car / EMU / DMU rake / motor trolley or trolley or cycle trolley or moped trolley running by itself or loaded in a train, as may be applicable, shall be correctly filled in while preparing the message.

4.3 The Loco Pilot/Motorman/Guard/Station Master going to open communications shall, on receipt of "Authority to opening communication during total interruption of communication on single line section' and sign on its original and carbon copy in token of his having understood its contents. In case the Loco Pilot is illiterate, the contents shall be explained to him by the Station Master on duty, in the presence of the Guard concerned, if any.

4.4 In case a light engine or an engine and brake-van to be despatched to proceed to the next block station and then continue its journey onward after arrival at the next block station and is not meant of opening communications, the Loco Pilot of engines or the engine and brake van, shall be given with the Authority for opening communication during total interruption of communication and the items 4.1 (iv) & (v) " Line Clear Enquiry Message and Conditional Line Clear Message " shall be striked out in form Such engine or engine and brake-van shall be issued only the "Authority to proceed Without Line Clear" the Caution order the Authority to pass the last Stop Signal in the 'on' position, referred to para 4.1(1), (ii), (iii) where necessary 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 elapse before it is despatched.

4.5 The last Stop signal shall not be taken 'OFF! while permitting an engine or self-propelled vehicle or other vehicle to proceed to the next station on "Authority for opening communication during total interruption of communication n single line section.

- 5 After an engine or self-propelled vehicle or other vehicle is despatched to the next station to open communications with Line Clear Enquiry Message, and a Conditional Line Clear Message, to the next station 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 push trolley for his work on section on which push trolleys do not run of Line Clear.
- 6 (a) The engine or self propelled vehicle or other vehicle proceeding on "Authority for opening communication during total interruption of communication on single line section shall switch on the flasher light wherever provided and shall proceed at a speed not exceeding 15 kilometres per hour by day and when the view is clear and 10kilometres per hour during night or when the view is obstructed, making free use of 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 'Authority to proceed Without Line Clear shall proceed at walking pace only making repeated use of the engine whistle or horn of self propelled vehicle, where provided, preceded at an adequate distance by two men on foot, one displaying a red light and other carrying fog signals ready for immediate use. Normally one of these men will be provided by the Station Master from his Class IV 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/Station Master incharge of the self propelled vehicle or other vehicle being sent to the next station and satisfy himself that they understand the same.
- (b) Both by day and night. a tunnel must not be entered until the' Loco Pilot/Motorman/Station Master/Guard 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.
- (c) 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 / EMUrake/motor Trolley/ Cycle trolley/Moped Trolley.

- (7) In the event of an engine/self-propelled vehicle/other vehicle. Proceeding on "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 Pilots/ Motorman /Guards/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 engine/self propelled vehicle/ vehicles should proceed. Before proceeding , the engines or self propelled vehicles shall if possible, be coupledup. If the engines/self propelled vehicles cannot be coupled up they should run at a safe speed and adequate distance apart. In the case of motor trolley / push trolley / cycle trolley / moped trolley, meeting an engine and brake-van/diesel car/rail motor carl EMU rake, the motor trolley /push trolley / cycle trolley /cycle trolley / moped trolley shall, if possible, be loaded in the brake-van/diesel: car/rail motor car / EMU / DMU / 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 first Stop signal of the station. The engine or self- propelled vehicle or other vehicles 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 first Stop signal 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 "Authority for opening communication during total interruption of communication on single line section' with the "Line Clear Enquiry Message" and the Conditional Line Clear Message giving the line Clear message for the return journey shall be delivered to the Station Master on duty, who shall keep these documents in his safe custody also post the Line Clear Message and the Conditional Line Clear Message in his Line Clear Books. On the authority of the Conditional Line Clear Message for the return journey, the Station Master on duty shall make out a conditional Line Clear Ticket 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 self-propelled vehicle if one 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 "Authority for opening communication during total interruption of communication on single line section shall all be taken back by the Station Master on duty of the station from which this was issued and cancelled. The original entries shall also be cancelled.
- (11) The Station Master on duty before despatching the engine either light or attached the train/self-propelled vehicle/other vehicle on, oil the return journey shall hand over to the Loco Pilot / Motorman /Guard / Station Master, Conditional Line Clear Reply Message for the Line Clear Enquiry Message, giving Line Clear for the train waiting at the other station, thereby authorised the Station Master at that station 'to start the train waiting there on complete arrival of engine either light or attached to a train/self-propelled vehicle/other vehicle at his end.
- (12) The Conditional Line Clear Reply Message shall be worded as follows:-

Message No.....

Your Message No.....on arrival of Engine with/without train/self propelled vehicle/other vehicle No.....at yours line

will be clear and kept clear for following trains:-

- I) Train No. Private No (in words)..... (in fig).....
- ii) Train No. Private No (in words)..... (in fig).....
- iii) Train No. Private No (in words)..... (in fig).....
- iv) Train No. Private No (in words)..... (in fig).....

**** Strike out which ever is not applicable.**

* The particulars of the engine either returning light or attached to a train or attached to another engine/tower wagon/diesel car/rail motor car/EMU rake/motor trolley or trolley / cycle trolley or mopped trolley running by itself or loaded in a train, as may be applicable, shall be correctly filled in while preparing the message.

- (13) On the return journey, engine either light or attached to a train/Diesel Car/Rail Motor Car/EMU Rake / Train loaded with Motor trolley / Push Trolley / Cycle Trolley / Moped Trolley may booked speed observing speed limits in the Working Time Table and other relevant rules. The Motor Trolley Push 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/other vehicle shall again stop outside (i.e, in rear of) the first Stop signal of the station and thereafter be guided by the instructions from the Station Master, who arrange to receive it by taking "Off" the relevant signals or otherwise.
- (15) On arrival at the station, the Conditional Line Clear reply message shall be handed over to the Station Master who shall record it in the Line Clear Message Book and on its authority issue a Conditional Line Clear Ticket for the waiting train.
- (16) If there be an even flow of trains in both directions, Enquiry and Conditional Line Clear Messages for each succeeding train may be sent through the Guard of the preceding train.
- (17) The arrival and departure time of all trains, engines, trollies, etc which are passed under the above rules must be carefully recorded in the Line Clear Enquiry and Reply Books also in the counterfoil of the "Authority to Proceed Without Line Clear" and in the Train signal register.
- (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 first 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 the Line Clear Enquiry message it shall be stated that these latter 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 the authority of the line clear of the trains and shall also endorse on that line Clear that a particulars train (giving its number and description in full) shall follow at a specified interval. The Station Master shall give similar information to the Guard also in writing. The Loco Pilot 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 kilometers per hour 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 line clear as also the particulars of the train which would follow. The line clear 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 hand danger 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, obstructions 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, where upon 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 other 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 2 detonators, 10 metres apart, at 500 metres from the point upto which the train is to be backed.
- (21) Trains must continue to work on this system until anyone of the means of communication mentioned in sub-rule (1) is restored by the competent authority.
- (22) As soon as anyone 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 following form :

From: Station Master.....To: Station Master.....

Time..... hours minutes

Message No.Train (No. and description).....arrived
 complete at hours.....minutes. Last train (No. and description).....despatched to your station athours
minutes. Cancel the Conditional Line Clear working of trains.

Line Clear must be obtained by means of

Acknowledge Private No. (In words)(in figures).....

On receipt of the above message, the Station Master at the other end of the section must acknowledge in the following form:-

From: Station MasterTo : Station Master

Message No.....From Your Message No.

I, Understand that Train (Number and description)..... which was the last train to leave my station has arrived complete to your station Train No.....which left your station has arrived complete my station athours.....minutes not arrived. Conditional Line Clear working of trains is being /will be cancelled immediately after the complete arrival of train NumberLine Clear for the next train will be obtained by means ofPrivate No. (in words)(in figures)

- (23) Line Clear shall not be obtained or given by means of communication restored, until both the Station masters are satisfied that all trains and engines, etc. despatched from their station have arrived complete at the other station. Even if the communication is restored immediately after the departure of the light engine/self-propelled vehicle/any other vehicle referred to in rule 2, sent under "Authority for opening communication during total interruption of communication on single line section." Normal working should not be resumed until the light engine/self-propelled vehicle/any other vehicle reaches the next station and both the Station Masters are satisfied under exchange of Private numbers that no light engine/self-propelled vehicle/any other vehicle is on the section. Thereafter an intimation about this shall be given to Section Controller also, on controlled sections, if communication with Section Controller has also got restored and normal working resumed. If, however, communications with Section Controller has not got restored along with restoration or communication between two stations, the Section Controller shall be advised of the position immediately on restoration of communication with him.
- (24) On the section where total interruption of communications occurs, the Transportation inspector of the section, must scrutinize the train passing records of the station and submit report to the Regional Railway Manager within 7 days of the resumption of Communication

S.R.6.02(6) RULES AND REGULATIONS FOR SINGLE LINE WORKING ON DOUBLE LINE DURING TOTAL INTERRUPTION OF COMMUNICATION

The following rules must, in addition to the rules prescribed in S.R.6.02(5), viz., "rules regulations for working of trains during total interruption of communications on single line 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, single line working be introduced only after a responsible official of the engineering department, not less than Inspector in rank, 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 that end of the affected section for which the unobstructed line shall be the the right line for despatching trains. On receipt of this certificate, the Station Master will follow the rules prescribed in S.R.6.02(4) for opening of communications.
- (2) Loco Pilot of trains, including light engine, shall be given a caution order on which, shall be stated clearly :-
 - (a) the line on which the train is to run;
 - (b) kilometrage where the obstruction exists;
 - (c) any restriction of speed which may be imposed by way and works staff;
 - (d) an assurance to the effect that any trap points on the line in question have been spiked and clamped.
- (3) All the cross-over points in the facing direction over which the train shall proceed, while temporary single line working is in force, shall be clamped and padlocked.
- (4) In the case of a train proceeding on the right line:-
 - (a) The last Stop signal of the station in rear of the affected section may-be passed in the 'on' position on a written authority issued by the Station Master in the prescribed form. In case the last Stop signal is the Starter, in addition to the written authority, hand signals shall also be shown at the foot Of this signal.
 - (b) 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:-
 - (a) 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

- (b) On reaching the next station, 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 his train is running), whichever he comes across first.
 - (c) 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 hand danger signal and thereafter pilot it into the station on a written authority issued by the Station Master.
- (6) It will be the responsibility of the person in-charge of the first engine or self-propelled vehicle or other vehicle, sent under "Authority to Proceed Without Line Clear" to inform all the Gateman and Trackmen enroute about the introduction of temporary single line working as also the line on which it is proposed to run the train. This information shall be conveyed through the Loco Pilot of a subsequent train also, if necessary.
- (7) Resumption of normal working
- (a) If after the introduction of single line working, communication are restored between 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 temporary introduction of single line working on double line.
 - b) 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(7) RULES AND REGULATIONS FOR SINGLE LINE 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 line on a double line section, the traffic may temporarily be worked over single line under one of the following systems:-

- (a) By obtaining "line clear" on electric speaking instruments.
 - (b) 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 temporary single line working on double line, on electric speaking instruments, the Station Master at one end of the affected section shall, on receipt of reliable information in writing that one line is clear, take steps to introduce temporary single line working on that line in consultation with the Section Controller and the Station Master of the station at the other end of the section.
 3. If there is reason to suspect that the line over which temporary single line working is to be introduced, is also fouled or damaged, temporary single line working 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. Single line working shall be introduced between the nearest stations provided with cross over between Up and On lines on either side of the obstructions. If there is an Intermediate block hut between the above two stations, the same shall be treated as closed and the commutator of the Block Instruments at such block huts shall be kept locked in "Train on line" position through out the period single line working in force.

The commutators shall be locked also in that position, with Sm's key, wherever possible. In cases where it is not possible to keep the commutators in "Train on line" position as in Daido instruments the Block Instrument shall be put out of use and Caution Indicator hung on the handle of the Block Instruments. The signals at such block huts shall be kept in the 'on' position throughout and these shall be passed by the Loco Pilot 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 Morse Telegraph Instrument or Control telephone or VHF set
6. At all stations on the portion of the section on which single line working has been introduced, the commutators of the Block Instruments pertaining to both obstructed and unobstructed lines shall be kept in "Train on line" position throughout the period single line working in force. The commutators shall be locked also in that position with SM's key, wherever possible. In case where it is not possible to keep the commutators in 'Train on line' position as in Daido Instruments, the Block instruments shall be put out of the use and caution Indicator hung on the handle of the Block Instruments. At these stations, if the train is running on the right line, the last stop signal 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 line is clear for the passage of traffic, the Station master proposing single line 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:-
 - (a) cause of introduction of single line working;
 - (b) the line on which single line working is proposed;
 - (c) source of information that the said line is clear;
 - (d) place of obstruction;
 - (e) restriction of speed, if any, on the line;
 - (f) names of intermediate stations, if any, which would be out of use;
 - (g) assurance that the trap points, if any, have been spiked or clamped and padlocked;
 - (h) assurance that if the train is running on the right line, the last Stop signal 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
 - (i) 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.. single line working may be introduced, "Line Clear" will be obtained on telephone attached to Block Instruments or Control Telephone or VHF or any two way communication system set, and trains run on proper line clear ticket in accordance with the instructions contained in this Block working Manual.
9. Loco Pilot of each train shall be handed over the Authority for Temporary Single Line Working on Double Line Section indicating :-
 - (i) the line on which the train or light engine is to run;
 - (ii) the kilometragess between which the obstruction exists;
 - (iii) any restriction of speed which may have been imposed by Way and Works staff; and
 - (iv) an assurance to the effect that any trap points on the line in question have been spike or clamped.
 - (v) Authority to pass the last Stop signal in the 'On' Position. In case the last Stop singals is the Starter, in addition to the written authority, he shall also be shown hand signals at the foot of this signal.
10. An endorsement will also be made on the Caution Order given to the Loco Pilot of the first train to inform all gatemen and gangmen 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 temporary single line, will be restricted to 25 kmph. Subsequent trains may run at maximum permissible speed of the section, subject to observance of other speed restrictions. If the first Train to run on the section after single line working is introduced, is accident relief / Medical relief van proceeding to an accident site, it may run
at a normal speed subject to other speed restrictions on the section are observed and approval of the controlling officer of accident relief train/medical relief van and section controller is advised.

12. When a train is stopped between stations on account of accident, failure, obstructions or other exceptional cause and the Loco Pilot finds that it cannot proceed, it shall be protected as per G.R.6.03.
13. In the case of a train proceeding on the right line:-
 - (a) The last stop signal of the station in rear of the affected section may be passed in the 'on' position on a written authority issued by the Station Master in the prescribed form referred to in para 9(v). In case the last Stop signal is the Starter in addition to the written authority, hand signals shall also be shown at the foot of this signal.
 - (b) The approached 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 the wrong line :-
 - (a) 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 trains will pass.
 - (b) On approaching the next station, 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.
 - (c) The Station Master of the station in advance shall depute railway servant in uniform at the foot of the signal (whichever the train would encounter first) who shall stop the train or hand danger signal and thereafter pilot it into the station on a written authority issued by the Station Master.
 - (d) 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, Rule.4.44 shall be observed.
15. All the cross over points in the facing direction over which the train shall proceed, while temporary single line working is in force, shall be clamped and padlocked.

16. Resumption of Normal Working -
- (a) 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 Section Controller, the train after passage of which the normal working has to be introduced.
 - (b) When Double line working is introduced, the Block Instruments and all fixed signals, including those of intermediate Block Huts which were treated as closed, shall be, brought into use immediately. An early shall also be made in the Train Signal Register Books 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 Trackmen on the way about the resumption of normal working.
17. All the records in connection with the temporary single line working shall be retained of the station and the Transportation Inspector of the section must scrutinize them and submit hi report to the Regional Railway Manager within seven days of the resumption of normal working.
- S.R .. 6.02(8)** Ballast trains must not run, when Line' Clear cannot be obtained owing to failure of the Electrical Communication Instruments.

6.03. 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. The Loco Pilot shall switch 'ON' Flasher light of his locomotive immediately to warn oncoming train. There after, the Guard shall immediately exhibit a hand danger signal towards the rear and check up that the tailboard or tall-light is correctly exhibited and switch 'ON' flasher light, if provided, in rear of the brake van. The Guard and the Loco Pilot shall then immediately take the following action in the rear and the front.

(i) On a single line section or an a section of double or multiple line when temporarily worked as a single line section.

- a) The Guard shall either himself go back or send a competent person back to protect the train ; if the Guard has deputed a competent person to protect the train, he shall confirm from the Loco Pilot for the protection of train in front through walkie – talkie or other means of communication between the Loco Pilot and the Guard. In absence of communication system between them, the Guard shall go to the Loco Pilot personally to confirm the protection of train in front :
- (b) The person going back to protect the train shall continuously show his hand danger signal to stop an approaching train, and in addition to his hand signal, shall take detonators and place them upon the line on which the stoppage has occurred as follows :-

One detonator shall be placed at 600 meters from his train on way out and three detonators at 1200 meters about 10 meters apart from the place where the train has stopped.

Provided that on the metre and narrow gauge the first detonator shall be placed at 400 metres and the three detonators about ten metres a part, not less than 800 metres from his train or at such distance as has been fixed by special instruction, from the place where the train has stopped:

- (c) If a person other than the Guard has gone back to protect the train, he shall , after taking action as per sub- clause (b) continue to show his hand danger signal to stop any approaching train until he is recalled.
- (d) When the Guard has himself gone back to protect the train, he shall, after taking action as in subclause (b) depute a competent person, if available, to show a hand danger signal to stop any approaching train until he is recalled, and shall himself return to his train to ascertain the cause.

- (e) Unless the guard has succeeded in getting another competent person to show a hand danger signal, as in sub-clause (d), he shall, after consultation with the Loco Pilot, once again return to the place at which he placed three detonators, showing his hand danger signal to any approaching train and continue to do so until he is recalled.
- (f) When the Guard or the person deputed by him is recalled, he shall leave down the three detonators and on his way back pick up the intermediate detonator
- (g) On a section of double or multiple lines, when the Loco Pilot comes to know that :
 - (i) during the course of run of the train being driven by him the Loco Pilot shall switch "ON" the Flasher light and dim the head light on all or any such occurrences as stipulated hereunder :-
 - (A) Sudden jerk with drag and/or drop in air pressure or vacuum of the train;
 - (B) sudden increase in air flow indicator reading :
 - (c) train parting/derailment of the train; and
 - (D) any situation warranting protection of the adjoining track.
 - (ii) In case of accident or if assistance has been asked for, or on a single line section or during temporary single line working on a section of double or multiple lines. the Loco Pilot shall in all cases switch 'ON' the flasher light and dim the head light at once and show a danger signal to the front, and proceed to protect the train in front in the manner prescribed in sub clause (b)and (f) either by going himself or by sending his Assistant Loco Pilot / Fireman or some other competent person; and
- (a) 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 shall continue to show a hand danger signal to stop any approaching train. If the person has already placed one detonator at 600 or 400 metres in Broad Gauge or Metre

Gauge /Narrow Gauge respectively and he is not in a position to reach at a distance of 1200 meteres or 800 meters in Board Gauge or Metre Gauge/Narrow Gauge respectively, he shall again place one detonator as far away from the train as possible which has met with 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 known that :

- (1) during the course of run of the train being driven by him, the Loco Pilot shall switch "ON" the flasher light and dim the head light on all or any such occurrences as stipulated hereunder :-
- (A) Sudden jerk with drag and / or drop in air pressure or vacuum of the train;
- (B) sudden increase in air flow indicator reading;
- (c) train parting / derailment of the train; and
- (D) any situation warranting protection of the adjoining Track
- (II) In case of an accident or if assistance has been asked for, the Loco Pilot shall in all cases switch ' ON ' the flasher light and dim head light at once and show a danger hand signal to the front to protect the adjacent line in front in the manner prescribed in clause (i) above; either by going himself or by sending Assistant Loco Pilot or some other competent person.

The Guard shall himself first immediately proceed ahead to assist and ensure protection of the adjacent line in front in the manner prescribed in clause (i) above and if a competent person is available send him to protect the train in the rear in the manner prescribed in clause (I) above.

- b) In case it is not known whether the adjacent line is obstructed or not, the Loco Pilot shall take action to protect the adjacent line in the manner prescribed in clause (I) above, The Guard shall confirm from the Loco Pilot on the available means of communication for protection of train of the adjacent line as mentioned above and proceed towards the locomotive 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 find that the adjacent line is not 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 :

(i) During the course of run of the train being driven by him, the Loco Pilot shall switch "ON" the flasher light and dim the head light on all or any such occurrences as stipulated here under :

- (A) sudden jerk with drag and /or drop in air pressure or vacuum of the train :
- (B) sudden increase in air flow indicator reading :
- (c) train parting / derailment of the train : and
- (D) any situation warranting protection of the adjoining track:

(ii) In case of accident or if assistance has been asked for , the Loco Pilot shall in all cases switch 'ON' the flasher light and dim the head light at once and show a danger signal to the front and he shall at once take action to protect the adjacent line in front in the manner prescribed in clause (i) above.

(b) as soon as the Guard comes to know that the train has met with an accident, he shall at once protect such adjacent line or lines in the manner prescribed in clause (i) above.

When it is obvious that an adjacent line on which trains normally run in the opposite direction is obstructed or when it is not known whether any such line is obstructed or not, the Loco Pilot shall at once take action to protect the adjacent line/lines in the manner prescribed in clause (ii) above.

It is obvious that an adjacent line on which the trains normally run in the direction of the affected trains is obstructed or when it is not known whether any such line is obstructed or not, the Guard shall immediately protect such adjacent line/lines in the manner prescribed in clause (I) above. If it is obvious that an adjacent line/lines on which trains normally run in the opposite direction is obstructed and no line on which trains run in the direction of the affected train is obstructed, he shall proceed ahead to assist and ensure protection of the adjacent line/lines on which trains run in the opposite direction as per clause (ii) above. If, in addition to the line on which train run in the direction of the affected train, any other line on which trains normally run in the opposite direction is also obstructed, the primary duty of the Guard shall be to protect the line on which trains normally run in the direction of the affected train, in the rear, in the manner prescribed in clause (I) above. Only after taking this action he shall proceed ahead to assist and ensure protection of the obstructed adjacent line/lines in front on which trains normally run in the opposite direction.

- (iv) On sections where trains on the adjacent line /lines run in both the directions.

Unless it is obvious that no adjacent line is obstructed, the Loco Pilot shall protect the adjacent line / lines in front and the Guard shall protect the adjacent line / lines in the rear in the manner prescribed in clause (I) above. Only after taking this action shall the Guard proceed ahead to assist and ensure protection of the adjacent line /lines, in front.

- (v) Protection of lines on which the affected train is standing on section of double/multiple lines.

Only after protecting the adjacent line /lines in the manner prescribed in clauses (ii), (iii) and (iv) above, shall the action be taken to protect the line on which the affected train is standing both in front and in the rear.

- (vi) Action to locate and remove the cause of stoppage.

Action to locate and rectify any defect either in the engine or a vehicle or to remove any other obstruction which might have caused the stoppage shall be taken, if practicable, only after having assured that the train has been protected properly in accordance with the procedure laid down above.

(vii) Removal of protection from adjacent lines.

If subsequently, the adjacent line /lines are found to be free of obstruction, the protection may be removed except where it is desired to stop an approaching train to obtain assistance.

- (2) (i) In the case of a train without a Guard, the duties of the Guard, as laid down in this rule, shall devolve on the Loco Pilot or on a railway servant deputed by him.**
- (ii) in the event of any disability of the Loco Pilot, the duties devolving on the Loco Pilot, as laid down in these rules shall devolve on the Guard or on a railway servant deputed by him.**

S.R.6.03(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, the Loco Pilot shall give four short whistles and show a red flag by day and a red light moved up and down, at night, towards the Guard of the train until the Guard acknowledges this signal by repeating it.

In cases other than accidents action as detailed in these rules shall be taken only if the stoppage is likely to exceed 15 minutes in non-automatic signalled territories.

S.R.6.03(2)(a) Whenever the Loco Pilot of an Diesel loco hauled train the Guard experiences sudden jerk/heavy lurch, dropping of vacuum/air pressure etc. or stops due to accident failure, obstruction or other exceptional cause either at stations or in between station on a section with two or more lines or having parallel tracks side by side the Loco Pilot/Guard or the Assistant Loco Pilot in the event of the Loco Pilot himself being unable to do so) shall switch "On" the flasher light to attract the attention of the Loco Pilot of a train approaching from the opposite direction on the adjacent/parallel track. The Loco Pilot/Guard shall, there after, stop the train and find out either by going (himself) or deputing his Assistant Loco Pilot or any other competent railway servant to ascertain if any part of his train is obstructing the adjacent parallel track, due to accidents like derailment, over turn of coaches/wagons etc. The Loco Pilot /Guard shall then take action to protect the line if necessary, by placing detonators as laid down in the General Rules 6.03. The Loco Pilot/Guard shall switch "OFF" the flasher light only after satisfying himself that the adjacent/parallel track is not obstructed and remove the detonators from the adjacent/parallel track.

- (b) The Loco Pilot of the train coming in the opposite direction on the adjacent/parallel track, on seeing the flashing light shall immediately bring his train to stop as near the engine of the train on the other line as possible and find out from the Loco Pilot of the later, the cause of putting on the flashing light. Only after confirming that the line in which he is to proceed is free from obstruction, he shall resume his journey. In case he finds that the line on which he is to proceed is obstructed he shall arrange for the Guard of his train to protect the train in rear as laid down in the General Rules 6.03. However, if the train (coming from the opposite direction) is a light engine or a train without a guard, the duties of the guard shall devolve on the Loco Pilot or on a Railway Servant deputed by him.
- (c) The Guard/Loco Pilot shall first arrange for the protection of any adjacent / parallel line or lines as laid down in the General Rules 6.03 and then only proceed to protect the line on which train is standing.
- (d) After the train has been protected in accordance with General Rules 6.03 the Guard and the Loco Pilot shall proceed towards each other, on the left hand signal of the train (as from the brakevan towards the engine) for consultation. If no railway servant has been sent in order to take his stand at the spot where the three detonators have been placed the guard himself shall after consulting the Loco Pilot proceed to that spot and take his stand there until he is recalled.

- S.R,6.03(3)**
- (a) The Guard shall then, during day, fix one red flag on the side lamp bracket of his brakevan (on the side where it can best be seen from the engine) and , at night, reverse the side lamp (of his brakevan) on that side, to show red towards the engine he shall also ensure that during day, the tail board is in position and, that at night, the tail lamp and side lamps are burning brightly and then arrange to protect the rear of the train, in accordance with Rule 6.03. On seeing the guards stop hand signal, the Loco Pilot shall at once arrange to protect in front on accordance with Rule 6.03
 - (b) 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 brakevan towards engine) for consultation.

- S.R. 6.03 (4)**
- When the whole train is again ready to proceed, the Loco Pilot shall switch off the flasher light and recall the railway servant protecting the train by sounding one long continuous whistle. After the railway servant has returned, the Guard shall give the the signal for starting.

S.R.6.03(5)

Whenever a Loco Pilot is compelled to bring his train to a stand on a steep grade, for any reason and then is unable to haul his train from the place where he has come to stop, he shall invariably back to the bottom of the grade, come to- a dead stop and then attempt to restart. He shall not try to move forward while the train is still moving backward, as this would result in the breakage of couplings. Before restarting, he shall get the signal for starting from the Guard. The Guard shall not give the signal for starting (to the Loco Pilot) until the train has come to dead stop after backing.

6.04**TRAIN 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 Pilot and Guards of such trains by issue of suitable caution orders and shall also ascertain the whereabouts and the condition of the delayed train.

(2)

The action mentioned above shall be taken earlier, should the circumstances so require.

S.R.6.04(1)(a)

On receipt of advice, the Controller shall immediately warn the stations where break-down trains, medical relief vans and medical chests are located to arrange to keep them in readiness to be moved immediately on receipt of further advice and keep himself constantly in touch with the situation thereafter and take such further action as may be necessary.

(b)

The Guards of trains carrying passengers shall, when their trains are delayed in the block section for more than 10 minutes, inform the Controller through portable telephone, the cause and probable duration of the delay.

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 meters in advance of the train, the other end of the train being protected in a similar manner.

S.R.6.05(1)(a) 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 the vacuum/air brake. If such a stoppage happens to be for trains having vehicles with roller bearings on a section with a grade of 1 in 400 or steeper and for trains having vehicles other than roller bearings on a section with a grade of 1 in 100 or steeper, the following additional precautions shall be taken.

- i) On trains carrying passengers, the Guard shall apply the hand brakes in the brakevan and also apply sprags, wedges or scotch blocks as the case may be to the wheels of two vehicles nearer to the descending gradient.
- ii) On Goods trains, hand brakes of at least one third of the wagons on the train or ten wagons behind the engine and five wagons inside the brakevan, which ever is more, shall be pinned down in addition to the application of the Guard's hand brake in the brakevan. Special care shall be taken for the trains with Special type of wagons such as boxes. BOB's, BOXN, BRH, BOLs, CRTs etc. which are fitted with roller bearings while taking the above precautions.
- (b) When the train is expected to start, proper vacuum / Air pressure must be recreated / recharged as the case may be and the vacuum brake! Air pressure must be applied /destroyed, before the sprag, wedges or scotch blocks etc, are removed and / or the hand brakes released. Thereafter, the vacuum / Air brakes may be released to start the train.
- (c) The Loco Pilot himself or in his direction, Assistant Loco Pilot shall be responsible for the application and release of the hand brakes of the wagons behind the train engine. The Guard of the train shall be responsible for similar action. With regard to the wagons inside the brake van.

- d) Considering the condition of the brake power on the train, the Loco Pilot may take additional precautions as mentioned in Sub rule 1 (a) above during the stoppage of his train on section flatter than 1 in 400 or 1 in 100 to avoid runaway.

S.R.6.05(2) Whenever a train is stopped between stations on account of any of the circumstances mentioned in Rule 6.03, the Guard of the train shall, after protecting the train immediately contact the controller on duty through portable telephone (if provided) and take orders from him. If communications with control is not obtainable or if he is not provided with a portable telephone, he shall promptly send a report of the accident in the quickest possible manner to the nearest (accessible) block station or station connected with control. For this purpose, a train coming in the opposite direction of Double line may be stopped and the report sent through the Guard or Loco Pilot of that train; or else, a magneto telephone in a nearby gate lodge connected to the adjacent block station may be used. If it is known report shall be sent to the Station Masters of the block stations at both ends of the block section.

S.R.6.05(3) If the Loco Pilot is present at the site of the accident, he shall be consulted and the report shall be signed by both the Guard and the Loco Pilot. If the Loco Pilot is not present (as in the case of a train parting and the Loco Pilot going away with' the front portion out of sight), the report shall be prepared by the Guard and signed by him alone, the Guard using his judgement and discretion as to what assistance has to be asked for.

S.R.6.05(4) The report shall contain the kilometrage, time and date of the accident and shall give full particulars of the nature of the accident and the kind of relief, if any, required.

S.R.6.05(5) (a) In the absence of facilities on the spot as detailed in S.R.6.05 (2), the report shall be sent by the engine, when the Loco Pilot and his staff can be of no assistance at the spot, or when it is imperative as in the case of injury to passengers calling for prompt medical assistance, that the news of the accident shall be conveyed more speedily than it would be possible to convey it by a messenger on foot. When the engine is detached from the formation in mid- section and despatched with the report; the procedure laid down in Rule 6.09 shall be strictly observed.

(b) As the next alternative, the report shall be sent by the Guard through, a Trackman, if available, the' name and designation of the messenger and the time of despatch of the report being recorded on he report itself. The messenger may be sent by a fast conveyance like jeep, car, bus etc., if

readily available at that time. Otherwise the report shall be carried on foot with the greatest possible speed being passed on from one gang to another till the station is reached. If the Assistant Loco Pilot cannot be spared and no Gangman is available or can be spared, the report shall be sent through any other railway servant; if none is available or can be spared, the report shall be sent through any reliable person, the Guard in consultation with the Loco Pilot, using his judgement and discretion as to who is to be sent according to the nature of the accident and urgency to ensure speedy despatch of the report.

- (c) On the way out, the messenger or the Loco Pilot carrying the report shall inform the Gatekeeper at the level crossings which they pass of the obstruction, and warn them to be prepared for unusual and in the case of Double line, wrong line movement. The messenger shall not stop and wait for the gate man or the Loco Pilot shall not stop and wait for this purpose if the gatekeeper is absent; it shall be clearly understood that no time is lost on this account. The Gatekeepers shall inform the adjacent stations, if telephone communication is provided.

S.R.6.05 (6) The Station Master receiving the report of the Guard and Loco Pilot under Rule 6.05 shall, pending instructions from the Regional Railway Manager, if facilities for furnishing the required assistance and relief are available at his Station, take the initiative and arrange directly for such assistance forthwith, in consultation with the local Mechanical, Electrical and Engineering Officials, without waiting for his superior's orders. The Station Master shall immediately contact the Controller on duty, and also take orders from him.

S.R.6.05(7) (a) The Station Master taking action under S.R.6.05(6) shall, without delay, send a message by telephone detailing the nature of the accident, the arrangements which had already been made for rendering assistance and the kind of relief still required to the Station Masters at the other/both ends of the block section, the Regional Railway Manager and the Area Supervisor.

(b) The stations receiving the message shall, if engine is available, immediately immediately send out the assistance called for and advice, by telephone, the engine-changing station on the other side of the obstructed section, with copy to the other officials mentioned in clause (a) of S.R.6.05 (7). If necessary, relief engine may be sent from the stations on both sides of the obstructed section.

S.R.6.05(8) On receipt of the report, the Station Master shall in addition to taking action under Rules 6.01 and 6.05 and act in accordance with Accident Manual.

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 a authority to proceed or 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.

6.07 REPORT OF CONDITIONS LIKELY TO EFFECT RUNNING OF TRAINS TO CONTROLLER OR CENTRALISED TRAFFIC CONTROL OPERATOR :-

- (1) Loco Pilot , Guards and Station Master shall advise the controller or the Centralized Traffic Control Operator of any known conditions or unusual circumstances likely to effect the safe and proper working of train .
- (2) The Controller or the Centralized Traffic Control Operator , on becoming aware of such defect of failure, shall inform the same to the railway servant responsible for the maintenance of the equipment and other railway servants concerned.

S.R.6.07 (1) In the event of Loco Pilot and / or Guard experiencing any abnormal conditions in the track over which his train has passed and he considers that the portion of the track over which his train has passed is detrimental for safe running of subsequent trains will take action as under.

a) Stop his train at next block station without clearing the block section and inform the Station Master through available means of communication not to permit any train from either end of the affected block section in case of single line and from the rear in case of double line. In case of IBS and automatic block territories the Loco Pilot must inform the station master and Loco pilot pf trains already left station in rear through available means of communication to stop movement of trains.

- b) proceed further only after satisfying himself that the Station Master has clearly understood so as not to permit further movement over the line until a written memo indicating the details of 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 the Station master.
- c) The Station Master on receipt of such 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, Regional Engineer, Chief Controller and Regional Transportation Manager.
- d) Arrange to dispatch by TM/CSM/UNIMATE / RMV/ tower wagon/light engine or in their absence a train accompanied by an engineering official with a caution order to the effect to stop dead sufficiently short of the expected portion of the track. The engineering official accompanying will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train. Advice the condition of the track and any restriction of speed to be imposed to the Station Master personally or through written memo which may be sent through the Loco Pilot.
- e) In the absence of engineering officials the train with a caution order instructing the loco pilot to stop dead before the affected kilometers and after satisfying himself about the condition of track pass over the track in question at 10 kmph or if he finds the line unsafe to pass , return to station in rear. If the Loco pilot is not able to detect any thing doubtful subsequent train shall be dispatched with a speed restriction of 10 kmph 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 become aware of it will stop ovement 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 TMM(CSM/UNIMATE/RMV)/tower wagon / light engine shall be sent to ascertain for the line to be safe for 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 spot by communicating on walkie talkie or other available means of communication and exhibiting danger hand signal;
- (f) On arrival at the next station he shall inform the Station Master through a written memo about the occurrence;
- (g) On receipt of such information the Station Master must take action as per SR 6.07 (1) (c) to (f).

6.08

TRAIN PARTING:-

(1) If any portion of a train should, while in motion, become detached-

- (a)** the Loco Pilot shall use his judgement to keep the front portion in motion if possible, until the rear portion has been brought to a stand so as to avoid the chance of a collision between the two portions; and sound the prescribed code of whistle to inform the guard of the parting.
- (b)** The Guard or Guards in the rear portion shall-
 - (i)** do all they can to prevent a collision with the front portion, and
 - (ii)** promptly apply their hand-brakes where provided, and
- (c)** the Loco Pilot of a banking engine, of 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 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 vehicle 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 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.

- S.R.6.08(1)(a) The prescribed code of whistle in terms of Rul, 6.08(1)(a) that is train parting is one long, one short, one long, on short whistle. The same whistle has to be given by him in acknowledgment of hand signals given by the Guard as an indication that the train has parted.
- (b). The signals of train parting should be shown on the right side, unless the train moves over the portion 'of left hand side curve.
- (c) When Station Master suspects a train parting, he will not give train 'out of section' signal to the station in rear but would give "train divided signal" and also to station in advance and shall Endeavor to attract the attention of Loco Pilot and Guard by shouting and gesticulating. He must endeavor to attract the attention of Guard of rolling down portion by lacing detonators and take measures for dealing with the parted portion.

Station Manager in advance and rear on receiving train 'divided signal" should acknowledge it and take steps to secure the safety of trains vehicles which at their stations and take measures to deal with the parted portion.

- (d) Parted portion can be arrested to bring it to stop either (I) by placing sand, ballast etc. on the track or by (ii) by diverting the parted portion to an unoccupied line which terminates in a sanded dead end or a trap point. (iii) by setting the points for slip or catch siding etc. (iv) by permitting rolling portion into next block section ahead provided it is clear and thereby derailment of the rolling portion can be averted. (v) Station in rear and advance must not allow any train in the sections.
- (e) If the Station Manager is not able to confirm that the parted portion has comes to a stand and it does not reach any station within the running time of slowest goods train plus 30 minutes, it should be assumed that the portion has come to a stand.
- (f) If there is a banking engine, the Guard can take the assistance of the banking engine crew to protect the train in rear.

- S.R.6.08(2)** The Guard shall secure the rear portion by applying the hand brakes of his brakevan and all vehicles on the train if the gradient is steeper than 1 in 400, or the hand brakes of atleast 12 vehicles on the train if the gradient is 1 in 400 or less. Also while protecting the rear portion, the rear of the parted portion shall be protected first and then the front.
- S.R.6.08(3)** When the Loco Pilot is not sure of the parting but has reason to suspect, by the lightness of the pull or the sudden extra acceleration caused or, by other means that his train have parted, he shall at once look back and make sure and if it is known that a parting has actually occurred, the action detailed in Rule 6.08 shall be taken. In absence of flags by day, the Loco Pilot shall indicate parting to the Guard by moving his arm up and down vertically as high and as sow as possible.
- S.R.6.08(4)** Whenever the parted portions stopping within sight of each other are coupled up, the coupling and hose pipe connections shall be checked up jointly by the Guard and Loco Pilot before restarting the train to preclude the possibility of another parting occurring on the further run. If, for any reason, it is found not possible to couple together the two parted portions, the two portions shall be dealt with according to Rule 6.09
- S.R.6.08(5)** Whenever the Loco Pilot reaches the next block station with the parted front portion and shall bring the engine to a stand short of outermost facing points and indicate that the train is incomplete by giving one long, one short, one long, one short whistle. The Station Master shall acknowledge the same by waving red flag by day and a red hand signal lamp by night four times overhead from side to side and shall understand that the train is incomplete and the "Train out of block section" signal shall not be given. The Station Master shall issue the "Authority to proceed without Line Clear" to tile same engine or any other relief engine or train proceeding into the obstructed section to clear the rear portion.
- S.R.6.08(6)** Whenever train partings occur in mid-section, in addition to taking action under Rules 6.08 to clear the block section the Station Master shall arrange to issue suitable Caution Order to the following train. The Loco Pilot of the following train in such cases should report on the conditions of the track such as misalignment or distortion of the track to the Station Master whereupon he shall take necessary action.

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 their in ability 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 subrule (1) and before uncoupling, put down the brake 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 assurance 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(I)
- (a) Whenever a Loco Pilot has to stop his train between stations, in order to divide the train, in consequence of an accident or the inability of the engine to haul the whole train forward, he shall apprise the Guard, by giving four short whistle and then bring his train to a stand on a level portion of the road unless special circumstances render such a procedure unsafe. 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 400, or when the engine has to be detached immediately (as in the case of vehicle being on fire) the Guard shall, whether it is a vacuum/air braked train or not, apply the hand-brake of his brakevan and also the hand brakes of all the vehicles on the train and in addition also insert the wooden wedges, provided for this purpose. hard against the wheels, to prevent the vehicles from rolling back.
 - (b) After protecting the rear portion of the train in accordance with Rule 6.03, the Guard shall proceed towards the engine, on the left hand side of the train (as from the brakevan), for consultation with the Loco Pilot and the Loco Pilot shall also proceed, on the same side of the train towards the brakevan, to meet the Guard.

- S.R.6.09(2)(a)** The Guard shall prepare the written permission in duplicate, and hand over the original to the Loco Pilot and get his signature on the duplicate. The Guard shall before handing over the written authority to the Loco Pilot and sign for it in the Loco Pilot's Rough journal book. The Guard shall also send a written report to the Station Master of the next block station, through the Loco Pilot, giving details of the occurrence and assistance required.
- (b) Written Authority shall not be given by the Guard or accepted by the Loco Pilot, until both have satisfied themselves that the portion of the train to be left behind is properly secured against moving backward or forward. To ensure, this, the brakes acting on the engine and front portion of the train shall be released to prove that the brake power of the rear portion of the train is sufficient to prevent it from moving,
- (c) On the way out, the Loco Pilot shall. warn the Gateman at the leval crossing.
- (d)(i) The Loco Pilot who is taking his engine forward, with or without vehicles. on written authority leaving part of his train behind in the block section, shall, while being admitted by taking "off" of the reception signals, bring his engine to a stand short of the outermost facing points of the station and indicate that his train is incomplete by giving one long, one short; one long, one short whistle.
- (ii) The Station Master shall acknowledge the same by waving a red flag by day and a red hand signal lamp by night four times overhead from side to side and shall understand that the "Train out of block section" signal shall not be given or the "In Report" filled up or signalled. The Loco Pilot shall then move into the station.
- (iii) On arrival at the station, the Loco Pilot shall deliver written authority to the Station Master who shall, ensure that the front portion is complete. The Station Master shall issue the "Authority to proceed without Line Clear" to the same engine or any other relief engine which is to be sent into the obstructed section. The Loco Pilot shall stop his engine when the rear portion is sighted and shall proceed further to attach the engine to the rear portion only on getting hand signals from the Guard.
- (e) After the rear portion has been brought out of the section and the section is clear, a certificate shall be given to the Station Master by the Guard and his acknowledgment obtained.

S.R.6.09(3) Whenever a train after leaving a block station is brought to a stand in the block section without completely clearing the station limits and the engine, with or without vehicles to be detached and taken to the next block station, for any reason:

- (a) The Loco Pilot shall inform the Guard who shall immediately advise the Station Master.
- (b) (i) If it is possible, the whole train shall be moved back towards the station so as to be clear of the block section. The Station Master shall then close the block section.
 - (ii) If it is not possible to move the train back towards the station so as to be clear of the block section, the provision of Rule 6.09 shall be strictly complied with. The Guard shall hand over the written authority to the Loco Pilot only with the permission of the Station Master. The Station Master shall also immediately inform the Station Master at the other end of the block section of the action being taken and both the Station Masters shall record this fact in the Train Signal- Register. If guard is not available, the duties of Guard devolved by the Loco Pilot.

S.R.6.09(4) If the engine of a passenger train is unable to haul the full load, it shall not be divided but it shall remain coupled to the train until an assisting engine arrives. The train shall be protected as per Rule 6.03 and information for relief engine shall be conveyed to the Controller on the portable telephone.

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 instruction.**

S.R.6.10 (1) Should a fire be noticed in a running train the Loco Pilot shall, at once stop the train. If the fire occurs in a passenger carriage, the safety of the passengers shall first be attended to. First Aid shall be rendered to injured passengers. If a postal van or postal carriage is on fire, every effort shall be made to save the mails. Kent Couplers at either end shall be disconnected, electric lights and fans shall be switched off, and the battery fuse and dynamo fuse shall be removed. The vehicles behind the one on fire shall be removed. The vehicles behind the one on fire shall be detached and the front portion of the train moved forward so as to prevent the rear vehicles catching fire. Then the burning vehicle shall be detached and the vehicles in front of it shall then be detached and the vehicles in front of it shall then be moved forward to a safe distance. If the fire occurs in a vestibuled coach, the "Link" holding the fastening lever on both the sides of the vestibule separated by means of handle provided. The coupling of the vehicle shall be unfastened and then the connection shall be disconnected immediately and then the vehicle separated. If circumstances do not permit unfastening the vestibule fittings, immediate action shall be taken to unfasten the couplings beneath the corridor foot plate and an attempt shall be made to separate the vehicles by making the engine pull them apart, thereby tearing off the vestibule. When isolating the vehicle, necessary precautions shall be taken to secure the divided portions stationary by the application of hand brakes, sprags and wedges.

S.R.6.10(2) After isolating the vehicle on fire as above, every effort shall be made to extinguish. If water is procurable at a short distance and if it is considered safe to run the vehicle to that spot, it may be run. Much, however, depends on the contents of the vehicle, the extent of fire when discovered and the liability of other vehicles catching fire also and the Guard and Loco Pilot of the train shall exercise their discretion and judgement in such cases. In such emergencies, the train staff may, if possible, obtain the assistance of the public passing by or living around, to obtain water and generally assist in putting out fire. If all efforts to extinguish the fire prove to be unavailing, the fire shall be connected up and worked under the prescribed rules. If the detention is likely to exceed the prescribed time limit, the train shall be protected as per Rule 6.03.

S.R.6.10(3) In case of fire in a wagon, it shall at once be opened and earth or sand or sods with grass thrown in on the burning goods and such articles as are-not burning saved, if possible after the wagon is isolated from the rest of the train as per Rule 6.10 (I)

S.R.6.10(4) FIRES ON BRIDGES: Loco Pilot noticing bridges, sleepers or any part on 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 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 Loco Pilot shall also report the matter in writing to the Station Master and obtain his acknowledgment.

S.R.6.10(5) Fires of Tunnels : When a fire is noticed in Vehicle/Wagon in a train, it shall be stopped before entering into the tunnel, In the event of fire being noticed inside the tunnel, the train shall be driven through the tunnel as quickly as possible stopped in the open, where rescue operation can be more effective.

6.11

VEHICLES ESCAPING FROM STATION:-

If any vehicle escapes from a station, the Station Master shall take immediate steps to warn the other station or persons concerned, as far as practicable, to prevent and accident

S.R.6.11(a) If an engine or vehicle have escaped from a station, the Station Master shall advise the next station in the direction which they are running.

(b) The Station Master receiving the “vehicles running away” signal or message shall act promptly as follows:-

- i) If his station is on a gradient falling in the direction of the next station to words which the engine or vehicles are running, or if a train is approaching his station from the next station in that direction, whether there is falling gradient or not he shall do everything possible to stop the run way vehicle this shall be done by covering the rails heavily with sand, earth or small broken stones, for as great a distance as possible, before the vehicle comes in sight, and points shall be set for through loop or dead/end siding to received the vehicle, in case it is not stopped by the obstruction on the rails, the trailing points of such loop being set to force the vehicle to trail through them. It is preferable to receive a run way vehicle on a loop to receive it on a dead end siding.
- ii) If no train is approaching with which the vehicle can collide and the line is not on a falling grade, the vehicle may be allowed to run through the station, but a warming shall be sent promptly to the Station Master at the next station, who shall at according to this instructions.
- iii) In all cases, the Station Master shall take in to consideration the circumstances existing at the time and be guided by the state of this yard (i.e.,as to whether the sidings are occupied or not) and plan his action accordingly.
- iv) If the vehicle contain passenger or railway servants, it shall not ordinarily be turned in to a dead-end siding unless it is essential to do so for the purpose of avoiding a more serious accident.

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CHAPTER VII

SYSTEMS OF WORKING

7.01. SYSTEMS OF WORKING :-

- (1) All trains working between stations shall be worked on one of the following systems, namely -
 - (a) the Absolute Block System,
 - (b) the Automatic Block System,
 - (c) the Following Trains System,
 - (d) the Pilot Guard System,
 - (e) the Train-Staff and Ticket System, 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 (i) may be sanctioned under special instructions subject to the conditions applicable to each system as described in these rules.

7.02. APPLICABILITY OF GENERAL RULES REFERRING TO THE WORKING OF SIGNAL AND TRAINS -

All rules referring to the working of signals and train 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 LINE such Line Clear shall not be given unless the line is clear, not only upto the first stop signal at the block station at which such line clear is given, but also for an adequate distance beyond it;
 - (c) ON SINGLE LINE 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) & (c) of sub rule (1) shall not be less than-
 - (a) 400 meters 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 back to 'on' behind the said train

- (c) The line on which it is intended to receive the incoming train is clear upto the Starter; and
- (d) All points have been correctly set and all facing points have been locked for the admission of the train on the said line.

8.03 CONDITIONS FOR GRANTING LINE CLEAR AT A CLASS 'B' STATION:-

- (1) AT A CLASS 'B' STATION ON DOUBLE LINE, the line shall not be considered clear and Line clear shall not be given, unless-
 - (a) the whole of the last preceding train has arrived complete;
 - (b) all necessary signals have been put back to 'on' behind the said train; and
 - (c) the line is clear-
 - (I) AT STATIONS EQUIPPED WITH TWO-ASPECT SIGNALLING-
 - Upto the Home signal, or
 - (II) AT STATIONS EQUIPPED WITH MULTIPLE-ASPECT SIGNALLING OR MODIFIED LOWER QUADRANT SIGNALLING-
 - upto the outermost facing point 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 STATION EQUIPPED WITH TO – ASPECT SIGNALLING –
 - Up to the shunting Limit Board or Advanced Starter (if any) at that end of the station nearest to the expected train,
 - Or
 - Up to home signal if there is no shunting Limit Board Advanced Starter,

Or

Up to the outermost facing points if there is no shunting Limit Board or advanced Starter or Home signal;

(ii) AT STATION EQUIPPED WITH MULTIPLE- ASPECT

SIGNALLING OR MODIFIED LOWER QUADRANT SIGALLING

Up to the shunting Limit Board or Advanced Starter (if any) at the end of the station nearer to the expected train,

Or

Up to 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 signaling, and between the home signal and outer most facing points in multiple aspect signaling, or modify lower quadrant signaling 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 under 8.16.

S.R.8.03(1) To ensure complete arrival of a stopping or a running through train as mentioned in G.R. 8.03 (a) :-

- (i) The Station Master shall personally see the Tail Board by day or Tail light by night on the last vehicle and
- (ii) The Guard in case of stopping train, shall signal complete arrival of train by waving his arm during the day and white light during the night to the Station Master, who may then close the line without waiting for the Guard's signature in "Train Intact Register".
- (iii) At stations where the complete arrival of train cannot be ascertained either by personal observation of Tail Board, Tail lamp or Guard's all right hand signals by the Station Master, 'Train intact Register' shall be sent by the Station Master to the Guard well in time through a Pointsman in uniform Guard shall certify the complete arrival of a train, its standing clear of the fouling marks. Guard shall append his signature in appropriate column against the entry of his train in the "Train Intact Register" which shall have the following columns.

Date	Train No.	Line No.	Time of arrival	Guard's signature in token of the complete arrival of the train inside the fouling marks
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The Pointsman after obtaining signature of the Guard, immediately on arrival of the train in "Train Intact Register" shall exchange allright hand signal with Station Master. Thereafter Station Master shall close back the Section.

S.R. 8.03(2) If the fouling marks in the rear are not clear, the Station Master will take immediate steps to draw the train forward and get the fouling marks cleared. The Station Master shall not allow any movement on the adjacent lines which are infringed until the fouling marks are cleared.

S.R. 8.03 (3) Before obtaining line clear Station Master must examine the Train signal Register and satisfy himself that the block section is clear of Train.

S.R. 8.03 (4) Station Master shall advise the station in rear about the prevalence of thick, foggy, tempestuous weather or dust storm, blank panel/signals at his station, when he is not in a position to see the aspect of signals concerned and shall not grant line clear unless :-

- (i) A competent railway servant is stationed at least 270 m outside the First Stop signal (In case of Single Distant Territory) with instructions to observe the prescribed procedures in G.R. 3.61.
- (ii) The Station Master shall advise the station in rear to issue caution order to the Loco Pilot of all trains to stop dead at the first stop signal and observe its aspects and proceed at a restricted speed of 10 kmph and shall obtained his acknowledgment supported by a Private Number.

8.04 CONDITIONS FOR GRANTING LINE CLEAR AT A CLASS 'C' STATION:-

A CLASS 'C' STATION ON SINGLE LINE OR DOUBLE LINE IN TWO-ASPECT, MULTIPLE-ASPECT OR MODIFIED LOWER QUADRANT SIGNALLING, The line shall not be considered clear and line clear shall not be given, unless:-

- (a) the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is continuing its journey; and
- (b) all signals taken 'off' for the preceding train have been put back to 'on' behind the said train.

Provided that on a single line, the line is also clear of trains running in the opposite direction towards the block hut from the block station at the other end.

C. OBSTRUCTION – DOUBLE LINE

8.05 OBSTRUCTION ON DOUBLE LINE AT A BLOCK STATION WHEN A TRAIN IS APPROACHING :

- (1) **CLASS 'A' STATION :-** When line clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, upto the starter pertaining to the said line.
- (2) **CLASS 'B' STATION :-** When Line Clear has been given, no obstruction shall be permitted outside the station section but shunting within the station section may go on continuously, provided the necessary signals are kept at 'on'.
- (3) When signals have been taken 'off' for an incoming train on 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, upto the Starter which controls the train.

8.08 OBSTRUCTING THE BLOCK SECTION AT A CLASS 'A' STATION ON SINGLE LINE:-

The block section shall not be obstructed for shunting purposes, unless-

- (a) the Station Master has received Line Clear from the Station Master at the other end of 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 order 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 CLASS 'B' STATION ON SINGLE LINE -

The line outside the Home signal in two-aspect signalling territory or outermost facing points in multiple-aspect or modified lower quadrant signalling territory in the direction of a train for which line clear has been given, shall only be obstructed when a Shunting Limit Board or an Advanced Starter is provided and under special instructions which take into consideration the speed, weight and brake power of trains, the gradients, the position of the first stop signal and the distance from which that signal can be seen by the Loco Pilot of an approaching train.

8.10. OBSTRUCTIONS WITHIN STATION SECTION AT A CLASS 'B' STATION ON SINGLE LINE -

- (1) If the necessary signals are kept at 'on', shunting may be carried on within the station section, provided the provisions of Rule 8.09 are complied with for shunting upto Shunting Limit Board or Advanced Starter, where provided.
- (2) When signals have been taken 'off' for an incoming train on to a line which is not isolated, no shunting movement shall be carried on towards the points over which the incoming train will pass.

SR 8.10 (1) When line clear has been given for a train, shunting shall not be carried out Even within station section, in thick, foggy, tempestuous weather or dust storm 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 dead a stand at the signal:

Provided that the line shall not be obstructed under clause (b) in thick, foggy or tempestuous weather impairing visibility, or, in any case unless authorised by special instructions.

8.12. OBSTRUCTION OUTSIDE STATION SECTION AT A CLASS 'B' SINGLE LINE STATION EQUIPPED WITH MANUALLY OPERATED MULTIPLE-ASPECT SIGNALS :-

The line outside the station section and upto the first stop signal shall not be obstructed unless a railway servant specially appointed in this behalf by the station Master is in charge of the operations, and unless the block section into which the shunting is to take place is clear of an approaching train.

S.R. 8.12 (1) Shunting outside the station section upto the Home signal can be performed following a departing train and beyond Home signal after the section has been "Blocked Back". Shunt key shall be handed

over to the Loco Pilot. The Loco Pilot shall keep this key in his personal custody and shall return the same to station master as soon as shunting outside station section is completed.

8.13. OBSTRUCTIONS 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.

C. GENERAL PROVISIONS

8.14 BLOCK BACK OR BLOCK FORWARD :-

Block back or block forward shall be done only in accordance with the procedure prescribed by special instructions.

8.15 AUTHORITY FOR SHUNTING OR OBSTRUCTION IN BLOCK SECTION -

While permitting shunting or obstruction in the block section, the Loco Pilot shall be given authority for shunting in the block section as prescribed under special instructions which authority may be :-

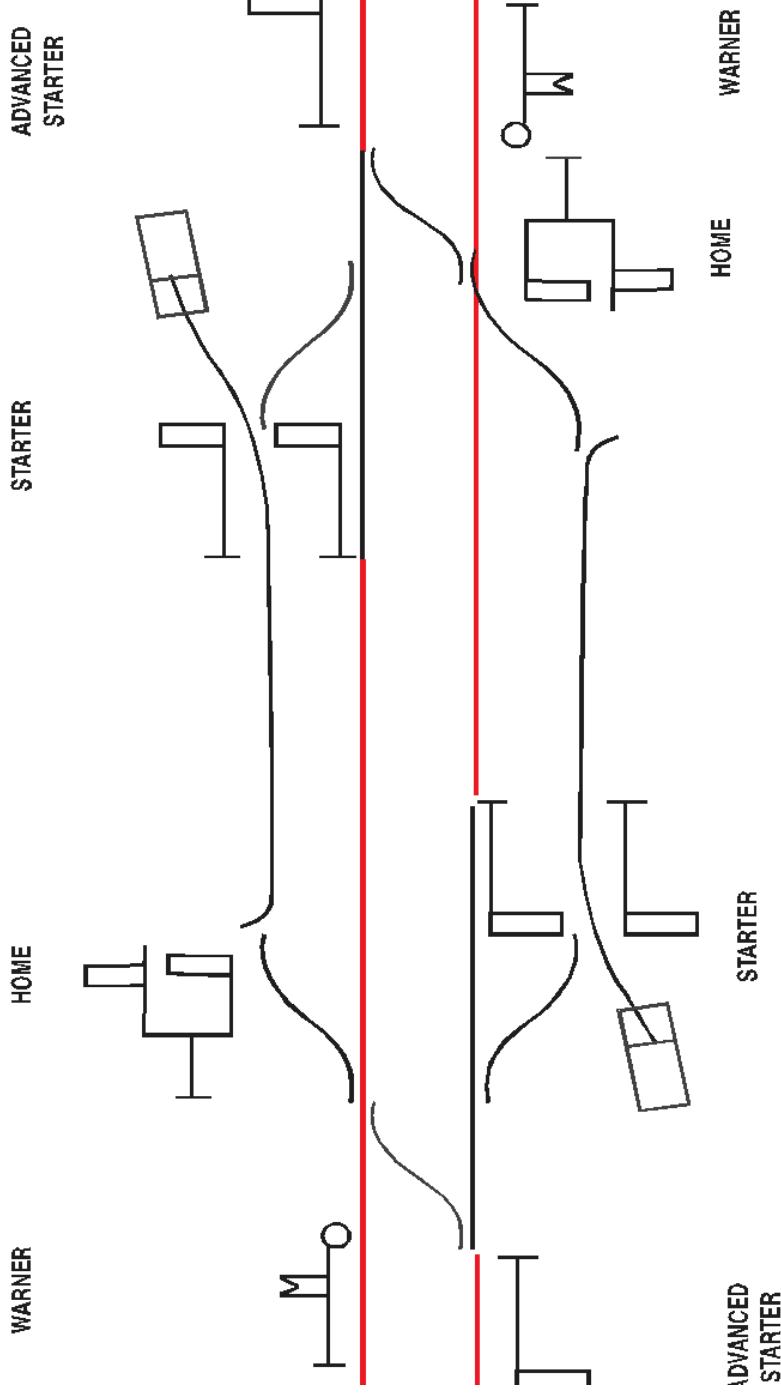
- (a) either a shunting arm of prescribed size and design on the same as and under the Last Stop signal, or
- (b) a token of prescribed design, or
- (c) a written permission to shunt.

S. R. 8.15 (1) In token less block territory worked with push button, the SHUNT KEY' is the authority for the Loco Pilot to perform shunting beyond the Advanced Starter and upto the first stop signal in the opposite direction. When shunting has to be performed beyond the first stop signal (Home) in the opposite direction, the block section shall be blocked back. The Loco Pilot shall be given written authority along with "Shunt Key" for shunting in the block section.

8.16 Illustrated 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.

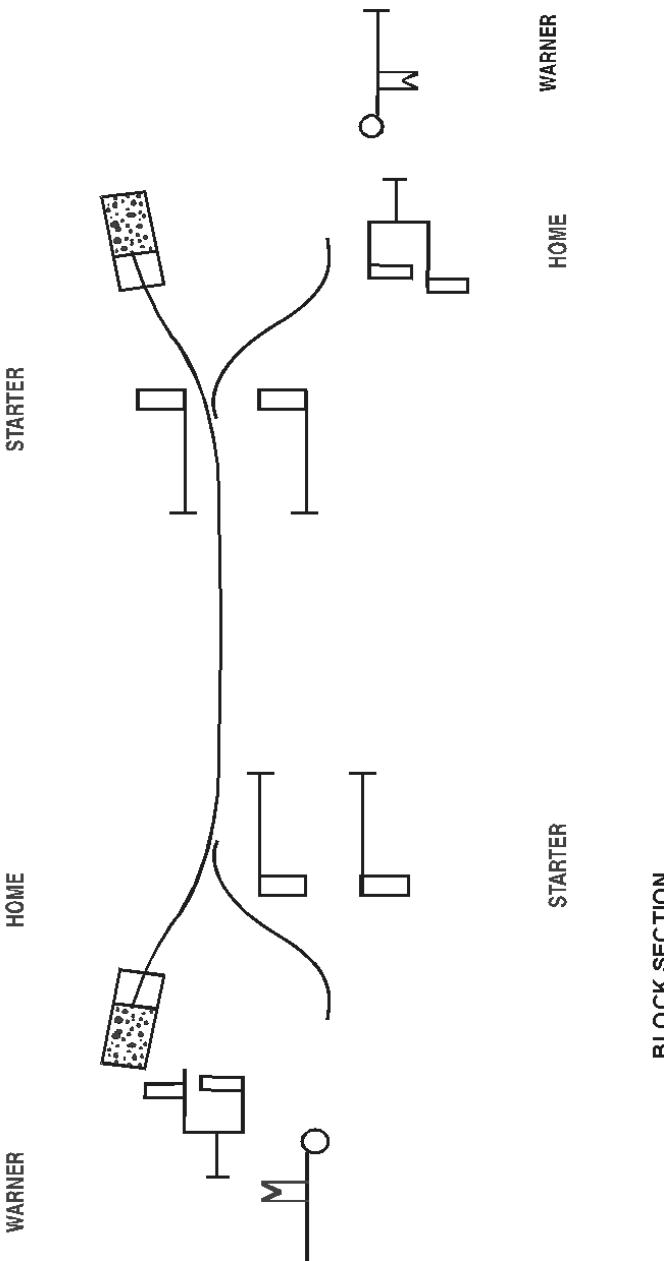
CLASS "A" DOUBLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER, HOME, STARTER AND ADVANCED STARTER SIGNALS

259

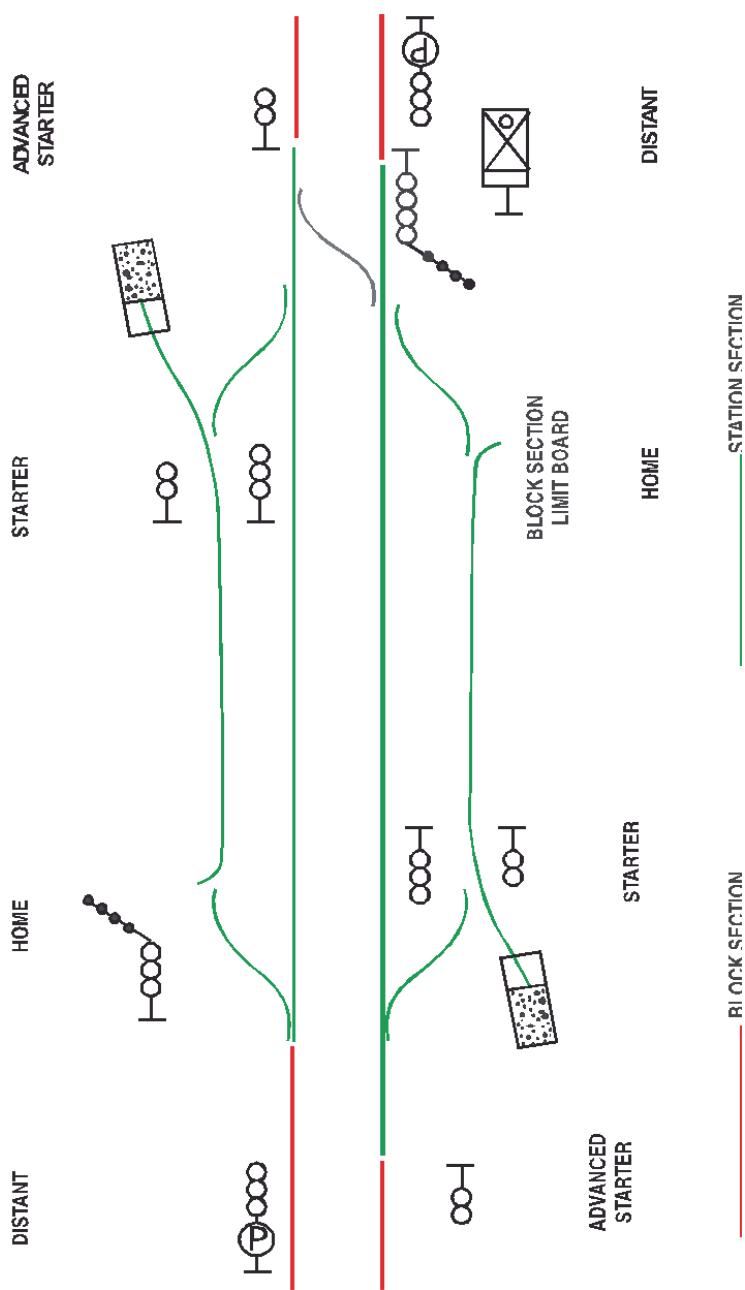


CLASS 'A' SINGLE LINE STATION IN TWO ASPECT SIGNALLING TERRITORY WITH WARNER, HOME AND STARTER SIGNALS

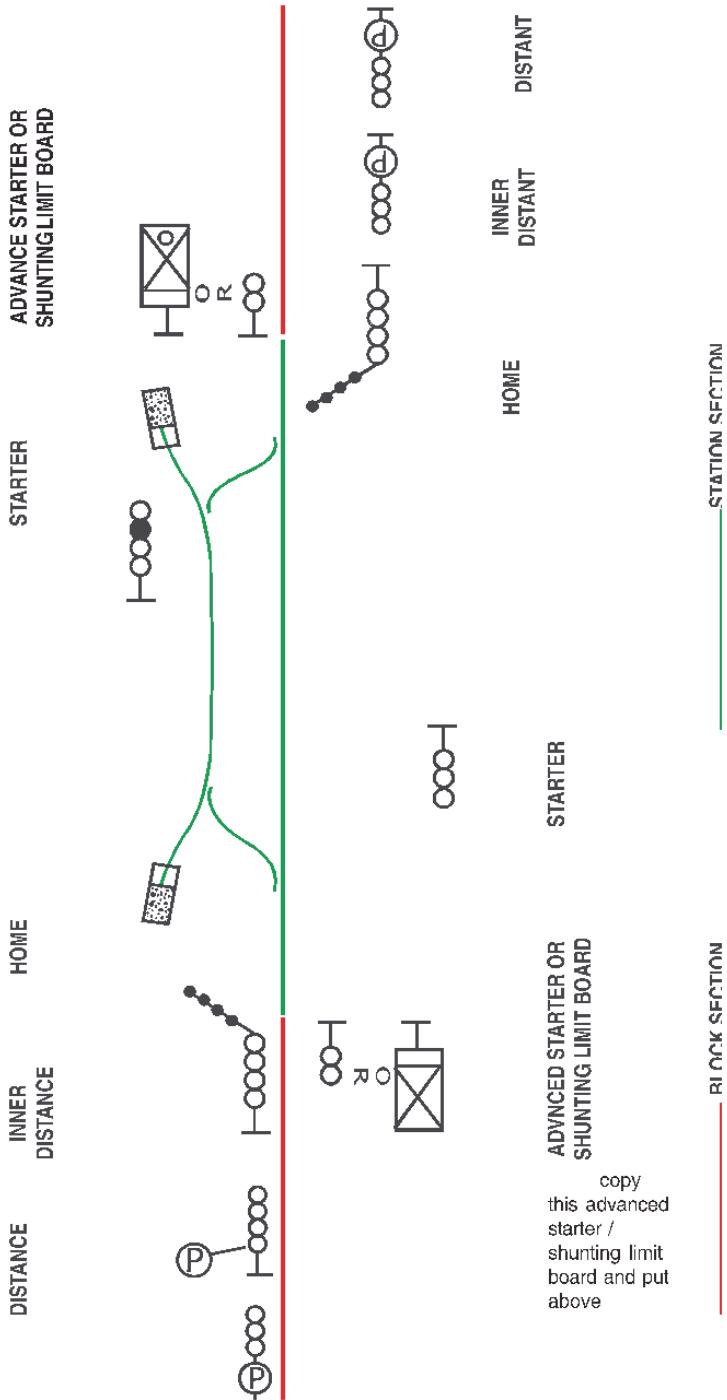
260



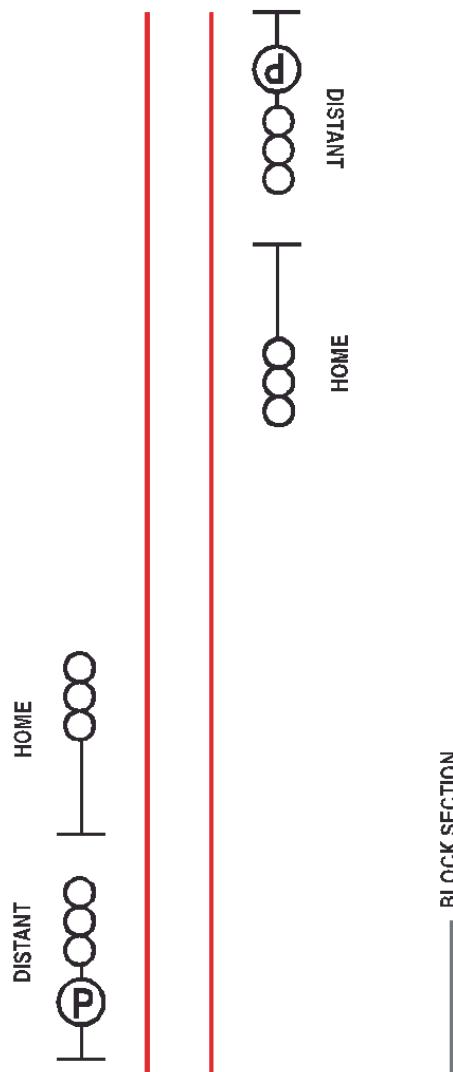
CLASS "B" DOUBLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT HOME,
STARTER, ADVANCED STARTER SIGNALS AND BLOCK SECTION LIMIT BOARD



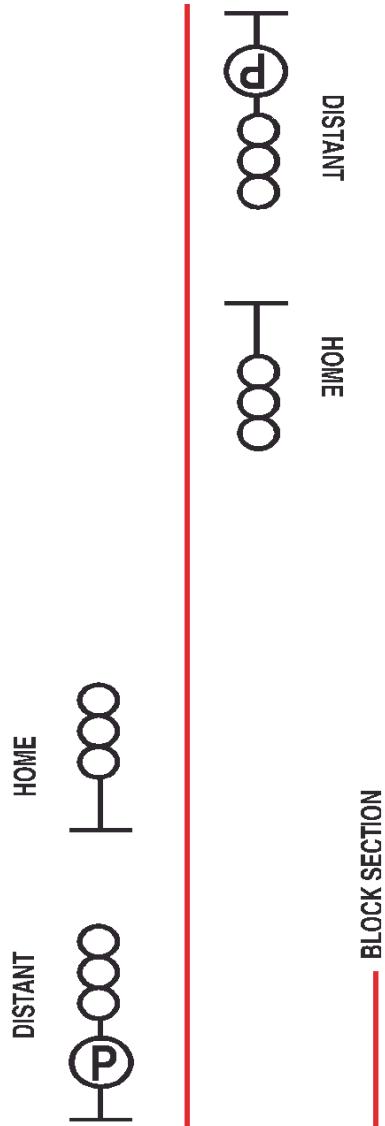
CLASS "B" SINGLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT INNER DISTANT, HOME, STARTER AND ADVANCED STARTER SIGNALS / SHUNTING LIMIT BOARDS



CLASS "C" DOUBLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT
AND HOME SIGNALS



CLASS "C" SINGLE LINE STATION IN MULTIPLE ASPECT SIGNALLING TERRITORY WITH DISTANT AND HOME SIGNALS



CHAPTER IX

THE AUTOMATIC BLOCK SYSTEM

Note: - The sections on which trains are working on Automatic Block System on this Railway, are notified in Working Time Table in force.

1. 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.—
 1. The line shall be provided with continuous track circuiting or axle counters,
 2. The line between two adjacent block stations may, when required, be divided into a series of automatic block signaling 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
 3. The track circuits or axle counters shall so control the Stop signal governing the entry into an automatic block signaling section that: -
 - a) The signal shall not assume an 'OFF' aspect unless the line is clear not only upto the next Stop signal in advance but also for an adequate distance beyond it, and
 - b) The signal is automatically placed to 'ON' as soon as it is passed by the train.
2. Unless otherwise directed by approved special instructions, the adequate distance referred to in sub-clause (i) of clause (c) of sub-rule (1) shall not be less than 120 metres.
3. (a) under special instructions, one of the automatic stop signal between two stations in the automatic block signaling territory in each direction may be made as modified semi-automatic stop signal;
 - (a) 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;
 1. 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; 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;

2. The adequate distance mentioned under clause (c) shall not be less than as prescribed under sub-rule (2);
3. 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;
 - i. The Station Master of the station ahead may authorise the Loco Pilot to pass the mid-section modified semi-automatic stop signal working with ‘A’ marker extinguished in ‘on’ position through approved means of communication after ensuring conditions and procedure prescribed under special instructions;
 - ii. 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
 - iii. The Loco Pilot shall report the failure of mid-section modified semi-automatic stop signal to the Station Master of the station ahead.

9.02 DUTIES OF LOCO PILOT AND GUARD WHEN AN AUTOMATIC STOP SIGNAL ON DOUBLE LINE IS TO BE PASSED AT ‘ON’.—

- (1) When a Loco Pilot finds an Automatic Stop signal with an ‘A’ marker at ‘ON’, he shall bring his train to a stop in rear of the signal. After bringing his train to a stop in the rear of the signal, the Loco Pilot shall wait there for one minute by day and two minutes by night. If after waiting for this period, the signal continues to remain at ‘ON’, he shall give the prescribed code of whistle and exchange signals with the Guard and then proceed ahead, as far as the line is clear, towards the next Stop signal in advance exercising great caution so as to stop short of any obstruction.
- (2) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for in sub-rule (4).
3. Where owing to the curvature of the line, fog, rain or dust storm, engine working the train pushing it, or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10kilometers 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 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 lookout.
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 that signal for any possible obstruction short of the same. He shall proceed cautiously upto that signal and shall act upon its indication only after he has reached it.

SR9.02 (1) The ‘ON’ position of an Automatic signal may be due to the presence of a train in the Automatic signaling section ahead or due to an obstruction on the track of a broken or a displaced rail or any other cause.

After passing Automatic/Permissive Stop signal, Loco Pilot should proceed with great caution at a speed not exceeding 15 Kmph where visibility is good and not exceeding 10 kmph where visibility is not good until the next Stop signal, looking out for any possible obstruction and be prepared to stop short of the same.

While stopping at the Automatic signal at ‘ON’, the Loco Pilot should bring his train to a stop as close as possible in rear of the signal so as to provide sufficient margin for a following train (driven cautiously) to stop clear of the train ahead.

After passing an Automatic Stop Signal at ‘ON’ the Loco Pilot of the following train hauled by any locomotive shall ensure that a minimum distance of 150 metres or two clear OHE spans is maintained between his train and the preceding train or any obstruction on the line. However, the above distance may be reduced to 75 metres or one clear OHE span in the case of an EMU/DEMУ train following. In special circumstances, like floods etc., following train may be pulled closer to the preceding train or the obstruction.

SR 9.02 (2) The signal required to be exchanged between the Loco Pilot and Guard under GR 9.02(1) shall be ‘Proceed’ hand signal in case of other than EMU/DEMУ trains and two pause two rings in the case of EMU/DEMУ trains.

SR 9.02 (3) The Loco Pilot shall use the following code of signals for calling the Guard for assistance: -

EMU/DEMУ – 3 rings/bell signals, to be acknowledged by the Guard by repeating the same signal [serial no. 3 of SR 4.51(1)].

Other than EMU/DEMU – Two long two short whistles to be acknowledged by the Guard by waving red hand signal up and down [serial no. 6 of SR 4.50(1)] .

SR 9.02 (4) The Guard of a train shall watch that the Loco Pilot does not exceed the speed prescribed.

In the case of EMU/DEMU trains if the Loco Pilot exceeds the speed prescribed, the Guard (when not traveling with the Loco Pilot) shall give three pause three rings on the bell code to warn the Loco Pilot and take action as prescribed in GR 4.45.

In case of other trains also if the Loco Pilot exceeds the speed prescribed the Guard shall take action as per GR 4.45.

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.—
1. the line shall be provided with continuous track circuiting or axle counters,
2. the direction of traffic shall be established only after Line Clear has been obtained from the block station in advance.
3. a train shall be started from one block station to another only after the direction of traffic has been established.
4. it shall not be possible to obtain Line Clear unless the line is clear, at the block station from which Line Clear is obtained, not only upto the first Stop signal but also for an adequate distance beyond it,
5. the line between two adjacent block stations may, where required, be divided into two or more automatic block signaling sections by provision of Stop signals,
6. after the direction of traffic has been established, movement of trains into, through and out of each automatic block signaling section shall be controlled by the concerned Automatic Stop signal and the said Automatic Stop signal shall not assume ‘OFF’ position unless the line is clear upto the next Automatic Stop signal:

Provided further that where the next Stop signal is a Manual Stop signal, the line is clear for an adequate distance beyond it, and

7. all Stop signals against the direction of traffic shall be at ‘ON’.
(2) Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses (d) and (f) of sub-rule (1) shall not be less than 180 metres.
(3) (a) under special instructions, one of the automatic stop signal between two stations in the automatic block signaling territory in each direction may be made as modified semi-automatic stop signal;

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;

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;

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;

the adequate distance mentioned under clause (c) shall not be less than as prescribed under sub-rule (2);

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.
 - i. the Station Master of the station ahead may authorise the Loco Pilot to pass the mid-section modified semi-automatic stop signal working with 'A' marker extinguished in 'on' position through approved means of communication after ensuring conditions and procedure prescribed under special instructions;
 - ii. 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
 - iii. the Loco Pilot shall report the failure of mid-section modified semi-automatic stop signal to the Station Master of the station ahead.

9.04 MINIMUM EQUIPMENT OF FIXED SIGNALS IN AUTOMATIC BLOCK TERRITORY ON SINGLE LINE.—The minimum equipment of fixed signals to be provided for each direction shall be as follows.—

- (a) Manual Stop signals at a station
 - (i) a Home,
 - (ii) a Starter,
- (b) An automatic Stop signal in rear of the Home signal of the station

Note: -Under approved special instructions, the Automatic Stop signal may be dispensed with.

9.05 ADDITIONAL FIXED SIGNALS IN AUTOMATIC BLOCK TERRITORY ON SINGLE LINE.—

- (1) Besides the minimum equipment prescribed in Rule 9.04 one or more

additional Automatic Stop signals, as are considered necessary, in between block stations, may be provided.

(2) In addition, such other fixed signals as may be necessary for the safe working of trains may be provided.

9.06 CONDITIONS FOR TAKING 'OFF' MANUAL STOP SIGNALS IN AUTOMATIC BLOCK TERRITORY ON SINGLE LINE.—

- (1) **HOME SIGNAL.**—When a train is approaching a Home signal, otherwise than at a terminal station, the signal shall not be taken 'OFF' unless the line is clear not only upto the Starter but also for an adequate distance beyond it.
- (2) **LAST STOP SIGNAL.**—The Last Stop signal shall not be taken 'OFF' for a train unless the direction of traffic has been established and the line is clear upto the next Automatic Stop signal, or when the next Stop signal is a Manual Stop signal for an adequate distance beyond it.
- (3) The adequate distance referred to in sub-rules (1) and (2) shall never be less than 120 metres and 180 metres respectively unless otherwise directed by approved special instructions. A sand hump of approved design, or subject to the sanction of the Commissioner of Railway Safety, a derailing switch shall be deemed to be an efficient substitute for the adequate distance referred to in sub-rule (1).

9.07 DUTIES OF LOCO PILOT AND GUARD WHEN AN AUTOMATIC STOP SIGNAL ON SINGLE LINE IS TO BE PASSED AT 'ON'.—

- (1) When a Loco Pilot finds an Automatic Stop signal with an 'A' marker at 'ON', he shall bring his train to a stop in rear of that signal and wait there for one minute by day and two minutes by night.
- (2) If after waiting for this period, the signal continues to remain at 'ON', and if telephone communication is provided near the signal, the Loco Pilot shall contact the Station Master of the next block station or the Centralised Traffic Control Operator of the section where Centralised Traffic Control is provided, and obtain his instructions. The Station Master or the Centralised Traffic Control Operator, as the case may be, shall, after ascertaining that there is no train ahead upto the next signal and that it is otherwise safe for the Loco Pilot to proceed so far as is known, give permission to the Loco Pilot to pass the signal in the 'ON' position and proceed upto the next signal, as may be provided under special instructions.
- (3) If no telephone communication is provided near the signal or if the telephone communication provided near the signal is out of order and cannot be made use of, the Loco Pilot shall give the prescribed code of whistle and

exchange signals with the Guard and then proceed past the signal as far as the line is clear, upto the next Stop signal in advance, exercising great caution so as to stop short of any obstruction.

- (4) The Guard shall show a Stop hand signal towards the rear when the train has been so stopped at an Automatic Stop signal, except as provided for under sub-rule (6).
- (5) Where owing to the curvature of the line, fog, rain or dust storm, engine working the train pushing it, or other causes, the line ahead cannot be seen clearly, the Loco Pilot shall proceed at a very slow speed, which shall under no circumstances exceed 10 kilometre an hour. Under these circumstances, the Loco Pilot when not accompanied by an Assistant Loco Pilot, and if he considers it necessary, may seek the assistance of the Guard by giving the prescribed code of whistle.
- (6) When so sent for by the Loco Pilot, the Guard shall accompany him on the engine cab, before he moves forward, to assist the Loco Pilot in keeping a sharp look out.
- (7) When an Automatic Stop signal has been passed at 'ON', the Loco Pilot shall proceed with great caution until the next Stop signal is reached. Even if this signal is 'OFF', the Loco Pilot shall continue to lookout for any possible obstruction short of the same. He shall proceed cautiously upto that signal and shall act upon its indication only after he has reached it.

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.

1. PROTECTION OF A TRAIN STOPPED IN AN AUTOMATIC BLOCK signaling SECTION.—

- (1) When a train is stopped in an Automatic block signaling section, the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tailboard or taillight 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 (A) In case of EMU/DEMUs, the Loco Pilot shall give 4 rings to inform the Guard that he cannot proceed and the Guard shall acknowledge this by repeating four rings.

- i. In case of other than EMU/DEMUs, the Loco Pilot shall sound four short whistles, to be acknowledged by the Guard by waving red hand signal up and down.
- ii. *The Obstruction Danger Signal :*
 - (a) This signal is a danger signal and shall be sent in any case of danger when it is necessary to stop a train entering the signaling section or draw the immediate attention of the next station.
 - (b) It must always be promptly acknowledged and immediate step taken to stop any train entering the section.
- iii. *The Stop and examine signal :*
 - (a) If a Station Master observes anything unusual about a train during its passage through his station, such as its head light or tail lamp/board not burning, a signal of alarm chain by a passenger or any hanging parts or any other unusual which can be dangerous for running trains as laid down in GR- 6.07, he must try to stop the train. If unable to do so, he should immediately give stop and examine signal to the Control Tower/SM Room in advance and inform the Section Controller on duty. He will then without delay communicate to the station in advance explaining why he sent the signal and will also stop any train coming from the station in rear at once.
 - (b) The station in advance must adopt the necessary measures to stop and examine the train, and must also stop any train leaving in the opposite direction in order to instruct the Loco Pilot to proceed cautiously.
 - (c) When it has been certified that the line is free from any obstruction will advise the Station Master at other end of the section by telephone or Control phone and permit the train to

proceed as usual.

IV. *The Train Divided Signal : [SR 6.08(6)] :*

1. The train divided signal must be sent to the Control Tower/SM Room in advance in the event of the Station Master observing that the train has become divided and is running in two or more portions. The Station Master on duty must also endeavour to stop the rear portion and attract the attention of the Guard as soon as the first portion of train as arrived at the Station in advance, the Station Master receiving the ‘train divided signal’ must arrange to take the necessary measures to stop the train and prevent the collision of rear portion with front portion.
2. Should a train become divided in starting and the Loco Pilot run forward with the front portion only, leaving the rear portion stationary the “stop and examine train” signal must be sent to the Station in advance and not the “train divided signal”.
3. In the event of a Station Master observed that the train has become divided, and after ensuring both by visual observation and the illuminated track circuit diagram, that the rear portion has not arrived within the area under his control and view, he must invariably advise that Station in rear of the circumstances on the telephone.
4. When it has been ascertained that the line is free from obstruction, the Station Master will advise the Station at the other end of the section and shall permits the train to proceed as usual.

9.11

LOCO PILOT TO REPORT FAILURES.—

1. **When a Loco Pilot has to pass an Automatic Stop signal at ‘ON’ he shall stop his train at the next reporting station or cabin as prescribed by special instructions and report particulars of Automatic Stop signals passed at ‘ON’ by him.**
2. **The Station Master or person in charge of the reporting station or cabin shall promptly report the fact to the signal and operating officials concerned.**

SR 9.11(1) Whenever any unusual occurrence in the running of train is noticed by Loco Pilot, he shall report the matter to the Station Master of the next station immediately and the later shall advise immediately to the concerned staff and Section Controller. The Station Master shall investigate the affected portion, P/way Officials shall attend the affected portion and train movements shall be carried out according to their instructions.

SR. 9.11 (2) No train will stop out of course for compliance of this rule.

SR. 9.11 (3) *Duty of Loco Pilot and Guard after passing an Automatic Signal at ‘ON’:-*

At the next Station where his train is scheduled to halt the Loco Pilot shall report the number and description of Automatic Stop Signal passed in the ‘ON’ position. Particulars of the signals so reported shall be recorded in the signal failure register maintained at stations by the Station Master concerned and the Section Controller informed. S&T

Staff shall be advised immediately by Station Master on duty.

Such signal failure shall also be recorded in the Control Office to ensure that there is no hold up and failure is promptly attended to.

Whenever any Automatic Signal is passed at 'ON' the Guard shall record in his Train Journal the time of passing the signal at 'ON' and the time of passing the next stop signal, these timings shall be given to control by the Guard at the terminal station. When an Automatic Signal is being passed at 'ON' position, the Loco Pilot and Guard of the train shall be more cautious regarding speed of the train. In case of EMU/DEMU train if Guard finds that speed of train is excess than prescribed speed, he shall warn the Loco pilot by prescribed bell code. All such cases of passing the Automatic Stop Signal at 'ON' together with the timings of passing the two signal shall be recorded in Control Office in Signal Failure Register and this shall be scrutinised daily by the operating officers to ensure that the Loco Pilots do not take less than the minimum running time required for observing the speed restrictions and cautious driving.

The sectional AS, Section Engineer (Signal) and Loco Inspector Inspector shall carry out occasional joint surprise checks on the observance of rules particularly relating to passing the Automatic Signal at 'ON'.

9.12 PROCEDURE DURING FAILURE OF AUTOMATIC SIGNALING.—When a failure of Automatic signaling is likely to last for some time or cause serious delay, trains shall be worked from station-to-station over the section or sections concerned under special instructions.

WHEN THERE IS NO OBSTRUCTION

Rules and regulations for working of trains during failure of the Automatic Block System [Supplements to GR-6.02].

- SR 9.12 (1) *Failure of all signals likely to last for some time and cause serious delay when means of communication are available;*
- i. In the event of failure of all signals occurring in an area consisting of two or more stations worked under Automatic Block System, the officials concerned of the signaling department shall take immediate steps to inform all concerned and the following procedure shall be adopted for train passing:-
 - ii. 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/Controller and the Station Master concerned ahead of the affected section shall also be informed.

- iii. The Station Master on duty at the Station in rear of the affected section shall obtain 'Line Clear' for the train by one of the following means of communication.
 - 1. Track Circuits, Axe Counter,
 - 2. Inter-Cabin/Station Group Telephone,
 - 3. Fixed telephone such as Railway Auto phones and BSNL/MTNL phones.
 - 4. VHF sets
 - 5. Control Phone
- iv. The Station Master on duty at the Station in advance shall not give such 'Line Clear'(as per rule (C) above) unless:-
 - 1. the whole of the last preceding train has arrived;
 - 2. the line on which it is intended to receive, the incoming train is clear at least 180 metres beyond the platform starter or the place at which the trains usually come to a stand, and
 - 3. all points have been correctly set and all facing points locked for the admission of the train on the said line.
- v. The speed of trains thus passing through a section on 'Authority to proceed' on Form No.T/D 912 as given in Annexure 'D' at the end of this chapter as prescribed in Rule (F) below shall not exceed 25 kmph by day when the view is clear and 10 kmph during night or view is obstructed, subject to other speed restrictions in force.
- vi. The Station Master shall give the Loco Pilot and Guard of each trains:-
 - An 'Authority to proceed' on prescribed Form No. T /D 912 and a caution order restricting the speed of all trains as per Rule (E) above. Distinguishing number/numbers of Automatic, Semi-automatic, Manually operated Stop signals and Gate signal/signals required to be passed shall also be indicated on this authority, authorising the Loco Pilot to pass it/them. A Caution Order restricting the speed of all trains as per Rule (E) above, a written memo containing the names of affected stations and reasons should be given to Loco Pilot and Guard of the train.
 - vii. Before handing over the 'Authority to proceed' all the points over which the train will pass shall be correctly set and facing points locked. Whenever any power operated points have to be operated for diverting trains may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at stations where Signal Maintainer is provided.
 - viii. When approaching the next nominated Station, the Loco Pilot of the train shall bring his train to a stand outside the first stop signal and sound one long whistle. The Station Master after satisfying himself that all is safe to receive train by taking 'OFF' signal, if possible, or, will arrange to depute a Competent Railway Servant in proper uniform and issue authority on Form No. T /369(3b) when signal is failed.

- ix. Clearance of the section by each train shall be intimated to the station in rear under a Private Number.
- X. Train Signal Register shall be brought into use and all entries regarding train working recorded there in. Controller shall be kept advised of all train movements taking place in the affected section if possible.
- xi. As soon as the signals are put right by the competent authority, normal working of trains on Automatic Block System may be resumed after exchanging message with Private Numbers by the Station Master on duty concerned, assuring that the section is clear and last train dispatched during the failure has been arrived. Controller's permission if possible should be obtained before resumption of normal working.
- xii. All the records in connection with train working on this system shall be retained at the station and the Area Supervisor of the section must scrutinize them and submit his report to the Regional Traffic Manager within 7 days of the resumption of normal working.

SR 9.12(2) *Failure of all signals likely to last for some time and cause serious delay when no means of communication is available: -*

- (A) In the event of failure of all signals occurring in an area consisting of two or more stations worked under Automatic Block System and when trains can not be worked by any of the following means viz.,
 - (i) Track Circuits, Axle Counter,
 - (ii) Inter-Cabin/Station Group Telephone,
 - (iii) Fixed telephone such as Railway Auto phones and BSNL/MTNL phones.
 - (iv) VHF sets.
 - (v) Control Phone
- (B) *The following procedure shall be adopted for train passing.*
 - (i) The movements of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.
 - (ii) All the points over which the train will run within the affected area shall be correctly set and facing points locked before the movements of any train is authorised over them. Whenever any power operated points have to be operated for diverting trains, these may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at stations where Signal Maintainers are available.
 - (iii) Before any train is allowed to leave the station as prescribed in Rule (B)(i) above, it shall be brought to a stand and the Loco Pilot and Guard of the train shall be advised in written of the circumstances by the Station Master.
 - (iv) *The Station Master shall give the Loco Pilot of each train: -*
 - (a) An 'Authority to proceed without line clear' on the prescribed Form No. T/B 912 as given in Annexure 'B' at the end of this Chapter). The record copy shall be retained by Station Master.
 - (b) A Caution Order restricting the speed of 25 kmph over the straight with clear view and to 8 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 (Further from page no. 451 to 489)

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 dispatched from one section 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 letter have all arrived at his station and until he has received permission to dispatch trains in the opposite direction.
- 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 train being stopped for the purpose, if not booked to stop,
 - (b) the authority to proceed shall state the station at which the train is next to stop, the speed at which it is to run and the actual time of departure of the preceding train,
 - (c) the Loco Pilot and the Guard of each preceding train shall have been informed of the fact that a train will follow, and of the probable period which will elapse before the following train shall start,

- (d) a train shall not follow another from a station unless there has elapsed since the departure of the previous train, an interval of not less than 15 minutes, of 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 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 length of the station interval,

10.04 DELIVERY OF AUTHORITY TO PROCEED TO LOCO PILOT OR GUARD ON THE FOLLOWING TRAINS SYSTEM.

- (1) Every authority to proceed shall be delivered to the Guard or Loco Pilot by the Station Master, or by some railway servant appointed in this behalf under special instructions.
- (2) When such authority to proceed is delivered to the Loco Pilot under sub-rule (1), a duplicate shall be given to 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 the Station Master or by some railway servant appointed in this behalf by special instruction
- (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.

- 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 _____ kilometers an hour.

to the
shall

Signed _____

Station Master at _____

(Station Stamp)

- (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 as been correctly and completely prepared in the form prescribed for the purpose and he shall not proceed with his train until he has done so and the mistake, or omission, if any, has been rectified.
- (3) When an authority to proceed is delivered to the Guard of the train under sub-rule (3) of Rule 10.04., he shall, before it is handed to the Loco Pilot, satisfy himself similarly.

10.07. OBSTRUCTION IN FACE OF APPROACHING TRAIN OR TRAINS ON THE FOLLOWING TRAINS SYSTEM:-

The line shall not be obstructed outside the outermost facing points in face of an approaching train as long as this system of working is in force.

10.08. CESSATION OF WORKING ON THE FOLLOWING TRAINS SYSTEM:-

When it is intended that no more following trains shall be despatched in the same direction, the Station Master shall intimate such intention by a message to the block station in advance, after which no more trains in either direction shall be despatched between the two stations until the last train has arrived at the block station in advance and the line has been cleared between the two stations.

10.09 PROTECTION OF TRAINS ON THE FOLLOWING TRAINS SYSTEM

- (1) When a train is stopped between stations and if the detention exceeds or is likely to exceed five minutes, it shall be protected in accordance with the provisions of Rule 6.03, except that the Guard going back to protect the train shall place on detonator at 250 metres from the train on the way out, 10 metres part, 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 ESSENTIAL OF THE PILOT GUARD SYSTEM:-Where trains are worked on the Pilot Guard System :-

- (a) A railway servant (hereinafter called a Pilot Guard) shall be specially deputed to pilot trains; and
- (b) no train shall leave a station except under the personal authority of the Pilot Guard.

11.02 CONDITIONS TO BE OBSERVED FOR FOLLOWING TRAINS ON THE PILOT GUARD SYSTEM :-

Trains shall not follow one another in the same direction between stations, unless:-

- (a) the Loco Pilot has been properly warned of the time of departure of the preceding train and of the place at which it will next stop;
- (b) all the trains are timed to run at the same speed, and such speed shall not exceed 25 kilometres per hour except under special instructions; and
- (c) an interval of fifteen minutes has elapsed since the departure of the preceding train.

11.03 PILOT GUARD'S DRESS OR BADGE. The Pilot Guard shall be distinguished by a red dress or badge.

11.04 PILOT GUARD TO ACCOMPANY TRAIN OR GIVE AUTHORITY TO PROCEED:-

- (1) No train shall be started from a station unless the Loco Pilot sees that it is accompanied by, or that the authority to proceed is given personally by the Pilot Guard wearing the dress or badge prescribed in Rule 11.03

- (2) **The Pilot Guard shall accompany every train:**

Provided that when it is necessary to start two or more trains from one end of the section before a train has to be started from the other end, the Pilot Guard shall accompany only the last of such trains, and shall personally give the authority to proceed for the preceding trains.

- (3) **When accompanying a train, the Pilot Guard shall ride on the Foot-plate of the engine.**

11.05 PILOT GUARD'S TICKETS :-

- (1) **When the Pilot Guard does not accompany a train, shall deliver to the Guard (or, if there be no Guard, to the Loco Pilot) a Pilot Guard's ticket on a printed form properly filled up and signed in ink, as the authority to proceed.**
- (2) **Every such ticket shall apply only to the single journey to the station named on it.**
- (3) **If the train is in charge of a Guard, he shall, before the train is started, deliver the ticket to the Loco Pilot.**
- (4) **Immediately on the arrival of the train, the Loco Pilot shall deliver the ticket to the Station Master who shall at once cancel it.**

11.06 PROTECTION OF TRAINS ON THE PILOT GUARD SYSTEM:-

In the event of 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 Rules 10.

CHAPTER XII

THE TRAIN – STAFF AND TICKET SYSTEM

12.01. ESSENTIAL 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 the Train-staff stations.

12.03 CONDITIONS TO BE OBSERVED FOR FOLLOWING TRAINS ON THE TRAINS-STAFF AND TICKET SYSTEM :-

Trains shall not follow one another in the same direction between Train-staff stations, unless –

- a) the Loco Pilot has been properly warned of the time of departure of the preceding train and of the place at which it will next stop;
- b) all the trains are timed to run at the same speed, and such speed shall not exceed 25 kilometres per 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 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:- WHEN 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, than subject to the provisions of sub-rule (3), the Train-staff shall be delivered to 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 Train-staff has been returned to the station.

12.09.**TRAIN-STAFF OR TRAIN-STAFF TICKET TO BE GIVEN UP AND TICKET TO BE CANCELLED ON ARRIVAL OF TRAIN:-**

- (1) Upon the arrival of a train at the station to which the Train-staff or a Train-staff Ticket extends the Loco Pilot shall immediately give the Train-staff or Train-staff Ticket to the Station Master, or to some railway servant appointed by special instructions to receive it.
- (2) The person to whom any such Train-staff Ticket is so delivered shall immediately cancel the same.

12.10.**PROCEDURE WHEN ENGINE IS DISABLED ON THE TRAIN-STAFF AND TICKET SYSTEM:-**

- (1) If an engine which carries the Train-staff breaks down between two stations, the Fireman shall take the Train-staff to the Staff-station in the direction when assistance can best be obtained in order that the train-staff may be available at the station for delivery to the Loco Pilot of the assisting engine.
- (2) If an engine which carries the Train-staff breaks down between two stations, assistance shall ordinarily be obtained only from the station at which the Train-staff has been left, but if assistance can more readily be obtained from another station in the opposite direction, immediate steps shall be taken to have the Train-staff transferred to the other end of the section.
- (3) Whenever an engine has broken down between two stations, the Fireman shall accompany the assisting engine to the spot.

12.11**TRAIN-STAFF TICKETS: HOW KEPT:-**

Train-staff tickets shall be kept in a ticket-box provided for the purpose and fastened by an inside spring, the key to open the box being the Train-staff to which the tickets apply.

12.12**TRAIN-STAFF: HOW KEPT:-**

The Train-staff when at a station, shall not be left in the box but shall be kept by the Station Master in safe custody.

12.13. DISTINGUISHING MARKS ON TRAIN-STAFF TICKETS AND BOXES:-

- (1) Each Train-staff shall have shown upon it the name of the Train-staff station at each end of the portion of line to which it applies.
- (2) The Train-staff and Train-staff Tickets and boxes for the different portions of the line shall be distinguished by different colours.
- (3) 'Up' and 'Down' train-staff Tickets shall also have distinguishing marks.

12.14. FORM OF TRAIN-STAFF TICKET:-

Every Train-staff Ticket shall be in the following form-

Ticket No. _____	Railway _____	
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 _____ minutes.		
Signed		
Station Manager at		
(Station Stamp)		

(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 Station Master or other person authorised to receive it, and such person shall immediately cancel it.

12.15 RECORD OF TRAIN-STAFF TICKET ISSUED:-

The Station Master shall keep a record in a book of each Train-staff Tickets issued, showing the number of each ticket and the particular train for which it was issued.

12.16. OBSTRUCTION OUTSIDE THE HOME SIGNAL:-

The line outside the Home signal shall not be obstructed unless the Train-staff of the portion of the line to be obstructed is at the station.

12.17. PROTECTION OF TRAINS ON THE TRAIN-STAFF AND TICKET SYSTEM:-

In the event of a train, which is followed by another train, stopping on the line between stations, the Guard and the Loco Pilot shall take action to protect the train in accordance with the provisions of Rule 10.09.

CHAPTER X111

THE ONE TRAIN ONLY SYSTEM

- 13.01. USE OF THE TRAIN ONLY SYSTEM-** Train may be worked on the One Train Only System, only on short terminal branches on the single line.
 - 13.02 ESSENTIAL OF THE ONE TRAIN ONLY SYSTEM –**Where train are worked on the One train System, Only one train shall be on the section on which this system is in force, at one end the same time.
 - 13.03 AUTHORITY TO ENTRY THE SECTION –** A Loco pilot shall not take his train into section unless he has in possession of the authority to proceed as prescribed by special instruction.
 - 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 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 circumstance the disabled train is situated, or the Loco Pilot of the engine so sent shall be given a written authority, containing such instruction as to where and under what circumstances the disabled train is situated and such other particulars as may be necessary to enter the time 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 return to the base station.
- (4) If there is no Guard of a disabled train, the fireman or the Assistant Loco Polit, or, If necessary, the Loco Pilot shall perform the duties imposed by this rule on the Guard, provide that the engine is not left unmanned in terms of rule 4.20

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CHAPTER XIV

BLOCK WORKING

A. GENRAL PROVISIONS

14.01. MEANS OF GRANTING OR OBTAINING LINE CLEAR:-

The running of every train shall, in its progress from one block station to another, be regulated by means of any one of or a combination of the following:-

- (a) Electrical block instruments of token or tokenless type.
- (b) Track circuits,
- (c) Axle counters, or
- (d) Electrical communication instruments.

14.02 PROVISION OF INSTRUMENTS:-

- (1) Electrical communication instruments shall be provided at very station, except at class 'D' station where they may be provide under special instructions.
- (2) a) The electrical block instruments, where provided, and electrical communication instrument 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(1) Token / tokenless block territory indication Boards :-

To remind Loco Pilot that they should be in possession of token when passing from a section worked by token less block instruments or double line block instruments to a section worked by token instruments, boards with the legend "Token Territory ahead" are provided on the first stop signal of the station where token working commences. Similarly boards with the legend "Tokenless Territory ahead" are provided on the first Stop signal of the station where Tokenless working commences. At junction stations where token and Tokenless territories meet, the first stop Signal at each direction shall carry the appropriate legend with the added information "towards Wherever a change from token to Tokenless territory or vice versa is involved.

S.R. 14.02 (2) System of Working / System of signalling.

Indication Boards ;-

To serve as a guidance to the Loco Pilot that they are passing from one system of working to another, an indication Board with suitable legend shall be provided on the appropriate stop signal. Indication boards with suitable legend shall also be provided on the appropriate stop signal to guide the Loco Pilot that they are passing from one type of signalling to another. (From two aspect signalling to Multiple aspect signalling etc.)

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 effecting repairs, or for any other purpose, except with the previous consent of the Station Master.

**B. BLOCK STATION AT 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 for 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 of such longer period as may be laid down by special instructions.**

S.R.14.04(1) The principal, Zonal training Centre, is responsible for proper training and issue of Block Competency Certificate to staff connected with block working, attending initial/ promotion / refresher and other special courses after necessary tests are conducted by him. Such certificates shall be valid only for a period of 3 years from the date of their issue, and must be revalidated (once in 3 years) by the authorized officials. In such cases, the holder of the Block competency certificate shall advise the transportation Inspector of the selection in writing through the Station Master/Station Superintendent not less than 45 days in advance of the date of expiry and the Transportation Inspector shall renew the same after conducting necessary test. A record of such test with its result shall be made at the back of the original Block Competency Certificate for which suitable columns are provided. The counter signature of the Sr. Regional Operating Officer/ Regional Safety Officer shall also be obtained after such renewal by the transportation Inspector.

The Block Competency Certificate shall be in the personal custody of the staff to whom it is issued (except when it is sent for the counter signature of the Regional Traffic / Safety Officer) and shall be promptly produced for inspection by the officers and the inspecting officials of the Operating and Signal Department.

14.05 BELL CODE:-

For the signaling of trains, the prescribed code of bell signal as detailed below, shall be used, and a copy there of shall be exhibited in each block station near the place of operation of the block working equipment:-

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1.	CALL ATTENTION,OR ATTEND TELEPHONE	0	One stroke 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)TRAINOUT OF BLOCK SECTION (B) OBSTRUCTION REMOVED	0000	Four	Four
5.	(A)CANCEL LAST SIGNAL (B) SIGNAL GIVEN IN ERROR	00000	Five	Five
6.	(A) OBSTRUCTION DANGER SIGNAL (GENERAL) (B) STOP AND EXAMINE TRAIN	000000	Six	Six
	(C) TRAIN PASSED WITHOUT TAIL LAMP OR TAIL BOARD	000000-0	Six pause one	Six pause One
	(D) TRAIN DIVIDED	000000-00	Six pause two	Six pause two
	(E) VEHICLES RUNNING AWAY IN WRONG DIRECTION ON DOUBLE LINE OR IN TO THE BLOCK SECTION ON SINGLE LINE. (F) VEHICLES RUNNING AWAY IN RIGHT DIRECTION ON DOUBLE LINE.	000000-000	Six pause three	Six pause three
		000000-0000	Six pause four	Six pause four
7.	TESTING	000000-00000	Six pause five	Six pause five
		00000000000000	Sixteen	Sixteen

- Note:-**
- (1) '0' INDICATES A STROKE OR A BEAT AND '—' INDICATES A PAUSE.
 - (2) EACH SIGNAL SHALL BE GIVEN SLOWLY AND DISTINCTLY.
 - (3) EXCHANGE OF BELL CODES UNDER REFERENCE NUMBERS 3 AND 4 ARE NOT REQUIRED IN A SECTION PROVIDED WITH BLOCK PROVING AXLE COUNTER OR TRACK CIRCUIT HAVING COMPLETE TRACK CIRCUITING OF STATION YARD EXCLUDING NON-RUNNING LINES ON EITHER END.
- 14.06 ACKNOWLEDGEMENT OF SIGNALS:-**
- (1) Each signal received shall be acknowledged by sending its authorized acknowledgement.
 - (2) No signal shall be acknowledged until it is clearly understood.
 - (3) No signal shall not be deemed to be complete until it is acknowledged.
 - (4) If the station which a signal is send 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 order.
 - (2) All signals received or sent on the electrical block instruments and the timings of receipt and dispatch shall be entered there in, immediately after acknowledgement, by the person operating the block instrument.
 - (3) the timings entered in the register shall be actual timing, 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 eraser 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 there in and for correctly filling in each column thereof.

S.R.14.07 (1) (a) The Station Masters at either end of a block section making an entry for a train in the Train Signal Register shall not break , "off" duty till all entries relating to that train are completed except in the following cases :-

- i) Material train working online.
- ii) Accidents, engine failures, overhead equipment failures, trains working in sidings etc, where reasons for train getting abnormally delayed are well known.

(b) A line shall be drawn across in the Train Signal Register whenever Station Masters change duty. The Station Masters who is going "off" duty shall sign his name legibly and enter the time above the line and the incoming Station Master shall do so below the line.

(c) In exceptional cases cited under clause(a) entries in the Train Signal Register so far made shall be initialed by both the Station Masters. An entry, as under, shall be made, in red ink, immediately below the entry for the train and above the line (see clause (b)) stating the reason. e.g.:

"block section still occupied by train (No. and description)..... Working online"

Both the Station Masters shall sign this entry as required in clause (b).An entry to this effect shall also be made in the Station diary and initialed by both the Station Masters.

14.08. AUTHORITY TO PROCEED:

The Loco Pilot shall not take his train from a block station unless he has been given an authority to proceed –

- (a) On the double line, by the taking 'Off' of the last Stop signal, and
- (b) On the single line, either -
 - (i) by a token for the block section, taken from an electrical block instrument, or

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- (ii) by a line clear ticket duly signed by the station master, or
- (iii) by any document prescribed in this behalf by special instructions, or
- iv) by the taking 'off' of the last stop signal in lieu of tangible authority as mentioned in sub-clauses (i) to (ii) 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 compiled 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.
 - a) that the train has arrived complete, or the cause of blocking the section has been removed, and
 - b) that the conditions under which Line Clear can be given, are complied with.
- (3) The provision of clause (b) of sub-rule (2) may be relaxed at class 'A' single line crossing stations. In such cases, the Station Master shall satisfy himself that the train is standing at its Starter clear of the line on which the second train is to run.
- (4) Where in a section, a block proving Axle counter or continuous Track circuiting between block station and complete Track circuiting of station section, excluding non-running lines of the receiving stations is installed and is functioning and there is a clear indication of clearance of block section as well as complete arrival of the train as per indication given it would be taken as assurance for complete arrival of the train to the Station Master.

14.11 RESPONSIBILITY OF STATION MASTER AS TO AUTHORITY TO PROCEED :-

- (1) An authority to proceed shall not be given to the Loco Pilot until the procedure prescribed for the purpose, so far as it is applicable in the particular case, has been followed.
- (2) An authority to proceed shall not be given to the Loco Pilot except by the Station Master or by some railway servant appointed in this behalf by special instruction .
- (3) the Station Master shall see that the authority to proceed given to a Loco Pilot is accurate and that, when it is 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 Pilots until the whole of the later 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 of 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 out going token is delivered to him ;
 - d. when he receives the token of an incoming train, it is put in the electrical block instruments immediately ; and
 - e. no one except the person authorised by special instructions opens the electrical block instruments .

- (2)
 - a. A token shall not be taken out of an electrical block instrument earlier than necessary and when taken out, its number shall be recorded in the Train Signal Register, and it shall be kept in the personal custody of the Station Master till issued to a loco Pilot or returned to the instrument.
 - b. On arrival of the train at the block station in advance, the Loco pilot shall give up the token in accordance with special instructions and this token shall then be placed in the electrical block instrument at that station.
 - c. If the train has to return to the block station from which it started, the token shall, on such return be replaced in the electrical block instrument from which it was extracted.

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 failed, 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) " Passing of trains when single line block instruments becomes defective:- In the event of failure of the block instruments, trains shall be worked on paper line clear which may be obtained-

- a) by the telephone attached to the block instrument
- b) by station to station fixed telephones wherever available in the event of failure of(a) above;
- c) Fixed telephone such as railway auto phones & BSNL phones in the event of failure of (a) and (b)above;
- d) Control telephone in the event of failure of (a), (b)& (c) above;
- e) VHF sets in the event of failure of (a),(b),(c) and (d) above

Note: Wherever line clear is obtained by any one of the alternative means of communications prescribed above, enquiry and reply books shall be brought into use by the two station masters and the procedure laid down in Chapter V of Block Working Manual for obtaining line clear observed. Paper line clear ticket shall be issued to the loco pilot as his authority to enter the block section.

S.R.14.13 (2) "When line clear is obtained through fixed telephone such as railway auto phones & BSNL phones or indirectly through the controller or on VHF sets the following precautions shall be taken:-

- a) All line clear messages and private numbers, similarly all 'Train Entering Block section' and 'Train out of Block Section' messages shall be conveyed through controller/ station master in contact.
- b) To ensure that reply to the line clear enquiry is emanating from the authorized person competent to grant line clear, train number with their description and private number of three previous trains passed over the block section shall be obtained.
- c) A record of message and private numbers shall be maintained at each station. A record shall also be maintained by the section controller/ station master in contact of the private numbers transmitted through him against such train,"

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 intermediate Block Post shall be deemed to be closed and the section between the stations on either side of the intermediate Block Post shall be treated as one block section.

C. BLOCK STATION AT WHICH ELECTRICAL BLOCK INSTRUMENTS ARE NOT PROVIDED

14.15 TRANSMISSION OF SIGNALS :-

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

14.16 TRAIN SIGNAL REGISTER:-

The Train Signal Register referred to in Rule 14.07 shall also be maintained at block station where block instruments are not provided.

14.17 FORMS FOR MESSAGES AND WRITTEN AUTHORITY TO PROCEED:

- (1) All messages dispatched in connection with the working of trains, and all written authorizes 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 instruction.

14.18. DISTINCTION OF MESSAGES:-

- (1) Every message dispatched in connection with the working of a train shall distinctly describe the train to which it relates.
- (2) For every train, a separate inquiry and reply shall be sent.

14.19 WRITING AND SIGNING OF MESSAGES AND WRITTEN AUTHORITIES TO PROCEED:-

- (1) All messages dispatched in connection with the working of train and all written authorities to proceed, shall be written up in ink and signed by the persons authorized to dispatch or issue the same.
- (2) No message or written authority to proceed shall be written out, either in full or part, or signed, until necessary.

14.20 COMPLETION OF MESSAGES:-

No part of any message shall be dispatched 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 instruction:

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 stating that the train for which the Line Clear has been given is and shall be detained.

14.23. LOCO PILOT TO HAVE AUTHORITY TO PROCEED –

The Loco Pilot shall not take his train from a station unless he has in his possession as his authority to proceed a line clear ticket duly signed by the station master.

14.24. AUTHORITY TO PROCEED: WHEN TO BE GIVEN TO LOCO PILOT –

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

D.LINE CLEAR TICKETS

14.25 LINE CLEAR TICKETS:-

- (1) When owing to failure or non-provision of electrical block instruments, the authority to proceed is a Line Clear Ticket, it shall, except under special instruction be in the following form:

Form No. T/C 1425
Sr. No-----

KONKAN 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 authorised to proceed to ----- station .
 Last train No.----- cleared section at ----- Station.
 Private No.(in words)-----(in figures) -----

AUTHORITY TO PASS SIGNAL AT 'ON' POSITON

*You are authorised to pass Last Stop Signal in danger, when the signal is interlocked with Block instrument.

 Signature of Station Master
 Station Master Stamp

*Strike out whichever is not applicable

KONKAN RAILWAY
PAPER LINE CLEAR TICKET
(Loco Pilot/ Record)

Down

Number of Train ----- Dn (Description) -----

Date-----

Time ----- hours ----- minutes

From Station Master -----

To The Loco Pilot of Train No ----- Down

The line is clear and you authorised to proceed to ----- station .

Last train No.----- cleared section at ----- Station.

Private No.(in words)-----(in figures) -----

AUTHORITY TO PASS SIGNAL AT 'ON' POSITON

*You are authorised to pass Last Stop Signal in 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 to 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.

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 the special instructions to be issued with prior approval of the Railway Board.

CHAPTER – XV
PERMANENT WAY AND WORKS

A. RAILWAY SERVANTS EMPLOYED ON THE PERMANENT WAY OR WORKS

15.01 CONDITION ON 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 of Works shall maintained, and

- (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 actions may be necessary to prevent accidents.

15.03 KEEPING OF MATERIAL :- Each Inspector or 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.

S.R.15.03.(1) Permanent way materials and Tools:- Loose permanent Way Materials and Tool etc. must not be left by the side of the track which may cause obstructions on the permanent way or can be taken away without notice of the in-charge or person deputed by him. The materials and Tools must be collected and stacked properly near gate lodges or JE/P.Way's office and subsequently taken to the stores or staking yards at the earliest where the watchman remains present.

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 the 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 and any other equipment affecting the safety and working of trains shall be inspected regularly in accordance with special instructions.

S.R.15.04 (1) The track Safety Man of each mobile unit must walk over his length of line at least once daily in each direction, examining the permanent way. He must tighten or replace any loose keys or fastenings.

S.R.15.04 (2) If he notices any dangerous condition such as a broken rail etc., he shall at once protect the line, take such prompt action as is possible and report the matter without delay to mobile unit in charge, JE/SE (P.Way) and the nearest Station Master, who shall immediately communicate the same to the JE/SE (P.Way), if the latter is not available at his station.

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 rain, breaches, flood, storm and civil disturbances, the line shall be patrolled in accordance with special instructions.
- (2) When a railway servant deputed to patrol the line notices any conditions likely to effect 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.

S.R.15.05 (1) During the monsoon and stormy weather, special arrangements, as detailed in the following paragraphs, shall be made to patrol the line at night. The Regional Engineers shall decide, from the state of the weather and from any forecast from the Meteorological office and from reports of ways and Irrigation department that may be communicated to them, as to when it is necessary to put on the patrol.

- S.R.15.05 (2)** Emergency patrols may be put on, on particular lengths, or taken off at any time, by the Regional Engineer, the Assistant Engineer, the JE/SE (P.Way), or the mobile unit in charge. Whenever an emergency patrol is put on, the Station Managers throughout the length patrolled shall be advised.
- S.R.15.05 (3)** JE/SE (P.Way), however, shall not hesitate to order the mobile unit out if they receive heavy rain fall warning or if there is a sudden cloud burst at a time when the regular patrols are not operating and also to introduce emergency patrolling.

The mobile unit in charge of the respective mobile unit lengths should introduce such patrolling immediately whenever heavy thunder Showers occurred or anticipated in the respective mobile unit lengths. Deep cuttings where boulders are likely to roll down, unstable cuttings where slips are likely to occur and bridges which are prone to flooding and scouring should receive special attention, The patrolling so introduced may be discontinued only after the Assistant Engineer of the section is satisfied of the total cessation of adverse conditions.

S.R.15.05(4) Security Patrolling :-

On the apprehension of a civil disturbance or due to any other causes, the Senior Regional Engineer/ Regional Engineer shall, on receipt of advance, arrange for security patrolling of the line.

S.R.15.05 (5) A. MANSOON PATROLLING

- i) For block section patrolling and vulnerable location watchman, the Sr.REN shall prescribe the period of year when normal monsoon patrolling is to be done latest by 1st june of the year. Monsoon patrolling as per IRPWM should be started on these notified sections on the dates specified. If the local conditions warrant, SSE/SE/JE (P.Way) of the section concerned may introduce or continue night patrolling outside the stipulated dates, duly advising all concerned. Only trackman should be posted for monsoon patrolling & vulnerable location watchman.
- ii) Competent trackman shall be posted for monsoon patrolling & vulnerable location. No Contractor's labour shall be posted as vulnerable location watchman/block section patrol man. However in case of emergency, trainee contractor's patrolman can be deputed for a short time with the approval of RRM/CE & normally this will be avoided and will be deputed during emergency only. Patrolman shall be intelligent, trust worthy and trained in petrol duties

and track protection, able to speak minimum Hindi or Marathi or Konkani or Kannada (Regional language of state where vulnerable spot situated) and medically fit in A3 category certified by Railway Doctor. Sectional AEN/SENs to ensure these before posting them as patrol man.

- iii) Watchman posted at each vulnerable location shall be supplied with details of the vulnerable location location (km, length and type of vulnerability, etc.) P.N. Book, Safety Equipments like two H.S. lamp /tri_colour torch, 10 detonators in a case, two red flashing hand signal lamps, emergency field telephone, Waterproof wrist watch, whistle, full monsoon protective clothing wear, Reflective jacket and a number plate bearing the beat number. The beat number will be same as vulnerable location number/serial number of beat, starting from Roha end.
- iv) In his beat, the watchman should walk max. 500 m from one end to the other and back. During patrolling his beat the watchman shall keep a constant watch on the vulnerable spot, any unusual condition in his beat such as boulder fall / soil slip / subsidences / sign of erosion/ sign of settlement of embankment/fallen tree obstructing path/Weld failures. The watchman can take rest for half an hour at specified time in the patrolling chart when there is more gap between two trains, at a spot from which good visibility of the vulnerable spot is available. Shelters for this purpose shall be provided at suitable locations. The patrolling for two and half hours and rest for half hour will be carried out in succession.
- v) All nominated patrolman shall be trained in the procedure of patrolling, exchanging patrol book with SMs of nominated stations and safety rules for protection of affected or likely to affected portion of track. The training will be imparted jointly by Sectional AEN/SENs, AEN/Safety, Safety Counselors, Sectional Section Engineers of P-Way and S&T and Area Supervisors of section.
- vi) Patrol chart to be prepared by sectional AEN/AENs and laminated copy to be available with patrolman. Rest of 30 minutes be selected in such a way that there shall not be any train in block section during his rest and patrolling shall start well in advance and cover the beat before scheduled arrival of train at the spot. Patrolmen shall patrol the beat as per the patrol chart issued to them.
- vii) On sighting a train passing his beat, the patrolman shall sound the whistle and display his number plate, (focusing the torch light during night) on it so as to be visible to the loco pilot and guard.
- viii) On passing of a train, the patrol man shall show his beat board and stand at safe distance away from track, Trolley / Man refugees, on side of inside of curves on curved track etc.

- ix) While taking over the charge, every Patrolmen shall check the equipments available with them, whether they are complete and in good working order. Battery cell, bulb, and other consumables should be supplied to patrolman regularly and there should not be any shortage or non-availability at the spot.
- x) PWSs/JEs/SEs/SSEs & AEN/SENs should check the safety and other equipments and record the patrolman and monitor the patrolling regularly especially during night in Safety Rules, equipments supplied to them, petrol book etc. and ensure that there is no discrepancy in any way.
- xi) Patrolman has to record his location (km post) and time while passing any train in his beat.
- xii) If a keyman/watchman/Patrolman reports malfunctioning of any emergency telephone socket from his beat, the same should be attended by the S&T personnel immediately, and same to be informed to Central Control.

(B) STATIONARY WATCHMAN OF VULNERABLE LOCATIONS.

- i) List of vulnerable locations as approved by Sr.REN (showing Km post, from & to, length of vulnerability, Block section and nature of vulnerability) should be circulated by the concerned Sr.REN/RENs to all Engineering field staff. i.e. JEs/SEs/SSEs/AENs.
- ii) A list of vulnerable location and name of watchman, shift wise (07:00hrs to 19:00 hrs and 19:00 hrs to 07.00 hrs or shift timings as decided by Sr.REN/AEN concerned) with their Rest Giver for each spot of vulnerable location should be issued by the sectional AENs to the Station Manager of concerned adjoining block sections and copy given to central control and crew lobby. Changes, if any, in the vulnerable spots should be promptly communicated to all persons concerned officials.
- iii) Day and night shift watchman at each vulnerable spot will use same set of P.N. Book and other safety equipments and emergency telephone etc. by handing over/taking over charge at the time of exchanging their duties.

- iv) No watchman should leave the vulnerable location, unless his reliever comes on duty and charge is handed over to him. While exchanging duty, any abnormal situation should be explained to the incoming patrolman. In case the reliever does not turn up, the patrolman on duty should inform the SM of the nearer station who will in turn inform the PWS/JE/SE/SSE (P.Way) to make alternative arrangement.
- v) Each watchman should exchange private number with SM of adjoining nominated stations every 2 hrs., apprising position at site and necessary entries should be made clearly in the P.N. Book provided with him. Exchange of P.N. will be an indication of the line being safe for train running till that time. In order to avoid the number of watchman coming on emergency telephone at the same time from the same block section, Sr.REN would stagger the time of reporting of watchman by 10 minutes each. Each watchman and the corresponding Station Master will be provided with such detail of time at which the PN number is to be exchanged.
- vi) If patrolman/stationery watchman does not report or does not exchange private Number within 15 minutes of stipulated time limit with the concerned SM, then a Caution Order "proceed cautiously with maximum speed of 30 kmph within the beat of that vulnerable location" will be issued by SM to the next train entering into that Block section, advising the loco pilot to be cautious and report at next station regarding presence of watchman or unusual occurrence as the case may be. Simultaneously Conrol & SSE/SE/JE/PWS (P.Way) concerned should be advise. If the watchman resumes the exchange of private numbers, the sub sequential trains can move normally/with caution in force.

(C) SECTION PATROLLING

1. Block section patrolling from sun set to sun rise as per IRPWM 1986 has been introduced over Konkan Railway. The block sections which are normally to be patrolled during monsoon will be identified and notified by the respective Sr.RENs.
2. Preparation of Patrol Chart –
The Sr.REN will prepare patrol charts for each of the sections where monsoon patrolling is required to be done taking into consideration the train timings of the time table in force during this period. The principles governing the preparation of petrol charts shall be –
 - a. All sectional patrolling will be carried out by one patrolman and shall be a competent railway trackman.

- b. All trains carrying passenger between sunset and sunrise get the maximum protection possible.
 - c. As far as possible each block section will be treated as a unit and length will be divided into equal beats. The length of each patrol beat should not normally exceed 5 km. as per Para 1004 of IRPWM. Where block section is more than 10 km an intermediate flag section, if any, or any other suitable points may be fixed as intermediate station to keep length of beat at about 5 km.
 - d. The walking speed of patrolmen may be 3 km per hour.
 - e. Maximum distance covered by a patrolmen should not normally exceed 20 km in a night.
 - f. A period of at least $\frac{1}{2}$ hour rest is desirable between consecutive beats.
 - g. For giving better protection to all passenger trains, between sun-set and sun-rise it would be advantageous to plot the scheduled path of all passenger trains and then plot the patrol movement in such a way, so as to minimise the time interval between patrolling of beat and passage of train.
 - h. A patrol chart should show all vulnerable locations where stationary watchman are posted
3. Distribution of Patrol charts -

Before commencement of the monsoon, requisite number of copies of a patrol chart should be supplied by the SR.REN to the Engineering Staff concerned and other branch officers for distribution to SMs, LIs, Lobby, etc. The LI will acquaint loco pilots of passenger trains, when they may expect to pass patrolmen, if running to time. By inviting loco pilots to look out for a patrolling, an immediate and practical means of supervising the patrolmen is introduced. The task dispatching Patrolman at the night time and signing their patrol book when they arrive at or depart from a station devolves upon the station master.

4. Petrol Books and Systematic patrolling – A patrol book containing sufficient number of pages should be supplied to each patrolman. The book shall be serially numbered to correspond with the number of petrol on each section. The first page of the book shall contain the name of patrolmen, kilometer of petrol section and its number. The remaining pages will contain columns for date, station/km, time of arrival and departure and signature of station master/Adjoining patrolmen. Patrolmen shall be on duty at the time specified for each in the petrol chart.
5. The patrolman whose beat commences/ terminates at a station shall present the petrol book in his possession to the station master who will enter therein the time of arrival and departure and sign the book. The station master will also record the time of arrival and departure in his diary /TSR. The patrolman shall then petrol his length specified at the end of which, he will exchange his petrol book with that of the next patrolman and retrace his beat. The patrolman whose beat commences/terminates at a specified km shall present the petrol book in his possession to the next patrolman who will enter there in the time of arrival and departure and sign and exchange the book. The intermediate patrols do like wise. In this way each petrol book will be conveyed from one station to the other and back again. Owing to close proximity of stations, patrol books may be passed through one or more intermediate stations before it is returned to the original station.
6. If a patrolman on arrival at the end of his beat does not find patrolmen to take over his book within stipulated time, he must proceed ahead for 15 minute to meet him. If he do not find the next patrolman he will report the matter to SM on EFT phone stating completion of his beat patrolled and SM in turn report the matter to Engineering officials concerned.
7. If a patrolmen who is due to arrive at a station does not turn up within 15 minutes from the stipulated time or after getting report from the patrolmen through EFT indicating the absence of next patrolman, the SM shall issue a caution order of 30 kmph to the train entering into the affected block section for remaining portion (beat) for which the nominated patrolmen has not patrolled. The same shall be advised to the station master at the other end of the block section for the similar action. This caution order of 30 KMPH shall continued in the affected beat length till the beat is patrolled.

8. Station Master will see that the men come on duty sober and fully equipped and that they leave for their patrol duty in time.

SR 15.05 (6) – Action to be taken by patrolman in various cases –

1. In case of Normal condition –
 - i) On sighting a train passing his beat, the patrolman should sound the whistle and display his number plate.
2. In case of abnormal condition if patrolman notices any unsafe condition for train, he will take action as under-
 - i) He shall place Red H.S. Flag/Lamp, 30 M away from the obstruction, in the direction from which the train is NOT expected to arrive first.
 - ii) He shall then proceed in the direction from which a train is expected first, exhibiting a Red H.S. Flag/lamp place one detonator at 600 metre and 3 detonators, 10 metre apart at 1200 metre distance from the obstruction.
 - iii) He shall then return to the place of obstruction picking up intermittent detonator placed at 600 metres and proceed to the other side and protect it with placing detonator in similar way.
 - iv) If he notices any train approaching before he could protect the line on that side as laid down above with one or three detonators, he shall immediately place on the prescribed safe distance, but exhibiting a stop hand signal towards the approaching train and should remain at least 45 metre away from the last detonator and towards the approaching train.

- v) As soon as he has protected the line as above he shall return to the point of danger and inform the concerned Station Master of adjoining station and controller on emergency telephone.

NOTE :- If emergency socket is available nearby the place of obstruction and is in working condition, the patrolman should place Red hand Signal 30 meter away on both side of obstruction, and inform the concerned Station Master promptly so that the Station Master can stop the train from entering the section or if train has already entered then the patrolman can protect the train first on that direction for ensuring the safety of the train.

SR 15.05(6)(3) In the case of abnormal condition at locations where two patrolmen are employed :-

- i) Both the patrolmen shall proceed in the opposite directions of obstruction showing danger signal (Red HS flag during day/Red HS lamp during night) and place one detonator at 600m and 3 detonators 10 m apart at 1200m distance from the obstruction.
- ii) As soon as he has protected the line as above. He shall inform the Station Master through emergency phone the unusual indicating the km and details of unusual.
- iii) If he notices any train approaching before he could protect the line completely, he should exhibit the stop H S flag/red flashing hand signal lamp and remain at least 45 m away from the last detonator.

SR 15.05(7) - Duties of Patrolmen/Watchmen –

- i) Monsoon/Vulnerable locations/Tunnel patrolling shall be carried out as per the instruction and petrol chart issued by Sr. REN and system of patrolling as given in SR 15.05 (5) above.
- ii) While patrolling along the track, he shall carefully watch the banks, cuttings, tunnels, track and bridges and their approaches and lookout for any danger to track. He shall apprehend danger to the line when –
 - (a) Subsidence, slips, signs of erosion, loose boulder.
 - (b) Sinkage, washout, breaches, flooding and obstruction of boulder fall on line.
 - (c) The water level on one side of the embankment is at a much higher level than the other side.

- d) Any obstruction such as a fallen tree is blocking the water way of a bridge.
- e) A river is flowing at high velocity/danger level etc.
- (iii) If he notices any condition likely to effect the safety of trains or increase doubt, the patrolmen or stationary watchman shall be prepared to stop trains in the manner detailed in **SR 15.05 (6)(2)**.
- (iv) To show his presence or alertness, promptly on sighting a train passing his beat, the patrolman should sound his whistle and display his number plate, focusing the lamp/torch light on it so as to be visible to the Loco pilot and guard.
- (v) No patrolman/watchman should leave the site of his beat, unless his reliever comes on duty and charge his handed over to him. In case the reliever does not turn up, the patrolman on duty should inform the Station Master of nearest station to make alternative arrangements. While exchanging duty, any abnormal situation should be explained to the incoming patrolman, check the equipments available with them, whether they are complete and in good working condition and shortage of consumable if any he will write in his diary and inform to concerned Engineering official for re-coupmment through Station Manager.

SR15.05(8) – Duties of Station Manager –

- i) On duty Station Master should exchange private number with nominated patrolmen of nominated location at nominated time when he contacts for the same on E/Phone and get ascertained from him the safe position of the location or unusual if any,
- ii) When patrolman/stationery watchman does not report or does not exchange Private Number within 15 minutes of the stipulated time limit.
- (a) “The concerned Station Master should issue caution order to the Loco Pilot of the train entering into the concerned Block Section as under –

Proceed cautiously with not more than 30 kmph from KM _____ to km _____ between station _____ and station _____ patrolman not reported. Report position at next station in writing _____ date _____

- b) He should also inform to the Station Master at other end of block section for similar action , under exchange of private number.
- c) when the patrolman\ stationary watchman starts the exchange of private number subsequent normal train working will be resumed after cancellation of issue of caution order from both end of the block section and shall be dispensed with exchange of private number and giving information to control and other concerned officials.
- d) Simultaneously control and SE\JE (P.way) concerned should be advised.
- iii) If any patrolman does not turn up for a duty or does any irregularity of any patrolman/station watchman report any deficiency or defective or missing of any safety equipment or malfunctioning of any emergency Telephone Socket etc. Station Master should inform to the concerned Engg. Officials about the same for taking necessary action.
- iv) If any patrolman reports any unsafe condition to traffic, the Station Master should immediately stop the trains entering the section and also inform to the Station Master at the other end of the block section for similar action and inform to the control and other concerned officials.

SR 15.05(9) - Duties of Loco Pilots -

- When caution order is issued due to patrolman / stationary watchman not reporting to concerned Station Master within the stipulated time limit
- (i) " The loco pilot should proceed cautiously with maximum speed of 30 kmph within the given location of concerned patrol beat as per the caution order issued to him by concerned Station Master."
 - (ii) He should watch for any obstruction at that location and be prepared to stop his train if required.
 - (iii) He should also lookout for the availability of patrolman /stationary watchman or any abnormality at that particular location and report the position to the Station Master of the next station in writing.

SR15.05(10) Duties of Engineering official incharge of unit/section –

- i) List of identified vulnerable location to be patrolled during monsoon and list of patrolman/stationery watchman with their rest Giver and duty cycle along with their movement (patrol) chart should be made available to patrolman/stationary watchman, Section master, crew lobby and control.
- ii) it is to be ensured by concerned SSE/SE/JE that
 - a). All patrolling staff are trained in their patrolling duty safety rule, use of safety equipments exchanging Private number etc.
 - b). Supplied with all required safety equipments, field telephone and monsoon protective clothing etc.
 - c). They should know their patrol beat (km/chainage) and type of vulnerability at that location.
- iii) The Sectional SSE/SE/JE should inspect the section and regularly check the staff working in the section for their knowledge in Safety Rules and their alertness. He should also check equipments and telephone etc.
- iv) The SSE/SE/JE(P.Way) should make necessary reliving arrangement for patrolling staff When concerned reliever is not turned up for duty.
- v). If telephone or socket is not working, prompt action should be taken to get it repaired from S&T staff.
- vi). The SE/JE/(P. Way) shall see that the patrolmen thoroughly understand their duties and report for duty at the prescribed time and shall arrange for substitute whenever necessary.
- vii). In case of any unusual or any danger is reported the concerned sectional Engg. official should promptly rush to the site and do all they can to restore the traffic as early as possible.

S.R.15.05(11) High flood level and danger marks on bridges

- (a) At every bridge, a high flood level mark shall be prominently painted in white colour. Similarly a prominent mark in red denoting the danger level as assessed by the Regional Engineers should also be marked on the bridge. When the water level rises, over the Danger level mark, the patrolman or stationary watchman, if any, posted at the bridge must be prepared to stop the trains. He must protect at once both sides of the bridge adequately and should proceed to the nearest station and inform the occurrence to the Station Manager and return the bridge side after doing so. The Station Manager must arrange to communicate the same immediately to the adjacent Station Manager, the APWS/PWS, and JE/SE (P.Way) and his assistants, Pending the arrival of the JE/SE (P.Way) or his assistants, the bridge must be protected and all trains stopped until the water level has fallen below the Danger level mark without any adverse effect on the bridge. The JE/SE (P.Way) will immediately proceed on receipt of advice to such spots and allow the trains to pass over the bridge after satisfying that the track and the bridge are safe by examining the conditions of the bridge, approaches and by taking soundings and probing, before he decides that the bridge is safe.
- (b) The Station manager receiving information of a high flood at a bridge shall inform the Station Manager at the other end of the block section in which the bridge is situated and obtain an acknowledgement. Both Station Managers shall issue Caution Orders to the Loco Pilots of trains entering the block section duly stopping trains out of course if necessary, entering the cause as follow:-

"Water reached "Danger" level mark at Bridge No

at Km between Station and

..... station, proceed cautiously and

Observe engineering hand signals at site."

The Station Master shall also inform the JE/SE (P.Way) expeditiously.

The JE/SE (P.Way) shall forthwith proceed to the spot and satisfy himself that any special precautions necessary are taken. He shall examine the waterway and the safety of the structures, taking soundings and probing near the piers and abutments. On the result of this, he shall decide whether necessity for the caution is over, the JE/SE (P.Way) /Unit in charge inspecting the site, shall advise the Station Managers at both ends of the block section and obtain their acknowledgements, a copy of advice being sent to the Assistant Engineer and the Regional Railway Manager. The Station Manager shall then stop issuing Caution Orders.

S.R.15.05(12) Indication posts at Flooded cause-way/Dips:-

- (a) Indication post with guidance FLAT BAR attached to it shall be fixed at each Cause-way/Dip Cutting/Tunnel etc. which is identified as vulnerable to flooding or is prone to water logging to indicate the water level at the location. Stationery Watchman shall also be posted by JE/SE (P.Way) at each such location, during the monsoon season to ensure intactness, fit condition of track and permissible water level over it before allowing any train to pass over it.
- (b) Description of Indication Post:- the Indication post (about 1.2 mtrs. In height) shall be painted black and white, in 30 cm. length so arranged that the Flat –BAR (painted white and attached to the post) show up against the 30 cms. Length of the black strip of the post to indicate the maximum water level permissible to pass different locomotive as under:-

S.No.	Type of Locomotive	Max. permissible depth of water above rail level for passage of train
1	Trains with Diesel, Electric Locos, DEMU SPARM cum MFDTV and RMV	10 cms

S.R.15.05(13) Precautions to be observed when water does not overflow the ballast level

- (a) When water has risen on both sides of the permanent way but does not actually overflow the ballast, the Loco Pilot of a train may pass over the portion of permanent way cautiously. If he finds that the permanent way is likely to be effected by water or water is still rising. He shall stop the train at the next block station even if it is booked to run through and issue a message personally to the Station Managers at both ends of the block section and the JE/SE (P.Way)/Unit concerned for necessary action.

- (b) Precautions to be observed when water rises above ballast level but is below rail level

Whenever an engineering employee finds that water has risen above the ballast level, he shall arrange to protect trains from either direction, in accordance with Rule 3.62.

- (c) when the Loco Pilot of a train finds that water has risen above the ballast level but is below rail level, he shall proceed cautiously and then the following procedure shall be adopted:-

- i. If water level rises over the ballast level but is below rail level the track should be walked over by two railway servants 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. The Loco Pilot shall there upon restart and proceed at walking speed being piloted by the two men walking abreast one at either end of the sleepers in front of the train.
- ii. If the track is not found to be safe for the passage of trains shall be protected in accordance with the Rule 6.03

- d) Precautions to be observed when the water rises above rail level but does not exceed the level of flat-bars

When the Loco Pilot of a train finds that water is rising above rail level but is below the level of the flat-bars, he shall bring the train to dead stop and the following procedure shall be observed:-

- e) When water overtops the rail, the JE/SE (P. Way) should satisfy himself by walking over and probing that the track is safe for the passage of the train and then issue a certificate to the loco pilot accordingly and obtain acknowledgement. The Loco pilot shall restart only if the flood level limitations for movement of various types of locomotives on the flooded track have not been exceeded and be piloted by the JE/SE(P. Way) walking ahead of the train till the permanent way is passed.

- i. If the track is found not safe for the passage of train the JE/SE(P. Way) shall accordingly inform the Guard and Loco Pilot, who shall protect the train in accordance with rule 6.03

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- ii. If, after the train is stopped short of the permanent way, the JE/SE(P.Way) is not present, the Guard and Loco pilot shall protect the train in accordance with rule 6.03 When subsequently the JE/SE(P.Way) turns up, the procedure prescribed above shall be followed.
- f) precaution to be observed when water rises above the level of the flat bars

If water has rises above the level of the flat-bars, no attempt shall be made to take or pass the train over the permanent way.

- g) the JE/SE(P.Way) PWS/APWS shall advise, the Regional Traffic Manager, Assistant Engineer and Regional Engineer, Whenever water rises above the ballast level and again when water subsides: this shall be followed up with special reports.

S.R.15.05(14) inspection by Engineers

JE/SE(P.Way) PWS/APWS shall make frequent inspection by night to see that instructions and measures necessary to safeguard the line during the monsoon and abnormal bad weather are carried out efficiently and correctly according to procedure laid down. They shall explain the instructions to the staff before and during monsoon. They shall also check the equipment with the patrolman / watchman to see that the full complement is available and serviceable

15.06

WORK INVOLVING DANGER TO TRAINS OR TRAFFIC :-

A gang shall not commence or carry on any work which will involve danger to train or to traffic without the previous permission of the inspector of Way or Work, 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 who gives such work, and shall see that the provisions of rules 15.8 and 15.09 are observed .

Provided that, in case of emergency, when the requirement of safety warrant the commencement of any such work before the said railway servant can arrive, the PWS\APWS may commence the work at once and shall himself ensure that provision of rule 15.09 are observed

S.R.15.06(1)

- a) No work necessitating interference with track, points, signals and interlocking gear, etc, which is likely to involve the safety of train or traffic, shall be commenced, except with the knowledge and consent of the JE/SE of Engineering S&T and Electrical department, as the case may be, While such work is in progress, the inspector, authorizing the execution of the must be present personally to supervise the work and ensure compliance with the provisions of G.R. 15.08, 15.09 and 15.14. If the work concerns both the permanent way and signaling, the inspectors of both the departments shall remain present till its completion.
- b) The signal Inspector or other qualified person In charge of the work shall, before taking in hand any disconnection of points, signals advise the station master on duty in writing on Form no. S&T (T/351) and obtain an acknowledgement for the same.
- c) The Station Master shall inform the Train Controller if the work to be undertaken is likely to cause delay to traffic.
- d) The Station Master will sign on the record foil of the disconnection memo retaining the first foil which should be kept pasted on the disconnection register specially maintained for the purpose.
- e) The work mentioned in the form shall only be commenced after the acknowledgement of the Station Master has been received.
- f) After the work has been completed and the disconnected gear recommended and put into normal working order, the person who undertook the work shall again written notice on the second (i.e. reconnection) foil to the Station Master
- g) Station Master on duty will make a note of this transactions in the charge books/diary at the station he will also sign on the record foil, retain the second (i.e. reconnection) foil recording the time on both the foils and restore normal working. The first and the second foils will be preserved like massage for caution orders and pasted on opposite pages of the disconnection register.

- h) in case of the work on the permanent way, SSE/SE/JE (P.Way) or PWS will advise the Station Master by written memo and his acknowledgement obtained on the record foil. After completion of the work and after ensuring that the track is safe for the passage of trains, a memo to this effect will be sent to the Station Manager and his acknowledgement obtained in writing.
- i) The memo referred to in clause (h) above to be issued by the signals/Permanent Way staff should indicate such details as the place where repairs will be carried out, the nature of work, speed restrictions, if any, and the time the work will be commenced and completed.
- j) The Station Master receiving such advice, shall take action as necessary. In addition, if points are involved, he shall arrange to have them clamped and worked as defective points if signals are involved, this shall be worked in accordance with the procedure for defective signals. If there is speed restriction, the station master shall arrange for necessary Caution Orders to be issued.
- k) In the interval between disconnection and a reconnection of the gear, if it is necessary to pass a train or perform any shunting movement, the Station Master must advise the qualified person in charge of the work by a memo, stating in which position the points are to be set and after obtaining such permission, the Station Master or other authorised staff acting on his behalf, shall then arrange to set and clamp the points in the desired position, making it safe for the passage of the trains. It shall be the duty of the Station Master or the authorised person deputed on his behalf to see that the points are set and clamped for the correct route and then put his padlock on the clamp so as to prevent any interference therewith subsequently, until the completion of the train or shunting movement as the case may be the padlock or clamp should be removed by the Station Master or the authorised person after completion of the train or shunting movement and the Station master shall issue a written authority to the person in charge to recommence the work. The person in charge of the work will then resume work on the gear.

15.07 WORK IN THICK, FOGGY OR TEMPESTUOUS WEATHER IMPAIRING VISIBILITY:- In thick, foggy or tempestuous weather impairing visibility, no rail shall be displaced and no other work which is likely to cause obstruction to the passage of trains shall be performed except in cases of emergency.

15.08 PRECAUTIONS BEFORE COMMENCING OPERATIONS WHICH WOULD OBSTRUCT THE LINE:-

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

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

Provided further that when the area of work is controlled by automatic singles 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, as provided in sub rule (3).
- (2) In emergent cases, the engineering official not below the rank of permanent way supervisor grade iii (JE) under taking such operation shall first bring the train to stop and advise the loco pilot of the train about the need to stop the train through a written memorandum. The engineering official shall simultaneously arrange to send a message to the station master for the need to block the track and obtain a written confirmation of the same. In such emergent cases, work shall be commenced only after advising the loco pilot and bringing the train to stop.

S.R. 15.08(1) (a) the time selected for the execution of the work shall be such as will cause the least interference with the traffic movement operations.

- (b) (i) works which require imposition of speed restriction or availing of blocks such as oiling and greasing of fishplates, fish bolts, welding of rails greasing of girder bearings, realignment of curves, lifting and lowering of track renewal of bridge timbers, painting of sleeper seats on girders crane operations area overhauling of points and crossings, renewal of turnouts renewal of rails and sleepers etc. may be carried out after issue of prior intimation of Regional operating Manager at least a fortnight in advance Regional operating Manager shall notify the traffic staff concerned about the schedule of these works and time and duration of such blocks on each date. The official in-charge should issue a message to all concerned detailing the work for issue of caution orders and get their acknowledgement. Execution of works, issue of message and caution orders will be on day-to-day basis and no Traffic Working order would be required to be issued. These works must be completed in one day only.
- (ii) Other normal routine day-to-day maintenance works, which do not require imposition of speed restriction of availing of block and may be completed during the day hours only, may be taken in hand without approval of Regional Operating Manager subject to official-in-charge advising all concerned he shall , however take necessary measures to protect the site as he shall be solely responsible for the safety of trains and the workmen.
- (c) Works involving overhauling of singles and lever frames, additions and alteration to permanent signaling arrangement provision, of temporary diversion relaying and such other works causing interference with traffic and/or imposition of speed restriction for more than one day shall be carried out under traffic working orders. The Regional Engineer or the Regional Signal and Telecommunication Engineering will advise details of work to the Regional Operating Manager , who will ensure the issue of traffic Working orders.

(d) An Engineering block must always be obtained before commencement of work in following cases:-

- (i) When a rail is to be disconnected at such locations , where the risk involved in the case of an accident may be of a grave nature , e.g., on a bridge or on approaches to a bridge, high embankment, tunnel etc.
- (ii) Re-laying or renewal of track on a high embankment or on bridges, or approaches to a bridge;
- (iii) Any other works which may render the line unsafe for the passage of trains.
- (iv) Specifically laid down in the traffic working order.

The line shall be blocked by observing the procedure prescribed under S.R.15.8(3)

S.R.15.08(2)

- (a) 24 hours before the commencement of the work, the JE/SE(P.Way) and (S&T) of the section will give written notice to the station Managers on either side of the block section chief Controller SSE (loco) concerned of station Manager of Guard's changing stations and to all other stations who are required to issue a caution order. This message shall contain the particular about the time the work should commence, the nature of the work to be done, the special precautions to be observed by Loco pilots, the kilometers between which such special precaution are necessary and the speed at which trains must travel. All concerned to whom this message is issued will acknowledge the same by a numbered message through control and send confirmation. On receipt of the acknowledgement of the message , the section controller on duty will record the same in his diary and will transmit the same in the form of a message to the station Managers on either side of the concerned block section who, in turn, shall convey it to the inspector in-charge of the work. The inspector in-charge will personally ensure that all concerned have acknowledged the message before the work is taken in hand.
- (b) After the completion of the work, the speed restriction has to be withdrawn or relaxed as is the case, the inspector in -charge of the work will send a message to the station Manager of the nearest station endorsing a copy to all those who were previously informed about the imposition of the restriction. The station Manager receiving the message from the inspector, will transmit the same to the section controller on duty who shall take steps to transmit the same to the station Managers and SSE(Loco) concerned and obtain their acknowledgements and convey these acknowledgements to the station Masters on either side of the affected section.

- (c) In case of urgency the (JE/SE(P. Way)(S&T) shall give written notice to the nearest station Manager giving the detailed information about the work, etc., as laid down in clause (a) above.

The station Master will at once the section controller and communicate full particular (including precautions to be taken) to the station Master at the opposite end of the block section. He will obtain the approval of the section controller and then the acknowledgement of the station Manager at the opposite end of block section supported by a private number before giving Line clear for a train to enter the section I the case of rail fracture , in the absence of JE/SE(P.Way), (PWS/APWS) may undertake the work of immediate repairs to the track viz., bringing the adjoining sleepers closer and properly spiking/keying the rail at the place of the fracture. After the completion of the work, PWS/APWS shall advise the station Manager to allow trains to pass over the affected portion of the track at a speed of dead stop and 20 kmph.

S.R.15.08(3)

- (a) Immediately on receipt of the message bringing the traffic working order into force from the Regional Traffic Manager or from the JE/SE(P. Way)(S&T) of the section, the station manager on either side of the block section must make an entry in red ink in the remarks column of the appropriate section of the train signal Register:-

“vide traffic Working order No ----- dated ----- no trains except those required by the Engineering Department must be allowed to enter the block section between the hours of ----- and ----- on the following date or dates.”

This remark must be made by the station Manager immediately after the message is received in the remarks column of the page or pages of the Register which will be in use on the date or dates the restriction is imposed.

- (b) When the line is required to be completely blocked, it shall be done observing the following procedure:-

(i) single Line –the station manager on either side of the section shall extract the ‘SH’ key from the block instrument and keep it locked in the safe custody. Necessary entries will be made in the Train signal Register.(ii) Double Line –under the system of working the station Manager controlling the movement on to the line will operate the block instrument to “Train on Line” position for the line to be blocked and make necessary entries in the Trains Signal Register.A message will then be issued to the inspector incharge of the work, and a copy to the chief controller on the Telephone as under:-

From SM-----“A” or “B” -----

(as the case may be) to JE/SE/P.Way (name)----- SI

at-----C/CTNL-----SM-----

No.-----line (up or Down Line in the case of the double line)

Between ----- to -----has been blocked

From ----- to----- hrs ‘SH’ key has been extracted and kept in may safe custody/Block instrument has been turned on to “train on Line” position.

Private Number ----- (both in words and figures).

S/M/ Name-----

(c) During the period when the line has been completely blocked in accordance with clauses (a) and (b) above, if a material train is required to be sent into the block section , this may be permitted by issue of “Authority to proceed without Line clear.”

SR 15.08 (4) BLOCKING THE LINE ON FIELD TELEPHONE.

(A) General Instructions:

i) Blocking of line on field telephone for specific works shall only be permitted , when specifically mentioned in the traffic working order. However , traffic working order, shall not be required for works which requires block for four hours duration or less.

- ii) 326
- (ii) No supervisor below the rank of JE/SE/SSE of P. Way/S &t/Electrical as the case may be permitted to obtain the block and cancel the same on field telephone.
- (iii) Notice for cancellation of the block should be given by the same person who has obtained the block.
- (iv) CODE and private Number Books will be issued by the Regional Engineer to the authorized official (as mentioned in sub-para (ii) above), to be used at the time of obtaining and cancellation of block on field telephone.
- (v) Name of CODE list of such authorized official shall also be given to the chief controller by the Regional Engineer so that the controller can tally and confirm that correct person is asking/cancelling the block on field telephone before allowing him to do so.
- (vi) The official incharge of the work should plan such work in advance and before commencing the work , he should ensure that line is properly protected as per rules and the filed telephone available at the site is in working condition and manned by a suitable person till the work is completed.
- (B) Procedure for blocking the line on field telephone:
- (i) The official incharge of the work should advise in advance to the controller through concerned station master the details of work to be carried out enquire about probable time margin available .
- (ii) The official incharge at site of work shall contact the concerned station master on field telephone at the given time and put his demand for block as under.
- From_ The Official incharge of work (Designation), HQ& code) -----
Message No. -----Date -----Time-----KM from -----to-----
To,The section controller -----through station master of station
A)----- and station B -----arrange to block the line between station
----- and station ----- from ----- Hrs. to ----- Hrs. for carrying out
work at KMS-----
- Private Number ----- Name & Desig.of the
Official in-charge
- HQ-----
Code-----

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- (iii) The station Master Concerned will repeat the above message to the controller, who will tally the name and CODE of the official incharge of the work and after confirming that the correct person is requesting for the block he will ensure that the concerned block section is clear of trains for the required period. He will then permit the concerned station Master to block the station for required work.
- (iv) On receipt of the permission from the on duty Controller , station Master at either ends of the concerned block section will block the line as per SR 15.08 (3) (b) (i) &(ii) They will also make necessary entries in TSR in RED ink:-
- (v) The concerned station Master will then issue a message to the concerned official incharge of work and the Controller on the field telephone as under :-

FROM-----station Master-----

NO-----Date -----Time-----

To, official incharge of work (Designational,HQ)-----

In reference to your message no. -----date -----Line between station ----- and station -----has been blocked from -----hrs. to ----- hrs. for working of ----- in the station.

Private Number of station (A) -----and Private Number of station (B) -----and Initial/Name of the station controller-----

Signature of station Master

At Station -----

- vi) Official Incharge of work will acknowledge the receipt of the above message , by advising his name , CODE.
- vii) Then he will commence the work after ensuring that work site is properly protected as per rule and he will be responsible to clear the block within stipulated time.

(C) Procedure for Cancellation of Block from Mid- section:-

- i) On completion of the work and after the track is made safe for the passage of trains, the official incharge of the work will contact to concerned station Master on the field telephone and advise him of completion of work as under:-

From Official incharge of work (designation, Hq & Code) ----- message No. -----Date -----Time ----- Km at site _____. To, The Sectional Controller _____ Through Station Master of station A) -----or station B)-----Engg. Block Between KMS ----- between station -----and station -----is cancelled and track is safe for normal working of train.

Private Number ----- Name-----

Designation & HQ -----
And CODE ----- of
Official Incharge of the work

- ii) On receipt of the above message by the concerned station Master he will repeat the same to the section controller who will permit to cancel the block after verifying the same and code and ensuring correct person is cancelling the block , advising the adjoining Station Master also.
- iii) On receipt of the permission from the Controller both the station Master will insert the SHUNT KEY in concerned block instrument and clear the block section duly exchanging the private Numbers and making Necessary entries in the TSR.
- iv) Concerned Station Master will give message to the official incharge of work at site regarding cancellation of block supported with private number of the Station Master at either end of the block section and initial\name of the Section Controlled who permitted the cancellation of blocks.
- v) in the event of the control telephone being interrupted after the line is blocked, the official Incharge of the work will follow the following procedures:
- a) On completion of the work when the track is made safe for the passage of train, he will proceed to the nearest station and handover the Track Fit Certificate and block cancellation message,(as indicated in sub para(i) above) to the on duty Station Master and obtain his acknowledgement.

- b) On receipt of the above message, the concerned Station Master will repeat it to the Station Master at the other end of the block section, and obtain his Private Number Both Station Master will insert the SHUNT KEY in concerned block instrument and clear the block section and will make necessary entries in their TSR.
- C) As soon as the control phone start working, the Station Master shall repeat the contents of the message received from the official incharge of the work, to the on duty controller and advise him that Block is cancelled and the section is normal for train working.

S.R.15.08(5)(a) In an emergency, due to damage to the track, signal interlocking equipment etc, when an official of the Engineering or Signal Department considers it necessary to suspend train working or impose a speed restriction while repairs are being carried out, he shall take the following measures :-

- i) He shall arrange to protect the site of the obstruction
- ii) Advise the Station Master at the nearer end of the affected block section to suspend train working or issue caution order. This advice shall be given in writing if the officials is literate. If the official is illiterate, the advice will be given verbally, and recorded by the Station Master on duty who shall read it out, and ascertain that it has been correctly recorded.
- (a) On receipt of this advice, the Station Master on duty will take the following precautionary measures:-
 - i. Stop all trains from proceeding into the block section from his station.
 - ii. Advise the Station Master at the other end of the block section and obtain his private number in token of having done so.

Note:- If S.M on duty finds that a train has already entered the block section from the other end, he should advise the engineering official accordingly, and ask him to return post haste to the site of obstruction and to ensure that danger point is being property protected.

- iii. Advise the Controller.

- iv. If the damage to the track requires suspension of train working, the Station master on duty shall block the section in accordance with S.R.15.08 (3) (a)and (b). If only a speed restriction is necessary, the Station master on duty will arrange for a Caution Order to be issued to the train proceeding into the section and also advise the station Master at the other end to do likewise.

Note:- A red ink entry shall be made in TSR across the page if the line is blocked, and in the remarks column if speed restriction is imposed.

- c) On completion of the repairs to the track, signal interlocking equipment, etc., official of the Engineering/ Signal Department shall issue the fit-certificate to the Station Master prescribing the speed limit, If any, to be observed by the train while passing over the site of obstruction.
- d) On receipt of written memo from the official of the Engineering or Signal Department mentioned above, the Station Master on duty shall cancel the block if it had been imposed advising the station master at the other end and the control. He shall also arrange for a Caution Order to be issued to the train as required by the official of the Engineering/ Signal Department.

S.R.15.08(6) The Station Master receiving the advice under S.Rs.15.08(3),(4) and (5) shall issue caution order as required.

15.09. SHOWING OF SIGNALS -

(1) Wherever 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 Narrow Gauge from the place of obstruction, In addition, stop hand signal shall be shown at a distance of 30 metres from the place of obstruction, at the banner flag and at a distance of 45 metres from the three detonators. The railway servant at the place of obstruction shall give proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.

- (b) When the train is required to stop and the restriction is likely to last for more than a day.

A stop indicator shall be exhibited at a distance of 30 meters from the place of obstruction and a caution indicator at 1200 meters on the Broad Gauge and 800 meters on the Meters 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 800metres from the place of obstruction. The distance of 800metres 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(l) 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) WORKS OF SHORT DURATION – Works such as casual renewals of rails and sleepers, creep pulling, lubrication of rail joints, oiling fish-plates, insertion of points and crossings, etc. which can be completed between sunrise and sunset of the day of commencement and no restriction of speed thereafter is required, are termed "works of short duration". Hand signals, banner flags and detonators, as detailed in G.R.15.09 shall be used to protect trains.

S.R.15.09(2) (a) Works of short duration inside station limits.

Before commencing any work of short duration inside station limits, the Engineering official in-charge of the work, requiring to obstruct the line, shall notify the Station Master in the following form and obtain his acknowledgment :-

To

The Station Master,
..... Station

Please note that I require the line at your station to be obstructed today from hours to hours

Hours, you can resume traffic only after receipt of advice of clearance from me.

.....
Date

Official in-charge
(with designation)

The Station Master shall give a written permission to the Engineering official in the following form and obtain his acknowledgement:-

To

(Designation of the Engineering official-in-charge of the work) at station.

You may obstruct the line at my station today from hours to hours until reported clear by you. All the concerned signals have been kept at 'on'.

Date
Station Master

- (b) (1) Before commencing work on a line which can be isolated from the other lines, the Engineering Official-in-charge of the work shall, jointly with the Station Master ensure that the line has been isolated. Where isolation is effected by the settings of points, the points shall be locked by means of clamps and padlocked. The keys shall be kept in his personal possession.
- (2) Before commencing work on a line which cannot be isolated from the other lines, the Engineering official-in-charge of the work shall provide the prescribed hand signals detonators and banner flags as may be necessary to afford protection to trains or vehicles moving in the yard.

S.R. 15.09(3) "Works of Short duration" outside station limits

- (a) Before commencing any "Work of short duration" outside station limits, the JE/SE (P.Way) or PWS shall notify the Station Masters at each end of the block section of the fact and obtain their acknowledgments. The Station Masters shall arrange to issue Caution Order to Loco Pilot. Note - In an emergency when it is necessary on consideration of safety, the JE/SE(P.Way) or PWS may commence such work after protecting the line, before issuing notice to the Station Master. If the work is likely to be prolonged, he shall notify the Station Masters as soon as possible before commencing the work, for issue of Caution Orders to Loco Pilot. (b)
The Official-in-charge of the work shall protect the line in accordance with sub-clauses (a) and (c) of G.R .15.09.

- (c) (i) At places where there are curves or gradients falling towards the obstruction or at times of poor visibility, the distances laid down in G.R.15.09 shall be suitably increased, in order that the Stop hand signal and banner flag may be visible to the Loco Pilot of an approaching train from a distance 600 metres on the Broad Gauge. In order to avoid a girder bridge or any other obstruction which may prevent the planting of the banner flag as indicated the distance can be increased as necessary. Intermediate Flagmen shall be posted to relay the hand signals.
- (ii) The Loco Pilot of an approaching train shall bring his train to a stop on seeing the "Stop" hand signal shown by the Flagman farthest from the obstruction. 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. After the train has passed, he shall fix three detonators 10 metres apart again on the line and continue to show "stop" hand signal, until recalled.
- (iii) The Loco Pilot shall thereon restart and proceed with caution being prepared to stop his train short of the banner flag at 600 metres on the Broad Gauge.
- (iv) The Flagman nearest the obstruction (all the 30 metres point) 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 and 600 metres point on the Broad Gauge who shall, there upon, remove the banner flag. The train shall then be hand-signalled forward by both the Flagmen showing "Proceed-with-Caution" hand signals.
- (v) After the train has passed, the intermediate Flagman shall plant the banner flag again across the line and show stop hand signal and stop approaching trains until otherwise instructed.

S.R.15.09 (4) (a) Works of long duration inside or outside station limits:- Works such as relaying, bridge construction under traffic and diversions which extend over a few days or weeks during which period a continuous restriction of speed to be in force are termed "works of long duration". Temporary engineering indicators shall be used at the specified distances to protect the trains. (b) All indicators shall be placed on the left hand side of the line

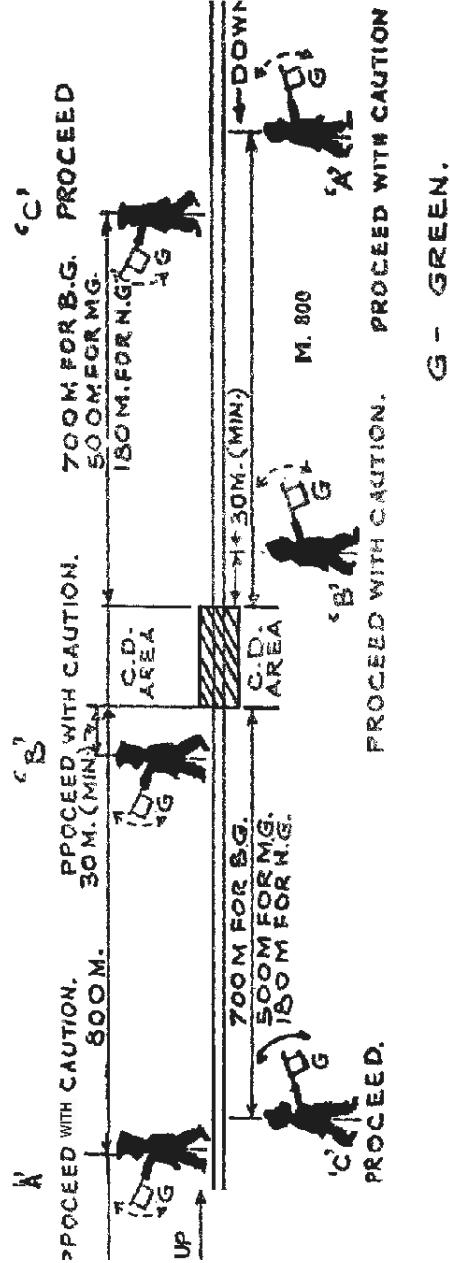
as seen by the Loco Pilots of approaching trains. The lamps

of the indicators shall be lit at sunset and kept burning till sunrise.

(c) Protection in block section for work requiring stop-dead/speed restriction and procedure for passing trains:-

DIAGRAM ILLUSTRATING THE POSITION OF DANGER SIGNALS

I. SINGLE LINE



II DOUBLE LINE

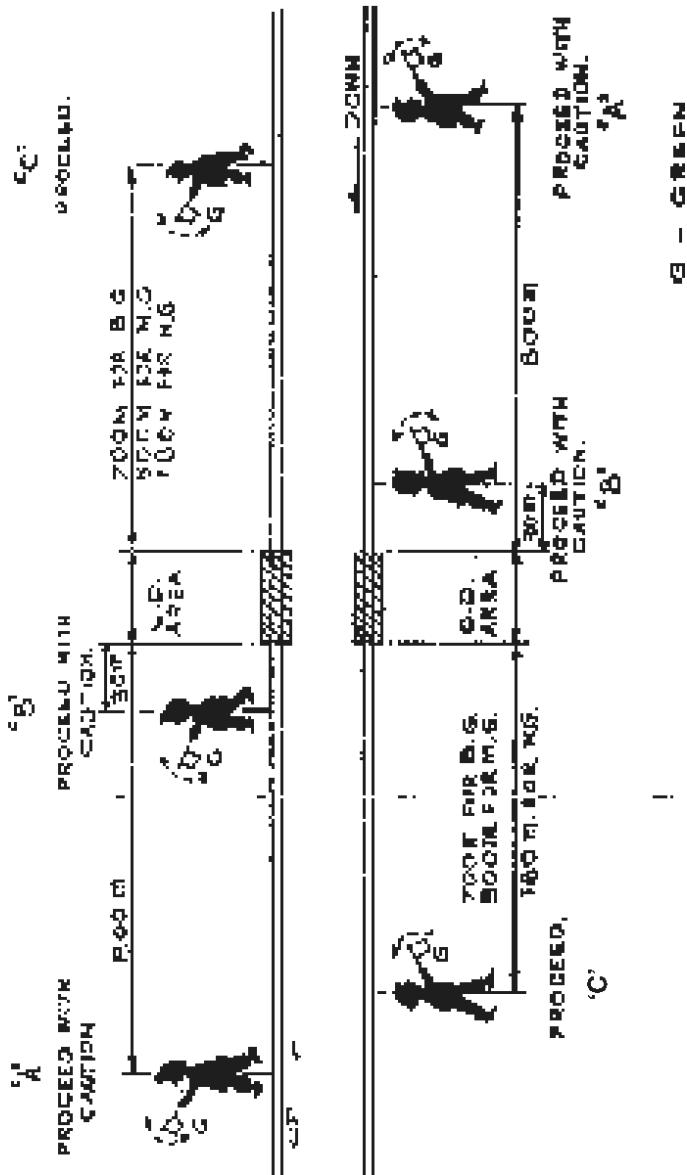
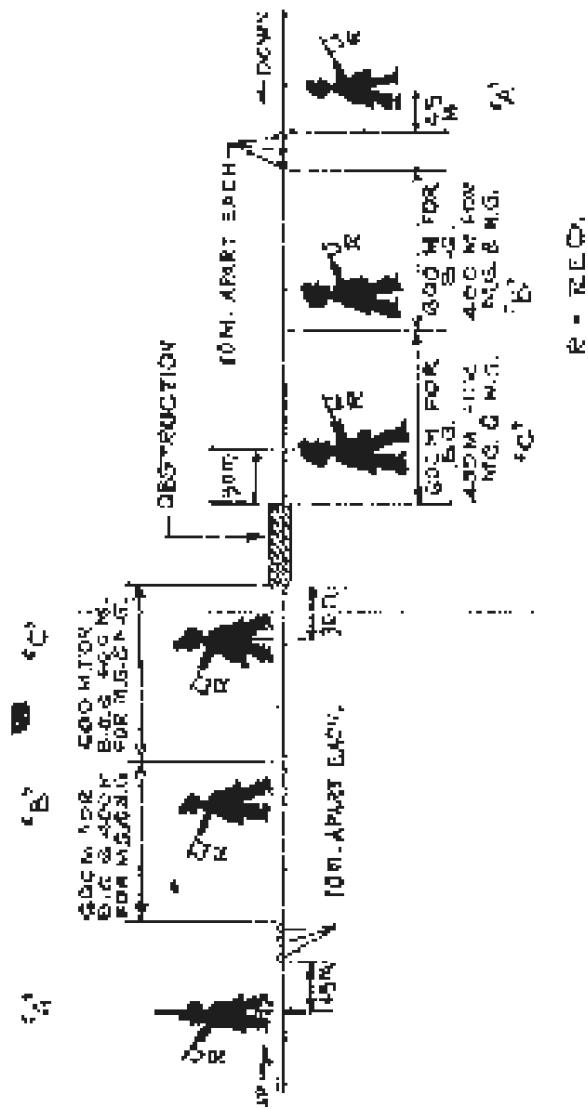


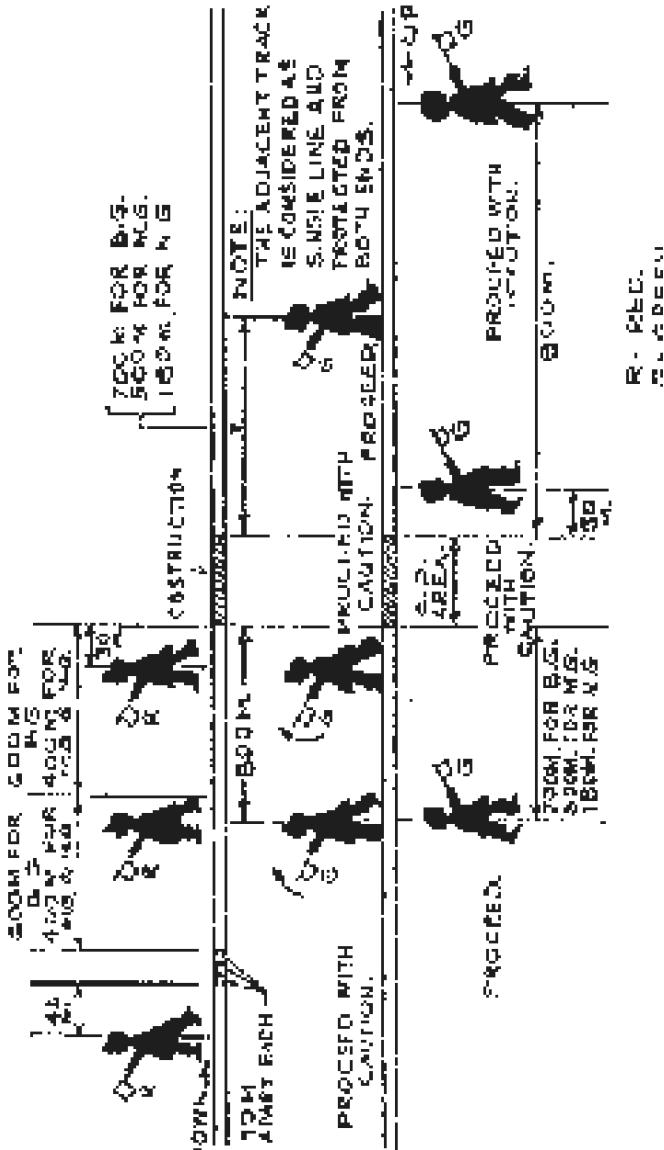
DIAGRAM ILLUSTRATING THE POSITION OF DANGER SIGNALS

III SINGLE LINE



IV. DOUBLE LINE

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The Loco Pilot of a train shall, on approaching the caution indicator, reduce 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 the Restriction book, to the Loco Pilot. The Loco Pilot shall fill in the date, train number and time, affix his signature and return the Book to the Watchman. The Watchman shall, thereafter, 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 10 kilometres an hour until the train has cleared .the restricted length.

- (d) Permanent Speed Restrictions:- They are notified in the Working Time Tables. The speed indicators are erected to indicate to Loco Pilots where restrictions are to be observed; for example between stations. because of lighter type of permanent way. at certain bridges and at certain curves. It need not be lit at night. the permanent speed indicator shall be preceded by the caution indicator, fixed sufficiently in rear to enable Loco Pilots to reduce speed. It also need not be lit at night. Termination indicators shall be provided in advance of all permanent speed indicators between stations and they need not be lit at night. Caution Orders need not be issued of permanent speed restrictions. (e) When on sections it becomes necessary to indicate to the Loco Pilots of goods trains to run at a restricted speed and where caution and speed indicators have been provided, they should bear the legend 'GDS'.
- (f) Conditions to be satisfied before commencing the work:-
 - 1) The JE/SE (P. Way) or PWS shall. except in an emergency -
 - i. obtain the permission of the Regional Railway Manager who shall, prior to giving the permission, issue necessary notices to the Station Managers, vide clause (ii) below and all others concerned and obtain their acknowledgements;
 - ii. issue notice to the Station Manager at each end of the block section, in the case of Single line and to the Station Manager at the block station in rear in the case of

Double line, and Station Managers of Notice stations confirming the commencement of the work, as notified by the Regional Railway Manager and obtain their acknowledgements; and

iii. provide the necessary engineering indicators as prescribed.

- 2) In an emergency, when it is necessary on considerations of safety, the JEISE (P.way) or PWS may commence the work before issuing the notice, under the protection of hand signals, banner flags and detonator. In such cases, as soon as possible the official-in charge of the work shall issue the notice and replace the hand signals, banner flags and detonators by engineering indicators.
- 3) In the case of works inside station limits, Special Instructions shall be issued by the Regional Railway Manager in regard to the use of the engineering Indicators in conjunction with the fixed signals of the station 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 acknowledgments obtained.

(g) Responsibility of Loco Pilot and Guard-

- 1) The Loco Pilot of a train shall on approaching the caution indicator reduce the speed as necessary and while actually passing over, the speed restricted length, keep his train under-control and strictly observe the restricted speed avoiding the use of brakes as far as possible. The Loco Pilot shall resume normal speed after his engine has passed the termination indicator or after getting the "All Right" Signal from the Guard. The "All Right" Signal shall be acknowledged by the Loco Pilot by giving a long whistle. In the case of a light Engine the Loco Pilot shall resume normal speed after clearing the restricted length.
- 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 control while passing over the speed restricted length. He shall also exhibit the "All-Right" Signal to the Loco Pilot after the last vehicle has cleared the restricted length.

15.10 ASSISTANCE IN PROTECTION OF TRAINS –

Every railway servant employed on way or works shall, on the requisition of the Guard of a train or the Loco Pilot thereof, render assistance for the protection of the train.

15.11 GANGMATE IN EACH GANG:-

Each Inspector of Way or Works shall see that in every gang employed in his length of line there is a competent Gangmate.

S.R.15.11(1) Each JE/SE of way shall see that in every gang employed in his length of line there is a competent PWS/APWS.

15.12. KNOWLEDGE OF SIGNALS AND EQUIPMENT OF GANG :-

Each Inspector of Way of 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 ten detonators, in addition to such other tools or implements as may be prescribed by special instructions.

S.R.15.12(1) Each gang will be equipped with-Two banner flags also

S.R.15.12(2) **NOTE :** In Konkan Railway Inspector way is designated as JE/SE (P.Way) and gangman is designated as Trackman and gangmate is designated as PWS/APWS.

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.

S.R.15.13(1) **NOTE:** In Konkan Railway Inspector of way or works is designated as JE/SE (P.Way).

15.14. RESPONSIBILITY OF GANGMATE AS TO SAFETY OF LINE :

Each GANGMATE Shall –

- a. see that is 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 man in his gang each have a correct knowledge of hand signals and detonating signals.
- d. Endeavour to prevent any trespassing by person or cattle on his length of line or within the fences thereof, and
- e. When repairing, lifting or lowering the line or when performing any other operation which shall make it necessary for a train to proceed cautiously, himself be present at the spot and be responsible that the caution signals prescribed in Rule 15.09 are shown.

S.R. 15.14(1) NOTE: In konkan Railway gangmate is designated as PWS/APW An engineering official not below the rank of PWS/APWS should present himself at the work spot and shall be responsible that the caution signals are exhibited in reference to G.R. 15.09 and the works referred in GR 15.14(e) carried out safety.

15.15 BLASTING :-No railway servant employed on the way or on any works shall carry on any blasting operation on or near the railway except as permitted by special instructions.

15.16 PUTTING IN OR REMOVING POINTS OR CROSSINGS:-

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

15.17 DUTIES OF GANGMATE AND GANGMAN WHEN APPREHENDING DANGER

If a Gangmate or Gangman considers that the line is likely to be rendered unsafe, or that a 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) Note: In Konkan Railway gangman is designated as Trackman and gangmate is designated as PWS/APWS.

B. THE WORKING OF LORRIES, TROLLIES AND MOTOR TROLLIES

15.18 DISTINCTION BETWEEN TROLLY, LORRY AND MOTOR TROLLY:-

- 1) A vehicle which can be lifted bodily of the line by four men Shall be deemed to be a Trolley and any similar but heavier vehicle shall be deemed to be a lorry.
- 2) Any trolley which is self – propelled , by means of a motor, is a Motor trolley
- 3) A trolley shall not, except in cases of emergency , be used for The carriage of permanent way or other heavy material ; and When a trolley is so loaded it shall be deemed, for the purpose of these rules, to be a lorry

S..R. 15.18 (1) Each trolley /lorry motor trolley shall be market with number, Code initial of the Headquarters station and the designation Of the official- in –charge

S..R. 15.18 (2) A trolley /lorry /motor trolley shall always be pushed and Not pulled, use of sails or any other aid for the Propulsion is strictly prohibited .

S..R. 15.18(3) A trolley shall be manned by at least four trolleymen, a Lorry by at least six lorrymen and a motor trolley by at Least four railway servants including the Driver . this dose not include any Flagman who may we required in addition for the protection of trollies / lorries under special instruction

S..R. 15.18 (4) Out of six men employed for working a lorry , two shall Control the brakes and two shall walk alongside the Lorry. Under no circumstances shall all the men be Seated on the lorry

S..R. 15.18 (5) The duties of Flagman shall be invariably entrusted to trained men Experienced on the working of lorries / trollies and who Have passed the vision test

S..R. 15.18 (6) The number of men that may be carried on a trolley / lorry /motor Trolley shall not exceed nine on the Broad Gauge

S..R. 15.18 (7) When the view of the line is obstructed due to curves or cuttings or Other causes , “observation posts” shall be established at such sites So as to command the best view in both directions for the use of Flagman who shall convey hand signals to the trolley on the line .

S..R. 15.18 (8) In track circuited territories , torllies when use shall be Insulated.

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 TROLLY,LORRY OR MOTRO TROLLY :-

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) In addition to be equipments prescribed above, the following Equipment be provided on a trolley:-

- a. 10 detonators
- b. A copy of General and Subsidiary Rules Book
- c. Cotton waste
- d. A Portable Telephone on Motor trolley

15.21. EFFICIENT BRAKES :-

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

15.22. QUALIFIED PERSON TO BE IN CHARGE OF LORRY OR TROLLY 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) The following railway officials are authorised to place a motor trolley Or lorry on line, if they have been certified fit to do so:-

- i. Officers of the Engineering / Signal and Telecommunication/Electrical Branches.
- ii. JE/SE/SSE (P.Way), JE/SE/SSE of Works and Bridge.
- iii. PWS of the Engineering Branch.
- iv. JE/SE of S & T
- v. Authorised Supervisors of the Electrical Department.
- vi. Any other official specially authorised in this behalf.

S.R. 15.22 (2) Certificate of Competency –No officer or subordinate official shall Place a motor trolley on the line unless he holds a competency Certificate issued in this behalf by the concerned departmental Officer not lower than the rank of Sr. REN/RSTE/REE.

Note:- The Departmental Officers are authorised to renew the certificates.

S.R.15.22 (3) The Regional Officers whenever they go out on inspection Shall test check the employees holding competency certificates in their knowledge of rules and also test their equipment.

S.R.15.22(4) The Certificate of Competency shall be kept in the personal custody Of the staff working the motor trolley/lorry and shall be promptly Produced when required.

S.R.15.22(5) In respect of Regional Officers, the Regional Railway Manager shall hold an oral test and examine them in the rules relating the working of the Trolleys and Lories. The Regional Railway Manager shall then issue the Competency Certificate after satisfying himself that the officer is well qualified to place a trolley or lorry on the line. In respect of Headquarters officers who are not in possession of Competency Certificate, the Head of the department shall hold an oral test in their knowledge of rules relating to the working of Trolleys and Lories. He Shall then issue a Competency Certificate after satisfying himself that the officer is well qualified for placing a Trolley or Lorry on the line. The Competency Certificate shall be valid for a period not exceeding Five years. The renewal of certificates shall be done by the Regional Railway Manager in respect of regional officers and by the head of the Department in respect of Headquarters Officers.

Note:- Renewal certificate are not necessary for Officers of junior Administrative grade and above.

S.R.15.22(6) Conveyance of other than railway employees:-

a) Trolleys:-

- 1) Normally no person other than a railway employee Shall be conveyed.
- 2) A railway employee qualified to be in-charge of a Motor trolley, may, however, convey the following Persons, if it will not interfere with his duties and Responsibilities.
 - i. Magistrates and police officials (not below the rank of Sub-Inspector) proceeding to the site of an accident on duty;
 - ii. other Government officials in general (Civil, Telegraph, Military, Medical, etc.) when Their journey concerns the working of the Railway;
 - iii. a person requiring medical aid; and
 - iv. Contractors and their agents proceeding in connection with work.
- 3) The conveyance of the above person is subject to The following conditions:-

- i. The prior permission of the Regional Railway Manager shall be obtained by the official-in-charge of the motor trolley by Control; however, in emergent cases , such permission may be obtained from an Assistant Officers who shall at once advise the Regional Railway Manager regarding the grant of such permission.
- ii. Prior to being conveyed the person (s) concerned shall execute an Indemnity Bond in prescribed form.

15.23. ATTACHMENT TO TRAIN PROHIBITED:-

No lorry or trolley shall be attached to a train.

15.23. 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 meters.

Working of lorries

S.R.15.24(1): WORKING OF MATERIAL LORRY/DIP LORRY

- a) Material/Dip lorries shall be worked under the rule for working of trains in conjunction with from no. T 1524 (A) i.e. on full block protection, between veer and Udupi where visibility is impaired due to cuttings and tunnels.
- b) Material / DIP lorry will be allowed to work on line only during day time and clear weather and it shall invariably be accompanied by a competent engineering official who will be responsible for its protection. However in an emergency it may be allowed to work during night, with permission by Dy.COM.

S.R.15.24(2) During day in clear weather lorries shall be worked under the rules

For working of trains in conjunction with From T-1524-A, whenever It is possible to do so without interference to train services. If there Will be interference to train services, lorries loaded with light materials Shall be worked of From T-1524-B under the protection of Caution Order subject of following conditions:-

- a. Lorries loaded with light materials shall except in an Emergency be allowed to work in the block section only during day time and in clear weather.
- b. It shall invariably be accompanied by an competent Engineering official with adequate men to assist him.

- c. It must be properly protect in accordance with Provision contained G.R. 15.27.
- d. The Engineering official shall be responsible for the removal of the lorry loaded with light material from mid section in Time so as not to cause detention to train.

S.R.15.24(3) During day, when due to rain, thick or foggy weather, dust Storms or any other cause, the visibility is poor restricted due to Sharp curves or other features or in an emergency to Run it at night lorries must be worked under the rules for Working trains in conjunction with From T-1524-A.

S.R.15.24(4) Working of trolleys and lorries inside station limits:-

Before placing a lorry on any running or non-running line the official-In-charge shall advise the station Master in writing, in duplicates as Under--

Trolley/Lorry No----- being required to work inside station limits on ----- line(s) between ----- hours and ----- hours.

We have satisfied ourselves that there will be no interference with the working of trains
On shunting operations.

----- Station Master

Official in charges

Station -----

Date-----

Time -----

The Station Master shall take the original and return the duplicate signed to Official in charge. Then only the official-in-charge shall place the lorry on line.

PROCEDURE FOR WORKING LORRIES UNDER THE RULES FOR WORKING TRAINS
(Worked in conjunction with From T-1524-A)

Single Line

S.R.15.24(5)(a) Placing a lorry on the line at a station :-

- i. The official-in-charge shall inform the section Master above the block section in which the lorry will work and the time at which he will place the lorry on the line.
- ii. The station Master shall state the time by which the official- in-charge shall clear the section, obtain the permission of the controller on duty and get his consent.

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- iii. He shall, then advise the station Master at the other end of the block section, obtain Line Clear.
- iv. Both the station Masters shall, at once, enter in red link in the Train Signal Register the lorry No. In the Train No. Column and other Particulars as for a train.
- v. The Official-in-charge shall fill up, in triplicate the "Departure Report" of Form T-1524-A and hand it over to the Station Master.
- vi. The station master shall countersign it, keep the first copy and return the second and third copies to the official in charge.
- vii. The official in charge is entirely responsible for clearing the section by the specified time.

(b) Placing a lorry on the line outside station limits:-

- i. The Officials-in-charge shall fill up in triplicate, the "Departure Report" Of From T-1524-A leaving blank the column denoting the time by Which the lorry shall clear the section.
- ii. He shall send the From T-1524-A through a railway employee to the station Master at one end of the block section.
- iii. This Station Master shall advise the controller on duty and obtain in permission/consent, then inform the station Master at the other end of the block section, obtain Line Clear and then enter on the form. In triplicate, the time by Which the lorry shall clear the section. He shall countersign It, take the first copy and hand over the second and third Copies along with the paper Line Clear Ticket and obtain his signatures in the Train clear signal Register.
- iv. Both the station Master shall , at once, enter in red ink the Train Signal Register the Lorry No. In the Train No. Column and the other Particulars as for a train.
- v. The Official in charge shall not place the lorry on the line until he gets from and Line Clear Ticket. He is entirely responsible for clearing the section by the specified time.
- vi. In tokenless territories, block instrument working shall be suspended and the lorry started on the authority of Line Clear Ticket.

- (c) Removal of lorry from the line at a station :-
- On arrival of the lorry at the station the official –in-charge Shall fill up , in duplicate, the “Removal Report” of From T- 1524-A and hand it over to the Station Master along with Line Clear Ticket.
 - This Station Master shall clear section for the lorry as for train and both the station Masters shall complete the entries for the trolley in the Train Signal Register.
 - The Station Master shall, then fill up , in duplicate in the “Removal Report”, the time at which Line Clear Ticket is Received and the section is cleared, countersign it, take the Second copy and return the third copy to the Official –in-Charge and inform controller on duty.
 - The station Master shall cancel the line Clear Ticket.
- (d) Removal of lorry from the line outside station limits:-
The procedure laid down in clause (c) above shall be adopted except as follows:-
- The official in charge may send the from and Line clear cket through a messenger to whom the station Master Shall hand over the third copy, obtaining his signature in The Train Signal Register.
 - The Official in charge shall ensure that no delay is caused to the next train due to enter the section and he shall take care to get back the third copy of the from from the Station Master.

Double line

- S.R.15.24 (6) (a)
- Placing a lorry on the line at a station :-
The Official in charge shall inform the station Master about the block section in which the lorry will work and the time at which he will place the lorry on the Line.
 - The Station Master shall state the time by which the Official in charge shall clear the section obtain the Permission of the controller on duty and get his consent.
 - He shall then advise the station Master at the other end of the Block Section Both the Station Master shall, at once, enter, in red ink in the Train Signal Register the lorry No. In the Train No. Column and the other particulars as for a train.

- iv) The Official in Charge shall fill up in triplicate, the "Departure Report" of From No. T-1524-A and hand it over to the Station Master. The Station Master shall countersign it, keep the First copy and return the second and third copies to the Official in Charge.
 - v) The Official in charge is entirely responsible for clearing the section by the specified time.
- (b) Placing a lorry on the line outside station limits:-
- i) The Official in charge shall fill up the "Notice portion" of the Double Line Certificate and the departure report of T-1524-A in triplicate and send it to the nearest block station through a messenger.
 - ii) The Official in charge shall not place lorry on the line unless he has received these forms from the Station Master duly filled in.
 - iii) He shall place his lorry only on the right line while proceeding to his destination.
 - iv) The Station Master shall make entries, in red ink, in the Train Signal Register regarding the movement of the trolley.
- (c) Removal of a lorry from the line at a station :-
- i) On arrival of the lorry at the station, the official in charge shall fill in the "Removal Report" of From T-1524-A and hand it over to the station master who shall, then clear the section.
 - ii) Station Master shall make entries in the Train Signal Register in red ink regarding the movement of the lorry.
- (d) Removal of a lorry from the line outside station limit :-
- i) The Official in charge shall send the "Removal Report" of From T-1524 A and Line Clear Ticket , if Any to the nearest block station through a Messenger.
 - ii) On receipt of the "Removal Report" the station Master shall clear the block section and cancel the Line Clear Ticket, if any and inform controller on Duty.

**PROCEDURE FOR WORKING LORRIES WITHOUT LINE CLEAR UNDER THE
PROTECTION OF CAUTION ORDER
(IN CONJUNCTION WITH FORM T-1524-B)**

SINGLE LINE

S.R.15.24 (7)(a) placing a lorry on the line at a station :-

- i) The Official in charge shall fill up, in triplicate, the "Notice portion" of Form T.1524-B and send it to the Station Master.
- ii) The Station Master shall advise , by telephone the station Master of the block station at the other end end as under:-

Lorry/Trolley No-----will enter section at----- hours ----- minutes With lorry Notice No ----- issue Caution Order.
- iii) The Station Master at the other end shall acknowledge the advice as under:-

Understand lorry No-----will enter section at ----- Hours ----- minutes. Will arrange to issue Caution Order , private Number -----
- iv) The Station Master receiving the private Number shall enter it (in triplicate) at the end of the "Notice portion" of the from, alongside his signature. If a private Number has not been obtained, this fact shall be stated, together with the reason.
- v) Both the Station Master shall enter, in red ink, in the Train Signal Register, the Lorry No, the time at which the lorry will enter the Section and the private Number allotted. (If a private Number has not been allotted, the reason for not doing shall be entered).
- vi) The Section Master shall examine the Train Notice Register and ascertain the movement of all trains likely to run on the block section on that day subsequent to the entry of the lorry. The Station master shall consult the controller and satisfy himself that the particulars of extra trains recorded in his Train Notice Register are correct and ascertain which of those trains are likely to occupy the block section subsequent to the entry of the lorry that day. The station master shall enter the Particulars of all such trains on the form.
- vii) The Station Master shall then fill up the Form (T-1524-B)in triplicate Take the first copy and return the second and third copies to the Official in charge The Station Master shall also enter on the form The station from which and the approximate time at which the trains Will enter the block section. If Line Clear has been asked for or

Given for any train or it a train is already in the block section. The Station Master shall enter the direction. Number and description of This train on the form. The Station Master is responsible for entering All the required particulars in the form completely and correctly with Reference to the block section concerned.

- vii) The Official in charge shall satisfy himself by examining the Form (T-1524-B) that all the required particulars are completely and Correctly entered and that they refer to the block section concerned.
- b) Placing a lorry on the line outside station limits:- The procedure laid down in clause (a)(i) to (viii) above shall be followed in this case also except the following:-
 - i) The Official in charge of the lorry may send the form T-1524-B through a messenger to the Station Master.
 - ii) The Station Master shall hand over the second and third copies of Form T-1524-B obtaining the messenger's signature in the Train Signal Register.
 - iii) The Official in charge shall not place the lorry on the line until he gets back the second and third copies of the Form T-1524-B from the messenger.
- (c) Removing a lorry the line at a station:-
 - i) On the arrival of the lorry at the station, the Official in charge shall fill up, in duplicate, the "Removal Report" of the Form T-1524-B and send it to the Station Master.
 - ii) The Station Master shall enter the time at which the "Removal Report" is receiving by him , countersign it, take The second copy and return the third copy to the Official In charge.
 - iii) The Station Master shall immediately advise the station Master of the block station at the other end of the arrival Of the lorry and the time of receipt of the "Removal Report" and inform Controller on duty.
- (d) Removing a lorry from the line outside station limits:-
 - i) If a lorry has to be removed from the line outside station limits, and if it is not intended to replace it on the line, the Official-in-charge shall fill up, in duplicate, the "Removal Report" of the Form T-1524-B (second and third copies) And send it to the Station Master of the nearest block station Through a messenger.

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- ii) The Station Master on receiving the Form T-1524-B shall enter the time at which the "Removal Report" is received by him, countersign it, take the second copy and return the third copy to the Official in charge through the messenger, obtaining his signature in the Train signal Register.
- iii) This Station Master shall, immediately, advise the Station Master of the block station at the other end at the same Time at which giving a private number to him.
- iv) Both the Station Master shall enter the private number in the Train signal Register, In addition, they shall enter, in red ink, the time at which the lorry is removed from the line and the "Removal Report" is received against the entry for the lorry and inform controller on duty.
- v) If, subsequent to the lorry having entered the section, the visibility is impaired, the lorry shall at once be removed from the line and the Official-in-charge shall take action as detailed in Clause (d) above. The Official in charge shall place the lorry on the line only when visibility improves after following the procedure detailed in clause (b) above.

PROCEDURE FOR WORKING LORRIES ON DOUBLE LINE WITHOUT LINE CLEAR UNDER PROTECTION OF CATION ORDER(IN CONJUNCTION WITH FORM T- 1524-B)

S.R.15.24(8)(a)Placing a lorry on the line at a station:-

The same procedure shall be followed as in sub-clause(a) of S.R.15.24(7). The Official in charge of the lorry shall specify in the Notice portion of form T-1524-B the line (Up or Down as the case May be) by which he proposes to place the lorry in the section. If it is his intention to shift the lorry from one line to the other, he shall state the same clearly in the notice portion of from.T-1524-B.

- (b) Placing a lorry on the line outside station limits:- The same procedure Shall be followed as in sub-clause(b) of S.R.15.24(7)
- (c) Removing a lorry from the line at a station:- The same procedure Shall be followed in sub-clause (c) of S.R.15.24(7).

- (d) Removing a lorry from the line outside station limits:- The same Procedure shall be followed as in sub-clause (d) of S.R.15.24(7).

S.R.15.24(9) When a lorry is removed from the line, the Official-in-charge shall Also ensure that it so placed as not to foul the adjacent line

S.R.15.24(10) The official in charge can place the lorry on any of the two lines, and Also change from one line to the other according to his convenience Only if he has stated the some clearly in the notice portion of the From T-1524-B as indicated in S.R.15.24(8).

S.R.15.24(11) Working of lorries on single line and double line formT-1524-B: Responsibility of Station Master:-

- i) The Station Master shall at once place the "Lorry on line" on Bell push button on single line or on the plunger on Double Line and keep it there until the "Removal Report" is received.
- ii) When asking for or giving Line clear for a train, the Station Masters shall remind each other by telephone of the fact That there is a lorry on the line.
- iii) Caution order shall issued for train entering the block Section which is known to be occupied by a lorry on from T- 1524-B.
- iv) On the double line caution order shall be issued to both Up and Down train, irrespective of the line on which the lorry May be placed if the Official in charge of the lorry has stated his intention to change from one line to the other in the notice portion of Form-1524=B as indicated in S.R.15.24(11) Otherwise caution order shall be issued only to Loco Pilot of trains running on the line in which the lorry is placed.
- v) Whenever lorries are permitted to enter a block section on Form T- 1524-B, it shall be specially ensure that until the "Removal Report" is received, the trains mentioned in the From T-1524-B shall not be allowed to enter the block section prior to the times specified therein and no trains, other than those mentioned in the form, excepting Accident Relief Train, shall be allowed to enter the block section, When An accident relief train is required to enter the block section, Block working shall be suspended and "Authority to Proceed without Line Clear" shall be issued to the Loco Pilot Of the train.

- vi) When a lorry is placed on line on Form T-1524-B and "Removal Report" has not been received even after sunset, The Station Master may permit train service into the Concerned block section on "Authority to proceed without Line Clear" until "Removal Report" is received.

S.R.15.24(12) Responsibilities of the Official-in-charge of Lorries

- i) The Official –in-charge of the lorries is responsible at all times for its safe working. He shall keep a sharp look-out, see that the rules for working are strictly adhered to and always be on the alert to guard against accidents. He shall at all times ensure adequate protection for the lorry. The Official- in-charge shall stop short of the level crossing and pass it after ensuring that the gates have been secured against road traffic.

S.R.15.24(13) When a lorry is working under the rules for working trains, The "Removal Report" of Form T-1524 A and the Line Clear Ticket shall be sent to as to reach the Station Master in Time to prevent delay to the next train due to enter the section.

S.R.15.24(14) Lorries following one another:- When two lorries are running Together in the same direction and on the same line, care to Be taken to ensure that they are kept at least 100 meters Apart.

S.R.15.24(15) The speed of a lorry shall not exceed 15 Kmph. Should a Lorry be overtaken by mist or bad weather when working in a section, all precaution shall be taken to protect it by means of detonators, lamps or flags and the speed of the lorry shall not exceed 5 Kmph.

S.R.15.24(16) Responsibility of Engineering staff working on the line:- Trackmen, Track Safetymen and Gatemen shall exhibit a Stop hand, signal to warn any approaching train when they See lorry on the line and shall continue to exhibit the stop Hand signal till the lorry has passed at least 1200 meters on Board Gauge or until it is removed from the line.

S.R.15.24(17) Responsibility of the Loco Pilot:- When the Loco pilot of a Train receives a caution order notifying that a lorry/lorries/is Are on the line, he shall proceed with caution keeping in good look-out. If, on account of curves or cuttings or any Other circumstance the view ahead is obstructed, the Loco Pilot shall exercise special vigilance and caution and whistle Frequently to warn the men-in charge of the lorry/lorries.

These precautions shall be observed until the lorry/lorries has/have been passed.

S.R.15.24(18) During total interruption of communications or when Line Block is in force, lorries shall be worked on "Authority to Proceed without Line Clear."

S.R.15.24(19) (a) Working of Dollies.

- i) Subject to their being certified competent, all JE/SE(P.Way) and PWS/APWS of permanent way Are permitted to use Dollies.
 - ii) No Railway servant shall use a Dolly unless he is in possession of a permit signed by an Engineering Official not lower in rank than that of REN/AEN.
 - iii) The permit will only be issued, after the person, in whose name it is issued, has been examined and declared to be conversant with the rules for working of dollies. The permit shall be valid for a period of one year from the date of issue. It shall, therefore, be renewed annually after the person holding it has been examined as mentioned above.
 - iv) Each dolly must have marked on it, the number, designation and code initials of the head quarter station of the Official , to whom it is allotted, painted in white letters, conspicuously.
 - v) Dollies should always be pushed and not pulled.
 - vi) Dollies shall normally be worked during day light hours. If it is necessary to work at night, it shall be worked under block protection.
 - i) The Official-in-charge of the dolly, while approaching level crossing should look out for road traffic and ensure safe passage of this dollies.
- (b) Equipment of Dollies:-
- i) Following equipment should be provided on Dollies when placed on running line.

Exclusive flagmen should be provided to exhibit:-

- a) During the day time a red flag, fixed to a staff of not Less than 180 cm in height should be displayed on Each side so as to be clearly visible to the approaching train.

- b) 358
- (b) During the night, a light shall be placed to show conspicuously, on the double line, white to the front and red to the rear and on signal line red both to the front and the rear.
- ii A portable field telephone in working order must be carried with the in charge of dolly when dollies are put on track.
- (c) Minimum number of Dollymen:-
A minimum number of 3 dolly men should man each dolly exclusive of flagmen to protect them flags and detonators.
- (d) System of working of Dollies:-
i. At night time all dollies must work under block protection.
ii. Working of Dollies within station section:-

Whenever a dolly has to work within Station, the Official-in-charge of the Dolly will advise the Station Master In writing specifying the line and the period during which it Will work. The Station Master on duty before authorising Taking "off" of signals for reception and despatch of trains, will personally satisfy himself that the Official in charge of The dolly is advised and that the dolly does not foul the path of trains. Stop collars shall be used on those button governing the signals of the line on which dolly would be working. The speed of Dolly will not exceed 3 kmph at any time.
- (e) Working Dollies in Block section without Block protection.
i. Dollies shall normally be worked without block protection.
When it is proposed to work dollies outside the station Section, without block protection, the Official in charge of The dolly shall ascertain the whereabouts of trains that he is likely to encounter on the section before he places the dolly on the line.
ii. Where due to curves, cutting or gradients, a clear view is not available for a distance of 1200 meters, the dollies must be protected.

- iii) When the nature of the line is such that the flagmen cannot be seen by the person in charge of the dollies, the later must arrange, before entering the section, to take with him sufficient number of unit in charge with hand signals and banner flags so that the required number of flagmen can be provided for repeating the signals to the person in charge of the dollies.
- iv) If the visibility is impaired due to rain, dust, storm, fog or any other cause the dolly shall be removed from the line and should not be replaced until the visibility is adequate.
- v) On the section other than enlisted under Rule S.R.15-24 (1) special precautions should be taken , when working dollies without block protection approached by sharp curves, cutting, tunnels etc.
- vi) Dollies shall invariably be worked under block protection when-
 - a. It is necessary during an emergency to work it at night.
 - b. The visibility is restricted due to dust , storm , fog, Rain or any other cause.
 - c. On the sections enlisted under Rule S.R. 15.24(1)
- vii) During total interruption of communications or when Temporary Signal Line working is in force on a Double Line Section Dollies shall not be allowed to enter a block section. In case of extreme emergency, if it is indispensable to work Dollies, the person incharge of dollies should arrange for Protection and ensure that the speed of the dolly does not Exceed 3 Kmph at any time.

(f) Mode of working Dollies:-

- i) For carrying of single rail, 2 rail dollies shall be used and for transporting a 3 rail panel 6 number of rail dollies shall be deployed. The minimum number of dollymen shall be 3 (three) per dolly.
- ii) Rail dolly should run on the cess rail in case of double line to ensure safety of adjacent track.

- iii. As soon as the train is sighted, the rail dolly shall be instantly released by the release lever arm from the running line thus allowing the rail to drop on the ballast shoulder far away from the running line. Simultaneously the rail dolly is turned over and all infringement cleared before the passage of the train. All these operations normally should not take more than 2 minutes.

KONKAN RAILWAY T-1524-A
MATERIAL LORRY NOTICE
(under Full block protection)

No -----

Serial No -----

To,

The Station Master -----

If it necessary to place a Material lorry on the line your station ----- and ----- station from ----- hours ----- minutes.

The block section will be cleared at ----- hours ----- minutes.

Date -----

Time -----

Official in charge

Received from Station Master paper Line Clear Ticket No ----- and the section

Will be cleared at -----

Station Master

Official in charge

REMOVAL REPORT

Material lorry No ----- arrival at ----- station at ----- hours ----- minutes.

Material lorry No ----- was removed from track at kilometres ----- at -----
Hours ----- minutes.

Block section cleared at ----- hours ----- minutes.

Removal report received at ----- hours ----- minutes.

Station Master Station -----

Official in charge

KONKAN RAILWAY

T-1524-B

MATERIAL LORRY NOTICE

No-----
Serial -----

To,
The Station Master -----

It is necessary to place a material lorry on the line between your station ----- and ----- station from ----- hours ----- minutes to ----- hours ----- Minutes.

Please block the line upto ----- hours ----- minutes and issue caution Orders to drivers after this, and upto the line the section is certified clear.

Date-----

Time -----

Official in charge

To, Official in charge

Notice NO ----- received at ----- hours ----- minute

I have blocked the line as desired upto ----- hours and caution orders will be

Issued after this period until the section is declared clear by you.

Date ----- Time -----

Station Master **REMOVAL REPORT**
Material lorry No ----- arrival at ----- station at ----- hours ----- minutes.

Material lorry No ----- was removal from track at kilometres ----- at -----

Hours ----- minutes. Discontinue issue of caution orders.

Block section cleared at ----- hours ----- minutes.

Removal report received at ----- hours ----- minutes.

Station Master Station -----

Official in charge

**SECTION ON WHICH MATERIAL LORRIES ARE TO BE WORKED UNDER
BLOCK PROTECTION WITH FORM-T1524- A Annexure S.R.15.24(1)**

SL NO.	Section	Location of & Tunnels Cuttings		
		From	(Kms.)	To
1	Veer - Karanjadi	50	52	
		60		62
2	Karanjad i- Diwankhauti	70		73
		75		80
3	Diwankhauti – khed	80		82
		83		84
		95		96
		97		98
4	Khed - Anjani	99		100
		101		104
		108		110
5	Chiplun – Chiplun	117		118
		121		123
6	Chiplun – Sawarde	134		137
		139		145
7	Sawarde – Aravali	148		150
		152		154
8	Aravali – Sangameshwar	157		160
		161		169
9	Sangameshwar – Ukshi	171		174
	Bhoke – Ratnagiri	176		178
10	Ratnagiri – Nivsar	207		221
	Adavali – Vilvade	223		228
	Rajapur Road – Vaibhawadi	230		233
		236		243
		249		260
		262		272
		272		279
		280		283
11	Nandgaon Raod – Kankavli	304		309
12	Kankavli – Sindhudurg	328		330
13	Kudal – Swanthwadi	333		335

SL.	Section	Location of Tunnels & Cuttings (Kms)	
		From	to
14.	Sawanthwadi – pemem	382	385
15.	Thivim – Karamail	411	413
16.	Karamali – Verna	426	428
17.	Margao – Bali	448	451
18.	Bali – Cancona	463	466
19.	Cancona – Asnoti	483	485
20.	Karwar – Harwada	502	507
		513	514
21.	Harwada – Ankola	525	526
22.	Gokarna – Kumta	545	547
23.	Honavar – Manki	572	575
24.	Murdeshwar – Bhatkal	608	610

15.25 MOTOR TROLLY :- A motor trolley shall only be run in accordance with

Special instruction.

- S.R.15.25(1)** Motor trollies shall, in all cases, be manned by not less than 4 trolley men and may carry upto 9 persons including the Trolley men.
- S.R.15.25(2)** While a motor trolley is running it should be ensured that there are at least two persons seated in front and the load is evenly distributed between the two axles.
- S.R.15.25(3)** The speed of the motor trolley is limited to 15 Kmph when Passing through a station yard over a point crossing or turn Out subject to other restrictions in force.
- S.R.15.25(4)** Running of Motor Trollies :- A motor trolley is normally permitted to run on line clear only. It may, however, be permitted to follow a fully vacuum/air braked train or another motor trolley in the same block section during day light hours and even then in clear weather only. For this purpose, the Official in charge of the motor trolley shall obtain a "Motor Trolley Permit" from the Station Master concerned before entering the block section. The Trolley permit shall be prepared in duplicate by carbon process. One copy must be retained by the Station Master issuing the permit and other will remain in the custody of the Official in charge of the Motor Trolley till the block station in Advance is reached where this permit shall be handed over to the Station Master. Regular message, supported by private number should be Exchanged between the two Station Masters concerned and suitable entries made in the Train Signal Registers of the Stations. The 'IN' & 'OUT' report for the preceding train/Motor trolley and the following motor trolley shall be sent Separately and recorded in the Train Signal Register. The Line must not be closed until the following motor trolley also Has cleared the block section. A specimen from of the Motor Trolley permit is reproduced below:-

KONKAN RAILWAY
 MOTOR TROLLY PERMIT
 (Original/ Duplicate)

Station _____ Date _____

From Station Master _____

To,
 _____ (Officer in charge) Motor trolley No. _____

You are permitted to follow Train no. _____ Motor Trolley No. _____
 _____ In Block Section between Station _____ and Station _____ which left
 This station at _____ hours _____ minutes for station _____
 You are also authorized to pass Up/Down _____ signals at "ON" Position.
 On arrival at _____ Station you are required to hand over this permit to Station
 Master _____

Date No. Received (in words) _____ (in figures) _____

 Signature of station Master
 Station Master Stamp

Received _____

Signature of *(Official incharge & Designation)
 (Motor Trolley driver)

*Strike out which ever is not applicable

A Station Master who has signed a trolley permit is personally responsible that he neither asks nor gives line clear for a train over the section on which the trolley is running until it clears the section and the 'IN' report has been received. The Station Master who has signed for 'Trolley permit' shall not change over his duty until the receipt of 'IN' report.

S.R.15.25(5) Reception of motor trolley at a station when following a train

- (a) When a motor is following a train, a light engine or Another morot trolley on the authority of motor trolley permit, The reception/despatch signals taken off for the preceding Train, Light engine or motor trolley shall not be restore to 'ON' position until the following motor trolley has also passed Such signals, in such cases, the trolley shall be admitted on The same line as the preceding train/light engine/motor trolley.
- (b) If, in any case, motor trolley which is following a train fails to arrive at the next station within a reasonable time after the arrival of the preceding train/light engine/motor trolley, and is also not in sight, the Station Master may put back the Reception signals to 'ON' to perform any shunting, conduct other movements or to open a Level Crossing previously closed for the train/motor trolley movement but shall not, in any case, obstruct the block section in the face of the approaching motor trolley. In such cases the motor trolley will be received as mentioned in para (c) below.(c) Reception of Motor Trolley at station.

At station where the reception signal automatically goes to "ON" position, with the passage of the train, the motor Trolley When it is following a train , will be received in the station Yard by taking concerned reception signals to 'OFF' Position.

- (d) In case of (b) and (c) above, it will be the personal responsibility of the person incharge of the Motor trolley to ensure that, before he goes across any level crossing , the level crossing gates are closed against the road traffic.

S.R.15.25(6) Cancellation and obtaining block for motor trolley/light weight motor Trolley/trailer trolley from mid-section**(a) When Motor Trolley is required to be removed from the track in Mid Section-**

When Motor Trolley (whether working on an authority to proceed or Motor Trolley permit) is failed in the mid section , or when a light weight motor Trolley/Trailer trolley is required to be removed from the track in Mid-section , the official incharge shall at once remove it from the track. He Shall then contact the station Master of nearest station on emergency Telephone and advise him regarding breakdown and removal of motor Trolley from the track in mid section giving location and time of removal and quoting his name, designation and code, supported by private Number. The concerned station master will repeat the same to the on Duty controller who will tally the name, designation and code and after Confirming that correct person is reporting for cancellation of given block For motor trolley he will allow the concerned station master for cancellation of block.

The concerned Station Master then shall advise the other end station master and shall cancel the block in usual manner and make necessary entry in TSR. Then he shall give message to the official incharge on field Telephone regarding cancellation of block supported by private number of both the station master and initial/name of the controller who permitted Cancellation of block .

It is the responsibility of the official incharge to protect the motor trolley in the Section and keep it clear of track. He will also arrange to man the Emergency telephone by competent person till proper permission for Cancellation or obtaining block is received from concerned station Master and controller.

b) When Motor Trolley is required to be placed on line from mid-section-

When Motor Trolley is made fit to run, or when light weight motor trolley/ Trailer trolley is required to put on line from mid-section, the official Incharge shall again contact the concerned station master on field Telephone , advise his name, designation and code and put his demand for Placing Motor Trolley on line, giving time required and station at which Section will be cleared. The station master will repeat the same to the on Duty controller who will tally the name, designation and code of the concerned Official incharge, After confirming that the correct person is asking block, The controller will allow the station master to permit the block for the motor Trolley if time permits. After getting the permission from the controller, the Concerned station master will block the station is usual manner under Exchange of private number and extract shunt key from block instrument And keep it in safe custody till block is cleared. Then only the concerned Station master will give message to the official incharge on Emergency Telephone allowing him to place the Motro Trolley on line and ask him to clear The section at given station at given time, supported by private number of Both station masters and initial / name of the controller who permitted the Block. The official incharge will arrange to place the motor trolley on line And clear the section according as per laid down procedur

S.R.15.25(7)

Motor Trolleys running together:-

When two motor trolleys are running together in the same Direction, they must be kept at a sufficient distance apart so that the rear motor trolley may be stopped within a safe Distance if a trolleyman should slip from the front Motor Trolley Or if the front motor trolley should be stopped suddenly etc. On the level or on an uphill gradient the distance between Two motor trolleys should not be less than that between 3 Consecutive telegraph post or about 180 meters and on a Down grade or with a strong wind behind, it should not be Less than 6 consecutive telegraph posts or 360 metres.

15.26. PROTECTION OF TROLLY ON THE LINE:-

The qualified person in charge of 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 signal 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.

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) Extra under approved special instruction , when the line has not been so blocked and 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 Board Gauge and 400 metres on the Meter 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 Board Gauge and 800 metres on Metre Gauge and the Narrow Gauge from the lorry in the direction from which Trains may approach, or
 - b) On signal line, by one or two men as required following and Preceding the lorry at a diatance of 600 metrs on the Board Gauge and 400 metres an the Meter 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 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 Board 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 banner flag shall immediately fix the banner flag across the track immediately the lorry comes to a stand or train, is seen approaching, and continue 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 order to withdraw them from the Official -in-charge of the lorry.

S.R.15.27(1) Protection of lorry on the line :-

- When a lorry, whether loaded or empty, is placed on the line, with/Without block protection, the lorry shall be protected
- i) On double line, by two men at a distance of 600 metres on Broad Gauge carrying a banner flag held with staff of 2 meters height across the track and another man plainly showing a danger hand signal at a distance of not less than 1200 meters on B.G. From the lorry in the direction from which trains may approach.
 - ii) On single line, by two men, following and preceding the lorry at a distance of 600 meters on B.G. carrying a banner flag held with staff of 2 meters height across the track and another man plainly showing a danger hand signal at a distance of not less than 1200 meters on B.G. from the lorry on either side.
 - iii) Each man so following or preceding the lorry at a distance of 1200 metres on B.G. shall be provided with detonators and place three on the line 10 metres apart immediately the lorry comes to a stand for any purpose or should any train be seen approaching and continue to display the danger hand signal.

- iv. The men carrying the banner flag shall immediate fix banner flag across the track immediately the lorry comes to a stand or a train is seen approaching, and continue to display the hand danger signal.
- v) The danger signals and detonators shall not be removed until the flagmen have received the order to withdraw them from the Official in charge of the lorry.
- vi. When the nature of the line is such that the flagmen cannot be seen by the person in charge of the lorry, the latter must arrange, before entering the section, to take with him sufficient gang men with hand signals so that the required number of flagmen can be provided for repeating the signals to the person in charge of the lorry.

15.28. LORRIES AND TROLLIES OUT OF USE :-

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

CHAPTER XVI

LEVEL CROSSINGS

16.01 KNOWLEDGE OF SIGNALS :- No person shall be appointed to be Gateman unless he has a knowledge of signals

S.R.16.01(1)a) No person shall be appointed to work as a gateman unless he is in possession of a certificate of competency be issued by the Transportation Inspector for the Gatemen of the Traffic Department & by the SSE/SE/JE(P.Way) for the Gatemen of the Engineering Department. The Validity of such certificate will be three years.b) Duties of gatemen at interlocking level crossing gate where signaling levers/panels are provided, involve operation of such levers/panels and concomitant sundry jobs. Therefore it is necessary that competency certificate to such gateman should be given jointly by senior supervisors of concerned departments and SE(S&T) of that section, after proper training, counseling and evaluation of knowledge and understanding of gatemen.c) The controlling officials must insure that Gateman posted at a level crossing gate under there control are fully conversant with its working before they are posted to work independently.

16.02 SUPPLY AND CARE OF EQUIPMENT :- Every Gateman shall-

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

S.R.16.02(1) SM/SS/AS of Traffic Gate and SSE/SE/JE(P-Way) of Engineering Gate are held responsible to ensure that all manned level crossing gates under their control, are provided with following equipments at the gates lodge.

1. Hand Signal Lamps/Tri Colour Torch – 3 (5 on Quadruple line or twin single line).
2. Hand signal flag Green-1 mounted on sticks
3. Hand signal flag Red-3 (6 on Quadruple line or twin single line mounted on stick)
4. Banner flag Red -3 (5 on Quadruple line or twin single line)
5. Posts for exhibiting red banner flag-2 (4 on Quadruple line or twin single line)
6. Long spare chain with pad locks and stop board-2
7. Detonators-10 in tin case
8. LED/Flasher type Red HS lamp -2 (3 on multiple line /double line)
9. Gate lamps-2

10. Tommy bar 1
11. Mortar pan – 1
12. Spade /Fowrah -1
13. Rammer -1 (In case of asphalted road this may not be provided)
14. Pick Axe – 1 (In case of asphalted road this may not be provided)
15. Tin case for flags – 1
16. Can for oil -1
17. Water pot/Bucket-1
18. Canister for Muster roll-1
19. Set of spare spectacles of gateman wearing glasses -1
20. Board demarketing protection of level crossing gate diagram -1
21. Basket -1
22. Whistle -1
23. Wall clock -1
24. Small size chain to be used in case of failure of gate boom – 2
25. Check Rail Gauge – 1
26. EMC telephone – 1
27. First Aid Box -1
28. Pair of Joggle fish plate -1
29. Key man's Spanner -2
30. Fire Extinguisher -1

S.R.16.02(2) SM/SS /AS of Traffic Gate and SSE/SE/JE (P-Way) of Engineering Gate are held responsible to ensure that all Manned level crossing gates under their control, are provided with following records at the gate lodge.

1. Gate Working Instructions in Hindi/English
2. Gate Working Instructions in local vernacular language
3. Gateman Rule Book in local vernacular language
4. List of tools and books.
5. Duty Roster
6. Competency Certificate for working as gateman
7. Bio-data particulars of Gateman, including date of PME, Vision test, Initial / Refresher Course, Safety Camps, etc
8. Accident Register.
9. Period of last census of road traffic at level crossing gate & TVU.

10. Date of last overhauling of level crossing gate.
11. Public Complaint Book.
12. Inspection Book.
13. S&T Register in case of Interlocked Engineering Gate

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 instruction permit the gates at any level crossings 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) Gateman, where provided, shall, at all level crossings be prepared, whenever such level crossing, be open to road traffic, to show a Stop hand signal to any approaching train.3) Where no Gateman is specially provided for night duty at a level crossing, the gates there at shall, subject to special instructions, be locked at night and opened only to pass road traffic in such a manner as may be prescribed by special instructions.

S.R.16.03(1) Special instructions shall be embodied in the Station Working Rules for level crossings situated within outermost stop signal and also for those Engineering Level Crossing Gates which are situated outside outermost Stop Signal but provided with telephonic communication. These instructions shall be framed by Engineering branch Signed by Sr. REN with prior approval of AOM and RSTE. If any communication is provided between a station and level crossing, whether situated within or outside the outermost Stop signal, procedure to be followed, must be laid down in the special instructions. Action to be taken by Gateman/

S.M. in the event of failure of communication between the level crossing and the station should specifically be mentioned in such rules/instructions. A copy of these rules/relevant extract from the Station Working Rules should be hung up at the gate lodge at manned level crossing.

S.R.16.03(2) Classification of and Specification for level crossing:- For classification of, and standard specification for, level crossing and other rules pertaining to level crossings and gateman, a reference must be made to Chapter IX of Indian Railways Permanent Way Manual 1986 issued by the Railway Board.

S.R.16.03(3) All special and A class level crossings which are interlocked and protected by signals are exempted from G.R.16.03 (1) and also such non-interlocked 'B' and 'C' class level crossings which are equipped with lifting barriers, have telephonic connection with the station and where track at the level crossing is straight on either side to afford clear view of an approaching train and are not on suburban or Automatic signaling sections. These 'B' and 'C' class level crossings should be provided with whistle Board on either side at adequate distance and Regional Railway Manager should personally decide to keep them open to road traffic and should get approval of CE and COM.

SR 16.03(4) The normal position of all non-interlocked gates will 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 COM and CE provided he following conditions are satisfied.

The level crossing should be equipped with co-acting lifting barriers.

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 close the gate.

The railway track at the level crossing should be straight on either side to afford a clear view of an approaching train at an adequate distance to enjoin the Loco Pilot of approaching train to give an audible warning to the approaching train to the road users. The level crossing shall be provided with the whistle board on either side. Adequate number of gate men are provided. All such proposals should be personally decided by the RRM and with details submitted for approval of the COM and CE.

Review of such Level Crossing should be taken every year and attempts should be made to provide necessary facilities.

Gates shall be closed for road traffic in the event of failure of telephone and also if the visibility is impaired due to rain, thick foggy or tempestuous weather and shall be opened only when necessary, provided no train is approaching.

In case of level crossing gates not protected by gate /station stop signals, the following procedure will be followed for display danger signals :-

- a. At level crossing gates with normal position 'Closed to road traffic', the gateman after ensuring that there is no train in sight nor there is any audible sound of it, will fix red flag/ lamp on the staff provided on both sides of the gate before he proceeds to open the gate for passing Road Traffic and Red flag / lamp will remain fixed as long as the gate remains in 'Open' position. After closing the gate he will remove the red flag/lamp.
- b. At level crossing gates whose normal position is open to road traffic, the gateman, on being aware or on being informed of an approaching train, will fix red flag/lamp on the staff provided on both sides of the gate till he closes the gate. After closing the gate he will remove the red flag/lamp.

S.R. 16.03 (5) Failure of Telephone communication between Gate Keeper and Station Master.

- (i) In the event of failure of magneto Telephone, Private Number may be exchange over Portable Emergency Field Telephone. While doing so Gateman shall repeat his name and designation (i.e. Regular Gate Keeper/Rest Giver/Track Man/Points Man) and Station Master on duty shall record the same in the Pvt. No. exchange register and SM's diary and S&T failure register.
- (ii) In the event of failure of both Gate Magneto Phone and emergency Field telephone or gateman failing to attend the telephone, the Station Master shall not allow any train to enter the section, unless the Guard and Loco Pilot have been advised to the effect by issuing a caution order. He shall also advise the Station Master at the other end under the exchange of private number to issue caution order before he grants 'Line Clear'.
- (iii) The Loco Pilot on receipt of caution order shall
 - a. Use engine whistle frequency to attract the attention of the Gateman.
 - b. Proceed cautiously and be prepared to stop short of the level crossing gate.
 - c. Pass the gate cautiously, if the Gate is closed and the Gateman showing all right signal.

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- iv) (a) If the Loco Pilot does not find the Gateman at the gate, he must stop short of the level crossing by not less than 30 metres and depute his Assistant Loco Pilot to see the condition of the gate. If the Gate is closed, the Assistant Loco Pilot will give the all right signal. If the gate is not closed, the Asst. Loco Pilot must close the gate and give all right signal. Loco Pilot will then draw the train ahead cautiously and pickup the Assistant Loco Pilot in the engine.
- b) After passing the gate, the Loco Pilot shall again stop the Train ahead by two vehicles length clear of LC gate. Guard will then get down from his brake van, open the gate for road traffic and again get in his brake van. Loco Pilot will restart the train after exchanging the all right signal with the guard. He must stop at the next station (even if it is booked to run through) and advise the on duty Station Master the position at the level crossing gate, as the case may be.
- (v) The Station Master, on receipt of the message from the Loco Pilot, will advise the station in rear, notice station, section controller and concerned engineering and S&T official for taking necessary action.
- (vi) The caution order will continue to be issued till such time the station master has got the assurance of the presence of the gateman at the gate and proper telephone communication is established between the L.C. gate and the concerned station.

16.04. GATEMEN TO OBSERVE PASSING TRAINS:-

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

S.R.16.04-(I) The Gateman at all level crossing gates should stand attentively at the Gate lodge side facing the track in the manner indicated below ..

- (i) During day time, he should hold red and green hand signals, furled up on separate sticks, the green flag in the left hand and the red flag in the right hand.
- (ii) During night time, he should have a lighted hand signal with white light pointing towards him.

S.R.16.04(2) The Gateman shall watch all passing trains and keep a sharp look for any unusual condition like, hot axle, hanging part, any vehicle/wagon on fire, load shifted etc. In case he notices the above or any other danger to safe running of the train, he should take prompt action to warn the Loco Pilot and Guard by showing the danger signal. If train crew fails to act upon the gateman's signal he shall immediately inform to the next gateman (if available) and controlling Station Master to take necessary action.

S.R.16.04(3) The Gateman should be prepared to repeat any signal which the Guard may have occasion to give to the Loco Pilot.

S.R.16.04(4) Loco Pilot and Guards shall be on the lookout for such Danger Signals from the Gateman.

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 gate, hand signal the train movements past the level crossings,
- c. If the gates cannot be so closed, put the Banner flag or Level crossing flag in such manner as to warn the approaching train to stop short of the gate and thereafter hand signal the train.
- d. report the fact to his superior or the nearest Gangmate.

16.07. OBSTRUCTIONS AT LEVEL CROSSINGS:-Every Gateman, on noticing any obstruction on the line, shall at once remove it or, if unable to do so, shall-

- a. take action to ensure that the fixed signals, if any protecting that gate are kept at 'on',
- b. Show Stop hand signal and do his best to stop the approaching trains, and
- c. Shall protect the obstruction as per Rule 3.62.

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S.R.16.07(1) In case of an obstruction at a level crossing not protected by fixed signals, the Gateman, if unable to remove the obstruction, will take immediate action to protect the line as follows:-

- a) On Signal Line.-
 - i. Plant the red hand signal flag fixed on the staff in the centre of the track 5 metres short of obstruction in the direction from which the train is likely to approach first.
 - ii. Plant another red hand signal flag fixed on the staff as above in the opposite direction.
 - iii. Then proceed in the direction from which train is expected first, exhibiting Stop hand signal to any approaching train in that direction and protect the line by fixing detonator as laid down in GR 3.62.
 - iv. Protect the line by fixing detonators as above in the opposite direction.
 - v. Than take a stand at the level crossing and clearly exhibit Stop hand signal to warn the Loco Pilot of an approaching train.
- b) On Double Line.-
 - i. If only one line is obstructed, it should be in the manner prescribed in (a) (i), (iii) and (v) above.
 - ii. If the obstruction has fouled the adjacent line(s), also, action should be taken first to protect such line(s) by planting a red hand signal flag fixed on the staff in the centre of the track 5 metres short of the obstruction in the direction from which the train is likely to approach the level crossing.

The Gateman should then proceed further in the same directions exhibiting Stop hand signal to any approaching train and protect that line by means of detonators as laid down in GR 3.62.

After protecting the adjacent line(s), the Gateman should protect the other line as per the procedure laid down in sub-para (b) (i) above. The Gateman shall then take a stand at the level crossing and clearly exhibit Stop hand signal to warn the Loco Pilot of an approaching train.c) On Twin Single Line Section. –

Each line shall be protected, according to the procedure laid down in sub-para (a) above, care being taken to protect the adjacent line first, in case the same has been fouled by the obstructions. d) During night time or in thick and foggy weather, the red hand signal flag will be replaced by red lamp.

S.R.16.07(2)

In case of any obstruction at level crossing protected by fixed signals if the Gateman is unable to remove the obstruction, he will take immediate action to protect the line as follows:-

- i. If signals protecting level crossing gate are operated from Stations:-
Inform the Station Master on duty to maintain the necessary signals at 'ON' and then take action to protect in a manner prescribed in S.R. 16.07 (1).
- ii. If signals protecting level crossing gate are operated from gate Panel/Lever Frame:-
Maintain the necessary signals at 'ON' and then take actions to protect in a manner prescribed in S.R. 16.07 (1) and also inform the Station Master on duty.
- iii. In absence of gate signal light in colour light signaling Level crossing shall be protected by planting red flags as mentioned in SR 16.07 (1) (a) (i) and (ii).

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.

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S.R. 16.08 (1) The attention of Loco Pilot and Guard must be attracted by shouting, moving a green flag by day and a white light by night up and down vertically as high and low as possible.

16.09. TRESPASSING :-

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

16.10 TRANSFER OF CHANGE 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) All Subsidiary rules, which control the movement and operation of Diesel Trains shall also apply to movement and operation of electric trains, except as otherwise provided in these rules.

S.R.17.01(2)

- (a) All officials connected with movement of 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 correct procedure to be followed under normal condition as well as in an emergency.
- (b) Every Railway employee, supplied / not supplied of these rules shall make himself thoroughly acquainted with the rules and shall be held responsible for failure to comply. Ignorance of the rules will not be accepted as an excuse for non-compliance.

S.R.17.01(3)

- (a) The A.C. Traction Manual containing the rules for the operation of A.C. Traction equipment shall be applied to only 25 KV AC Traction System.
- (b) All staff working in an area where electric traction is in use must make themselves thoroughly conversant with the appropriate rules pertaining to their duties on 25 KV A.C. traction described in para 3 (a) above.

17.02 Special definitions applicable to this Chapter:-

In these rules unless the context otherwise requires.

- 1) “Electrical way and works” means the traction installations including overhead equipment and other connected works provided on the electrified sections of the railway;
- 2) “Feeding post” means a supply control post, where the incoming feeder lines from grid sub-station are terminated.
- 3) “Neutral Section” means a short section of insulated and dead overhead equipment which separates the areas fed by adjacent sub-stations or feeding post.
- 4) “Power Block” means blocking of section of line to electric traffic only;
- 5) “Supply control post” means an assembly of interrupters, isolator switches, remote control equipment and other apparatus provided for controlling power supply to overhead equipment. It includes feeding posts, sectioning and paralleling posts, sub-sectioning and paralleling posts and sub- sectioning posts;
- 6) “Tower wagon” means a self-propelled vehicle which is used for the maintenance and repairs of overhead equipment;
- 7) “Traction Power Controller” means a competent railway servant who may for the time being be responsible for the control of power supply on the traction distribution system.

S.R.17.02 (1)

- i. “Phase Conductor” means a conductor which carries current to the traction overhead equipment.
- ii. “Return Conductor” means a conductor which carries return current from the tracks to the sub-station. Return Conductor also includes.

S.R.17.02 (2). ‘Traction Power distribution system’ means a distribution system provided for traction purposes. This is also referred to as “Power distribution system”.

S.R.17.02 (3)

- i. “Earthing” or “Connected to Earth” means electrically connected with the general mass of earth in such manner as to ensure at all times an immediate discharge of energy without danger.
- ii. “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 (4). “Feeder” means a conductor connecting a switching station to a grid sub-station, and a switching station or switch gantry to a feeding point and includes a conductor connecting O.H.E. to switching station.

S.R.17.02 (5). “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 (6)

- iv. All overhead electrical equipment, distribution lines, transmission lines and feeders may be collectively referred to as “Overhead lines”
- v. “Pantograph” means a collapsible devices mounted on and insulated from the roof of an electric engine or motor coach and provided with a means for collecting current from the overhead equipment.

S.R. 17.02 (7)

- i. “Rail Bond” means an electrical connection on across a joint in or between adjacent length of rail.
- ii. “Bond Continuity” means a rail bond used for maintaining continuity of the rail return circuit at points and crossings.
- iii. “Bond cross” means a rail bond used for connecting together two rails of a track or rails of adjacent tracks..
- iv. “Bond Impedance” means a bond installed on a double rail track circuit by the S.&T. department, which provides a low impedance path for the traction return current and relatively high impedance path for track circuit current.
- v. “Bond joint” means an electrical connection across a joint between two adjacent lengths of rail as part of the track return.
- vi. “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 (8)

xiii. "Single Unit Train" means the combination of a motor coach and trailer or motor coach and trailers adopted as an operating unit.

xiv. "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 (9)

- iv. "Switch (Electrical)" means a device for opening or closing an electric circuit.
- v. "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.
- vi. "Switch, Gang operated, Earth type" means a special switch used for isolating and earthing the OHE. over electric loco inspection pits and in electric loco sheds (and carriage, coaching section) and for providing a dead section in front of it. Simultaneously and for energizing both sections in one operation.
- vii. "Switch / Inter-connecting/ section or isolator" means a switch used for connecting or disconnecting adjacent elementary sections of overhead equipment or of distribution mains.
- viii. "Switchgear" means isolator switches, Circuit Breakers, Interruptors, Cut-Outs and other apparatus used for the operation, regulation and control of electrical circuits.

S.R. 17.02 (10) Additional definitions in use on Konkan Railway.

- 1. "Apparatus" means electrical apparatus and includes all machines fittings, accessories and appliances in which conductors are used.
- 2. "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 Region or in an area and responsible to the Regional Electrical Engineer(Traction Distribution).
- 3. "Assistant Electrical Engineer (Rolling Stock)/(AEE/RS)" means an Assistant Executive Officer in-charge of maintenance and repairs of electrical rolling stock in a Region or in an area and responsible to the Regional Electrical Engineer (Rolling Stock).
- 4.

- (a) "SENIOR SECTION ENGINEER OVERHEAD EQUIPMENT (SSE/OHE)" means a subordinate of the area concerned responsible to the AEE (OHE) for inspection and maintenance of traction overhead lines, rail bonds and for the staff employed thereon.
 - (b) "SENIOR SECTION ENGINEER ROLLING STOCK (SSE/RS)" means a subordinate of the area concerned responsible to AEE (Rolling Stock) for the maintenance of electric rolling stock and for the staff employed thereon
5. "Bare" means not covered with insulating material.
 6. "Cable" means length of Insulated single conductor (solid or stranded) or of two or more such conductors, each provided with its own insulation, which are laid up together. Such insulated conductor or conductors may or may not be provided with an overall mechanical protective covering.
 7. "Caution Notice" means notice attached to or placed near live equipment calling attention to the danger of touching or interfering with such equipment, and bearing the words "Caution - Live Equipment".
 8. "Junior Engineer" (JE) means an authorized person in charge of a gang of workmen and/or Linemen, authorized to work on specific types of traction equipment such as overhead equipment, switching station feeder lines, remote control equipment, electric rolling stock etc.
 9. "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".
 10. "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.
 11. "Competency Certificate" means a certificate issued to a person by the Railway Administration authorising him to carry out specified duties pertaining to his employment.
 12. "Contact Wire" means an overhead conductor from which electric power is supplied to electric rolling stock.

13. "Cut-out"(fuse) means any appliance for automatically interrupting the transmission of energy through any conductor when the current rises above predetermined value.
14. "Danger" means danger to health or to life or any part of body from shock, burn or other injury to persons, or property, or from fire or explosion, attendant upon transmission, transformation, conversion, distribution or use of electrical energy.
15. "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"
16. "Danger Zone" means the zone lying within two metres of any live equipment in the 25 KV AC traction system in which no work is permitted when the equipment if alive.

Notwithstanding the above the Loco pilot of an electric loco is permitted to change the headlight bulb of the loco while standing on the buffer beam projection at the floor level of the cab.
17. "Regional Electrical Engineer (Traction Distribution) (REE Tr.D)" means an Executive Officer responsible for the traction power distribution system including power supply arrangements and remote control equipment in a Region or in an area.
18. "Regional Electrical Engineer (Rolling Stock)/(REE/R.S.)" means an Executive Officer responsible for the electric rolling stock in a Region or in an area.
19. "Dropper" means a fitting used in overhead equipment construction for supporting the contact wire from the catenary.
20. "Electrified Track" means track provided with overhead equipment.
21. "Emergency telephone" means a telephone circuit provided for contacting the Traction Power Controller.
22. "Grid sub-station" means a sub-station equipped with transformer and switchgear belonging to the power supply authority from which power at 25 KV is supplied for electric traction.
23. "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.

24. "Insulated (Air-gap) Overlap-Span" means an arrangement of over head equipment over a track where two sets of traction conductors overlap each other for a short distance providing for a smooth passage for the pantograph of electric rolling stock, the two sets of wires being insulated from each other by an adequate air-gap.
25. (i) "Interruptor" means a single phase circuit breaker without an automatic tripping device.
 - (a) "Bridging Interruptor" means an "Interruptor" which is provided at a neutral section to enable one sub-station to feed a sector of the overhead equipment normally fed by another sub-station during emergencies or when the latter is out of use. This interruptor normally remains in the open position.
 - (b) "Sectioning Interruptor" means an interruptor which connects adjacent sub-sectors together to maintain continuity of supply. This interruptor normally remains in the closed position.
 - (c) "Paralleling Interruptor" means an interruptor which connects overhead equipment of two different tracks. This interruptor normally remains in the closed position to reduce voltage drop.

(ii) "Isolator"-means a switch suitable for disconnecting circuit on no load condition.

26. "Lineman" means a person authorized to inspect and work on the overhead lines and switches in relation therewith.

Note : This is the lowest grade of employee who is allowed to enter an unattended switching station unaccompanied by his superior.

27. (a) "Remote Control Centre" means the centre from which the equipment's at various switching stations are remote controlled by the Traction Power Controller.
- (c) "Remote Control Cubicle" means a room in a switching station in which remote control equipment and batteries are erected for remote operation of switchgear located at the post.
28. "Section Insulator" means a device installed in the contact wire for insulating two elementary electrical sections from each other while providing a continuous path for the pantograph.

29. "Sector" means a section of overhead equipment of a track from a feeding post to a sectioning post.
- (a) "Sub-sector" means the shortest section of overhead equipment which can be isolated by opening of Interruptors.
- (b) "Elementary Section" means the shortest section of overhead equipment which can be isolated from the rest of the system by switching operations.
30. "Sectioning and Paralleling post (SP)" means a switching station situated mid way between two feeding posts at a neutral section and provided with bridging and paralleling Interruptors.
31. "Sub-sectioning and Paralleling Post (SSP)" means switching station where sectioning and paralleling Interruptors are provided.
32. "Yard Supply Post" (YS) means a Switching station where sectioning interruptors are provided for feeding yards.
33. "Traction Sub-station" means an electrical installation comprising of transformer and switchgear, batteries and controlling apparatus for supply of energy to the power distribution system.
34. "Track Return" means the track rails when used as the return conductor for the traction return current to the sub-station.
35. "Traction" means electric traction.
36. 'Traction Engine Examiner" means an official (SSE/JE) responsible for inspection and maintenance of electric rolling stock.
37. (a) "Senior Section Engineer" (SSE) Over Head Equipment" (OHE) means a subordinate of the area concerned responsible for the operation and maintenance of over head equipment and for the staff employed thereon.
- (b) "Senior Section Engineer" (SSE) Rolling Stock" (RS) means a sub-ordinate responsible to Assistant Electrical Engineer (Rolling Stock) for the maintenance and/or inspection of electric rolling stock and for the staff employed thereon.
38. "Traction Loco Controller" (T.L.C.) means an official under the control of Assistant Electrical Engineer(Rolling Stock) who will be responsible for booking of electric locomotives and running staff to meet the requirements of the traffic.

17.03. INSPECTION OF ELECTRICAL WAY AND WORKS

The electrical way and works shall be inspected regularly in accordance with special instructions by officials nominated for the purpose and in accordance with the duties assigned to them.

S.R. 17.03 (1)

1. a) The duties of SSE/JE/P-WAY in General Rules 15.01 to 15.10 (inclusive), wherever applicable to electrical way and works shall devolve on the Senior Section Engineer, (Over Head Equipment) and JE,(Over Head Equipment) in so far as these duties relate to the respective items of electrical way & works in their charges.
b) The duties of the Track Safety Man. wherever applicable to overhead equipment, shall devolve on the overhead equipment Lineman.
2. If due to any defect or damage to the overhead equipment it is necessary to lower pantographs over any particular section of the running lines, the traction official concerned shall communicate with the Traction Power Controller who in turn shall advise the Section Controller/Dy.CHC for arranging issue of necessary Caution Orders by the Station Masters to the Loco pilots as per S.R.4.09(1) The Caution Order shall specify the exact kilometres and structure numbers between which the Loco pilot shall lower the pantographs and coast through.
3. In addition the traction official, asking for the Caution Order to be issued, shall coordinate with the SSE/JE(Overhead Equipment) for the exhibition of suitable indication boards marking the beginning and end of the affected section in which Loco pilots shall coast through with lowered pantographs.

S.R. 17.03 (2) No conductor shall be erected over or along-side an electrified track unless it is adequately guarded in accordance with the rules laid down by the Railway Administration. This guard shall be effectively connected to earth.

S.R. 17.03 (3)

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 regional Electrical Engineer(Traction Distribution).
2. Electrical equipment in rolling stock shall be inspected periodically in accordance with instructions issued by the Regional Electrical Engineer (Rolling Stock).
- 3.

- b) Loco pilots of electric rolling-stock shall, as far as possible and without interfering with their primary duties, watch the overhead equipment.
 - c) When a defect on the overhead equipment 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.
 - d) An emergency stop should be made, if necessary.
 - e) If 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 Traction Power Controller through the nearest emergency telephone circuit or in case this circuit is not available through any other means.
 - f) In the case of a breakdown of overhead equipment requiring trains to be stopped, the Loco pilot noticing such a breakdown shall immediately bring his train to a stop and arrange protection of the line or lines affected in accordance with G.R.6.03 and Subsidiary Rules thereunder. In the case of a breakdown in an automatic signaling section the track must be protected in accordance with G.R.9.10. There after he will take immediate action to advise the Traction Power Controller through the nearest emergency telephone circuit giving details of the break down and in case this circuit is not available, communicate the information to the nearest Station Master through any other means. The TPC on receipt of such message, will pass on suitable instructions to the Section controller /Dy.CHC and if necessary advise him to stop running of trains in the affected section.
4. **a)** All breakdowns or defects noted in the overhead equipment or any other traction equipment including continuity bonds, joint bonds, cross bonds, structural bonds and impedance bonds by any railway employee, shall be reported immediately to the Traction Power Controller. In case he cannot be contacted, the nearest Station Master, Senior Section Engineer/JE,(Overhead equipment) or the Assistant Electrical Engineer (Traction Distribution) shall be advised. In case of the impedance bonds, the JE/SSE S&T shall be advised. The Station Master, to whom such breakdowns or defects are reported shall convey the information immediately to the Traction Power Controller through the Section controller/Dy.CHC. In case of failure of communication, he shall use his discretion regarding movement of traffic and advise the nearest Traction official.
- b)** In case of breakage of an overhead line, the railway employee detecting it shall ensure that no person comes into contact with the line until an authorized person

arrives on the spot. The authorized person will take immediate action to make the affected line dead and earthed.

5.
 - a) All overhead line staff when on patrol, shall watch the pantographs of passing electric rolling stock and if any defects are noticed they should immediately try to attract the attention of the Loco pilot/Guard to stop by displaying hand danger signals or by gesticulation. If however, they are unable to attract the attention of Loco pilot/Guard, they must immediately report to the Traction Power Controller through the emergency telephone circuit or any other means giving full particulars including number of the rolling stock, nature of defect and the time when the defect was noticed.
 - b) The Traction Power Controller shall communicate reports of a defective pantograph to the Traction Loco Controller who shall arrange to have the electric rolling stock stopped as soon as possible for examination of the defective pantograph.
6. Senior section engineer (Overhead equipment) shall be responsible for the proper and efficient maintenance of all breakdown equipment, wiring trains, tower wagons, break down lorries etc., so that they are always in a state of good condition. 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.
7. The staff concerned shall ensure that equipment not in immediate use are always ready for service except such equipment as may be under repair or overhaul..

S.R. 17.03 (4)

1.
 - a) The keys for all out door switches shall be kept in locked glass fronted boxes in the custody of Station Masters, or other persons 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.
 - b) All chambers or enclosures containing live equipment shall be kept 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 front cover in a place to be notified by the Regional Electrical Engineer (Traction Distribution). 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.

In the event of breaking of the glass of the key box, the key or the keys will be kept in safe custody of the SM until the glass is replaced. The Traction Power Controller

will keep a record where such keys are kept so that, in an emergency, he will be able to direct the parties concerned.

When the glass cover is broken to obtain the duplicate key, the concerned Senior section engineer (OHE) shall be immediately advised to replace the glass. The person replacing the glass shall obtain the signature of the authorized person who shall note down the date of replacement.

c) Any person while working in a chamber or enclosure containing electrical equipment which under normal conditions is alive, shall retain the keys of the chamber or enclosure. These keys shall be returned to the person in whose custody they are normally kept immediately after the chamber or enclosure has been locked.

d) 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.

2. a) In emergency, Station Master shall operate such switches as per specific direction of the Traction Power Controller.

b) In the event of a fault in the overhead equipment necessitating isolation of a section in addition to the faulty one, the Senior Section Engineer/Junior Engineer (Overhead Equipment) or an authorized person shall arrange with the Traction Power Controller to isolate the healthy section also. However, if necessary, he shall himself open those switches which can be operated conveniently.

c) Should the Traction Power Controller wish to have any isolator switch opened or closed he shall ask the Senior section engineer (Overhead Equipment) or Station Master or any authorized person to carry out the required switching operations. 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 Traction Power Controller of the action taken. He shall not part with the key until receipt of further orders from the Traction Power Controller. A record of every such operation shall be maintained by the person concerned.

Each instruction regarding the parting with the keys shall be confirmed by exchange of Private Numbers.

- d) Every Station Master shall be fully aware of the location of isolator switches provided for the control of power supply overhead equipment at his station and shall be conversant with the correct method of opening and closing the same in an emergency.
- 3. No person other than authorized maintenance staff, their assistants when accompanying them, and persons provided with special permits issued by Regional Electrical Engineer (Traction Distribution) shall be admitted to supply control posts except the following -
 - (d) A person escorted by the Regional Electrical Engineer (Traction Distribution) or by the Assistant Electrical Engineer (Traction Distribution).
 - (e) A doctor summoned to attend an accident case.
 - (f) Electrical Inspector to Government for the Railway area concerned.
 - (g) A person required by an officer to speak from a telephone installed in the premises.
- 4. No person below the rank of Linesman/Technician shall be allowed to enter an unattended supply control post alone.

S.R. 17.03 (5)

- 1. Presence of a responsible person when repair or adjustment to overhead equipment makes it necessary for a train to proceed cautiously, an authorized person shall be present at the site of work and shall be responsible for showing the signals prescribed in G.R. 15.09.
- 2. Issue of Caution Orders-Before commencing work on overhead equipment or in cases of breakdown of overhead equipment, when it is necessary to proceed cautiously, the Senior section engineer or Junior engineer (Overhead Equipment), responsible for such notification, shall arrange for issue of Caution Orders in accordance with S.R. 4.09(I).

3. No alteration or addition shall be made to any equipment so as to infringe standard dimensions, whether permanent or temporary. If an infringement is unavoidable, sanction shall first be obtained from the Regional Electrical Engineer (Traction Distribution).
4. Care shall be taken to ensure that covers of tank wagons, or such other items are not left in a position so as to foul the traction overhead equipment.
5.
 - a) No crane or earth mover shall be allowed to work adjacent to traction overhead equipment unless such overhead equipment is dead and earthed. All movements of the crane or earth mover Jib shall be carefully controlled so as not to foul the traction overhead equipment.
 - b) Except in an emergency, 24 hours notice of intention to work a crane/ earth mover adjacent to overhead equipment shall be given to the Regional Electrical Engineer (Traction Distribution) in order to make arrangements for overhead equipment staff to standby. When possible the working of cranes/earth movers shall be included in the weekly programme detailed in S.R. 17.04 (1). In an emergency, the Traction Power Controller shall be advised and he shall make arrangements for overhead equipment staff to standby.
 - c) Crane/ Earth movers shall not be allowed to work adjacent to traction overhead equipment unless the overhead equipment staff is present.

S.R. 17.03 (6)

1. No work on live or an unearthing indoor or outdoor equipment above 400 volts is permitted. The only occasion when maintenance staff may work on unearthing 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 started.
2. Earthing of feeder lines after the feeder is made dead, it shall first be discharged by throwing an earthed chain over the conductor. The feeder line is then connected to earth by means of a stranded copper cable of adequate size securely connected to earth and the conductor.

3. Interruptors or Isolator - switches, which have been opened for the purpose of isolating electrical equipment for maintenance, shall have a danger notice displayed in a prominent position on the Interruptor 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.
 4. Work in the danger zone of overhead equipment - Before any work is undertaken on a section of overhead equipment, which is normally alive, or on any part of the structure adjacent thereto or supporting such equipment situated at a distance less than 2 metres for 25 KV AC system 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 earths shall be provided close to the feeding points of supply control posts involved.
 5. Work at insulated overlap spans (air-gap sections) - No work shall be attempted on insulated overlap spans or on section insulators unless the adjoining sections of overhead equipment on either side are made dead and earthed. In the case of a

sectioning point, the isolator switch, the bridging or sectioning interruptor bridging the overlap span shall be closed.

S.R. 17.03 (7) Precautions to be taken by staff- Where overhead equipment for two or more tracks is supported on one structure and work has to be done on the overhead equipment of one track while the overhead equipment of adjacent tracks are alive, access to the overhead equipment to be worked on shall be direct by ladders, trestles or similar means but not by 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 intended to work.

S.R. 17.03 (8) Working on service buildings and structures in the vicinity on live equipment -

1. **a)** Railway staff, when required to carry out work on service buildings and structures in proximity to overhead equipment, shall exercise special care to ensure that tools, measuring tapes, materials etc. are not placed in a position where they are likely to fall or make contact with electrical equipment.
- b)** Wherever such work has to be carried out under conditions which involve risk to the workmen or other persons, arrangements shall be made for authorized overhead equipment staff to be present who shall take such precautions as may be necessary for the safety of the persons concerned.
2. Protection of the maintenance parties -
- c)** A working party shall not commence or carry out any work on or adjacent to overhead equipment involving danger to trains or traffic without the consent of the Regional Electrical Engineer(Traction Distribution) or The Assistant Electrical Engineer (Traction Distribution).

- d) No person shall disturb the overhead equipment or carry out bonding or other work in such a way as to obstruct the line and necessitate the showing of danger signals,
 - ii. Until such signals have been shown AND
 - iii. If within the station limits, until he has also obtained the written permission of the Station Master and all the necessary signals have been placed in the 'On' position.

When such work is to be undertaken, the traction official responsible for the work shall advise the Station Master(s) concerned and arrange for showing the necessary danger signals.

- c) When defects are noticed on overhead equipment which are likely to cause damage to pantographs or emergency repairs are being effected to overhead equipment and it is not possible to convey the information to the Station Master (s) concerned to enable

him/them to issue Caution Orders, the line or lines shall be protected in accordance with G.R. 15.09 and S.R. Thereto.

3. Protection of staff - Every member of the staff shall provide for his own protection independent of every other member except when one is assisting another in which case, the person in-charge of the work is responsible for the proper protection of himself and his assistants.
4. Working on structures supporting live over-head equipment
 - (c) No person other than overhead equipment staff shall climb or work on any structure, which supports the overhead equipment without having received a permit-to-work card. No work shall be carried out on any structure nor anything affixed to a structure without the written permission of the Regional Electrical Engineer/Assistant Electrical Engineer(Traction Distribution).
 - (d) Before work is commenced on a structure supporting overhead equipment, the limits of the danger zone(s) shall be defined by day by means of a red disc and by night by means of a red lamp which shall be placed in suitable position.

- (e) When work is to be carried out in the danger zone of a structure after the overhead equipment is made dead, no staff other than the person authorized to test and earth the overhead equipment shall attempt to climb a structure until he personally has received definite instructions to climb the structure from the person in-charge of the working party and no message or signal other than these instructions is permissible.
 - (f) The instructions may be conveyed from the person in-charge of the party to workmen by another person. Such a person shall be individually deputed as a messenger by the person in-charge of the party and shall be not below the rank of a Linesman/Technician.
 - (g) All persons, deputed in clause(d) to convey instructions to workmen, shall be made known to the workmen previously and the workmen shall be advised that orders regarding the climbing of structures shall on no account be accepted from any person other than those deputed.
 - (h) The person in-charge or the person deputed under clause (d) shall, before instructing his men to climb a structure, explain which section overhead equipment is dead and which section is alive and which parts of the structure are safe to work upon. The person in charge or the person deputed under clause (d) shall satisfy himself that his explanation is clearly understood by all the workmen whom he has instructed to climb the structure.
 - (i) 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 work is commenced.
 - (j) On structures spanning multiple tracks where work is being carried out adjacent to one or more sections of overhead equipment, the person in charge shall ensure, before any or the line or lines are made alive on completion of work that all men and materials adjacent to the line or lines have been withdrawn from the danger zone and if work is to continue on other parts of the structures, that the danger discs or lamps have been moved to indicate the changed danger zone.
 - (k) The special attention of person in-charge of painting of structures is directed to follow this rule.
5. Painting of structures- Only after permit-to-work has been received and overhead equipment has been correctly earthed, portions of track structures at a distance less than 2 metres in case of 25 KV A.C. system from any live equipment may be

scraped, cleaned or painted. Other portions of structures of overhead equipment may be cleaned and painted while the overhead lines are alive unless special conditions at site render it unsafe or not advisable in which case the work shall only be done after making the equipment dead and earthed.

S.R. 17.03(9)

1. Markers are placed wherever possible, along the cable alignment and plans are available indicating generally the position of buried cables. Excavation must not be undertaken in the vicinity of cable routes until the exact position of the cables has been ascertained and a representative of the department concerned is present. This is applicable to cables of Posts and Telegraphs Department also.
2. If circumstances make it imperative that work be undertaken without sufficient notice, the Assistant Electrical Engineer (Traction Distribution) and Assistant Signal and Telecommunication Engineer concerned must be informed by a message for arranging staff to be present.

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 authorized 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). Work in the danger zone of traction electrical or overhead equipment -

2. Before commencing work, and for the whole time that work is being performed on any part of the electrical equipment or adjacent thereto, that part of the electrical equipment shall be made dead and earthed as provided in these rules. A permit-to-work shall be obtained from the Traction Power Controller or an authorized person in accordance with sub-rules (4), (5), (9) & (10) below.
3. Procedure for obtaining traffic or power block and permits-to-work on traction electrical or overhead equipment -
 - a) All departments in the electrified area who require traffic block, power blocks or permits-to-work in the danger zone of traction equipment or who require overhead line

and/or bonding staff to be present at site for scheduled maintenance works, shall submit at the office of the Regional Electrical Engineer/Assistant Electrical Engineer (Traction Distribution) not later than 10 Hours on every Monday morning, statements in the prescribed form showing:-

- i. the nature of the work and the date and time on which it is to be performed.
 - ii. by whom the work is to be carried out,
 - iii. location of the work and the section of the lines to be blocked,
 - iv. the trains between which the block is required and
 - v. whether the track will be available for diesel traffic.
- b) The requirements of all departments will be coordinated in the office of the Regional Electrical Engineer(Traction Distribution) and a consolidated statement forwarded to the Senior Traffic Manager (STM)/Control by 12:00 hours on every Wednesday for inclusion in the weekly programme of traffic and power blocks.
- c) Works of an urgent character shall be attended to by obtaining emergency blocks and permits-to-work from the Traction Power Controller.
- d) A weekly programme of work involving traffic blocks, power blocks and permits-to-work shall be prepared in the office of Chief controller and despatched to all concerned by Friday evening for the week commencing on the following Monday.

Note: The procedure detailed in paras (3), (4) & (5) must be followed for obtaining the power blocks and permits-to-work shall be obtained in each case as prescribed even though the work is included in the weekly programme.

4. Procedure for arranging Power blocks in electrified sections.

- (a) When a power block has been sanctioned, Traction Power Controller shall issue to the Section controller/Dy.CHC a power block message (in the prescribed form) in duplicate either through messenger or by telephone with exchange of private numbers. The Section controller/Dy.CHC shall get confirmation from the Station Master(s) that the section will be blocked for electric traffic as detailed in sub-rule (11) (b) below.

He shall then either return one copy of the written message duly acknowledged indicating thereon the time from which the block will be given or send a telephone

message to the Traction Power Controller giving the same information supported by a private number. The Traction Power controller will thereafter arrange to isolate and make dead the portions of electrical equipment concerned at the time indicated by the Section controller/Dy.CHC and issue a permit-to-work thereon, as detailed in sub paras (4) and (5) below.

- (b) However in the case of an emergency the Traction power Controller shall switch "Off" the power first and then advise the Section controller/Dy.CHC of the power block imposed and reasons for doing so.
 - (c) When permit-to-work on the portion of the electrical equipment has been cancelled and the Traction Power Controller has restored normal conditions, he shall cancel the power block message issued to the Section controller/Dy.CHC, either by message sent in duplicate or by telephone with exchange of private numbers.
5. Method of obtaining permit-to-work in the danger zone of traction electrical or overhead equipment for work by authorized persons
- (a) Excepting as detailed in Sub-rule (9) permits-to-work shall be obtained by authorized persons from the Traction Power Controller who shall carry out through remote control or order the switching operations necessary to isolate the portion of the equipment concerned. When the Traction Power Controller receives confirmation that the switching operations have been correctly carried-out, he shall inform by a telephone message with exchange of Private Numbers to the authorized person stating clearly that the electrical equipment has been made dead. This information shall constitute a permit-to-work. Permits-to-work will be issued in this manner only to authorized persons not lower in grade than a Lineman. A duplicate of every permit-to-work issued should be retained in the personal possession of the authorized person issuing it for the period prescribed by the Railway Administration.
 - (b) On receipt of a permit-to-work, and before work is commenced, the electrical equipment specified shall be earthed as per rules in force. Each working party shall be protected by independent earths.
 - (c) On completion of the work, the person who received the permit-to-work shall ensure that all men and materials have been withdrawn from the electrical equipment and its vicinity. He shall then remove the earths and inform the Traction Power Controller either by written memo or by a telephone message supported by a Private Number 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 may be made alive. Such procedure shall constitute cancellation of the permit to work.
6. For work by other than authorized persons

- (b) If work is to be carried out on or adjacent to any part of the electrical equipment by other than authorized persons, such work shall not commence until the person in-charge of the work is in possession of a permit-to-work card issued to him by an authorized person.
- (c) The permit-to-work shall be taken from the Traction Power Controller by an authorized person who shall earth the electrical equipment specified and hand over a permit-to-work card to the person in-charge of the work holding an acknowledgement on the other copy. A duplicate of every permit-to-work card shall be retained in the personal possession of the authorized person who issued it.
- (d) On completion of the work and when all men and materials have been withdrawn from the electrical equipment and its vicinity, the person-in-charge of the working party shall cancel his permits-to-work card and return it to the authorized person who issued it. The authorized person shall in turn cancel the permit-to-work as detailed in 4 iii above.

7. Local cancellation of permit-to-work when telephones are interrupted:-

If telephone communication with the Traction Power Controller is interrupted when a permit-to-work is to be canceled, the authorized person to whom the permit- to-work was issued shall arrange locally for restoring to normal (Live) conditions the portion of traction electrical or overhead equipment specified in the permit-to-work and for canceling the power -block if possible.

- 8. Working of more than one party independently on the same portion of traction electrical or overhead equipment - Whenever work has to be carried out by more than one working party the permit-to-work shall be issued by the Traction Power Controller only to one authorized 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 authorized person who shall inform all parties of the total number of parties working on the same portion of electrical equipment. The authorized person shall cancel the permit-to-work only when he is satisfied that all working parties have withdrawn all men and materials and removed the earths from the electrical equipment. In the event of telephone communication being interrupted, the responsible person shall proceed as provided in (6) above.
- 9. Entries in the log book.- The number of each permit-to-work issued must be entered in the log book of the Traction Power Controller together with the particulars and time

when the equipment is made dead for the work and re-energised after completion of the work as per information received on the telephone from the authorized person concerned.

10. Work inside electric loco shed.- In case of work to be done inside electric loco sheds, the application for permit-to-work must be made to the Senior section engineer or Junior engineer (Rolling Stock), who shall arrange for the issue of the permit-to-work after getting the switch of the inspection bay or the feeders opened. No intimation to the Traction Power Controller is necessary and the permit-to-work must be returned for cancellation by the person in- charge of the work to the Senior section engineer or Junior engineer (Rolling-Stock) before the switches are closed.

11. Local Blocks-

- (a) Local arrangements may be made with the Station Master and others responsible for the movement of traffic for power blocks in such sidings as it does not affect the movement of trains on main running lines, loop lines and reception or departure lines in yards. The Traction Power Controller shall however be kept informed as to when the Power block is taken and cancelled. The Station Master and other persons shall also advise the Section controller/Dy.CHC of such power blocks.
- (b) Local blocks shall be arranged on the forms prescribed for the purpose.

12. Procedure for preventing admission of electric rolling stock into or over sections of track with dead or earthed overhead lines.

- (a) In order to prevent electric rolling stock from being admitted on a cross over or track over which overhead equipment is made dead or for which a permit-to- work has been issued, the route, signal buttons governing such movements on the concerned station panel shall be protected by means of stop collars in accordance with S.R. 3.38- 1. If the points and signals are locally operated, the same should be locked and the keys shall be kept with the Station Master.
- (b) The Section controller /Dy.CHC on receipt of a power block message from the Traction Power Controller 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 Private Number and the time of receipt and then block electric traffic on the line or lines described from the time indicated and place stop collars on the appropriate signal, route buttons. Appropriate stop collars are to be used on BLOCK instrument for preventing movement into prohibited block section.

Note: This information is given in Appendix to the Station Working Rules of each station.

- (c) The button/stop collars shall not be removed until the Station Master receives from the Section controller/Dy.CHC and acknowledges the message supported by Private Number cancelling the power block. The Section controller/Dy.CHC shall not issue such a message unless he has received a written message or phone messages supported by a Private Number from the Traction Power Controller cancelling the power block.

Note : In all cases mentioned under paras (2),(3),(10) and (11) of this Subsidiary Rule the Station Master must record the information in the Station Master's Diary/train Signal Register.

- 1. a) All messages relating to operation of switches and issue of permits- to-work shall be confirmed by Private Numbers.
- b) All messages together with the Private Numbers shall be issued from and received into books specially maintained for the purpose.

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.

S.R. 17.05(1)

- 4. Work on pantographs and roofs of rolling stock shall normally be carried on special sidings where switches are provided for making such sidings dead and earthed.
- 5. Traction Engine Examiner/SSE/JE-LOCO or other authorized person in charge shall be responsible for making dead the overhead equipment over the tracks of inspection lines in loco sheds and stabling siding before permitting work to be done

on the roof of electric rolling stock. The overhead equipment over these tracks shall not be energized except by the authorized person in-charge, who shall be responsible for every precaution being taken to ensure that everything is in order and that all staff are cleared before energizing the equipment.

6. **a)** In stations and yards an authorized person shall arrange to make dead and earth the overhead equipment and a permit-to-work card shall be obtained by the staff concerned before work on the roof of rolling stock or engines is commenced. On completion of work, the card shall be returned to authorized person for cancellation. The authorized person shall then satisfy himself that everything is in order and that all staff are cleared before energising the overhead equipment.
 - b)** Prescribed working rules for isolating and making dead section of overhead equipment for watering of carriages shall be followed at watering stations.
7. Supplement to the Station Working Rules for A.C. Traction is to be issued to each station, loco shed etc. specifying that switches, the operation of which will make a section dead or alive.

17.06 ALTERATIONS TO TRACK

Before any alteration to alignment or level of electrified tracks is commenced, due notice shall be given to those responsible for the overhead equipment so that the overhead equipment may be adjusted to conform to the new conditions.

S.R. 17.06(1).

Before any slewing, alteration to super-elevation or level of tracks is done, notice shall be given to the Regional Electrical Engineer(Traction Distribution) to enable him to arrange for adjustment of overhead equipment to conform to the new conditions, if necessary. Such work shall be included in the weekly programme detailed in S.R. 17.04(2)(d).

- a)** All minor alterations to overhead equipment whether permanent or otherwise shall be reported to the Traction Power Controller immediately by telephone and to the Regional Electrical Engineer (Traction Distribution) or the Assistant Electrical Engineer (Traction Distribution) in writing.
- b)** Major alterations affecting the existing disposition of any section of overhead equipment shall not be done unless sanctioned by the Regional Electrical Engineer (Traction Distribution).

- a) When working on overhead equipment all staff shall ensure that the wires are not deflected so as to cause pantographs of electric rolling stock passing on other lines to be fouled by steady arm tubes or any other parts of the overhead equipment.
- b) When the overhead equipment is slewed either temporarily or permanently the person in charge shall ensure that section insulators, jumpers, droppers and other fittings will not foul the pantographs of electric rolling stock passing on other lines.
 - a) Whenever any work on track which is likely to affect rail bonds is undertaken by permanent way staff, adequate notice shall be given to the Senior section engineer (Overhead Equipment) to enable him to arrange bonding staff for removal and replacement of bonds.
- b) Bonding staff when working with SSE/JE-Permanent Way shall work under the latter's instructions who shall then be responsible for the safety of the track and that of the staff.

17.07. TRIPPING OF CIRCUIT BREAKERS OF LOCOMOTIVES AND ELECTRICAL MULTIPLE UNITS AT NEUTRAL SECTIONS.

Unless otherwise allowed by special instructions, the Driver 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 Driver to switch off and switch on power.

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)

- (a) "whenever it is necessary to work a Tower Wagon either for the maintenance of OHE or attending to the site of Break Down or for any other reason, the person incharge of the Tower Wagon shall advise the Station Master about the movement of Tower wagon.
- (b) A Tower Wagon is to be treated like a train and shall be worked without guard. The duties and responsibilities for protecting the train/track and other duties of the guard shall devolve on the OHE Supervisor accompanying the Tower Wagon.

- (c) In case of an arranged OHE block one or more Tower Wagons can be worked and follow one another. The Station Master, while authorising the following Tower Wagon/Wagons into occupied affected OHE Section, shall follow GR (4.65 & concerned SRs).
- (d) A Tower Wagon shall not be permitted to enter the section following a train, save as permitted in G&SR (4.65).
- (e) After completion of the work, the official in charge of the Tower Wagon which entered last (if so) in the section shall certify at the station in advance about clearance of the section and initial against the relevant entry in the Train Signal Register in token of the section having been cleared of the last Tower Wagon.

17.09 .ADDITIONAL RULES FOR ELECTRIFIED SECTIONS:

Special instructions for working of trains on electrified sections shall be notified by the authorized officer.

S.R. 17.09(1) Accident and Unusual in Electrified Territory: -

- 1. Duties and responsibilities of Traction Power Controller, Section Controller and Station Master in case of No Tension-Fault Tripping in Over-head equipment: -

Fault Isolation:

- i. In an electrified section in the event of Over-head equipment failures Traction Power Controller shall immediately identify and localize the faulty section and isolate the same. In case of double and multiple line sections. he shall also isolate healthy section on adjacent track on the same route length as faulty section. The Traction Power Controller shall then advise the Section Controller in writing or on phone under exchange of private number of the section found faulty and healthy section temporarily isolated.
- ii. On receipt of the advise from Traction Power controller, the Section controller/Dy.CHC shall take action as under:-

- a) Section Controller shall under exchange of private number, advise Station Masters of stations on either side of isolated sections to treat the faulty section as if the same is under emergency power block and take action accordingly.

On Double Line Section - Healthy Section temporarily isolated.

- b)** The Section Controller shall check whether any train has entered in the faulty section. If not, he shall advise the concerned S M 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(s) to see if there are any OHE abnormalities'. On reaching the next station, Loco pilot, should report whether or not the section over which they have passed is safe for train movement. Then Section controller/Dy.CHC will advise the Traction Power Controller in writing to re-energize the healthy section that was temporarily isolated.
- c)** If however, a train has entered in faulty section, the Section controller/Dy.CHC shall immediately inform SMs of all stations who are concerned with working of train in the faulty section and also in the section in which healthy Over-head equipment is temporarily isolated under exchange of private number that they shall not allow any train to enter the affected block sections unless both Loco pilot and Guard of the first train in unaffected section have been 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(s) and also keep a sharp look-out on the adjacent line(s) to see if there are any Over-head equipment abnormalities. On reaching the next station report whether or not the section over which they have passed is safe for train movement".
 - iii. Only after taking this action the Section controller/Dy.CHC shall advise the Traction Power Controller in writing that necessary precaution have been taken to ensure safety of the train. The Traction Power Controller shall then restore the feed to the healthy section, which was temporarily isolated.
 - iv. Action to remove speed restrictions shall be taken by the Section controller/Dy.CHC in consultation with Station Master on receipt of report from the Loco pilot and the Guard that the section is free from obstruction. The Section controller/Dy.CHC in consultation with TPC will decided to remove/ continue speed restriction as mentioned in c (i) above and other precautions if required.
2. Duties and responsibilities of Traction Power Controller and Section controller/Dy.CHC in the event of any abnormality in train on Electric Traction necessitating 'Switching off' of over-head equipment supply :-

- i. As soon as Traction Power Controller comes to know about unsafe condition of a train working on Electrified Traction, he shall immediately switch-'Off' the over-head equipment supply of both the lines of relevant Sub-sector. Traction Power Controller shall then advise in writing, the Section controller/Dy.CHC of sections in which over-head equipment has been switched "Off".
- ii. On receipt of advice from Traction Power Controller, the Section controller/Dy.CHC shall, under exchange of private number, advise Station Masters of all stations who are concerned with working of trains in the affected section to treat the Dead section as if the same is under emergency power block and to ensure that no train is allowed to enter into the section.

Healthy section temporarily isolated:

- iii. Station Masters will not allow any train to enter even on the 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 over-head equipment abnormalities from the adjacent line-lines. Also advise Loco pilot to report immediately on reaching the next station whether or not the Section over which they have passed is safe for the train movement.
- iv. If Loco pilot of unaffected section contacts him on phone, the over-head equipment of unaffected portion should be resumed and he will be asked to proceed with the restricted speed not exceeding 60 KMPH during day when view ahead is clear and 30 KMPH during night subject to observance of other speed restrictions and shall keep a sharp look out and be prepared to stop short of any obstruction, which may be due to any infringement from the adjacent line-lines. On reaching the next station, Loco pilot will report whether or not the section over which they have passed, is safe for train movement.
- v. After ascertaining that there is no infringement to adjacent track, the Caution Order as indicated shall be withdrawn immediately.

Section-having affected train:

- vi. After getting information from the Crew of the affected train about the nature of abnormality, decision regarding recharging of the over-head equipment shall be taken by the Section controller/Dy.CHC in consultation with Traction Power Controller and Controller of concerned department(s).
 - vii. If the Loco pilot of the affected train contacts Traction Power Controller/Control and no defect is detected in the train, on resumption of over-head equipment he will be asked by control to clear the block section with the restricted speed not exceeding 60 KMPH during day when view ahead is clear and 30 KMPH during night subject to observance of other speed restrictions and shall keep a sharp look out for any abnormality in the train. On arrival at the station, the staff of concerned department should check the train. If no abnormality detected the train should resume at normal speed.
3. Duties and responsibilities of the Loco pilot and the Guard in case of over-head equipment tripping / no tension in over-head equipment: -
- v. In cases of transient Tripping of Over-head equipment, the Loco pilot shall resume normal traction and keep a sharp look out including on the adjacent line(s) to see if there are any abnormalities/obstructions and will inform to the Guard through walkie-talkie or whistle code about tripping in over-head equipment. The Guard of the train will look out for any abnormality on his train. The Assistant Loco pilot should look back and observe his train for any abnormality.
 - vi. If no tension in over-head equipment continues, the Loco pilot shall immediately switch 'ON' the loco flasher and control the speed (not exceeding 60 KMPH at night) so as to be able to stop short of any obstruction and stop his train close to first emergency socket and will communicate with the Traction Power Controller/Control to know the reason for no tension in over-head equipment. The Crew should act according to advice of control.
 - vii. If it is not possible to communicate with the Traction Power Controller/Control immediately, the Loco pilot shall depute the Assistant Loco pilot to 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 Section controller/Dy.CHC of the abnormality, and assistance required if any or otherwise through emergency phone or any other means and act in accordance with advice of control. In case, no abnormality is noticed in his train, Loco pilot should switch "OFF" the loco flasher.
 - viii. If in the meantime, Power supply to over-head equipment gets restored, the Loco pilot shall resume normal traction no sooner he comes to know of such resumption of supply".

CHAPTER XVIII

MISCELLANEOUS

18.01 REPEAL AND SAVING :-

The general rules issued under the notification of the Government of India in the late Railway Department (Railway Board) No. 1078 -T, dated the 9th March, 1929, are hereby repealed except as respects things done or taken or omitted to be done or taken before such repeal.

APPENDIX 'A'

The following Subsidiary Rules mainly concerning certain Categories of Staff.

(It should be clearly understood that the list of rules applicable to each category given in this Appendix is only intended to be of guidance and is by no means exhaustive. Staff are expected to be conversant with all the rules applicable to them).

PART I

The following Rules of the General and Subsidiary Rules apply particularly to the Station Master and Assistant Station Masters:-

	Chapter	General Rules	Subsidiary Rules
I.	Preliminary	Whole Chapter	All SRs under this Chapter
II.	Rules applying to Railway Servants Generally	"	"
III.	Signals	"	"
IV	Working of trains Generally	"	"
V.	Control and Working Of Stations	"	"
VI.	Accidents and Unusual	"	"
VII.	System of Working...	"	"
VIII.	The Absolute Block System...	"	"
IX.	The Automatic Block System...	"	"

X. The following Trains System...

“ “

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Chapter	General Rules	Subsidiary Rules
XI. The Pilot Guard System..	Whole Chapter	All SRs under this Chapter
XII. The Train Staff and Ticket System....	“	“
XIII. The One Train only System...	“	“
XIV. Block Working	“	“
XV. Permanent Way and Works System	Whole Chapter except the Rules 15.01, to 15.04 And 15.11 to 15.14.	SRs pertaining to
XVI. Level Crossings....	Whole Chapter	All SRs under this Chapter
XVII. Working of Trains on Electrified Section of Railways	“	“
III	Annexure 'A' & 'B'	Complete

APPENDIX 'A' –**PART II**

The following Rules of the General and Subsidiary Rules apply particularly to the
Guards:-Chapter

		General	Subsidiary
		Rules	Rules
I.	Preliminary	Whole Chapter	All SRs under this Chapter
II.	Rules applying to Railway Servants Generally	"	"
III.	Signals	"	"
IV	Working of trains Generally	Whole Chapter 4.31, 4.38, to (8), (10) to (16) (21) 4.40, 4.41, 4.52, 4.53, 4.55, 4.58, 4.61, 4.66,	SRs pertaining to the Chapter except rules, except SRs 3.39(3) and (22)
V.	Control and Working Of Stations	Whole Chapter except Rule Nos. 5.01 to 5.08.	All SRs under this chapter
VI.	Accidents and Unusual	Whole Chapter	All SRs under Chapter
VII.	System of Working...	"	"
VIII.	The Absolute Block System...	"	"

IX.	The Automatic Block System...	"	"
X.	The following Trains System...	"	"
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	Chapter	General Rules	Subsidiary Rules
XI.	The Pilot Guard System..	Whole Chapter	All SRs under this Chapter
XII.	The Train Staff and Ticket System....	"	"
XIII.	The One Train only System...	"	"
XIV.	Block Working	Rule Nos. 14.08, 14.17, 14.23, 14.25	SRs pertaining to the Rules
XV.	Permanent Way and Works System	Rule Nos. 15.09, 15.10, 15.18, 15.26, 15.27.	"
XVI.	Level Crossings....	16.07 16.08, 16.11	"
XVII.	Working of Trains on Electrified Section of Railways	Whole Chapter Annexure	All SRs under this Chapter, Complete 'A' & 'B'

APPENDIX 'A' – PART III

The following Rules of the General and Subsidiary Rules apply particularly to Switchman :-

	Chapter	General Rules	Subsidiary Rules
I.	Preliminary	Whole Chapter	All SRs under this Chapter
II.	Rules applying to Railway Servants Generally	"	"
III.	Signals	Whole Chapter Except 3.04(2), 3.25, 3.26, 3.35, 3.78, 3.84	SRs pertaining to the Rules.
IV	Working of trains Generally	Rules Nos. 4.01, 4.02, 4.05, 4.06, 4.08, 4.10, 4.11, 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, 4.66.	

V.	Control and Working Of Stations	Whole Chapter	All SRs under this chapter
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	Chapter	General Rules	Subsidiary Rules
VI.	Accidents and Unusual Occurrences.	Whole Chapter	All SRs under this Chapter
VII.	System of Working	"	"
VIII.	The Absolute Block System	"	"
IX.	The Automatic Block System	"	"
XIV.	Block Working	"	"
XV.	Permanent Way and Works	15.08, 15.09, 15.16, 15.18, 15.24, 15.25, 15.27.	
XVII.	Working of Trains on Electrified Section of Railways	17.02, 17.04, 17.05, 17.08	
III.		Annexure 'A' & 'B'	Complete

APPENDIX 'A' – PART IV The following Rules of the General and Subsidiary Rules apply particularly to the Cabinman, Leverman, Pointsman, Shunting Staff:-

	Chapter	General Rules	Subsidiary Rules
I.	Preliminary	Whole Chapter Except 1.02(13), 1.02(25), 1.02(29)	All SRs under this Chapter
II.	Rules applying to Railway Servants Generally	Whole Chapter	"
III.	Signals	Whole Chapter Except 3.19, 3.21, 3.22, 3.25, 3.26, 3.30, 3.33, 3.68, 3.74, 3.76, 3.78, 3.81, 3.82, 3.84,	SRs pertaining to the Rules.
IV	Working of trains Generally	4.10, 4.13, 4.15, 4.16, 4.17, 4.26, 4.42	
V.	Control and Working Of Stations	Whole Chapter	All SRs under this chapter
VI.	Accidents and Unusual Occurrences.	6.10, 6.11	SRs pertaining To the Rules.
XIV.	Block Working	14.11	"

XVII.	Working of Trains on Electrified Section of Railways. 422	17.02, 17.05 14.08,
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APPENDIX 'A' – PART VThe following Rules of the General and Subsidiary Rules apply particularly to the Loco Running Staff :-

Chapter	General Rules	Subsidiary Rules
I. Preliminary	Whole Chapter	All SRs under this Chapter
II. Rules applying to Railway Servants Generally	-	-
III. Signals	-	-
IV Working of trains Generally	Whole Chapter Except 4.17, 4.31, 4.34, 4.37, 4.43, 4.54, 4.56, 4.60, 4.66	SRs pertaining the Rules
V. Control and Working Of Stations	Whole Chapter	All SRs under this chapter
VI. Accidents and Unusual Occurrences.	"	"
VII. System of Working The Absolute Block System	"	"
VIII. The Automatic Block System	"	"
X. The following Trains System	"	"
XI. The Pilot Guard System	"	"
XII. The Train Staff and Ticket System	"	"

	Chapter	General Rules	Subsidiary Rules
XIII.	The One Train only System.	Whole Chapter	All SRs under This Chapter
XIV.	Block Working	Rule No. 14.08, 14.12 14.23, 14.25	SR pertaining to The Rules
XV.	Permanent Way and Works	Rule No 15.09, 15.10, 15.18, 15.19 15.23, 15.26, 15.27	
XVI	Level Crossings	Rule No. 16.07, 16.08, 16.11	
		Annexure 'A' & 'B'	Complete

S No.	Description	Form No.	Colour
01	Signal & Telecommunication Disconnection / Reconnection Notice	S&T (T/351)	Black
02	Advance Authority to Pass Defective Signals	T/369 (1)	Blue
03	Authority to pass Signals in "ON" or Defective position	T/369 – (3b)	Blue
04	Caution Order	T/409	White
05	'NIL' Caution Order	T/A 409	White
06	Reminder Caution Order	T/B 409	White
07	Train Examination Advise/Report	T/431	Black
08	Authority to Receive a Train on a Obstructed Line	T/509	Blue
09	Authority to start from a Non Signaled Line	T/511	Blue
10	Authority to start from a Line with Common Starter Signal	T/512	Blue
11	Authority to Proceed for Relief Engine/Train into an Occupied Block Section	T/A 602	Red
12	Authority for Opening Communication during Total Interruption Communication on Single Line Section	T/B 602	Red
13	Authority for Working to Train during Total Interruption of Communication on Double Line Section	T/C 602	Red
14	Authority for Temporary Single Line Working on Double Line Section	T/D 602	Red
15	Line Clear Enquiry Message asking Line Clear for Despatch of trains during Total Failure of Communication on Single Line Section	T/E 602	Red
16	Conditional Line Clear Message	T/F 602	Red
17	Conditional Line Clear Ticket (UP)	T/G 602	Red
18	Conditional Line Clear Ticker (DN)	T/H 602	Red
19	Message On Restoration	T/I 602	Black

20	Written Permission by Guard to Loco Pilot to Proceed to Next Station From Mid Section	T/609	Blue
21	Shunting Order	T/806	Blue

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S No.	Description	Form No.	Colour
22	Authority to Pass automatic/Semi Automatic/Manually Operated/Gate Singals	T/A 912	Red
23	Authority to proceed without Line Clear on Automatic Block Signalling Territory	T/B 912	Red
24	Authority to Proceed for Relief Engine/Train into an Automatic Block Signalling Section	T/C 912	Red
25	Authority to Proceed on Automatic Block System during prolong failure of signals	T/D 912	Red
26	Train Intact Arrival Register	T/1410	Black
27	Line Clear Enquiry Message (Outward/Inward)	T/1425	Black
28	Paper Line Clear Ticket (DN)	T/D 1425	Blue
29	Paper Line Clear Ticket (UP)	T/C 1425	Blue
30	Trolley/Lorry/OHE Ladder Trolley Notice	T/1518	Black
31	Motor Trolley Permit	T/1525	Blue

Register of Amendments and Additions.

Amendment Slip	Date of Receipt of Amendment Slips	Amendment made	Initials of Person in charge of Book
No.	Date	Rule Page Subject of Order	

Register of Amendments and Additions.

Amendment Slip		Date of Receipt of Amendment Slips	Amendment made			Initial of Person in-charge of Book
No.	Date		Rule	Page	Subject of Order	

Register of Amendments and Additions.

Amendment Slip		Date of Receipt of Amendment Slips	Amendment made			Initial of Person in-charge of Book
No.	Date		Rule	Page	Subject of Order	

Register of Amendments and Additions.

Amendment Slip		Date of Receipt of Amendment Slips	Amendment made			Initial of Person in-charge of Book
No.	Date		Rule	Page	Subject of Order	

- (c) An authority on the prescribed Form No.T/A 912 as given in Annexure 'A' at the end of this Chapter authorising the Loco Pilot to pass the Automatic, Semi-automatic and Manually operated signals intervening the two nominated stations at 'ON'. On being signalled past by a Pointsman or any other Railway Servant in uniform deputed for the purpose and the Gate signals cautiously upto the Level Crossing where he must ascertain that the Gates are locked and hand signals are displayed by the Gateman before he proceeds further. The individual distinguishing number/numbers of each Automatic, Semi-automatic, Manually operated and Gate signals shall be indicated on this authority.
- (d) A written memo containing names of affected stations and reasons along with Form No. T/A 912 (Annexure 'A') shall be given to the Guards of each train.
- (e) No train shall be allowed to enter an affected section until there is a clear interval of 15 minutes between the train about to leave and the train which has immediately preceded unless a shorter interval has been prescribed under special instructions.
- (f)(aa) 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 or the Guard with hand signals must be sent in advance to guide the further movements of the train. A sharp look out ahead should be kept and the engine whistle freely used. Further, before entering a section where there are tunnels, the Loco Pilot shall light the buffer lamps and the electric head lights.
- (bb) A tunnel shall be entered only after it has been ascertained that it is clear. If there is any doubt on this point, the train shall be piloted by a Railway employee equipped with hand signals and detonators.

- viii. The Guard shall keep a sharp look out in the rear and be prepared to exhibit a danger signal to prevent the approach of a train from the rear and to protect it if necessary as per extant rules. Before entering a section where there are tunnels, he shall also light the side and tail lamp/flasher light on EMUs.
- ix. When approaching the next station nominated under the special instructions mentioned herein above, the Loco Pilot shall bring his train to a stop outside the first stop signal and sound one long whistle. The Station Master on duty after satisfying himself that all points have been correctly set and facing points locked, shall arrange for a competent railway servant in uniform, to pilot the train from this signal, who shall obey hand signals if any relayed from the station platform. Manual, semi-automatic signal, if any, will, however, be passed on the written authority on the prescribed form to be issued by the Station Master.
- x. The Loco Pilot of all trains shall make over the ‘Authority to proceed without line clear’ to the Station Master of the nominated at the end of the section. These shall be kept by the Station Master on duty in his personal custody for inspection of the Sectional Traffic Inspector, who shall prepare a report on the working of trains and shall forward the same along with report to the Regional Traffic Manager within 7 days of resumption of communication.
- xi. A record of trains passed over to affected section on ‘Authority to proceed without line clear’ during the course of total interruption of communication shall be maintained in the Train Signal Book to be opened at all the specially nominated stations under special instructions mentioned herein above.
- xii. Trains must continue to work on this system until the signals are put right or any one of the means of communication is restored by the competent authority.
- xiii. As soon as the signals are put right, normal working of trains shall be resumed, but where signals continue to remain in-operative and any of the means of communication is restored, the Station Master shall immediately send a message to the Station Master at other end of the affected section on Form No.T/I 602 annexed at the end of Chapter VI as Annexure I.
- xiv. Line Clear shall not be obtained or given by any means of communication which has been restored until both the Station Masters are satisfied that all trains and engine etc., dispatched from their station have arrived complete at the other station. When the train referred to Rule (B)(i) above arrived complete at the Station, their number and arrival time will be communicated to the other Station Master concerned under exchange of Private Numbers. Thereafter, an intimation about this shall be given to the Section Controller, if possible.

WHEN THERE IS AN OBSTRUCTION

SR 9.12(3) Rules and Regulations for working of trains under the Automatic Block System during obstruction of one or more lines when signals are operative and communication are available. [Supplements to GR- 6.02]

In the event of obstruction of one or more lines in an area consisting of two or more stations worked under the Automatic Block System when signals are operative and communications are available, the following procedure shall be adopted: -

8. *"Rules and Regulations" for Temporary Single Line Working on the double line section when one line is obstructed:*
 1. When it is desired to introduce temporary Single Line Working on Double Line on Electric communication, the Station Master at one end of the affected section shall on receipt of reliable information in writing that one line is clear, take steps to introduce temporary Single Line Working on that line in consultation with the Section Controller and the Station Master of the station at the other end of the section after the approval & notification of nominated stations of both ends of the section by Regional Traffic Manager of the Region.
 2. If there is reason to suspect that the line over which temporary single line working is to be introduced is also fouled or damaged, temporary single line working shall not be introduced until a responsible Engineering Official not below the rank of an Inspector has inspected the section and certified that the line is safe for passage of train.
 3. Temporary Single Line Working shall be introduced between the nearest stations provided with Cross-over between Up and Down lines on either side of obstructions, nomination of stations at both the ends of such stations shall be done Regional Traffic Manager of the region as mentioned in rule (A) (i) above.
 4. All trains running in the wrong direction shall be worked in accordance with the rules for the use of Electric Communication Instruments on Single Line. 'Line Clear' shall be obtained on the Inter Cabin/Station Group Telephone/Control Telephone/Fixed telephone such as Railway Auto phone and BSNL/MTNL phones/ VHF set as the case may be. 'Line Clear' shall not be given unless the line on which the train is to be received is clear at least 180 metres beyond the point opposite the first stop signal pertaining to the correct line or the last stop signal pertaining to the wrong direction or any Shunt signal protecting the outer most Cross-over from the train will be worked on normal line. Line Clear shall neither be asked for nor given unless the two Station Masters have assured under exchange of Private Numbers that all the trains running in the right direction have already arrived complete at the station in advance. Except for each first train running in the right direction for which the procedure laid down for the trains running in the wrong direction shall be followed. Subsequent trains running in the right direction may be allowed to follow each other on Automatic Signals indications provided the station in rear has intimated the station in advance of the fact

that he is permitted particular train/trains to follow and has ascertained the latter's readiness to receive it/them. Private Numbers shall be exchanged for this transaction.

5. Train Signal Register shall be introduced at the station on the affected section.
6. Loco Pilot n of all trains on the affected area must be so advised in the writing by the station immediately in rear of the affected section on which temporary single line working has been introduced. A written authority on form T/E 912 should also be given to the Loco Pilot of the trains running in the right direction to pass the last stop signal at 'ON'. The Loco Pilot of the trains running in wrong direction shall be given the prescribed line clear ticket before entering the affected section.

Note: A written memo with full details regarding introduction of Single Line Working shall be given to Loco Pilot/Guard of each train working in Single Line along with Caution Order.

7. If there are stations, between above two stations at either end of affected portion, shall be treated as closed, from operational point of view.
8. All the points over which the train will run within the affected area shall be correctly set and facing points locked before the movements of any train is authorised over them. Whenever any power operated points have to be operated for diverting train, this may be released and operated locally under the written instructions of the Station Master on duty by Signal Maintainer at station where Signal Maintainer is available.
9. 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 under exchange of Private Numbers containing the following information to the Station Master at the other end of the affected section.
 1. Cause of introduction of temporary Single Line Working;
 2. The line by which Single Line Working is proposed;
 3. The source of information that the said line is clear;
 4. Place of obstruction;
 5. Restriction of speeds if any, on the line;
 6. The number and timing of the last train which arrived/left this nominated station.
10. On receipt of acknowledgement from the Station Master at the other end confirmed by a Private Number Single Line Working may be introduced. 'Line Clear' shall be obtained on following means of Electrical Communications: -
 1. Inter-Cabin/Station Group Telephone,
 2. Control Telephone,
 3. Fixed telephone such as Railway Auto phone and BSNL/MTNL phones.
 4. VHF sets, as the case may be, and trains run on the procedure set out above.

(xi) (a) *A written memo and authority T/E 912 shall also be handed over to the Loco Pilot of each train on which shall be clearly stated:*

(aa) **the line on which the train is to run;**

- (bb) the kilometers between which the obstruction exists;
 - (cc) any restriction of speed which may have been imposed, and
 - (dd) the instructions that Automatic Signals in the wrong direction should be considered as out of use even though they may be showing 'proceed' or 'caution aspect'.
- (b) For train running in wrong direction, an authority on the prescribed Form No.T/E 912 (Annexure E) authorising the Loco Pilot to pass the intervening non-governing (i.e., relating to the opposite direction) semi-automatic and manually operated signals on being hand signalled past by a Pointsman or any other Competent Railway Servant in uniform deputed for this purpose and the Gate signals cautiously upto the Level Crossing where he must ascertain the Level Crossing Gate is locked and hand signals are displayed by the Gatekeeper before proceeding further. The Loco Pilot should switch 'ON' the flasher light of the train engine while running on the wrong line. He must also ascertain that the points of the outlying siding if any, are correctly set and locked before passing over them. In such cases, the hand signal shall be displayed at such points/Gates instead of at the signals. The individual distinguishing number including number of each Automatic, Semi-Automatic, Manually operated and Gate Signal/s shall be indicated on this authority.
- (d) An endorsement shall also be made on the Caution Order given to the Loco Pilot of the first train introducing temporary single line working in the wrong direction to stop and inform all Gatekeepers and Track man/TSM on the way about the introduction of temporary single line working. The line on which the trains shall run also be specified.
- (e) The speed of all trains running in the wrong direction and first train running in right direction shall not exceed 25 kmph when view ahead is clear and 10 kmph when approaching or passing any position of the line where the view ahead is not clear due to curve, obstruction, rain, fog or any other cause subject to observance of other speed restriction imposed. Speed over facing point will be restricted to 15 kmph.
- (f) When approaching the next station nominated under special instructions under Rule (A)(iii), the Loco Pilot of the train running in the right direction shall bring his train to a stand opposite the first stop signal pertaining to the correct line or the last stop signal pertaining to the wrong line or any other place before concerned Cross-over specified in authority when train is running on wrong line and sound one long whistle The Station Master at receiving end shall satisfy himself that all points are correctly set

and facing points is locked for reception of train on nominated line shall arrange to depute a Competent Railway servant in uniform at the nominated place and show necessary hand signals to the Loco Pilot of the train then pilot the train from this signal. Manual, Semi-Automatic signals if any shall however, be passed on a written authority on the prescribed Form No. T/369(3b) to be issued by the Station Master. If approach signals of receiving end station are in working condition, then train running on right direction shall be received on signal.

- (g) Before allowing the Loco Pilot of the train into affected section, Station Master on duty at rear end shall issue following documents to the Loco Pilot of the train: -

1. *If train is running on right direction:*

- (aa) Written authority to pass stop signal in 'ON' aspect on prescribed Form No. T/E 912 (Annexure-E).

- (bb) Memo with cause of introduction of Single Line,

- (cc) Authority T/E 912 and memo is to be given to the subsequent train running in right direction.

2. *If train is running in wrong direction:*

- (aa) Form No. T/E 912 (Annexure 'E') authorising to the Loco Pilot of the train to pass all Governing/ Non-governing signals. The individual distinguishing number including number of each Automatic, Semi-Automatic, Manually operated, Gate signal/s shall be indicated in this authority. It should also be specified in the authority that Loco Pilot shall stop his train at the place while reaching station in advance including Platform Starter Signal of the line from which the train is piloted to wrong line.

- (bb) Train shall be piloted out of the station by the Competent Railway Servant after all the facing points have been correctly set and locked over which the train will pass.

- (h) *Resumption of normal working:*

1. On receipt of written certificate from a responsible engineering official that the obstruction on affected line is removed and obstructed track is free for passage of trains, the Station Master will issue a message to other Station or Stations as the case may be under exchange of Private Numbers and decide in consultation with Section

Controller the train after the passage of which the normal working has to be introduced, and it is also ensured that last train dispatched on Single Line is completely arrived at Station in advance.

2. An entry shall also be made in Train Signal Register 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.
 - (i) All the records in connection with the temporary single line working shall be retained at the station and the Area Supervisor of the section must scrutinize them and submit his report to the Regional Traffic Manager within 7 days of the resumption of normal working.

SR 9.12 (4) Rules and regulations for working of trains under the Automatic Block System during obstruction of one or more lines when no communication is available and signals have also failed:

The following procedure shall be adopted for train passing.

6. *On a double line section when one line is obstructed:*
 1. In the event of total interruption of communication occurring on a section worked under Automatic Block System and when trains cannot be worked by any one of the following means viz.,
 1. Track Circuits, Axle Counter,
 2. Inter-Cabin/Station Group Telephone,
 3. Fixed telephone such as Railway Auto phones and BSNL/MTNL phones.
 4. VHF sets.
 5. Control Phone
 2. The movements of trains on the affected section shall be controlled by such stations and on such lines as are prescribed by special instructions.[see SR 9.12 (3)(A)(i)].

'Train movements in such circumstances shall be done at either end of station situated at both end of affected area and Cross-over is provided between Up and Down line at both stations'. Before allowing any train to leave the first controlling station to enter the affected area, it shall be brought to a stand and the Loco Pilot and Guard of the train shall be advised of the circumstances by the Station Master.

3. The Station Master shall satisfy himself that the Guard and Loco Pilot thoroughly understand the Rules under which the trains are to be run during total failure of communications on Single Line. He will also obtain the signature of the Loco Pilot and Guard on form T/B 912 (Annexure 'B') of 'Authority to Proceed Without Line Clear'.
4. 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, Single Line working shall be introduced only after responsible official of the Engineering

Department not below the rank of Inspector has certified that other line on which Single Line is to be introduced is free and safe for passage of trains.

Such Engineering official shall give the certificate only to Station Master of the Station at that end of the affected section for which the un-obstructed line shall be the right line for despatching trains. On receipt of this certificate, the Station Master will open communication by Light Engine/Train Engine/motor trolley or tower wagon/Empty train to be sent on the un-obstructed line. In case a train consisting EMU stock/diesel car has to be sent to open communications, all passengers must be detrained before the train is despatched. The relevant provisions of the unified Rules for Single Line Working on Double Line during total failure of communication shall be adhered to.

5. Loco Pilot of all trains approaching the affected area must be advised in writing by the first controlling station prescribed under Rule (ii) above about the stations between which and the line on which temporary single line working has been introduced. In addition, the Loco Pilot of trains which will run on the right line on temporary single line shall stop at the station immediately in rear of the affected section and proceed further only on receipt of the prescribed authority to proceed.
6. The Station Master will hand over to the Loco Pilot for opening the communication the following documents:-
 1. An authority to proceed without line clear on prescribed Form No. T/ B 912 (Annexure 'B');
 2. A Caution Order restricting the speed to 25 kmph over the straight with clear view 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 subject to observance of other speed restrictions imposed and speed over facing points being restricted to 15 kmph.

The Caution Order shall contain:-

- (aa) the line on which the train or light engine is to run; (bb) the kilometers between which the obstruction exists.
3. An authority on the prescribed Form No.T/A 912 (Annexure 'A') authorising the Loco Pilot to pass the Automatic Signals intervening the two nominated stations at 'ON', the Semi-Automatic Signals and Manually operated signals on being signalled past by a Pointsman or any other Competent Railway Servant in uniform deputed for the purpose and Gate signals cautiously upto the Level Crossing where he must ascertain

that gates are locked and the hand signals are displayed by the Gateman before he proceeds further. The individual distinguishing number/numbers of each Automatic, Semi-Automatic, Manually operated and Gate signals shall be indicated on this authority.

4. A conditional line clear message on Form No. T/F602 for a train to enter the affected section from the other end.

The particulars of the engine either returning light or attached to another engine / Tower Wagon / Diesel car / rail motor car / EMU rake/motor trolley or trolley or cycle trolley or moped trolley running by itself or loaded in train as may be applicable shall be correctly filled in while preparing the message.

5. A Line Clear enquiry message addressed to the Station Master of the nominated station in advance seeking the line clear for the next train to proceed to his station.
6. The Line Clear enquiry message shall be given on Form No. T/E 602.
7. An endorsement shall also be made on the Caution Order given to the Loco Pilot of the first train to stop and inform all Gateman and Track man /TSM on the way about the introduction of temporary single line working. The line on which the train will run shall also be specified.
8. All points over which the train will run within the affected area shall be correctly set and facing points locked before the movements of any train is authorised over them. Whenever any power operated points have to be operated for diverting trains, these may be released and operated locally under the written instructions of the Station Master on duty by the Signal Maintainer at Stations where Signal Maintainer is available.

(ix)(a) After sending forward a train Engine/ Empty Train/Light Engine/ Motor Trolley/ Tower Wagon or RMV with enquiry and Line Clear messages, no other train or engine shall on any account be allowed to leave in the same direction until the return of that Engine / Empty EMU / Motor Trolley / Tower Wagon.

(b) No obstruction of the line beyond outermost facing point at the station shall be allowed until the return of that Engine/Empty EMU/ Motor Trolley/Tower Wagon.

(x) The Loco Pilot of such an engine/empty EMU train/Motor trolley /Tower Wagon or RMV proceeding to open communications shall proceed at a speed not exceeding 25kilometers per hour over the straight and with a clear view and 10kilometers per hour when approaching or passing any portion of the line by night or when the view 'ahead is not clear making free use of engine whistle.

In thick or foggy weather the Loco Pilot should proceed at a walking speed whistling repeatedly, piloted by two men on foot at an

adequate distance, one displaying a Red light and the other carrying Fog signals ready for immediate use. One of these men will be provided by the Station Master and the other by the Loco Pilot from the member of his crew. Both these men will have their duties clearly explained to them by the Station Master who would satisfy himself that they thoroughly understand the same in the presence of the Loco Pilot.

- (xi) In the event of an engine or Tower Wagon or Motor Trolley or Empty train meeting any other engine, Tower Wagon or RMV etc. sent from the other end, in the section, the two Loco Pilot shall, taking into consideration the importance of the train waiting, the distance from the nearest station, gradients to be encountered, the presence of catch sidings etc. decide which engine/unit etc. should push so as to allow the other to go through.
- (xii) On the arrival of the Light Engine etc. at the next station nominated under special instructions under rule above, the Loco Pilot shall hand over the conditional Line Clear and Line Enquiry messages to the Station Master who shall record it in the Line clear message book.
- (xiii) The Station Master on duty at next station, on receiving the authority of the Conditional Line Clear message shall despatch the waiting train attached to Light Engine or Light Engine back from his station. The Loco Pilot shall be given the following documents:-
 - iii. Conditional Line Clear Ticket on Form No.T/G 602 for Up or T/H 602 for Down (Refer Annexure G & H respectively at the end of Chapter VI)
 - iv. Conditional Line Clear reply Message on Form No. T/F 602 for a train to leave from the station waiting at the other end of the affected section.
 - v. *A Caution Order on which shall be clearly stated:* - (aa) The Line on which the train is to run.

(bb) The kilometers on which the obstruction exists.

- (cc) Any temporary restriction of speed, which may have been imposed.
 - vi. A Line Clear enquiry message addressed to the Station Master of the nominated Station in advance seeking Line Clear for the next train to proceed to his station after the arrival of train from other side.
 - vii. Written Authority on Form No. T/A 912 (Annexure 'A') for passing intervening signals.
- (xiv) When approaching the next station, the Loco Pilot shall bring his train to a stand outside the first stop signal pertaining to the correct line or opposite the last stop signal pertaining to the wrong line on which he is running, whichever he comes across first, and sound one long whistle.

The Station Master, after satisfying himself that all points have been correctly set and facing points locked, shall arrange for a Competent Railway servant in uniform to pilot the train from the signal, who shall obey hand signals if any relayed from the station platform. Manual, semi-automatic signals if any shall, however be passed on a written authority on the prescribed form T/369(3b) to be issued by the Station Master.

- (xv) On arrival at the station, the Loco Pilot shall hand over the Line Clear Reply message to the Station Master who shall record it in the Line Clear Message Book and on its authority issue:

For the waiting/subsequent train:-

- (a) Conditional Line Clear Ticket
- (b) Caution Order
- (c) T/A 912 (Annexure A)
- (d) T369(3b) for last Stop Signal

- (xvi) The speed of all trains passing over the temporary single line shall be restricted to 25 KMPH subject to observance of other speed restrictions imposed and speed over facing points being restricted to 15 KMPH

- (xvii) If there be an even flow of trains in both directions, enquiry and Line Clear Message for each succeeding train may be sent with the Loco Pilot of the preceding train.

(xviii) The arrival and departure time of all trains must be carefully recorded in-

- (a) Line Clear Enquiry and Reply Book.
- (b) Record copy of the 'Authority To proceed Without Line Clear' (this applies to the first train only and,)
- (c) Train Signal Register Book.

- (xix) If the Station Master at one end has more than one trains 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 number of trains he wants to send and also state therein that the latter trains will be dispatched at intervals of 15 minutes or full running time whichever is more.

After the receipt of the Line Clear for the required number of trains the Station Master while despatching the first train shall endorse on the Line Clear Ticket that a particular train (giving its number and description in full) shall follow at a specified interval. While adopting this procedure the Guard and the Loco Pilot shall be instructed to keep a sharp lookout and be prepared to stop short

of any obstruction and if the view is restricted because of fog, curve or any other reason, speed shall not exceed 10kilometers per hour.

(xx) *Resumption of normal working:* -

The normal working shall not be resumed unless: -

- (a) The Station Master has received a written certificate from the responsible Engineering official that the obstructed track is free for passage of trains.
- (b) Either the signals are put right or any one of the means of communications as listed herein above in rule SR 9.12(4)(A)(i) is restored by the competent authority.

Note:-(i)

In case
when obstruction is removed and signals continue to remain
inoperative and none of the means of communication is
available, the trains will be worked in accordance with the
Instructions prescribed in SR 9.12 (2) above

- 39. In case where either signals are put right or any of the means of communication is available, but the obstruction continues, the Instructions as prescribed in SR 9.12 (3) (A) shall be observed.
- 40. An entry shall also be made in the Train Signal Register/Charge Book of all the stations concerned showing the time when normal working was suspended and the time when normal working was resumed.

(xi) All the records in connection with the train working under this system shall be retained at the station and Area Supervisor of the section must scrutinise them and submit his report to the Regional Traffic Manager within 7 days of the resumption of the normal working.

SR 9.12 (5) Other Incidents

5. *The vehicles running away on wrong line:*

- 1. Should any vehicles be running away on the wrong line, the Station Master must give ‘vehicles running away on wrong line’ signal to the SM towards which the vehicles are running and must communicate the number and description of the vehicles concerned particularly as to whether they contained passengers or not. He will stop any train going in the same direction on the right line. The Station Master receiving the above signal must stop any train entering the section on the line on which vehicles are traveling. He must also, if the line and cross-over, leading to the right line in the direction in which vehicles are traveling are clear of obstruction and if the right line to the station in advance is clear of trains, give the vehicles running away on right line

signal to the Cabin in advance and divert them on the right line.

2. If the line and cross-over in his station is clear, the Station Master must take whatever steps he can to deal with run away vehicles, such as to divert them into a siding, in all cases consulting the Station Master if there is time.
3. When it has been ascertained that the line is free of obstructions he will advise the Station Master at the other end of the section by telephone and permit trains to proceed as usual.

6. *The vehicles running away on right line:*

1. Should any vehicle be running away on the right line, the Cabin Station Master must give the ‘vehicles running away on right line’ signal to the Station in advance, and must inform on telephone the number and description of the vehicles concerned particularly as to whether they contain passengers or not.

He must also stop any following train entering the section. The Station receiving such signal must acknowledge it, and if the line through his station is clear of obstruction, and if the line at the station in advance is clear of trains, he must pass on the ‘vehicles Running away on the Right line Signal’, to the next station and allow the vehicles to run through his station, and the same time warning the station staff and placing detonators on the rail to attract attention.

2. If the line through his station or to the next cabin is not clear of trains the Station Master must take whatever steps he can to deal with the runaway vehicles, such as diverting them into a siding, in all cases consulting the Station Master if there is time.
 3. When it has been ascertained that the line is free of obstruction he will advise the Station Master at the other end of the section by telephone and permit trains to proceed as usual,
- 7. *Failure of signal bell/emergency bell in DEMU/EMU:-***

In case of failure of Signal Bell/Emergency bell on DEMU/EMU trains, it shall be reported immediately to the next station and ask for Examiner at next scheduled halt station. Until signal bell is put right by Examiner, the Loco pilot and the Guard of the train shall be fully responsible for stopping and starting the train at scheduled halts.

8. *Over shooting of Platform:*

The Loco Pilot and Guard of the train shall be fully responsible to stop his train at nominated stop mark at platform line. To avoid over shooting of platform following precautions shall be observed by Guard and Loco Pilot of trains: -

Guard of train shall give one beat to the in advance to stop so that a warning can be registered in the 's memory that he has to stop the train at the next station platform. If there is no response from the , Guard must apply his brakes when a stopping train is approaching the station at too great speed.

In case where a train stops after overshooting the stop mark, even after using all precautions, following procedure should be adopted to work the train: -

vi. *The cases of train overshooting the Stop Marks where whole train remains on the platform:*

In these cases, the Guard should take extra time sufficient to enable the passengers to board the train and then start the train. In this case there is no need to call the Dy. SS, the statement from the or measure the distance of overshooting are also not required. The Guard should report the case at his Headquarter station..

vii. *The cases of train Over Shooting the Stop Marks where the part of the train has over shoted the platform:*

In these cases, the Guard should keep the brakes applied, call the Dy.SS/Station Master on duty and take the statement of the and ensure the safety of the passengers and then start the train. There is no need to measure the distance of overshooting.

9. *Alarm chain pull by passengers on DEMU/EMU's: -*

When an Alarm chain is pulled, the Guard in-charge of the train will put the disc back to its normal position. Following action should be taken by the Guard and Loco pilot/ of train and station staff whenever there is alarm chain pulling on the train: -

1. Whenever the Alarm chain is pulled on the DEMU/EMU's train in between the scheduled halt, the Loco pilot/ should reduce the speed of his train to 20 KMPH till he gets the Guards signal on Bell code justifying the stoppage of train or otherwise.
2. Guard must look out on both sides of the train to ascertain whether there is any untoward incident such as passenger having fallen down from the train or any other such serious occurrence like fire on roof of coach, hot axle etc. which would justify immediate stoppage of train. In case the Guard notices any of the above, he should give one beat to the to stop the train immediately (except on bridges) and deal with the situation as warranted. However, if the Guard is fully satisfied that there is no untoward happening, he should give two beats to the to resume normal speed and the train should be brought to a halt.
 - (a) On the Alarm chain being pulled the Loco pilot/ and the Guard will sound the Hooter continuously in short blasts to bring the attention of the station staff to attend to the incident.
 - (b) On hearing continuous Hooter, ASM on duty along with station staff, GRP and RPF should rush to the incoming train and attend to the compartment from where the chain has been pulled. The station staff will also help in setting the disc right for starting the train.
 - (c) Attention of the Guard is also drawn to keep a Good Lookout in this connection.

SR9.12(6)(A) Provision of Track Circuits:

1. Means the divisions of track into insulated sections. These insulated sections are fed electrically at one end and track relay connected at the other end. When a train/vehicle is occupying this portion of the track, the electric current to the relay is diverted through the wheel of the train/vehicle and relay de-energised. The track circuits are provided for indicating the presence of a train or vehicle on the portion of the line forming the track circuits and also for controlling signal and points.
2. The line is provided with track circuits over the entire length and may be divided into a series of Automatic signaling section. The track circuit for the overlap must be separated from the track circuits for the remaining portion of the each signaling section.
3. The track circuits shall also be provided on all passenger running lines as well as other reception lines between passengers lines including their connections to the main at all stations including stations at the either end of the section. There shall be no gap between the track circuits of the station and track circuits of the Automatic Section.

7. Illuminated Track Circuit Diagram.

All Track circuits are marked in different colours and numbered together with signals and points shown on it and is placed on the track layout of controlling territory. It is placed in Control Tower/SM Room or hut indicating the area and interlocking under the control of person-in-charge and may also indicate the track

circuit in rear and in advance. Track circuit indications on panel consist of white and Red lamps within the track lines. Normally these indications are not lit. If the Track Circuiting is controlled by Semi Automatic Signal working as Automatic Signal the white light of all track sections of that particular route including overlap are lit. Subsequently when train/vehicle occupies the track section its white lights are extinguished and steady Red lights are lit to indicate the presence of train. Red light extinguishes and white lights are re lit when the train/vehicle clears the whole track sections if the track circuits controlled by semi automatic signal working as stop signal.

Normally there is no any indication on Signal control Panel /VDU when route is set and locked white lights of all track sections of that particular route including overlap are lit. Subsequently when train/ vehicle occupies the track section, its Red lights will appear on the particular route which indicate the presence of train. Red light extinguishes when train/vehicle clears the whole track section. Similarly when it enters the next track circuited section the Red lights representing that section are in turn illuminated and so on until the whole train or the vehicle have passed out of that area represented by the track circuit diagram. Failure of Track circuit is indicated on indication panel by lighting up of Red light on that particular track section whether track has been set or not. To prevent suppression of a track failure indication in case of indication lamp failure, track circuit strip indications are always

formed with two or more indication lamps in parallel.

- (d) *Route Indicators:*
1. Directional type route indicator,
 2. Multi lamp or stencil type (Theatre type)
- iii. The directional route indicator displays a row of 5 lunar white light indicating the direction of turnout with the signal displaying Yellow aspect. For the straight route the indication will not be lit.
- iv. In the Multi lamp or stencil type the unit displays numbers representing the line on to which the train is being received with signal showing yellow aspect.

Note: - Display of the route indicator alone without the signal aspect does not constitute a proceed indicator.

(e) *Visual Indicators-*

- (i) The ‘Stop’, ‘Caution’ or ‘Clear’ aspect of a signal is repeated by visual indicator consisting of a small Electrical Apparatus showing the indication of ‘RED’ or ‘YELLOW’ or ‘GREEN’ and when illuminated it proves that the corresponding signal is illuminated to the same colour.
3. Visual indicators are also provided to show the ‘Normal’ (N) and ‘Reverse’ (R) position of all the points laid on or connecting the track circuited portion. A buzzer which will sound continuously when the points are not correctly set or fail to respond to the operation of the Point buttons/icons are also provided.

(iii) *Visual Indicators on Level Crossing:-*

Visual indicators are also provided at interlocked level crossing gate for the Gateman to know whether the control controlling the locking of level crossing gate is given by the Control Tower/SM Room to enable the Gateman to open the level crossing for road traffic and closing of barriers indications given by Gateman will also appear on Signal Control Panel/VDU.

(f) *Starter Indicator:*

Starter indicator may be provided to repeat the aspect of the starter signal as an aid to the Guard to enable him to know the aspect of starter. This indicator may be provided at a convenient place. The starter signal shall exhibit no light when starter is at 'ON' and Yellow light when it is 'OFF'.

SR 9.12 (7) Working of Tower wagon/RMV/Unimat/CSM.

1. *4 Wheeler Tower Wagon / RMV:-*

Tower Wagon/RMV being a light vehicle sometimes fails to shunt the track circuits, and it is likely that it may give a misleading indication on the track circuit diagram. Therefore, when a Tower wagon/RMV is working on the lines, movements shall be watched and recorded as if this were being made under Absolute Block System.

An entry shall be made in the Train Signal Register by SM

Station Master on duty of the time at which the Tower wagon/RMV enters a section and this advised to the Station Master of the next station. A train should not be permitted to follow till such time the 'Train out of section' advise has been received from the station in advance supported by a private number.

(B) 8 Wheeler Tower Wagon:-

8 Wheeler Tower Wagon shall be treated and signalled as a train under the system of working i.e., Automatic Block System. All rules given in this Chapter shall be applicable for working of 8 wheeler Tower Wagon.

Note: - When a Tower wagon/RMV/Unimat/CSM has entered in station, the Station Master shall not depend upon the indication appearing in illuminated Control Panel/VDU Panel. Before interfering with any points/cross-over, he shall satisfy himself by physical verification of Tower Wagon RMV/Unimat/CSM.

[For detailed instructions on working of Tower Wagon, refer SR17.08(1)]

SR 9.12 (8) *Working of Track maintenance machines (TMM): Track maintenance*

machines (TMM) will be as working of 8 Wheeler Tower Wagon as

given above in SR 9.12 (7) (B) (For detailed instructions on working of *Track maintenance machines*, refer GR 4.65)

SR 9.12 (9) *Push Trolley, Material Lorry and Motor Trolley:*

Push Trolley and Material Lorry are not permitted on the running lines except on the tracks, which have been blocked by the Engineering/ Signal/ Electrical department under a traffic working order. In such cases, the Material Lorry/Push Trolley shall work under the charge of an employee not below the rank of Supervisor (group 'C' staff) and he should have passed the competency examination for working of Trolley/ Lorry and obtained certificate for the same. **No Lorry/trolley permitted to run on running lines without block protection.**

However, in cases of extreme emergency it may be allowed on the running lines observing the

conditions laid down for the working of Tower Wagon. The extreme emergency shall be decided by the RTM or the REN.

(For detailed instructions on working of Lorries, Trolleys and Motor Trolleys, refer **GR-15.18 to 15.25 and SR's thereunder**)

SR. 9.12 (10) Failure:

V. *Illuminated Panel Failed:*

Illuminated Signal Control Panel/VDU shall be considered failed:

-
- 1. When complete Control Panel/VDU Panel does not show any indication and becomes blank.
- (ii) When complete Signal Control Panel/VDU shows red indications on illuminated panel even all tracks are unoccupied.

In the above cases, all operations, viz., changing of points, taking 'OFF' signal by setting the route and other operations from Control Panel/VDU Panel is not possible.

In such cases, the Station Master on duty is responsible for reception and despatch of trains in affected area. The Station will be treated as non-interlocked station. The trains will be worked as on Absolute Block System. The Station Master on duty shall arrange to set the points and facing points set and locked for straight line by means of Crank Handle and Clamps. He will ensure complete arrival and departure of trains by physical verification of lines in affected area. Trains will be worked according to procedure prescribed in **GR 3.39, 3.40, 3.68, 3.69 and 3.70.**

Concerned signal and telecomm staff shall be informed immediately to attend and rectify the failure. Such failure to be reported to the Sectional Controller and recorded in S&T Failure Register.

vi. Failure of Signal Control Panel/VDU when any button is pressed for long time:

When any button is remaining in pressed condition for long duration and does not return to normal position, an audible alarm will start ringing and an illuminated 'GBI' (Group Button Failure Indication) will appear on Signal Control Panel/VDU which shall indicate to the Station Master that, some Button does not return in its normal position automatically. In such cases, operation through Signal Control Panel/VDU on affected area will not be possible except putting back signal aspect to danger position.

The Assistant Station Master shall take following action:

1. The Station Master shall pull up all buttons used for last operation before appearance of 'GBI' indication.
2. Check the S M key on Signal Control Panel/VDU and ensure that it is in proper position.
3. After setting a route for reception of any train and route locking indication of so set route showing flashing indication, in such case, the Station Master shall introduce Auto working and after departure of train for which route is set, cancel the route by three button cancellation procedure.

If after operation of above procedure Group Button failure indication still remains on Signal Control Panel/VDU , concerned signal staff should be informed immediately to attend and rectify the failure. Sectional Controller should be informed immediately and above failure to be recorded in S&T failure register.

vii. Failure of Track Circuit:

Track Circuits to be considered as defective when:

1. If any Track Circuit section is being occupied and the corresponding section on the illuminated Signal Control Panel/VDU is not showing the red light indication, the track circuit section and the signal controlling by it should be considered as defective and such defective signal should be replaced to ‘ON’ position immediately, as a precautionary measure a stop collar should be placed on the button operating such signal.
2. If the track circuit is unoccupied and the corresponding section on the Signal Control Panel/VDU shows a red light indication that track circuit/Axle counter section must be considered as defective.
3. If a Track Circuit/ Axle counter section controlling the signal shows as occupied in the illuminated Signal Control Panel/VDU in the Control Tower/SM Room and the signal controlled by the Track Circuit/ Axle counter can be taken ‘OFF’, the signal and the controlling track circuit/circuits should be considered as defective. Stop Collar/soft stop collars in case of EI should be placed on the button operating such signal.

Note- When the failure of one or more track circuits prevents the stop signal from being taken ‘OFF’, action should be taken as indicated in GR 3.69 & 3.70.

In all such cases listed in SR 9.12 (10)(C) (i) (ii) & (iii) above, the Station Master on duty and the staff should be informed immediately. During the period of failure, the ASM on duty will be fully responsible for the safe running of trains.

viii. Action to be taken during failure of Track Circuit/ Axle counter

1. Failure of Track Circuit/ Axle counter will affect the signal or signals heading over the track circuit or circuits that have failed and also the point or points if any, controlled by such track circuits. If the failure is noticed before or after any route setting is done, the Station Master should check the failed tracks that there is no other train/vehicles in the portion of the track which controls the signal, if so occupied, it must be cleared. After satisfying that no vehicle occupies the route

concerned, he shall set the concerned route for the straight route pressing the signal button and the relevant track route button. After checking that all points in the route as well as those required in isolation are correctly set and locked, he should press 'AGGB' button and concerned signal button to illuminate 'A' marker light on the signal where provided allowing the train to pass it cautiously.

2. If the track has failed and the diversion movement is necessary, the Station Master after satisfying that the route is not occupied by any vehicle should take 'OFF' 'Calling On' signal (GR 3.45) where provided by pressing the concerned signal button and COGGN button release the COGGN button keeping the signal button pressed, then press the concerned track button for clearing the signal.
3. If the concerned signal neither been provided with 'A' marker nor a 'Calling On' signal, the train shall be worked on written authority on Form T/369 (3b). The Station Master should immediately bring to the notice of the Sr.Section Engineer (Signal) on duty, the failure of the track circuits.

Note: -If the failure of the track is affecting the normal operation of a point/ points, the Station Master satisfying himself by physical verification of affected track about the non-occupancy of the track then shall bring the point/points to the required position by operating 'EWN' Button.

ix. Failure of lamp when circuit/s have failed:

1. In case the 'A' marker light lamp is fused or for any reason the 'A' marker light is not getting lighted, the Station Master on duty should arrange to issue written authority to the /Loco Pilots of the train for passing the concerned signal in 'ON' position. The failure of 'A' marker light is exhibited on the Control Panel/VDU Panel by a flashing white light in the triangle slit below the respective signal symbol.
2. In case the 'Calling On' signal lamp is fused or for any other reason the 'Calling On' signal is not getting lighted, the Station Master on duty at Control Panel/SM room should arrange to issue written authority after ensuring that the route is correctly set and locked for the passage of the train to the /Loco Pilot of the train for passing the signal concerned at 'ON'. The failure of 'Calling On' signal bulb is exhibited by a flashing white round indication below the concerned main

signal on Control Panel/VDU Panel.

SR 9.12 (11) *Failure of Motor Operated Points:*

6. In case of Power failure or due to some other defect when the power operated points can not be operated from the Control Panel/VDU Panel, the points shall be considered as defective. These will also be considered as failed when:-
 - (d) The white light for point does not show steady indication, or
 - (e) The indication does not correspond to the actual position of the points, or
 - (f) The track circuit section controlling the points shows as occupied in the illuminated track circuit or any other means and the point controlled by the track circuit can be operated from the SM room (except emergency operation by EWN)
7. In all the above cases, when the points become defective, the Station Master should inspect personally and in case the defect is caused by an obstruction between the switch and stock rail, remove the obstruction and test the points again to see whether they are functioning satisfactory. If the defect is due to other cause, and points still fail, the Station Master shall verify the actual position by means of Crank Handle then Clamp and lock the points, keys of padlock to be kept in the personal possession of Station Master on duty and then allow to pass the train on 'written authority' form T / 369(3b). The S&T staff should be informed immediately to attend the failed points by written memo. On arrival of Signal staff will issue disconnection notice in accordance with rule SR 3.68(1)(b). Until the points are rectified and tested as per procedure SR 3.68(1)(c), the train will work according to procedure laid down in GR 3.77. In case of points indication failure due to lamp fused or any other reasons, there is no illumination in visual point indication on Control Panel/VDU Panel (neither normal nor reverse).

The Station Master should try to clear the relevant signal / signals and if the signal can be taken 'OFF', train

will be received on signal. If signal cannot be taken 'OFF' then the concerned points should be considered as defective and action will be taken as given above.

SR 9.12 (12) *Failure of Other Points:*

- iii. When the Track Circuit section becomes defective, the points lying in such section should also be treated as defective. In such cases, Section Controller should be advised and assistance of signal maintenance staff should be obtained early. Further, action should be taken as indicated above and under GR 3.77 & GR 3.68.
- iv. A colour light signal must be considered as defective and therefore in the 'ON' position within the meaning of these rules when:-
 - (f) When there is no light in the Electrical Repeater (Visual Indicator) on the Control Panel/VDU panel unless the Panel Station Master/Platform Station Master is in a position to verify the aspect displayed by the signal.
 - (g) When there is no light in the signal.
 - (h) When there is irregular indication of light in the signal or repeater in Semi-Automatic, manually controlled signal.
 - (i) The light is not correctly visible.
 - (j) When a track circuit section governing a signal is occupied and the signal controlled by the track is displaying an 'OFF' indication.

9.13 MOVEMENT OF TRAINS AGAINST THE DIRECTION OF TRAFFIC ON THE AUTOMATIC BLOCK SYSTEM.—In Automatic signaling territory, trains shall run in the established direction of traffic only. Movement of trains against the established direction of traffic is not permitted. When in an emergency it becomes unavoidably necessary to move a train against the established direction of traffic, this shall be done only under special instructions which shall ensure that the line behind the said train upto the station in rear is clear and free from obstruction.

SR. 9.13 (1) If total communication between stations have failed, direction of traffic shall not

be altered by controlling station, under such circumstances trains shall work as mentioned in GR- 6.02 and GR-9.12

SR 9.13 (2) When in an emergency it becomes unavoidably necessary to move a train against the established direction of traffic, the Station Master before authorising any movement against the established direction of traffic shall find out the particulars of the trains between his station and the station in rear from the latter and then authorise the movement only after he has satisfied himself that there is no train between his station and station in rear. He will also advise the station in rear not to allow any train to leave the station in the established direction of traffic, unless the movement against the established direction of traffic is completed and the portion of the line between the two stations is clear of the obstruction.

Such an advice shall be communicated and its Acknowledgement obtained with exchange of private numbers.

Necessary entries shall be made in the charge book /TSR at the stations and by the Controller in his Diary /Graph.

SR 9.13 (3) Cancellation of established direction of traffic after despatch of train in the section when train is unable to move ahead and required to be pushed back in emergency.

4. On getting information about the pushing back of train, Station Master on duty of despatching station shall inform immediately to section controller and Station Master of station in advance.

The direction can be changed from Down to Up or Up to Down as the case may be by

simultaneously pressing concerned button along with 'RBR' button. The controlling station shall now establish the direction of traffic in the reverse direction by pressing concerned direction button along with GSB button. Thereafter despatching station can admit the train being pushed back by taking 'OFF' approach signals. In the event of failure of Track circuit (appearance of illuminated RED slit or due to some other reasons) after establishing direction of traffic if despatch signal and/or 'A' marker cannot be taken 'Off'. Station Master on duty of despatching station shall issue T/369(1) duly endorsed with private number received from the station in advance. Loco Pilot/ of train shall also be issued a Caution Order to keep a sharp lookout for any obstruction.

5. In case after establishing direction of traffic, if arrow indication fails to appear on panel of despatching station, Station Master on duty of despatching station will confirm from station in advance and will obtain private number, which shall be recorded in Train Signal Register of both stations. Thereafter despatching station will take 'OFF' despatch signals and shall immediately inform to signaling staff for rectification.
6. After establishing direction of traffic if slot cannot be transmitted by the station in advance to the station in rear, Station Master on duty of despatching station will obtain a private number from the station in advance and shall issue T/369(1) duly endorsed with private number received from the station in advance to the Loco Pilot/ of the train, signaling staff shall be immediately informed for rectification by the ASM on duty who could not transmit the slot. Subsequent train shall only be dispatched when it has arrived complete at the station in advance and a fresh Private Number has been obtained for next train. The procedure shall be continued till fault has been rectified.
7. In case of direction of traffic cannot be established due to any reason, train shall be worked on 'Paper Line Clear Ticket' in accordance with GR 14.13.

SR 9.13 (4) Under special instructions referred to in GR 9.13, two fixed red lights one above another can be provided in Automatic signalling territory indicating the limit upto which the shunting against the established direction of traffic can be done after all safety precautions have been taken.

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'.
1. When a Loco Pilot is authorised to pass a Semi-Automatic Stop signal at 'ON' by taking 'OFF' the Calling-on signal fixed below it, he shall follow the precautions stipulated in Rule 9.02. or 9.07, as the case may be.

SR.9.14 (1) *Defective Semi-Automatic Stop Signal.—*

As soon as the Station Master becomes aware that a Semi- Automatic Stop (Approach) signal which is working manually has become defective or has ceased to work properly, he shall advise the Station Master of the station in rear to warn the Loco Pilots of trains by issuing authority on Form T/369(1). The Station Master shall also depute a Pointsman at the foot of the defective signal to display hand signals to Loco Pilot of approaching train to proceed past the defective Stop signal. The person so deputed, shall normally display 'Danger' signal to approaching trains, and will exhibit 'Proceed

Cautiously' signal only when he has received an All Right signal from the Station Master. Such All Right signal shall not be given by the Station Master unless he has satisfied himself that the line is clear and free from obstruction and condition for taking off signal is fulfilled.

SR.9.14 (2) When it is not possible to inform the station in rear about the defective signal, the authority on Form T 369 (3b) shall be issued to the Loco Pilot at the defective signal.

9.15 PASSING A GATE STOP SIGNAL AT 'ON' IN AUTOMATIC signaling TERRITORY.—If the Loco Pilot finds a gate Stop signal at 'ON' in an Automatic signaling territory.—

- (a) he shall comply with the provisions of Rule 9.02 or 9.07 as the case may be, if the 'A' marker is illuminated, or
- (b) (i) if the 'A' marker light is extinguished, he shall sound the prescribed code of whistle to warn the Gateman and bring his train to a stop in rear of the signal, and
- vii. 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
- viii. if the Gateman is available and exhibiting hand signals, proceed further past the level crossing gate cautiously, or
- ix. if the Gateman is not available, or, is available but not exhibiting hand signals, stop in rear of the level crossing and after ascertaining that the gates are closed against road traffic and on getting hand signals from the Gateman, and in his absence from Assistant Loco Pilot, the Loco Pilot shall sound the prescribed code of whistle and cautiously proceed up to the next stop signal complying with the rule 9.02 or 9.07 as the case may be.

SR.9.15 (1) Level Crossing Gate: -

(A) Interlocked Engg L.C. Gate: -

These Level crossing gates are operated by Gateman on duty by means of mini gate panel provided in Gate lodge. The layout of the portion of all tracks and controlling signals are shown in mini gate panel by means of illuminated track diagram. The Gateman on duty at the level crossing gate shall be responsible for operation of this mini gate panel.

(B) Interlocked Traffic L.C. Gates: -

These level crossing gates are situated within Home signals of Station. This type of gates are operated either electrically or Manually by Gate man on duty as per the advise received from SM on duty. After closing the barriers of level crossing gate the Gateman on duty shall transmit Gate control to the SM on duty for taking OFF concrened signal.

(C) Emergency sliding barrier Interlocking-

All Level crossing gates in Automatic signaling system are provided with Emergency sliding barrier Interlocking arrangement. In the case when Booms/barriers are damaged by road vehicle or due any other reasons, Emergency sliding barrier working will be introduced. When barrier/booms become defective the Gateman on duty at Level crossing gate will immediately advise the same to the Station Master on duty.

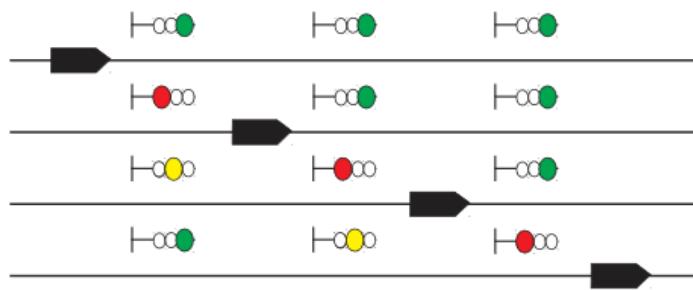
SR 9.15(2) Passing a semi-automatic gate stop signal, provided with illuminated 'A' and illuminated 'AG' markers, at 'ON' in Automatic signalling territory.—If the

Loco Pilot finds a gate Stop signal provided with illuminated 'AG' marker at 'ON' in an Automatic signaling territory:

- (c) He shall comply with the provisions of GR 9.02 or 9.07 as the case may be, if the 'A' marker is illuminated but the 'AG' marker light is extinguished; or
- (d) If the 'A' marker light is extinguished but the 'AG' marker light is lit, he shall comply with the provisions of GR 9.15 (b); or
- (e) If both the 'A' marker and 'AG' marker lights are extinguished, he shall sound the prescribed code of whistle to warn the Gateman and bring his train to a stop in the rear of the signal. Thereafter, he shall proceed further only in accordance with the procedure laid down to pass a defective manual stop signal.

Diagram for GR 9.16

Automatic change of sequence of aspects behind the train in Three Aspect Signalling Territory



**9.16 ILLUSTRATIVE
DIAGRAMS.—**Automatic change of sequence of aspects behind the train in three-aspect and four-aspect signaling is illustrated in the following diagrams, which are not drawn to scale

ANNEf this form.

IMPORTANT INSTRUCTIONS

Loco Pilot proceeding on this authority must observe the following precautions: -

- (d) Speed must not exceed 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 curve, obstruction, rain, fog or any other cause subject to the observance of speed restriction imposed and speed over facing points restricted to 15 KMPH.
- (e) Both by day or night at tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should there be any doubt on this point, the train should be piloted by a Railway Employee equipped with lighted hand signals and detonators.
- (f) A sharp look out must be kept at all times and Loco Pilot must be prepared to stop clear and short of any obstruction which may exist or crop up on the road. Engine whistle must be freely used.
- (g) When approaching the nominated station ahead, the Loco Pilot must bring his train engine to stand outside the First Stop Signal/ Last Stop Signal pertaining to wrong line and sound one long whistle and act to the instructions of the Station Master.
- (h) The form should be handed over to the Station Master of the nominated station at the end of the authorised journey for reco

IMPORTANT INSTRUCTION

**Loco Pilot proceeding on this authority must observe the
following precautions: -**

- (c) Speed must not exceed 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 observance of speed restriction imposed and speed over facing points restricted to 15 KMPH.
- (d) Both by day or night at tunnel must not be entered until the Loco Pilot has ascertained that it is clear. Should there be any doubt on this point, the train should be piloted by a Railway Employee equipped with lighted hand signals and detonators.
- (e) A sharp look out must be kept at all times and Loco Pilot must be prepared to stop clear and short of any obstruction which may exist or crop up on the road. Engine whistle must be freely used.
- (f) When approaching the nominated station ahead, the Loco Pilot must bring his train engine to stand outside the First Stop Signal/ Last Stop Signal pertaining to wrong line and sound one long whistle and act to the instructions of the Station Master.
- (g) The form should be handed over to the Station Master of the nominated station at the end of the authorised journey

AUTHORITY TO PASS AUTOMATIC/ SEMI AUTOMATIC/ MANUALLY OPERATED/ GATE STOP SIGNALS

- (c) (a) On right line- Automatic signaling has failed and you are, hereby authorised to pass all Automatic signals between _____ station and _____ station. In addition you are also authorised to pass Semi Automatic/ manually operated/ gate stop signals on being hand signalled past such signals by a railway servant in uniform. The hand signals being displayed at the foot of signal except as provided for in clause 'b'.
- (d) (b) On wrong line- When running in wrong direction (i) you

must ascertain that points of outlying sidings, where provided, are correctly set and locked and/ or the level crossing gates Nos. _____, are locked and (ii) hand signals are displayed by the railway servant in uniform at the points, level crossing gates before passing them.

Here indicate distinguishing _____

Number of all governing and non _____

Governing signals to be thus passed. _____

* - Strike out whichever is not applicable

CAUTION ORDER

*(i) Your train is going on Right line/ Wrong line. The obstruction exists at km. _____.

3) Your Train is First Train to pass over the Temporary Single Line. Speed shall be restricted to 25 KMPH subject to observance of other speed restriction in force.

4) You are expressly warned to observe “Neutral section” (only in Electrified section) if your Train is going on wrong line. There are no Trap Points on the line in question/ Trap points have been clamped/ spiked.

5) Following are the Caution Orders in force in Block Section.

<u>Sr No</u>	<u>Station between</u>	<u>Kilometrage</u>	<u>Speed kmph</u>	<u>Cause/</u>
	<u>Remarks</u>	<u>From</u>	<u>To</u>	

1

2.

Signature of Guard _____ Date _____ Time _____ hours _____
minutes

Signature of Loco Pilot _____ Date _____ Time _____ hours _____
minutes

Si