South Central Railway

ZONAL RAILWAY TRAINING INSTITUTE MOULA – ALI



OPERATING STUDY MATERIAL REFRESHER STATION MASTER

DISCLAIMER

This Study material is compiled by the Faculty of ZRTI/MLY for guidance and easy understanding. It is to be read in conjunction with G&SR, Block Working Manuals, Accident Manual, correction slips, JPO's, Working Time-Table and Safety related Circulars issued from time to time. Though the sufficient care and precaution has been taken while preparing this material, wherever any conflicting opinion occurs, presentation in the rule books prevails over this material.

REFRESHER SM/ASM(APRIL12)

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DEFINITIONS

ADEQUATE DISTANCE 1.02 (2), G.R. 8.01, 3.40)

Adequate distance means the distance sufficient to ensure safety. It is of two types.

- 1. Block over lap
- 2. Signal over lap.
- 1. Block over lap: It is an adequate distance that has to be kept clear beyond FSS before granting line clear [TAS - NLT 400 Mtrs and MAS: NLT180 mtrs].
 - a. In MAS Double line Block over lap is from Home signal to BSLB/Outer most facing point
 - b. In MAS on single line block over lap is between Home signal and Opposite Advanced starter/SLB or outer most facing points.
 - 2. Signal over lap: It is an adequate distance that has to be kept clear before taking off Home signal. It is reckoned from trailing points on S/L and from Starter on D/L. (TAS- NLT180 Mts. MAS- NLT120 Mts.)
 - i. In MAS double line between Starter and Advanced starter and
- ii. On single line MAS between trailing point and Advanced starter or SLB

Sand hump, dead end/buffer stop are used as a substitute for signal over lap.

Adequate distance to take off Automatic signal beyond next stop signal is 120 metres on double line.

'Station Section' (G.R.1.02 (54) means that section of station limits-

- (a) Class 'B' station in TAS
- Double Line -- between Home signal and LSS of station in either direction or
- Single line i) between SLBs or Advanced starters (if any), or
 - ii) between Home signals if there are no SLBs or Advanced starters, or
 - iii) between outer most facing points if there are no Home signals or SLBs or Advanced starters
- (b) Class B station in MAS
- 1) On a double line -
 - (i) between outer most facing points and LSS of the station in either direction, (or)

- (ii) between BSLB, where provided, and LSS of station in either direction, or
- 2) On a single line
 - (i) between SLB or advanced starters (if any), or
 - (ii) between outer most facing points if there are no SLBs or advanced starters.
- 3) Station section is available in 'B' class station only.

"Block section" (G.R.1.02(10) 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.

"Station limits" (G.R/S.R1.02 (52) 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;

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

Classification of stations (G.R/S.R.1.03)

- 1. Stations are broadly classified into 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.
- 3. Under the Absolute Block System consist of four classes of Block Stations.
 - Class 'A' stations: where Line Clear may not be given for a train unless the line on which it is intended to receive the train is clear for at least 400 meters beyond the Home signal, or up to the starter.
- Class 'B' stations: where Line Clear may be given for a train before the line has been cleared for the reception of the train within the station section.
- 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.

[Any block station which can not be worked as class 'A' or; 'B' or 'C 'is classified as "Special Class"]

- 4. 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 the classification of a station shall be mentioned in the SWR of that station and also in the Working Time Table (WTT)

Isolation.(G.R.1.02(32), S.R.3.50)

Isolation; means an arrangement secured by the setting of points or other approved means to protect line so isolated from the danger of obstruction from other connected line or lines.

By providing isolation chances of side collision can be averted.

Isolation is not required when the speed of run through trains doesn't exceed 50 kmph.

The following are the effective means of Isolation.

Derailing switch: When it is open any vehicle passing over it derails without fouling the other lines.

Scotch block: It is metal or wooden piece placed on a rail ahead of points and locked to prevent movement of any vehicle.

Haye's Derail: When it is on a rail any vehicle passing over it derails

Dead end/Buffer stop: It is an extended siding into a dead end/buffer stop .It traps escaped vehicles.

Sand hump: It is a short siding of an approved design ending in a sanded hump on a sharp rising gradient. It traps the escaped vehicles.

Kinds of signals (G.R. 3.02)

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.

Fixed signals

- 1) Stop signals
- a) Reception Outer, Home, Routing
- b) Departure Starter, Advanced starter
- c) Other signals IB, Gate, automatic
- 2) Permissive signals Warner, Distant
- 3) Subsidiary signals calling on, co-acting, shunt signal, repeating signal

Home (G.R.3.09)

At class 'B' station in TAS the Home signal is located close to the points.

In MAS at class 'B' station the home signal is located at a distance of NLT180m from station section on double line and 180m from advanced starter or shunting limit board on single line or 300 m from outer most facing points where advanced starter or SLB is not provided.

Starter and Advanced starter (G.R.3.10)

Where starters are provided for individual lines they shall be fixed so as to protect the first facing point or the fouling mark.

Normally advanced starter shall be placed outside all connections.

Calling on signal (G.R.3.13)

- 1. It is a subsidiary signal always provided below stop signals.
- 2. Under approved special instructions, it can be provided below any stop signal except LSS.
- 3. It is used in two occasions
 - a. When the signal above is defective
 - b. To receive a train on obstructed line.
- 4. In colour light signalling territory identified by a 'C' marker.
- 5. It shows no light in the 'ON' position.
- 6. In 'off' position it will show a miniature yellow light.
- 7. It shall not be taken off until the train has been brought to a stop at the signal (calling on zone).
- 8. SM shall reverse the calling on signal knob and press COGGN button. After 120 seconds signal will be cleared.
- 'OFF' position aspect is 'Proceed Slow' and indicates the Loco Pilot to 'stop and then draw ahead with caution and be prepared to stop short of any obstruction'.
- 10. On arrival of train, route has to be cancelled manually which may take 240 seconds

SHUNT SIGNAL (G.R.3.14)

- 1. A shunt signal is a subsidiary signal provided to control shunting movements.
- 2. A shunt signal may be placed on a post by itself or below a stop signal except FSS.

- 3. When placed below a stop signal, it shall show no light in 'ON' position.
- 4. 'ON' Position the Aspect is STOP and indicates stop dead,
- 5. 'OFF' position Aspect (Proceed slow) & indicates proceed with caution for shunting.
- 6. In case the shunt signal becomes defective, the points detected by the signal shall be set correctly, clamped or cotter bolted and padlocked.
- 7. LP shall be given authority to pass defective shunt signal is T/ 369 (3b) +PHS.
 These are of three types of shunt signals:
- a. Disc type shunt signal:
- b. Position light type shunt signal:
 - 1. It is provided in colour light signalling territory.
 - 2. It shall not show any light in 'ON' position when it is provided below a stop signal.
 - 3. It is a box like arrangement with a provision for three miniature white lights.
 - 4. When two lights are burning horizontally it is 'ON' position (provided independently)
 - 5. If two lights are burning oblique/diagonal it is 'OFF' position (provided independently or below a stop signal).
 - 6. The arrow mark is on the top of the box indicates the line to which it refers.

Interlocking (Appendix XI-I)

Interlocking means an arrangement between points, signals and other appliances operated from a panel or lever frame either electrical locking or mechanical locking or both so that their operation must take place in proper sequence to ensure safety.

Objectives:

- 1. It shall not be possible to take 'OFF' signals for a route unless all the points are correctly set and the facing points are locked for that route.
- 2. Once the signals are cleared it shall not be possible to alter the points on the route unless the signals are put back to 'ON'.
- 3. Even though the signals are put back to 'ON', it shall not be possible to alter the points unless the intended movement over such points is completed.
- 4. It shall not be possible to operate signals leading to conflicting movements.
- 5. The points and signals can be operated only in a sequence to ensure safety.
- 6. Where signals are connected to any device the signal shall not obey until the conditions for working such devices are fulfilled.

Standards of interlocking:

There are three old standards of interlocking viz., Standard I, II, III

There are four revised Standards of interlocking viz., Std –IR, IIR, IIIR and IVR

The equipment of signals mode of locking and operation of points, signals etc. vary in these different standard and they are:-

STANDARDS OF INTERLOCKING AND THEIR FEATURES

Std	Maxi Speed	Minimum equipment of signals at class B stations		Mode of	Type	Isolation
	On M/L	TAS	MAS	locking	туре	looiddon
I	50	Outer, bracketed home	Distant Home	Key	In direct Direct	Not Necessary
II	75	Warner, Outer, bracketed home	Distant Home, starter	Plunger	Indirect Direct	Necessary
III	MPS	Warner, Outer, bracketed home, starter	Distant Home, starter	Plunger	Direct	Necessary

REVISED STANDARDS OF INTERLOCKING AND THEIR FEATURES

S I. N o .	Item	Std I (R)	Std II (R)	Std III (R)	Std IV (R)
	Allowable speed (KMPH)	Up to 50	Up to 110	Up to 140	Up to 160
1	Isolation	Not compulsory	Compulsory	Compulsory	compulsory

2	TAS/MAS	TAS/MAS	TAS/MAS	MAS	MAS
3	Double Distant	Not compulsory	Desirable	Desirable Compulsory	
4	Point operation	Mechanical	Mechanical/ electrical	Mechanical/ electrical	electrical
5	Point locking	Key/Facing point/ hand plunger	Facing point locking with point machine	Facing point locking with point machine	Clamp type Direct desirable
6	Interlocking	Key/mechanical	Mechanical/ electrical/ele ctronic	Mechanical/ electrical/ele ctronic	electrical/elec tronic

Defective Signals (G.R/S,R 3.68,3.69 and 3.70)

Signal Fails to Clear

- Check the following :-
 - Station Master's key is 'in '
 - > all the buttons/knobs are in the required positions.
 - Points over the route are correctly set
 - > Track circuits/axle counters over the route are free
 - Crank handle key is 'in'
 - Siding key IN and LC gate closed indication
 - ➤ If signal lamp failure indication is flashing and audible warning is ringing, stop the warning bell by pressing the acknowledgement button

Duties of SM

- SM shall arrange to place the Signal at on
- Report such defect to ESM/SI and copy to TI, DSTE, DSO, SCOR
- Make entry in the S&T failure register
- If Signal detects any points, such points shall be treated as non-interlocked and SM shall personally ensure correct setting, clamping and padlocking of points, unless the train is dealt on calling- on Signal.

a) Reception Signal (home) defective

Pre warning method

- The SM shall advise the SM of rear/notice station to issue written authority (if calling on signal or signal post telephone are not provided)
- SM shall satisfy the conditions for taking off the signal before granting line clear and depute one competent railway servant to show PHS at the foot of the defective signal.
- ➤ The Rear SM shall issue advance authority T.369 (1) to the loco pilot.
- On that advance authority LP can pass the defective signal duly observing PHS at foot of the signal at a restrictive speed of 15KMPH.

When not Pre warned

- The train shall be brought to a stand at foot of the Signal.
- Train may be received by
- Taking off 'calling on Signal' where provided or
- Authorising LP over Signal post telephone where provided or,
- > On Authority T/369(3b) + PHS
- ➤ LP pass defective Signal with speed not exceeding 15 kmph

Signal got struck up in off position

- 1. Light of the Signal shall be extinguished
- 2. Paste paper on the glass or put a cross
- 3. Stop hand Signal shall be shown at the foot of the Signal
- 4. The SM of rear station shall issue PLCT and T.369(1)
- 5. Departure Signal PLCT or T/369 (3b)

b) Departure Signal defective

Starter defective

- Train shall be brought to a stand.
- By taking off calling on Signal or
- If Signal detects any points, such points shall be treated as non-interlocked and SM shall personally ensure correct setting, clamping and padlocking of points.
- Issue written Authority T/369(3b) + PHS at the foot of the Signal.

Advanced starter

- Authorise the LP by PLCT.
- PHS not required except where it detects points.

IB signal(G.R./S.R.3.75, S.R.14.13,14.14))

- 1. Intermediate block signalling means an arrangement of signals on double line in which a long block section is split into two portions by providing intermediate block post each constituting a separate block section.
- 2. The Intermediate block post is 'C' class station on double line remotely controlled from the block station in rear.
- **3.** It is provided to increase section capacity, to reduce the detentions, to reduce the staff, to secure economy and efficiency in the operation.
- **4.** By providing IB post, lengthy block section is divided into A/C section and IB section.
- **5.** Axle counters section is controlled by Axle counters. One set of A/C provided in advance of LSS and other set provided 400m in advance of IB Home signal.
- **6.** LSS is interlocked with Axle counter and IB signal is interlocked with block instrument.
- **7.** In the station, A/C indication, K1, K2, K3, K4 indications, signal repeater indications are provided along with buzzers.
 - K1- When train passes IB signal at ON
 - K2 When train passes LSS
 - ➤ K3 When train passes IB signal at OFF position.
 - ➤ K4 Power fails or when bulb fused.
- **8.** PB-1, PB-2, PB –3 (Analog), PB-I, Reset Buttons, PB-III (Digital) emergency release buttons also are provided.
 - PB-1 To reset the axle counter when train passed IB signal at ON
 - PB-2I/Re set button To reset the axle counter due to failure or improper counting.
 - PB-3 To give co-operation to the station in rear.

9. Normal working

- i. Obtain line clear from advance station [two PNs,(one for LC & one for consent)].
- ii. Ensure Axle counter section is free and take off LSS and IB signal.

- iii. When train passes LSS, A/C indication shows occupied and K2 indication appears with buzzer and will be stopped when LSS knob or lever is normalised
- iv. When train passes IB signal (OFF) K3 indication appears with buzzer and it will be stopped when IB signal knob or lever is normalized and advance SM turns the handle of block instrument to TOL position.
- v. When train completely passes second axle counter [at 400m from IB] section becomes free.
- vi. Then obtain consent (1 private number) for 2nd train and take off LSS.
- vii. By the time second train reaches IB signal, first train may clear into advance station and SM will get Line clear (1 private number) to enter IB section.
- viii.Rear SM can take off IB signal.

IB signal is defective (G.R/S.R.3.75)

- 1. When SM is aware that IB stop signal is defective or A/C failed or LSS failed or IB Distant failed or Block Instrument failed before dispatching a train.
 - a. Suspend IB working
 - b. Treat two sections i.e. axle counter section and IB section as single block section.
 - c. Stop the trains at station and obtain line clear.
 - d. If IB signal is interlocked with Gate, treat the gate as non Interlocked and exchange PN with gatemen before issue of authority.
 - e. Issue authority PLCT +T.369. [3b] to pass IB stop signal at 'ON'.
 - f. LP can proceed with normal speed.
- 2. When Loco Pilot finds an IB signal is at 'ON' [defective]
 - a. He shall stop the train and contact immediately SM of rear station on telephone.
 - b. If block section is free and line clear is obtained, SM shall authorize the Loco Pilot to pass IB signal at 'ON' by Giving PN which is obtained from advance SM.
 - c. Loco Pilot can pass the IB signal with normal speed.
- 3. If the telephone is out of order.
 - a. Loco Pilot shall after waiting 5 minutes pass the signal with a restricted speed of 15 kmph when view is clear and 8 kmph when view is not clear and during night.

- b. LP shall observe same speed upto FSS even though that signal including intervening signals if any show 'off' aspect. He shall also be alert to stop short of any obstruction.
- c. The Loco Pilot must report the failure to SM of the block section ahead.

What are the indicators and Re-setting buttons provided at a station where IB signal is operated? (S.R.14.14)

K1 indicator

- 1. With audible alarm sounds when IBS passed at 'ON'. The alarm can be stopped by pressing acknowledgement button.
- 2. Immediately SM must alert SM in advance and give time when it passed IBS at 'ON'
- 3. In case train entered into occupied IB section then SM shall
 - i. Advise gateman to stop & inform LP & guard
 - ii. Inform TPC when handled by electric loco to switch off OHE power supply and informed through emergency socket
 - iii. Advise SM in advance to issue CO to train coming on the other line to inform the LP of the train
 - iv. In case train entered un occupied IB section, SM shall take action as per point No. 2 above.
 - v. In both circumstances on complete arrival of train, the SM shall give clearance under exchange of PN duly making entries in TSR/Station Diary in red ink at both stations.
 - vi. The indication disappears after normal restoration by using PB-1 and PB-3 at the other end
 - vii. Till such time no train shall be allowed to enter the section

K2 indicator

- 1. K2 indicator appears and audible alarm sounds when train passes LSS in OFF position and enters A/C section
- 2. Indications disappear and audible alarm stops as LSS knob is put back to normal.

K3 indicator

- 1. K3 indicator appears and audible alarm sounds as train passes IBS in 'off' position and enters 'IB' section
- 2. The indication disappears and audible alarm stops as IBS knob is normalized

K4 indicator

- 1. K4 indicator appears and audible alarm sounds whenever the normal/clear aspect bulb of IBS/IB distant signal bulb fuses or power supply to IB fails.
- 2. Pressing acknowledgement button stops the alarm.
- 3. Indication will disappears after the replacement of fused bulb or resumption of power supply.

RESETTING OF AXLE COUNTER (S.R.14.13)

I ANALOG AXLE COUNTERS

- 1. PB-I ; To reset A/C when IB passed at 'ON'
- 2. PB-2 ; Reset A/C due to failure or improper counting
- 3. PB-3 ; Give cooperation to station in rear
- 4. PB-1 or PB-2 used with cooperation of station ahead. This cooperation is given by pressing PB-3 and indicated by white light near PB-1 or PB-2 buttons

ii **RESETTING DIGITAL AXLE COUNTER**

PB-1 ; to permit LSS of rear station to be taken 'off' when IB passed at 'ON'

PB-3 ; give cooperation to station in rear

Reset button: to reset axle counter due to failure of improper counting

- ➤ PB-1 is used only with cooperation after pressing PB3 white light appears near PB-1 button
- When reset is initiated, digital A/C of rear section enters into preparatory reset mode. The first train is to be dealt on written authority
- ➤ On clearing the section on preparatory reset, if A/C shows clear indication all subsequent trains dealt normally.
- If it is showing continuously occupied the A/C is treated as defective.

Disconnection and Reconnection (SR 3.51.6)

- **1.** The Engineering (or) S & T officials will take up works related to points, signals, lever frames, block instruments etc. when they are defective or as a part of periodical maintenance,.
- **2.** They have to take prior consent of the S M.
- **3.** For this purpose works are classified as under

Group A: Works not requiring the consent of the S M

(Ex: Replacement of bulbs fuses etc.)

Group B: Works definitely require the consent of S M

(Ex: Testing of points, signals Etc.)

Group C: Works definitely requires issue of Disconnection Notice. (T.351)

(Ex: Removal of points, lock slides of a point, detectors, Disconnection of lock bar Etc.)

- **4.** Disconnection notice shall be issued by the S & T staff not below the rank of SI/ESM.
- **5.** Disconnection Notice shall be accepted by the SM in consultation with the SCOR so that it does not interfere with the train operations.
- **6.** While accepting Disconnection Notice for the Block Instrument, SM shall endorse that the block section is free of trains.
- **7.** Once disconnection is accepted, no attempt shall be made to operate disconnected gear.
- **8.** In case of crossover, if one end of points is disconnected, other end shall also be treated as disconnected.
- **9.** When the points are disconnected, the signals detecting such points shall be treated as defective.
- **10.** It is the duty of S & T staff to keep such signals at ON...
- **11.**If the lever frame in the cabin is disconnected, all the points worked by such Cabin shall be treated as non-Interlocked..
- **12.** When Over hauling of the lever frame is under taken special instructions issued by the divisional authorities shall be strictly be followed.
- **13.** In case of a joint work with engineering department an endorsement as "Joint Work with Engg. Dept" shall be made in the disconnection notice.
- **14.** The SM shall advise the cabin staff with particulars of disconnection under the exchange of PN.
- **15.** Shunting movements are to be avoided as far as possible.
- **16.** If it is necessary to pass a train or to perform shunting, the on duty SM shall advise SI by a memo.

- 17. In case of a joint work, PWI permission shall be obtained by SI.
- **18.** The SM shall ensure the correct setting, clamping and padlocking of the points for the safe passage of the train.
- **19.** After completion of the shunting or train movement the SM shall advise the SI to resume the work duly unclamping the points.
- **20.** After the completion of Engineering Work, the PWI shall give a memo to SI with a copy to SM.
- **21.** The SI shall issue reconnection notice only after he receives Track fit Certificate.
- **22.** The SM shall test the signals, points (Which were disconnected) jointly with SI before accepting reconnection.
- **23.** SM shall advise the cabin staff with the particulars of reconnection under the exchange of PNs.
- **24.** The Timing of disconnection and reconnection, trains passed and detentions etc. shall be recorded in 'Disconnection and Reconnection 'register.

NON-INTERLOCKED WORKING (APPENDIX III)

Occasions for NI working

- Overhauling of lever frames/panels
- Remodeling of station/gauge conversion/doubling
- Introduction of panel interlocking/RRI
- Replacement of worn out frames/panels
- Cable meggering
- S&T engineering joint works etc.
 - > All preparatory work should be completed before NI working.
 - ➤ The period for minor works should be decided by branch officers. Major work by DRM in consultation with Branch Officers.
 - Shunting operation should be reduced.
 - Less important trains may be cancelled or short terminated.
 - Precedence and crossing may be avoided.
 - Major yards NI working may be introduced in phases.
 - Eng. S&T staff send a circular notice to SR.DOM at least 15 days in advance copy to SM, showing date and time, probable duration

➤ SR.DOM shall issue special instructions – to all concerned.

Action before commencement

- TI/SFC/Safety officer overall in charge DRM will decide Level of officer.
- ➤ DRM nominate SE/JE of S&T and eng to assist in charge.
- Sufficient number of clamps with pad locks H/S flags and lamps to be arranged.
- Contents of circular notice/special instructions to be explained to all the staff and take acknowledgement.
- Operating Staff shall not take over duty unless Special Instructions are understood and acknowledged.
- Concerned records, memos should be arranged in advance.
- Caution order shall be issued by SM.
- ➤ S&T work and eng work should be carried out under the supervision of in-charges of concerned depts.
- Yard shall be divided into number of areas provided with goomties manned by SM/Guard/SWM assisted by points man/cabin/lever man/YP
- Furniture shall be provided by engineering branch.
- Proper communication shall be arranged by S&T department
- Lighting arrangements shall be made by electrical department.
- ➤ 15kmph speed board shall be provided by S&T branch.
- Preceding Sunday mock NI is to be conducted
- > Before NI SI should give disconnection notice
- ➤ A common NI home without route indicators, and caution in off is provided.
- > NI starter can be taken off to caution aspect
- LSS disconnected at fag end with traffic block 2-3 hrs
- Normally no PLCT working

Rules for NI working

- No run through.
- At a time more than one train movement not permitted
- On D/L all points between up and Dn line should be set to normal, clamp and pad lock. up and DN trains permitted
- Stop at FSS and take off Signals, allow the train with 15 kmph

- Outer most point must be manned LP should pass after PHS
- The SM on duty should nominate the line for reception/despatch with particulars
- In charge of goomty is responsible for correct setting, clamping and padlocking of points and exchange PN
- Responsible to ensure that the line is clear of obstruction
- SM on duty after ensuring by physical verification. PN received from goomty that the said line is free and points are correctly set and locked may permit to take off Signals
- On completion of work gear should be tested jointly then reconnection notice for normal working may be given

G.R.4.09 & Appendix I CAUTION ORDER

Describe the method of notifying, preparation, issue, record and preservation of Caution order.

- It is a written/printed advice to LP/ALP/Guard of a train directing him to observe speed restrictions, special precautions etc. while on run due to line repair or any other reason. Types of caution order
 - ➤ Caution order (T.409) it is issued at notice station/stations and comprises all the caution orders between two notice stations and stations.
 - ➤ Nil Caution order (T/A.409) issued at notice station/station when there are no cautions between notice stations/stations.
 - Remainder caution order (T/B.409) Not in use in SCR.

2. Method of notifying

- i. Officials of Engg./S&T/Elec/Mech/Security/Trafic, shall give a written advice to one of the SM's at either end of the block section.
- ii. He shall mention in the message, exact km, stations between, reasons and likely duration of the CO.
- iii. He shall not commence the work until acknowledgement is received from SM.

- iv. SM shall not acknowledge unless he advises the SM at the other end of block section and obtain his acknowledgement under exchange of PN.
- v. After receiving the written advice, the SM shall not permit any train in the block section unless
 - a SCOR and SM of notice station are advised under exchange of PN
 - b The LP and Guard are warned of speed restrictions by issue of CO.
- vi. The messages are communicated to the official in charge at divisional HQ who shall be responsible for preparation of CO or fed in the system if available.

4. Method of obtaining acknowledgement by notice stations

- i. When notice station is situated in same control section SM shall call SM of notice station and advise message under exchange of PN with initials.
- ii. When notice station is situated on different control section/different division SM shall inform PN and initial to SCOR who shall in turn inform SM of the notice station and obtain his initial and PN, same may be communicated to SM.
- iii. Where auto phones are provided these messages exchanged by SM duly advising SCOR.
- iv. Then the SCOR will give control order to the SM to issue CO to the No. and description of train which are between the notice station and block station immediately in rear of the affected block section.

5. List of notice stations

The list of notice stations are mentioned in the respective WTT of the division.

6. Description and preparation of CO

- i. CO should be serially numbered and name of issuing station, shall be stamped on each copy.
- ii. CO should have space between to include at least four COs.
- iii. Entries on back side are not permitted.
- iv. If more than one page is there, they should be serially numbered , Page-1, page-2,etc
- v. It shall specify km, stations at which or between which CO is required to be observed, reasons for the imposition, names of the stations should be written in full, codes should not be used.
- vi. It shall contain all the speed restrictions (permanent & temporary) in geographical order in the direction of movement from one notice station to the other.

- vii. CO shall be made for each train. They shall be on white paper with blue or black font typed with 'caution order' written on top in bold letters.
- viii. The SM shall check the cyclostyled/computer print out or the CO received from the divisional office and before delivering all CO in force shall be incorporated.
- ix. Details of total number of COs, number of additions & deletions shall be indicated
- x. Dated & signed in full by SM
- xi. In case of error or overwriting it shall be cancelled and fresh one prepared & issued.

7. Procedure of issue CO at notice station

- i. On receipt of the imposition/modification of SR the SM shall issue to each and every train which is passing over the affected block section.
- ii. When SM received no restriction of speed to be imposed up to next notice station shall issue 'NIL' CO (T/A.409) to all trains.
- iii. The LP shall not start a train from notice station without a divisional CO (T.409) or 'NIL' CO (T/A.409)
- iv. It shall be issued to LP, ALP, and guard of all trains personally or through a railway servant and obtain acknowledgement.
- ➤ In case train is originating from other than notice station, SM to consult SCOR/ notice station and issue CO upto the notice station.

8. Change of crew enroute

The LP/Guard taking over charge must take over all CO relating to his train and give acknowledgement in log book/rough journal of LP/guard

9. Attaching assisting/banking engine

Whenever assisting/banking engine is attached, SM shall consult SCOR/notice station and issue CO upto the notice station.

In case of local/suburban trains the CO is issued only once to the crew as per the link by SM of specified station as mentioned in WTT.

10. Action by SM after cancellation: When SM receives cancellation message, shall advise notice station, adjacent station and SCOR. SR cancelled shall be scored out and signed by SM, before delivering CO.

12. Record of CO message.

- i. At all stations & notice stations where CO are issued the messages are pasted in CO message book with serial number.
- ii. S.No. Used in both directions commencing from 1st January to 31st December.

- iii. When cancellation message is received this message pasted juxtapose to the imposition with reference to S.No.
- iv. The SM shall keep updated record of SR imposed, date & time of enforcement and cancellation.
- v. This shall be brought forwarded every Monday 00.00 hours in geographical order in relation to direction of movement.
- vi. The SM shall record in station diary, the S.NOs. of CO in force at the time of signing on duty.
- vii. After 31st December the CO shall be brought forwarded and new S.No. issued, duly bringing forward the old C.O.s referring the old and new S.Nos.

13. Preservation of CO.

- a One master copy of CO for each direction for each day shall be preserved.
- b Acknowledgement shall be obtained in the separate registers at Notice stations/Crew control lobbies.
- c Record foils of COs shall be preserved for a period of six months after use.

G.R. 4.29 Hot axle/Hot Box.

Symptoms of Hot axle Roller bearing]

Symptoms of Hot Box [Seizure of

a] Smell	a] Splashing of oil
b] Smoke	b] Smell of burnt grease

c] Whistling sound c] Discolourisation of paint on the hot box plate

d] Flame d] Red glow during night

e] Metallic soundf] Skidding of wheelsg] Tilting of springs

- 1. If hot axle box is found at a station, where the C&W staff is not provided, the vehicle shall be detached from the train.
- 2. If hot axle is found between stations, train shall be brought to a stand immediately. Examine the axle box and attend it.
- 3. In case of hot axle, Loco Pilot shall exercise his discretion with regard to the restricted speed at which it is safe.
- 4. The SM receiving advice of Hot axle, receive the train on Main line. Loco Pilot can enter station.

- 5. If it is not possible to receive the train on main line, train shall be brought to a stop at FSS and receive on any line. When signals are taken off for loop line, LP shall stop the train at FSS and enter station.
- On arrival at station hot axle wagon shall be examined by C&W Staff or it has to be detached.
- 7. It will be attached only after attended by TXR staff and given 'Fit to run' certificate.
- 8. Wagons involved in accident, should be moved only with the permission of DRM & 'Fit to run" certificate given by TXR.

Precautions to be taken by SM for working of trains, before starting, during run and on arrival at station

Starting of Trains (GRs/SRs 4.35)

- 1. Before starting a train the LP must get permission from the Guard to start the train.
- 2. Guard shall not give starting permission unless he gets permission from the SM to start.
- 3. The SM before giving such permission must satisfy himself that:
 - a) All is right for the train to proceed.
 - b) Line clear has been obtained from the station in advance,
 - c) Correct starting signals have been taken off,
 - d) ATP under the system of working has been given to the LP,
- 4. To start a passenger carrying train the SM shall ensure all work in connection with it is completed,
- 5. The permission to start passenger carrying trains may be given in the following manner,
 - a) At important junction stations provided with PA system

As stipulated in SWR,

- b) At all other stations by ringing the station bell as follows:
- i) 2 Beats for starting a DN train
- ii) 3 Beats for starting an UP train
- iii) 4 Beats for starting a Branch line train.
- 6. At terminal junctions, Engine changing and refreshment room stations, there shall be a warning bell 5 minutes before the starting time.

7. On receipt of SMs permission, when all work in connection with the train is completed the Guard shall sound his whistle and display a green flag by day and a green light by night to the LP to start his train.

During Run

Write in detail about the 'Exchange of All Right signals'

G.R.4.42 Exchanging of all rights signals

- 1) All right signals are exchanged between Loco Pilot and Guard to ensure that the Guard is in his brake-van and that the train can proceed.
- 2) All right signals are exchanged between Guard, Loco Pilot and Station Staff to ensure that the train is running in a safe and proper manner.
- 3) The All right signal is given by holding out the green flag horizontally by day and by waving the green light horizontally by night.
- 4) This signal shall normally be exchanged on the platform /station buildings side (station limits) or left side (out side station limits) unless the track is on curve, in which case signals be exchanged from the other side.
- 5) All right signal shall be exchanged as detailed below.
 - i. When train starts after stopping at station.
 - ii. When train starts after stopping between stations
 - iii. When train running through a station.
 - iv. While passing through ghat sections.
 - v. While approaching important girder bridges
 - vi. When any train passing on the adjacent line / s.
 - vii. When last vehicle has cleared the speed restriction zone
 - viii. After passing loop line cross over points.

ii) When train starts after stopping at station.

- When train starts, the Guard shall look back and satisfy him self that no stop hand signals is given by station staff, he shall then exchange the "All Right "signal with the Loco Pilot.
- All right signal shall be exchanged until the engine has passed the advanced starter / LSS except where the Guard hand signal cannot be seen for any reason, the Loco Pilot guided by the signals exhibited by Station Master and cabin staff.
- If the Loco Pilot does not get the signal from the Guard or the SM and the cabin staff, he shall stop the train and ascertain the cause.

iii) When train runs through a station:

- When train runs through a station, SM shall exhibit all right signals to the train him self standing on the plat form side. Similarly Loco Pilot and Guard shall be on the look out for SM / C.ASM / SWM / C.MANs all right signals. A competent railway servant shall be sent to off side to exchange all right signals.
- 2. Any thing unusual is noticed during passage of the train, the SM shall show stop hand signals to stop the train. If it is not possible to stop the train advise the LP through Gateman or IB telephone or TPC and inform SM of advance station to stop the train and examine. Trains on adjacent line may be permitted after issuing caution order.
- 3. Cabin staff, where shunting is performed shall not exhibit any signal to passing trains when nothing irregular is noticed. But they shall show stop signals if any thing danger is noticed.
- 4. All right signal shall be exchanged till engine has passed advanced starter /LSS
- 5. If the Loco Pilot of trains fails to exchange the all right signals or /and fails give a continuous whistle, the SM shall advice the station in advance to stop the train and ascertain the reason.
- vi) Loco Pilots and Guards of running trains will be responsible towards any train passing on the adjacent line/s and exchange 'All Right' signal with the Guard and Loco Pilot of such trains.
- Guards of trains provided with "Air conditioned" SLR/LR should show the "all right signal" to station staff by switching on the flickering tail light and to the Loco Pilot by speaking on telephone.

vii) After passing loop line cross over points.

- Guards to exchange all right signals after whole of the train passes the loop line cross over points.
- A board with words "loop line cross-over points cleared" is to be provided at stations at a distance of 720 meters after the loop line cross over point.

(S.R.4.17)

Responsibility of SM when notices train passing without tail board/tail lamp.

SM shall observe and ensure that all trains passing through the station are provided with tail board/tail light.

 When SM notices without tail board/tail lamp he must—intimate to the SM in advance to stop and examine (six pause two) and SM in rear that the train has arrived incomplete (six pause three) and shall not clear the block section.

- Where block proving axle counters available SM can clear the block section.
- On double line SM shall give caution order to observe special caution.
- If train has already left SM shall
 - o intimate the gateman to stop and advise the LP and Guard of the circumstances.
 - o keep the IB signal at on,
 - in OHE area power supply shall be switched off and advise TPC to inform LP..

G.R. 4.44 Train held up at home /FSS signal

- 1) When train held up at home /FSS for 5 minutes or more without any apparent cause, the Loco Pilot shall sound continuous whistle to warn guard.
- Brakes man or Asst. Loco Pilot shall proceed to the cabin or station to warn the station master.
- 3) Brakes men or Asst. Loco Pilot proceeding to the station shall show stop hand signals towards the station.
- 4) After 15 minutes guard irrespective of cause shall protect the train in rear as per GR 6.03.
- 5) If in the mean time the signal is taken off or authority received by Loco Pilot he shall sound continuous whistle to recall guard.
- 6) Exchange hand signal with guard before starting the train.
- 7) In the case of a train not accompanied by a guard, these duties shall devolve on the Loco Pilot

On arrival

Conditions for closing block section (G.R.14.10)

- 1. The block section shall be cleared only after arrival of complete train or the obstruction has been removed
- Before giving train out of block section SM shall ensure complete arrival of the train or cause for blocking has been removed and conditions for granting L/C has been fulfilled
- Whenever block proving axle counter and complete track circuiting of station section is available and there is clear indication of block section and complete arrival of the train is given it may be taken as assurance for complete arrival of the train.

- 4. SM will ensure complete arrival of train by
 - 1. Where Clear indication of BPAC./continuous track circuiting is provided and functioning or
 - 2. Seeing Tail Board/Tail lamp of run through train or
 - 3. Seeing Tail board/Tail lamp of stopping train which can be conveniently observed by SM.
 - 4. PN receiving from cabinmen/levermen who can ensure complete arrival or
 - 5. Exchanging PN with Guard on Walkie-Talkie of a stopping train where SM cannot ensure complete arrival.
 - 6. PN recorded by the Guard in T.1410(train Intact Register) when walkie talkie or BPAC fail or
 - 7. PN received (on walkie-talkie or T.1410 register) from Points man who shall be deputed to ensure complete arrival of the train in case of train running without Guard/Brake Van.

Running of Goods train without Brake-van (S.R.4.23)

- During emergencies to run a train without a brake-van the following precautions should be observed.
- Specific orders of Sr. DOM/DOM are required.
- > Strictly prohibited during total interruption of communication
- Separate Registers to be maintained in the control office.
- It shall be ensured that the train is provided with continuous and effective vacuum/compressed air from engine to rear most vehicle.
- ➤ In Automatic Block system no train must be allowed to follow until the preceding train without brake-van has arrived complete at the next reporting station in advance.
- Guard of the train shall travel in the engine.
- Tail board/tail lamp/ must be fixed on last vehicle.
- > Station Master shall ensure that the train is complete by tail lamp/tail board.
- The station as well as the cabin staff should be particularly alert, when there is a doubt that the train is not complete and should draw the attention of GDR by showing 'train parting' signal.
 - .When encounters trouble en route
 - a. Guard and Asst. Loco Pilot should check and attend the trouble
 - b. Within station limits the help of C&W staff or points man should be taken

c. The Loco Pilot should regulate the speed depending on the 'Feel test' conducted by him..

b) Running of Goods train without Guard (S.R.4.25)

- 1. In exceptional circumstances, only goods trains may be run without Guard with the specific orders of Sr. DOM.
- 2. Some of the duties of Guard shall devolve on the Loco Pilot and Assistant Loco Pilot.
- 3. It should be ensured that the train is provided with continuous vacuum/air pressure from the engine to the rearmost vehicle.
- Loco Pilot shall ensure that the rear-most four pistons are in proper working order.
- 5. Loco Pilot shall ensure that the required amount of vacuum/air pressure is provided in the brake-van before singing BPC.
- 6. Vacuum/air pressure gauge shall be provided to Loco Pilot.
- 7. Tail board/Tail lamp must be fixed to the last vehicle.
- 8. SM shall issue caution order with an endorsement 'train is to run without Guard'.
- SM shall advise to SCOR under exchange of PNs who will inform the Station Masters en route. The SM will inform cabins and gates under exchange of PNs
- 10. Where IB signal is provided, the SM shall not dispatch a train in rear of this train up to IBS unless the train w/o Guard reaches the station ahead.
- 11. The SM/SWM/cabin man shall ensure that the train has arrived compete and is standing clear of the fouling mark if such a train stops at a station.
- 12. During tempestuous weather, total interruption of communication and TSL working, running of trains without Guard is strictly prohibited.
- 13. Extra detonators should be carried by the Loco Pilot.
- 14. While going for protection, care shall be taken that Loco is not deserted if it is on rails.
- 15. In Automatic block system, no train shall be allowed to follow the goods train without Guard until it reaches to next reporting station.
- 16. When encounters trouble en route
 - Assistant Loco Pilot should check and attend the trouble
 - b. Within station limits the help of C&W staff or points man should be taken
 - c. The Assistant should ensure the continuity.

d. The Loco Pilot should regulate the speed depending on the 'feel test' conducted by him.

Note: a. Running of passenger carrying train without guard should not be permitted

- b Two empty coaches or saloons may be permitted to run between HYB— SC—KCG and BZA— GNT without Guard
- c. Running of goods train without guard should not be permitted if last vehicle is not b/van

Brake power certificate (freight trains) (C&W JPO NO. 5/2008)

- It is a certificate to be prepared in duplicate by TXR after examining the formation
- It will be signed by TXR, guard and loco pilot for goods train.
- It should be possessed by the LP till the train completes its journey
- There are 3 types of examinations in SCR
 - CC rake examination
 - Premium end to end examination
 - End to end examination

CC rake examination (Periodical Monitoring Examination)

- Formed from air brake stock only.
- 100% brake power during PME.
- Validity 7500 kms or 35 days whichever is earlier
- Black Rocket, Red Star, Green Arrow, Red arrow, Blue Flame, Galaxy etc. are some examples of CC rakes,
- The rake will move over any station to any station in the zones mentioned on BPC
- LP must record the km run and sign with name, base and date, other wise BPC valid for 20 days only
- The integrity of rakes to be maintained and any changes to be done only during PME at base depot only
- BPC colour shall be yellow

Premium end to end examination

- Formed from air brake open and covered stock only
- Examination points BPA, RDM, GY, nominated lines of BZA, COA, SNF

- BPC is valid for 12 days
- Brake power 95%
- Colour of the BPC green
- To avoid examination in loaded condition 3 days grace period is permitted.
- After a lapse of 15 days even a loaded premium rake shall be offered for examination at the first TXR point in the direction of movement
- Loading after 12th day should not be permitted.

End to end examination

- This is for all stocks
- Validity up to loading point & further up to unloading point.
- At loading point, the operating/commercial staff shall ensure that the destination is mentioned on BPC
- LP shall not move the loaded rake from the loading point unless the destination is clearly mentioned on BPC
- Green colour BPC air brake
- Brake power –90 % air brake
- Pink colour BPC vacuum brake
- Brake power –85 % vacuum brake
- Empty (vacuum) rake must reach the loading point within 4 days including the day of issue.

Intensive examination for material train

- Must have a nominated base depot
- Trains must touch the base depot at least once in a month
- Brake power 90%
- BPC valid for 30 days subjected to the TXR staff endorsement once in 7 days

BPC becomes invalid

cc rakes

- Rake integrity disturbed by more than 4 VUS
- Stabled for more than 24 hrs at any station except loading/un loading point.
 - Moved to any zone not mentioned in BPC
- Over due rakes is not moved in the direction of PME depot

Running more than 35 days/7500km

Premium rakes

- Rake integrity disturbed by more than 4 VUS
- Stabled for more than 24 hrs at any station except loading/un loading point.
- Moves for loading after 12 days
- Empty rake running after the 12th day.

End to end rakes

- Rake integrity disturbed by more than 4 vus/ 10 FWU
- > Stabled for more than 24 hrs at any station except loading/un loading point.
- Destination station not mentioned
- Un signed corrections of destination name
- ➤ Empty (vacuum) rake must reach the loading point within 4 days including the day of issue.

GLP check - circumstances

- At the station after loading/un-loading or tippling (where there is no TXR) or while clearing stabled stock from a station, or in case of in valid BPC, the GLP check shall be conducted.
- At every loading point BPC revalidation should be done by GLP check for all type stock except steel consignment (TXR examination)
- Un loading point(post tippling examination) GLP check have to be done at ICL/KMH, L&T/JUR, YA & RTPP/MOO
- For end to end rakes, if the unloading point is not a TXR point.
- When the due cc rake is detected in loaded condition it shall be subjected to GLP check and pushed to destination. From there it shall be offered for examination
- Detected in empty condition it shall be pushed to nearest TXR point
- After examination it is permitted up to base depot only.(endorsement)
- Where back loading is done at a non TXR station.

Running of trains on GLP check will be permitted only up to first train examination point in the direction of movement. The distance doest not exceed 400km

GLP check list

- 1) Rake integrity is not disturbed by 4VUs or more than 4 VUs. Only intensively examined wagons given fitness by TXR may be attached.
- 2) All CBCs and Air hoses are properly coupled and locked
- 3) All the cut off angle cocks are in open condition
- 4) The last cut off angle cock in closed condition.
- 5) Empty/load device handle is in proper position.
- 6) There are no loose fittings/hanging parts like push rod, pull rods, break beam, safety brackets, brake blocks and CBC operating handle etc. which may endanger safe running of the train.
- 7) There are no broken or displaced springs.
- 8) There are no displaced Elastomeric pads.
- 9) Hand brakes are released
- 10) Doors of wagons are closed and locked/secured
- 11) Ensure visually that there is no excessive body bulging, which is dangerous.
- 12) Any symptoms of Hot axle like de-colourisation of bearing, heavy grease oozing, breakage of axle box cover plate, end plate etc.
- 13) Any other abnormality noticed which may endanger the safety and action taken.
- 14) Continuity of the brake pipe pressure is confirmed through VHF/Whistle code before starting the train.
- 15) Efficiency of brake power
- 16) Percentage of brake power

Total No. of Cylinders - Number of in operative cylinders x 100

Total No. of Cylinders

17) Guard and Loco pilot shall prepare a memo jointly on a plain sheet in triplicate indicating the brake power and deficiency, if any, and shall append their signatures and both of them shall retain a copy of the same. Guard should obtain SM/YM's endorsement on two copies of joint memo and hand over the third for SM/YM's record. SM/YM will inform the section controller and obtain clearance for the train to move.

PROFORMA FOR GLP CHECK

1	Date	:				
2	Train & Loco No.	:				
3	From	То				
4	BPC No. ,Date & Station of issue	:				
5	Loaded at	or	Tippled at			
6	Time of locomotive attached	:				
7	Total Load	:				
8	Air/Vacuum levels	TE	BV			
9	Brake power percentage	No. of cyl	No. of IOP's			
(Sig	(Signature of LP) (Signature of Guard) Name					

OPERATING FORMS AND THEIR SIGNIFICANCE

1. T.369 (3b) AUTHORITY TO PASS STOP SIGNAL AT 'ON'

- Authority to pass defective Outer/Home/Routing Home /Starter/Intermediate Starter/Advanced starter/IBS/Shunt Signal at 'ON'
- Printed on white paper, blue font
- Prepared in two foils LP/Record
- Speed restricted to 15 KMPH
- Signal Description and Number, line of admission mentioned
- Station name, date SM signature with stamp available.

2. T.369 (1)(ADVANCE AUTHORITY BY REAR/NOTICE STATION

- Advance authority to pass defective signals at next station
- Issued by SM of rear station
- White paper blue font
- Two foils- record/LP
- SR-15 kmph after passing the defective signal
- LP to pass defective reception signal at 'on' observing PHS at foot of signal
- Station name, date, SM signature and stamp available

3. T.409 (DIVISIONAL/SECTIONAL CAUTION ORDER)

- It is Divisional/Sectional Caution Order
- White paper blue or black font
- Prepared in four foils- record/LP/ALP/guard
- Station name, date, SM signature with stamp available.
- Stations between, km, speed to be observed and reasons mentioned in geographical order given.

4. T/A 409('NIL' CAUTION ORDER)

- It is 'NIL' caution order
- White paper, blue or black font
- Issued four foils LP/ALP/GD/record
- Issued at notice station
- Station name, date, SM signature and stamp available.
- Issued when no caution order between two notice stations

5. T/462(AUTHORITY FOR MATERIAL RETURN TO SAME STATION)

- Authority to proceed for material train
- White paper blue font
- Prepared in triplicate, record/LP/Guard
- ❖ Authority to go upto km, stop, work and return to the originating station.
- ❖ It has line clear ticket, authority to pass LSS at 'on' and CO
- Station name, date, SM signature and stamp available

6. T/A.462 (AUTHORITY FOR MATERIAL TRAIN WHEN GOING TO NEXT STATION)

- Authority to proceed for the material train
- White paper, blue font
- Issued in three foils record/LP/GD
- Authority to go up to km stops, work and proceed to next station.
- It contains line clear ticket, authority to pass LSS at 'ON' and CO
- Station name, date, SM signature and stamp available

7. T/A.602 (AUTHORITY FOR LP TO ENTER OBSTRUCTED BLOCK SECTION)

- ✓ Authority to proceed for relief engine/train into obstructed block section
- ✓ White paper with red font
- ✓ Direction Up/Dn written
- ✓ Prepared triplicate LP/GD/Record
- ✓ It contains
- ✓ Block ticket to proceed W/O L/C
- ✓ Authority to pass LSS at 'ON'
- ✓ CO 15 KMPH when view is clear and 10 kmph when view is not clear and co upto point of obstruction
- ✓ LP, guard to acknowledge
- ✓ Station name, date, SM signature with stamp available

8. T/B.602 (AUTHORITY FOR LIGHT ENGINE TO OPEN COMMUNICATIONS)

- Authority for opening of communications during TIC on S/L
- White paper red font
- Prepared in two foils record/LP
- LP, GD to acknowledge in columns.
- Contains ATP W/O L/C, authority to pass LSS at 'ON' CO-15/10 KMPH Day/ Night, Line Clear Enquiry Message and Conditional Line Clear message(with PN)
- Station name, date SM signature and stamp available.

9. T/C602 (AUTHORITY FOR TRAIN ON DOUBLE LINE DURING TIC)

- Authority for working of trains during TIC on D/L
- White paper red font
- Two foils- LP/Record
- Contains ATP W/O L/C, authority to pass LSS at 'ON', CO- 25/10 KMPH
- Acknowledgement of LP and GD taken
- Station name, date, SM signature with stamp available.

10.T/D.602 (AUTHORITY FOR TRAIN DURING TSL WORKING)

- Authority for temporary single line working on D/L
- White paper red font
- ♣ Triplicate LP/GD/Record
- ♣ Contains L/C Ticket, Authority to pass LSS at 'ON', CO -25 KMPH(1ST TRAIN), line of TSL and place of obstruction & assurance that trap points are clamped and pad locked
- Station name, date, SM signature with stamp available.

11.T/609(AUTHORITY FOR TAKING PORTION OF TRAIN IN DIVEDED TRAIN WORKING)

- Written permission given by guard to LP when engine or portion of train allowed to proceed to next station from mid section
- White paper blue font
- Two foils LP/Record
- No. Of vehicles and painted no. Of LV mentioned
- ❖ It is authority for L/E to return back (with the signature of SM) to clear the 2nd portion from block section

12.T/806(SHUNTING ORDER)

- Shunting order
- White paper blue font
- Triplicate LP/GD/Record
- > STN name date/time, SM signature with stamp given
- Instructions column available

- Authority to pass Signal at ON available.
- Acknowledge of LP and GD taken

13. **T/C.1425 (UP PLCT)**

- Paper Line Clear Ticket(UP)
- White paper blue font
- Two foils Record/LP
- ATP to go to next STN with PN mentioned
- Contains authority to pass LSS at 'ON'
- o Station name, date, time, SM signature with stamp available
- Arrow mark upward on background

14.T/D 1425(DN PLCT)

- ✓ Paper Line Clear Ticket(DN)
- ✓ White paper blue font
- ✓ Two foils Record/LP
- ✓ ATP to go to next STN with PN mentioned
- ✓ Contains authority to pass LSS at 'ON'
- ✓ Station name, date, time, SM signature with stamp available.
- ✓ Arrow mark downward on background

15.T/A 912(AUTHORITY FOR PASSING INTERVENING AUTOMATIC SIGNALS)

- Authority to pass Automatic/Semi Automatic/Manually Operated/Gate Stop Signals at 'ON'
- White paper blue font
- Two foils, LP/Record
- STN name, date /time, SM signature with stamp given
- Description of signal with No.s mentioned
- Acknowledgement from Guard and LP taken

Note: Before issuing any authority the SM shall ensure

- 1. All the relevant columns in the authorities are filled correctly, legibly and complete.
- 2. Station names to be written in full and no codes used
- 3. PN, Last Train particulars, Description and Number of signals written clearly wherever required.
- 4. While issuing PLCT ensure T/A.1425 'A' column is filled and sent along with PLCT(i.e.T/C.1425 or T/D.1425)
- 5. Ensure the authorities are kept at such places so as to be easily located during the failure and they must be serially numbered before and carbon kept ready in the books.
- 6. If the authorised printed form is not available, a manuscript form containing all the particulars as the prescribed form is issued as an emergency measure, reasons to be recorded in the station diary.
- 7. In case of T/A to T/H 602, T/J 602, T/609, T/A to T/D 1425, T/A to T/D 912.

T/A 1525 and T/1525, the prescribed printed forms shall only be used.

Reception of a train on an obstructed line (G.R.5.09)

In case of reception of a train on an obstructed line, the SM shall

- 1. Wherever possible intimate the Loco Pilot through the rear SM about the reception on an obstructed line.
- 2. Keep the reception at 'ON' ensure that the signal/s are not taken 'OFF'
- 3. Ensure that all points leading to said line are correctly set and facing points locked.
- 4. After stopping the train at the relevant stop signal, it may be received by authorizing the Loco Pilot to pass the stop signal at 'ON'.
- a. By taking off the calling-on signal, if provided or
- b. Through signal post telephone if provided or
- c. By delivering a written authority (T/509) and piloting it.
- 5. Stop the train at facing point leading to the obstructed line until hand signalled forward by a competent railway servant.
- 6. Stop hand signal shall be shown at a distance of 45 m. from the obstruction.
- 7. The Loco Pilot shall keep his train well under control and be prepared to stop short of an obstruction (not exceeding 15Kmph).

Reception of a train on a non-signalled line. (G.R.5.10)

- 1. The SM shall ensure that
 - a) The train is brought to a stand at FSS.
 - **b)** The line is clear up to the trailing points or up to the place at which the train is required to come to a stand.
 - c) All the points are correctly set and facing points locked
- 2. Loco Pilot is authorised to pass signal at 'ON' through T/509 and pilot the train by competent railway servant
- 3. The Loco Pilot shall proceed cautiously and be prepared to stop short of any obstruction (not exceeding 15Kmph).

Departure of a train from non-signalled line. (G.R.5.11/12)

- 1. All the points have been set and lock the facing points.
- 2. SM shall obtain Line Clear.
- 3. Issue authority to proceed to the LP (if ATP is not tangible T.511 also shall be given).

If a line is provided, with common departure signal in addition to ATP, a written permission for start (T.512) shall be given and common departure signal shall also be taken 'OFF'.

SHUNTING

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.

Control and responsibility for shunting (G.R/S.R 5.13/5.14)

- 1. Shunting operations should be controlled by fixed signals or hand signals or by verbal instructions.
- 2. The Loco Pilot shall, before moving on the stop signal taken off for him, observe the hand signals of the railway servant conducts shunting. The shunting staff need not accompany during shunt movements of light engine(s) on to a free line governed by fixed signals
- 3. At the stations where separate shunting staffs are employed, they shall attend to all shunting operations and at all other stations shunting operations shall be supervised by Guard.
- 4. In the case shunting of trains from one line to another across main line or wagons containing explosives the shunting operations shall be carried out under personal supervision of SM.

- Loose shunting of or against empty or loaded oil tank wagons, trucks loaded with heavy machinery/ rails/timber, cranes, loaded explosive vans, livestock wagons, wagons labelled 'not to be loose shunted' coaching vehicles etc., is prohibited.
- Carriages occupied by passenger shall not be moved for shunting purposes without the orders of the SM and also the Guard of the train who will jointly responsible to warn and prevent accident to the passengers in the carriage or those who entrain or detrain thinking that the train is leaving.
- 7. In the case shunt movements are governed by fixed signal, which detect the points over the route, it can be taken off and in all other cases the facing points shall be clamped/cotter bolted and pad locked.
- 8. Outer, Home and LSS shall not be taken off for shunting purpose.
- 9. The speed during shunting operations shall not exceed 15kmph. In case of vehicles contains inflammable liquids, explosives, coaching vehicles speed is restricted to 8kmph.
- 10. Slip coaches shall not kept on blocked line in the rear of passenger carrying trains.
- 11. No engine should be allowed on any running line at a station occupied by a train carrying passengers, except train engine or banking engine or shunting engine.
 - i) If it is unavoidable to allow the engine(s) in rear of a passenger carrying train, such engine(s), shall be accompanied and hand signalled by shunting staff and stopped in rear of passenger carrying train at a safe distance.
 - ii) The Shunter/Loco Pilot of light engine(s) shall be informed.
 - iii) All such light engine(s) should not be left unmanned.
- 12. When shunting is carried out for attaching/detaching the coaches/slip coaches/saloons/dead engines on passenger carrying trains, shunting engine with or without coaches shall first come to a halt 20mts away from the train and there after perform shunting carefully.
- 13. When vehicles moved by an engine for attaching to passenger train, the vacuum brake shall be connected up so that adequate brake power shall be available.
- 14. In case of shunting on goods trains at intermediate station the vacuum brake shall, as far as possible, be connected with engine.

Shunting on steep gradient: (G.R/S.R.5.20)

1. Gradients of 1 in 400 or steeper and 1 in 260 or steeper are considered as steep gradients in respect of roller bearing stock and other than roller bearing stock respectively.

- 2. At a station yard where the outer most points are on a steep gradient, shunting shall be done only with the engine attached towards the falling side of the gradient.
- 3. Hand shunting of the roller bearing stock is prohibited at a yard where the outer most point are on or with in 100mts of a steep gradient.

Authorities to be given for shunting on class 'B' station.(Appendix XII) Single line

- 1. Within Station Section: T/806*
- 2. Beyond Station Section up to Opposite FSS

In Token Section - T/806

In Token Less Section - T/806* + SHK or T/806 + P.No.

- 3. Shunting beyond opposite FSS:
 - a. Treated as Train movement
 - b. Loco Pilot shall be given
 - i. ATP
 - ii. Manuscript memo to push back +T/806*
 - iii. All Signals shall be taken OFF
- **1. Shunting in the face of an approaching train:** Generally not permitted. Where permitted the following conditions shall be fulfilled.
 - Permission is indicated in SWR,
 - SLB/Advanced Starter is provided,
 - Shunting warning board is provided in rear of FSS.

Double line

Shunting within station section: T/806*

Shunting beyond LSS (When block section ahead is free of train)

SM shall block forward and issue

T/806* + LSS Lever Key if any or

T/806* + Taking OFF Shunt Signal below LSS if any Or

T/806 + P.No.

Shunting beyond LSS (Following a train):

It should be permitted by SWR

Same as above without a P.No. in T/806.

As soon as the preceding train clears the section, the line should be blocked forward, if the shunting is not completed.

Shunting into block section in rear: (Beyond outermost facing point/BSLB)

The line should be blocked back

T/806 + P.No.

* Where shunting operations are supervised by Guard/Assistant Station Master, Loco Pilot shall be given Form No.T/806 (Shunting Instructions Form) duly filled in.

**At major stations where separate staff viz., out door Station Master/Yard ASM/AYM/ Shunting Jamedar/Shunting Master are provided for supervising the shunting, Form No. T/806 need not be given. Such stations shall be notified by the respective Sr.DOMs.

Precautions to be observed during stabling and securing of vehicles/formation (G.R./S.R.5.19, 5.23)

Stabling on running lines

- 1. Vehicles detached from a train shall not be allowed on a running line for a longer period than absolutely necessary.
- 2. They shall be coupled together and all the necessary hand brakes of vehicles and brake van to be applied.
- 3. Vehicles not provided with hand brakes shall be secured by chains.
- 4. At night, the side and tail lamp of coaching vehicles at both ends shall be switched on. If not, fix hand signal lamp showing red at both ends. In case of goods vehicle berthed on main line tail lamps, if available, duly lit, shall be fixed at both ends during night time.
- 5. Red ink entry shall be made in TSR.
- 6. The SM shall advise and exchange private numbers with cabin ASMs when running line is occupied and cleared.
- 7. The occupation of running lines shall be recorded in the station dairy at the time of handing over and taking over charge.
- 8. Whenever possible, track machines should be stabled on non- running lines or on lines which are isolated from other running lines. When the track machine is stabled on a running line due to unavoidable circumstances, the mechanical hand brake shall be applied and the machine shall be securely chained to the rails.

In case of roller bearing vehicles stabled on running lines/sidings

- 1. The formation should be wedged, chained and padlocked.
- 2. Crossovers which give access to running lines shall be kept clear of vehicles.
- 3. At least six wagons from each end shall have their brakes applied tightly in addition to the brake of the brake-van.
- 4. The points must be set against the blocked line, clamped and padlocked. The padlock keys must be kept under the personal custody of the SM.
- 5. The brakes shall be applied by the station staff under the personal supervision of SM / Guard as per the SWR.
- 6. Wherever possible, such wagons shall be stabled on lines which are isolated from other running lines.

System of working (G.R/S.R.7.01)

System of working means system adopted for the time being for the working for trains on any portion of railway.

On Indian railway all trains working between stations shall be worked on the one of the following systems namely

- a. The absolute block system
- b. The Automatic Block System
- c. The Following Trains System
- d. The Pilot Guard System
- e. The Train-Staff And Ticket System,
- f. The One Train Only System

The systems used on the south central railway are

- The automatic block system used on the this Railway are, LPI SC MLY, HSJ - HYB(SC Division), SC - KCG -FM, SC -BMO(HYB division), BZA -KCC(BZA division)n double line and on BZA-KCC(BZA division) on single line.
- 2. The absolute block system on all other sections of SC Rly.

Essentials of the Absolute Block System (G.R.8.01)

- 1. Where trains are worked on the absolute block system:
- a. No train shall be allowed to leave a block station unless line clear has been received from the block station in advance, and
- b. On double lines such line clear shall not be given unless the line is clear, not only up to the first stop signal at the block station at which such Line Clear is given but also for an adequate distance beyond it;
- c. On single lines such Line Clear shall not be given unless the line is clear of trains running in the same direction ,not only up to the first stop signal at the block station at which such Line Clear is given, but also for an adequate distance beyond it, and is clear of trains running in the direction towards the block section to which such line clear is given,
- 2. Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses (b)and (c) of sub-rule (1) shall not be less than
- a. 400mts in case of TALQ signalling or TACLS, and
- b. 180mts in case of MAS or Modified Lower Quadrant Signalling.

LURCH/Conditions likely to affect running of Trains (S.R.6.07)

If a Loco Pilot experiences any unsafe condition of track including lurch, he shall,

- Note the KM,
- In case of IBS and Automatic block territories, he must inform the SM and LPs of trains already left station in rear to stop movement of trains,
- Stop his train at the next block station without clearing the block section and inform the SM through available means of communication,
- The LP shall stop his train at the station and deliver a written memo to the SM,
- Proceed further only after ensuring that SM under stood the situation.
- SM must issue message to SM in rear, JE/SE(P-way), AEN,DEN, DOM and SCOR.
- The SM shall then dispatch by Rail, Maintenance Machine/Tower wagon/Light Engine or in their absence a train accompanied by an Engg Official,
- The LP shall be given a caution order to stop short of the effected KM
- The Engg official will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train,

- Advise the condition of the track and speed restrictions if any to the SM,
- In the absence of Engg official, the train may be sent in to the section with a caution order to the LP to stop dead well before the affected KM and to pass at 10 KMPH only after satisfying himself that it safe for him to pass,
- If he finds the line unsafe to pass, return to the station in rear,
- If the LP is not able to detect anything doubtful, subsequent trains shall be dispatched with a speed restriction of 10 Kmph till the track is certified to be safe by Engg officials,
- If LP reports same unsafe condition, no train movement shall be allowed till certified to be safe by the Engg officials.
- If guard experiences any of the unsafe conditions, he shall inform LP and same procedure shall be followed.
- If the LP/Guard experience any obstruction or any other unsafe condition on or near the track adjacent to the line over which his train has passed, and if in his opinion it is unsafe for train running, will take the following action,
- Immediately switch on the flasher light of his Loco,
- Inform the SM/Control through available means of communications,
- > Stop his train and proceed with stop hand signals, to protect the line,
- ➤ The LP will continue his journey to the next station cautiously keeping flasher light ON and
- Be prepared to stop any incoming train by communicating on available means of communications and exhibiting stop hand signal.
- > Inform SM at the next station and SM take action as mentioned above
- In case of Sabotage or likely sabotage, Bomb blast, Explosion etc, received, the SM shall stop movement of trains in the affected block section as well as adjacent lines on Double/Multiple lines sections.
- ➤ SM to consult SCOR and may despatch only Rail Maintenance Machine/Tower Wagon/Light Engine accompanied by Engg official.

Rail fracture (G.R.6.01)

- 1. If a Loco Pilot realizes, while on run that there is rail fracture, he shall
 - a) Immediately Stop the train and protect the train.
 - b) Examine the track
 - c) If considers safe, proceed at 10 kmph.
 - d) If unsafe, inform SCOR and SMs and wait till Engg official certify fit.

- 2. If a gang mate / key man /patrolman detects rail fracture of less than 30 mm gap, he shall show stop hand signals and inform Loco Pilot of first train to pass the fracture spot at 10 Kmph and subsequent trains at 15 Kmph
- 3. Loco Pilot of the first train shall stop his train at the next block station and give memo about the rail fracture.
- 4. SM, who receives report from Loco Pilot about the rail fracture, shall inform the SM of the station at other end of the block section.
- 5. Both the SMs shall arrange issue of caution order to trains to observe an SR of 15 Kmph and also advise all concerned.
- 6. If the gap is more than 30 mm, only PWM/PWI can pass the trains after attending the rail fracture.

Block Ticket (S.R.6.02.5)

- 1. To Despatch a train on wrong line on double line [other than TSL working], the SM shall issue a block ticket.
- 2. The line shall be blocked back.
- 3. A caution order also be issued indicating the following
 - a. Speed 15 kmph when view is clear and 8 kmph when view is not clear.
 - b. Ascertain the condition of the train over the adjacent line.
 - c. To look out for possible obstruction and take action accordingly.
 - d. Report at next station.
- 4. The SM of the other station shall not permit any obstruction out side the outer most points.
- 5. LP may return to same station if unsafe to proceed
- The Loco Pilot shall also certify in writing whether the line is clear for introduction of TSL working or not. Then SM can introduce the TSL working.
- 7. Only one train will be permitted.
- 8. Passenger carrying train is not allowed on Block Ticket.
- 9. It is prepared in form no. T/J 602.

b) Trains unusually delayed (G.R.6.04)

- Trains are said to be unusually delayed when passenger carrying train does not arrive within 10 minutes and goods trains within 20 minutes after normal running time.
- 2. Guard and LP of train shall give information to nearest SM/TPC/SCOR by available means.
- 3. SM shall advise SM in rear and SCOR.
- **4.** SM shall stop trains from either end and on adjacent lines.
- **5.** Warn LP's and Guards proceeding on adjacent line issuing with suitable caution orders.
- 6. On single line, arrange to send competent Railway servant into block section to get information of whereabouts and condition of train and nature of assistance required.
 - **7.** The above action may be taken earlier also if necessary.
 - 8. SCOR shall immediately alert stations where ART & MRT are located to be in readiness.

Despatch of relief engine/Relief train into an Occupied/obstructed block section in Absolute Block System and Automatic Block System (SR 6.02.6)

- 1. The authority in Absolute Block System is T/A.602 &
- 2. The authority in Automatic Block System is T/C.912
- 3. The authority contains
 - i. Authority to proceed without Line Clear to proceed up to the Point of obstruction and return back or go to the next station.
 - ii. Authority to pass signals at 'ON'
 - iii. Caution Order to observe 15 Kmph when view ahead is clear during day and 10Kmph during night and view ahead is not clear or Walking Speed preceded by one/two men on Double/Single line carrying Stop Hand signal and Detonators for ready use during foggy/tempestuous weather/head light defective.
- 4. In Automatic Block System it must be ensured the line is free from the Block Station to the point of obstruction.
- All movements carried out in consultation of SCOR.
- 6. SM at other end shall be advised about the relief engine sent and clearance under exchange of PN.
- 7. LP advised of the obstructions, location of BV and Engine and station to which it has to clear.

- 8. LP to keep sharp lookout, whistle frequently and be prepared to stop short of any obstruction.
- 9. LP to bring stop short of obstruction and obey hand signals at the site.
- 10. While returning LP to act according to the aspect of signal on single line.
- 11. While clearing the station on double line, the LP to act as per the aspect of the signal on right line or stop the train at LSS of the same line or FSS of the other line whichever comes first and after points are set correctly piloted in on 'Pilot in memo'.
- 12. On arrival at the station, the authority to be handed over the SM who shall keep with the station records.
- 13. Time of entering/clearing and restoration of normal working of the section shall be made in TSR in red ink.
- 14. Before introduction of normal working SM's to
 - i. Ensure Block section is free under exchange of PN.
 - ii. 'Track Fit' certificate to be obtained from Engineering Official in case of accident.
 - 15. Whenever engine is pushing, Rules for pushing back to be observed.

Working of trains during total interruption of communications on single line (S.R.6.02.4)

In the event of total interruption of communication i.e. when line clear cannot be obtained by any one of the following means.

- i. Block instrument, Track circuits or Axle counters
- ii. Telephone attached to the Block instrument
- iii. Station to Station Fixed Telephone.
- iv. Fixed Telephone such as Railway Auto Phone or BSNL phone
- v. Control Telephone
- vi. VHF Set.

The following procedure shall be adopted for working of trains.

- 1. Train shall be brought to a stop at station.
- 2. The SM who has trains to despatch, shall open communication with the SM of Block station other end by sending any one of the following vehicles in the order of preference.
 - a) Light engine
 - b) Train engine, after it is detached from the train
 - c) Motor trolley/Tower car accompanied by guard or off duty ASM

- d) Trolley/cycle trolley accompanied by a guard or by off duty ASM
- e) Diesel car/EMU/DMU after detraining the passengers.
- 3. Loco Pilot/Guard/ASM shall be advised of the circumstances and obtain acknowledgement from the LP/Guard/ASM
- 4. Loco Pilot/Guard/ASM shall be given T/B 602 (authority to open communication during TIC on single line) to be prepared in duplicate.

This authority contains

- a) authority to enter into Block section W/O L.C.
- b) authority to pass departure signals at 'ON'
- c) caution order (15/10)
- d) line clear enquiry message asking line clear for waiting trains
- conditional line clear message line clear for light engine/vehicle with or without train to come back
 - If line clear is required for more than one train, T/B 602 and T/E 602(line clear enquiry message) shall be given
 - If light engine or light engine with brake van is to be dispatched, LP shall be given T/B 602 and line clear enquiry message, condition line clear message shall be struck out.
- 5. Except LSS all signals can be taken off.
- 6. Loco Pilot shall be vigilant and proceed with 15 Kmph during day when view is clear and 10 Kmph during night.
- 7. If view is obstructed train shall be piloted by two persons on foot with danger hand signals and fog signals.
- 8. Tunnel shall be entered only after ascertaining that it is clear, use headlight, and other lights of the engine shall be switched on.
- 9. If two engines/vehicles meet in the section, the in-charges decide the station to which they shall proceed, considering the importance of trains, distance of station, gradients, catch sidings etc.
- 10. Engine/vehicles may either be coupled or may be loaded or may be followed.
- 11.Loco Pilot shall stop at FSS. The engine or vehicle may be admitted either on signals or piloting.
- 12. On arrival at station handover T/B 602 to SM.
- 13. The SM of other station shall give following documents to light engines with or without train.
 - a. Conditional line clear ticket T/G. 602(Up) or T/H. 602(Dn).-ATP for light engine with or without train.

- b. Conditional line clear reply message T/F. 602- granting line clear for trains at other station.
- 14. The engine/vehicle on return shall stop at the FSS and there by it may be admitted on signals or piloting.
- 15. CLC reply shall be handed over to SM.
- 16. SM shall prepare conditional line clear ticket for waiting train.
- 17. If line clear obtained for more than one train, second and subsequent train may be despatched after an interval of 30 minutes
 - First train may proceed with booked speed.
 - Each train shall be given CLCT.
 - For 2nd and subsequent trains Caution Order shall be given to observe 25/10 kmph.
 - An endorsement to be made on CLCT with particulars of the preceding and following trains.
 - No backing is permitted. If unavoidable the train may be backed after protecting by placing one detonator at 250m and two at 500m, 10m apart beyond the point up to which it is to be backed.
 - In case of accident, failure etc,. Protection shall be done by placing one detonator at a distance of 250 m and two detonators at a distance of 500m 10m apart.
- 18. Trains must continue to work in this system till any one of the means of communication is restored by competent authority.
- 19. As soon as any one of the means of communication is restored, both SMs shall exchange messages in the form no. T/I 602 and ensure that no train in block section before resuming normal working.
- 20. Entries in TSR in red ink should be made.
- 21.TI of the section prepares and submits a report on the working of trains to DRM within 7 days of restoration of communication.

Working of trains during total interruption of communication on double line (S.R.6.02.3)

IN the event of total interruption of communication i.e. when line clear cannot be obtained by any one of the following means

- i. Block instrument, Track circuits or Axle counters
- ii. Telephone attached to the Block instrument
- iii. Station to Station Fixed Telephone.
- iv. Fixed Telephone such as Railway Auto Phone or BSNL phone

- v. Control Telephone
- vi. VHF Set.

The following procedure shall be adopted for working of trains

- 1. Trains shall be brought to a stop at station.
- 2. Guard and Loco Pilot shall be advised of the circumstances.
- The SM shall issue T/C. 602 to the Loco Pilot.
- 4. This authority (T/C. 602) contains
 - i. Authority to enter block section without LC
 - ii. authority to pass departure signal at ON
 - iii. caution order to observe SR of 25 Kmph when view is clear, 10 Kmph when view is not clear
- 5. Except LSS all signals can be taken off.
- 6. When view is not clear trains shall be piloted by Assistant Loco Pilot.
- 7. Tunnel shall be entered only after ascertaining that it is clear, switching on head light, marker lights.
- 8. If train stops in the section and cannot proceed further, it shall be protected by placing one detonator at 250 mts and two detonators at 500 and 510 mts.
- 9. During this period pushing back is not allowed. If unavoidable the train may be pushed back only after protecting [as mentioned above] beyond the point up to which backing is required.
- 10. The Loco Pilot shall stop at FSS (even off) and give a long whistle continuously.
- 11. If signals are not taken off within 10 minutes or no one turns up, Assistant Loco Pilot to be sent to station and Guard has to protect in rear.
- 12. On arrival into the station ahead T/C, 602 shall be handed over to SM.
- 13. There should be clear interval of 30 minutes between the train that has preceded the one which has to follow.
- 14. Trains must continue to work on this system, till any one of the means of communications is restored by competent authority.
- 15. As soon as any one of the means of communication is restored, both SMs shall exchange messages in the form no. T/I 602 and ensure that no train in block section before resuming normal working.
- 16. Entries in TSR in red ink should be made.
- 17.Tl of the section prepares and submits a report on the working of trains to DRM within 7 days of restoration of communication.

Working of trains when one line is obstructed on double section. (S.R.6.02.1)

- 1. Whenever any line is obstructed on double line due to accident or any other reason, the traffic may temporarily be worked over single line.
- 2. The SM must have reliable information in writing that one line is clear for introducing TSL working and also consult SCOR and other end SM.
- If there is a doubt the clearance of the track asks PWI to certify the track. If there is no reliable information in writing, goods train or light engine can be despatched on block ticket with a restricted speed of 15/8 kmph to get information.
- 4. TSL working shall be introduced between nearest stations provided with cross over between up and down lines on either side.
- 5. Close the intermediate block huts if any, signal shall be kept in ON position.
- 6. Block instruments of both stations and C class stations, if any, shall be kept locked in TOL position.
- 7. SM proposing TSL working shall issue a message containing following information under exchange of PNs to the SM of other end.
 - Cause, line, source of information, place of obstruction, speed restrictions, name of the intermediate stations, assurance that all trap points are spiked/clamped and assurance that LSS/fixed signals are kept at ON, timings and particulars of the last train arrived/despatched
- 8. LC will be obtained on block telephone or station to station fixed telephone or auto phone & BSNL phone or control telephone or VHF set.
- 9. T/D 602 is authority for temporary single line working on double line section.
- 10. This authority contains authority to enter block section, authority to pass LSS or any other signal at ON, caution order, line of TSL and place of obstruction.
- 11. The maximum speed of first train over TSL working is restricted to 25 Kmph. The second and subsequent trains can proceed with normal speed. An endorsement shall be made in the T/D 602 issued to Loco Pilot of I train to inform all gang men gateman, patrolman, OHE and Telecom staff about the introduction of TSL working.
- 12. In the T/D 602 Loco Pilot shall be informed about the line, Kilometreage of obstruction and any speed restriction, if any, and assurance about the setting of trap points.
- 13. When a train is stopped on account of accident or engine failure or any other cause protection shall be done as per Rule 6.03

- 14. When train is starting from wrong line, train shall be piloted out on 'Pilot out Memo' after ensuring that all points over the route are correctly set and facing points are locked.
- 15. On right line reception signal can be taken off.
- 16. On wrong line stop the train at LSS (wrong line) or opposite to FSS (right line) which ever comes first. A competent railway servant shall stop the train at the signal and pilot it on a pilot in memo after ensuring all the points are correctly set and locked.
- 17. If the train is not admitted within 5 minutes, GLP to follow G.R. 4.44(1)
- 18. Normal working shall be introduced only after obtaining written certificate from PWI and issuing message to other SMs under the exchange of PNs.
- 19. When normal working is introduced all Block instruments, IB signal and fixed signals shall be brought into use.
- 20. Entries in TSR during TSL working should be made in red ink.
- 21.Tl of the section must scrutinize all the records and submit his report to DRM with in 7 days.

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Loco Pilot entered block section without ATP. (G.R/S.R.6.06)

- 1. When a Loco Pilot enters the block section with out an authority to proceed or improper authority to proceed he shall immediately stop the train.
- 2. The train shall be treated as an obstruction in the block section protect as per G.R. 6.03.
- 3. The Guard shall send the report of occurrence, explain the circumstance to nearest station through brakes man/Assistant. Loco Pilot.
- 4. When the report is sent to station in rear, the station master will issue correct authority (PLCT) to proceed to the next station.
- 5., In case the report is sent to the station ahead, the SM shall immediately inform the control, and SM of other end of the block section, and send Caution Order as Authority for the train to proceed to the station.
- 6. Before starting forward with the correct authority to proceed or the authority to proceed with out line clear, the Loco Pilot should collect the detonators placed in front for protection.
- 7. On arrival of the train the SM shall intimate the station at the other end of the section supported by PN to the effect that the train has arrived complete.

Train parted in block - section (G.R/S.R.6.08)

- 1. The Loco Pilot shall keep first portion on run if possible until the rear portion come to a stand.
- 2. Loco Pilot shall sound o o whistle to inform Guard.
- 3. If it is necessary to proceed act as per the aspects of the signals ahead.
- 4. The Guard shall apply the hand brake.
- 5. Loco Pilot of banking engine if available shall stop rear portion and give —o—o.
- 6. The Guard shall indicate the parting 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.
- 7. If the both portions are brought to a stand, the guard shall protect the rear portion on both sides as per the rules and take necessary precautions to secure the vehicles.
- 8. If it is possible and safe to couple the portions, the train shall be coupled with due caution otherwise it shall be worked in two portions.
- When proceeding to station ahead, Loco Pilot shall give —o—o whistle repeatedly
- 10. SM shall admit the train on a vacant line place 3 detonators to attract the attention of Guard and try to stop second portion by applying brakes/by heaping up earth or divert it to a vacant loop or siding line.
- 11. If SM notices train parting he shall wave a green flag by day or a white light by night up and down vertically as high as and as low as possible.
- 12. Tonnage shall be jointly checked by the guard and Loco Pilot and also by SM.

Engine unable to haul the load.

- 1. As far as possible, Loco Pilot shall bring the train to a stop on a level gradient and give 0000 whistles.
- 2. Train shall be protected as per G.R. 6.03.
- 3. Clear the block section by one of the three alternatives
 - a) Ask for relief engine
 - b) Push back
 - c) Divided train working

a) Ask for relief/assisting engine. (G.R/S.R.6.05)

- i) When the engine is disabled ask for relief engine telephonically
- ii) Once relief engine is asked, if the engine is rectified subsequently he should not move unless he get permission from SM.
- b) Push back the train shall be pushed back after obtaining permission from SM in rear with 25/8 Kmph. Guard shall show continuously PHS. (G.R/S.R.4.12)

c) Divided train working (G.R/S.R.6.09)

- 1. Secure the rear formation by applying hand brakes as per the gradient
- 2. Guard shall prepare T/609, clearly Stating the number of vehicles and LV No.
- 3. Guard shall handover T/609 to Loco Pilot after collecting tangible authority if any and shall not keep tail board / Tail lamp on LV of first portion.
- 4. During night time Asst. Loco Pilot shall protect the train in rear and guard in front.
- 5. Loco Pilot shall stop train at home signal (even in off) or and whistle —0—0 repeatedly.
- Then the SM and LP shall contact each other on VHF set then the SM will not clear block section and advice rear SM and train can be received on hand signals.
- 7. The SM and Loco Pilot shall verify the intact on arrival of first portion with the help of T/609.
- 8. Then the SM shall sign in the T/609. On T/609 light engine may sent into block section, the Loco Pilot shall not exceed speed of 25 Kmph.
- 9. During day time stop the engine on seeing stop hand signal of Guard. Attach the engine, release the brakes and start the train.
- 10. During night time stop the engine on seeing the stop hand signal of Guard, Guard shall pick up the 3 detonators, pilot the engine by riding on engine leaving intermediate detonator (600M) and LP shall stop the train when second portion is sighted. Guard will get down, pilot and couple the engine cautiously.
- 11. After attaching, release the hand brakes, call the ALP and start the train.
- 12. On arrival at the station, Guard and SM shall check the tonnage of the train.
- 13. If the engine of passenger train is unable to haul the load it will not be divided, ask for assisting/relief engine
- 14. In case train without Guard, LP shall prepare a written memo stating the no of vehicles in the first portion and last vehicle number of first portion.

15. On arrival at the station Light engine may be dispatched for clearing the second portion from the block section on T/A 602 with a restricted speed of 15/10 kmph.

Fire on passenger coach in mid-section. (G.R/S.R.6.10)

- 1) The train shall be stopped at once.
- 2) Detach the front portion of the vehicle behind the one on fire and move the front portion to a safe distance.
- 3) Then detach the vehicle on fire and move the front portion again to a safe distance.
- 4) If the train with vestibuled stock, before isolating, vestibule connections shall be disconnected. If not possible after uncoupling, draw with little force so that vestibules be torn off.
- 5) The safety of the passengers shall first be attended.
- 6) Guard shall switch off electric connections.
- 7) Every effort shall be made to extinguish the fire by using fire extinguishers, water and soil/sand.
- 8) In electrified section water should not be used and special type of the extinguishers shall be used.
- 9) Fire is not extinguished ask for fire brigade through SM/SCOR.

GR 6.03 Protection (Absolute block system)

- When a train is stopped between stations on account of accident failure or other cause and it can not proceed further, Loco Pilot shall apprise the guard of the fact by sounding the four short whistles repeatedly and exchange danger signal with him. The guard shall fix red flag/red flashing lamp or reverse the side lights to show red towards the engine.
- 2) The Guard and the Loco Pilot shall take the following action

On single line

- a) The Guard either him self or competent person go back to protect the train.
- b) The person going back to protect the train shall, continuously. Show danger signal and place one detonator at 400/600 M and 3 detonators 10 M apart 800/1200 M of MG/BG from the train.
- **c)** After protecting guard or competent person continue to show danger hand signal until he is re-called.

- **d)** The Loco Pilot or Asst. Loco Pilot or competent railway servant shall show danger signal to the front and protect the train in front in manner prescribed in 2b.
- Above procedure (d) may be followed during TSL working on double line or when relief engine has been asked on double line

ON D/L section:

- a. The Loco Pilot or. Asst.Loco Pilot proceed to protect the adjacent line in front
- b. Loco Pilot or Asst. Loco Pilot shall place one detonator at 400/600 M. and 3 detonators NLT 800/1200 M 10M apart on MG/BG from train.
- c. Guard shall send a competent person if available to protect the train in rear and shall him self proceed ahead to assist and ensure protection of adjacent line in front.
- d. Guard shall after ensuring, go back to protect the train in the rear in the manner prescribed in 'b' if he has not already sent competent person.
- e. In case it is not known whether the adjacent line is obstructed or not the LP shall protect adjacent line and Guard shall proceed to engine to check whether adjacent line is fouling or not. If adjacent line is obstructing, the Guard shall assist and ensure adjacent line protection. If not obstructing, the Guard shall after consultation with LP go back to protect the train in rear.

Twin Single Line:-

- 1) The Loco Pilot shall protect the adjacent line in front guard shall protect the adjacent line in rear.
- 2) Only after protecting in the rear guard shall proceed a head to assist and ensure protection line in front..
- 3) Protect the line on which to train affecting on same line in rear.

Common Points.

- 1. When guard / the person gone for protection, called back he shall leave 3 detonates and pick up inter mediate detonator.
- 2. If the train is approaching, place the detonators as far away from the train as possible.
- 3. If there is a banking engine, banking engine Loco Pilot shall arrange protection in rear.
- 4. When the train is ready to proceed, Loco Pilot shall recall railway servant protecting the train by sounding continuous whistle.
- 5. When the train goes forward, Loco Pilot shall stop short of and pick up 3 detonators placed in front.
- 6. In the case of without guard, the duties of guard shall devolve on Loco Pilot.

7. In the event of disability of the Loco Pilot, the duties of Loco Pilot shall devolve on guard.

Protection in Automatic block territory

When a train is stopped in an Automatic block signalling section, the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tail board or tail light is correctly exhibited.

Single line and during TSL working on Double line.

LP shall protect the train in front as per G.R/S.R. 6.03 and Guard shall protect in rear by placing one detonator at 90m and two detonators at 180m, 10m apart.

Double line

The Guard shall first ensure the protection of adjacent line in front by the LP and protect same line in rear by placing one detonator at 90m and 10m apart two detonators at 180m. LP shall protect adjacent line as per G.R.6.03.

Protection when relief engine is sought

Relief engine is expected from advance station, during day time protection is not required but during night time protection shall be done as per G.R/S.R. 6.03

AUTOMATIC BLOCK SYSTEM

Working of trains during prolonged failure of signals and communications are available in automatic block system (S.R.9.12.1)

- 1. Ensure no train in block section under exchange of PN.
- 2. SM to inform SCOR.
- 3. Train stopped at station, LP & Guard advised of circumstances.
- 4. SM in rear obtains line clear by any one means of communication in the order of priority.
- 5. SM in advance grants L/C after satisfying conditions, adequate distance being 120m beyond starter.
- 6. All points set correctly & locked.
- SM after obtaining line clear shall give "authority to Proceed on automatic block system during prolong failure of signal" - T/D.912 indicating the signal No(s). to pass at 'on'.
- 8. Before giving authority ensure points correctly set & locked, LC gates informed under exchange of PN.
- 9. LP of 1st train with T/D.912 proceeds at 25 Kmph and lookout for obstruction. Second and subsequent trains can proceed with normal speed.
- 10.LP to act at the station ahead as per the aspect of the signals.

- 11. Entries of the train made in red ink in TSR.
- 12. Clearance of section intimated under exchange of PN.
- 13. As soon signals are put to work both SM exchange messages under exchange of PN.
- 14. All records checked by TI and submit report to Sr.DOM/DOM within 7 days

b) LSS defective on Single line.(S.R.9.06)

In case of LSS defective on single line or the direction of traffic cannot be established, the Automatic block working shall be suspended.

SM shall ensure that all trains arrived completely and treat the entire block section as one section.

SM shall obtain line clear by any one of the alternative means of communication.

Issue PLCT + T/A 912 to the LP. The speed of the first train shall be restricted to 25 kmph. Advise LP to inform gatemen, gangmen, OHE, TELECOM S&T staff enroute about suspension of automatic system

Automatic block working may be restored after the LSS or direction of traffic is rectified

LSS defective on Double line: (S.R.3.12)

LP shall be given T/369 3(b) + Caution order of 10 kmph upto the next Automatic stop signal.

Differentiate Absolute and Automatic block systems (Chapter VII & IX)

S .No.	Absolute block system	Automatic Block system
1	Block stations are classified as A, B ,C and Special class stations	Stations are not classified
2	Signals may be semaphore or colour light	Signals are colour light only.
3	Only manual signals are provided.	Signals may be automatic, semiautomatic and manual.
4	Provision of continuous track circuiting or Axle counters on line is/are not required except IBS	Line shall be provided with continuous track circuit or axle counter

5	Normal aspect of stop signal is	Normal aspect of stop signal is
	'STOP'	'PROCEED'.
6	No stop signal can be passed at 'ON' unless LP receives a written authority or PN (except IB, Gate)	No authority is required to pass Automatic signal at 'ON'
7	To start a train line clear shall be obtained.	Line clear not required to start a train (but on single line, line clear shall be obtained to establish direction of traffic).
8	Signals may be two aspects or multiple aspects. Permissive signals may be provided.	Signals shall be multiple aspects only. Permissive signals are not provided.
9	. 'G' marker shall be provided on gate stop signal	Besides 'G' marker an illuminated 'A ' marker is available when gate is closed.
10	Time interval between two trains during TIC on double line is 30 minutes.	Time interval between trains during TIC on double Line is 15minutes or running time of the train whichever is more.
11	Protection shall be arranged as per 6.03 on same line and adjacent line.	Protection shall be arranged on same line in rear as per the 9.10 and other lines as per 6.03.
12	Normally block section between two stations will not be divided.	Block section between two stations are divided into number of automatic block signalling sections.
13	During TIC on single line authority is T/B.602.	During TIC on single line authority is T/B 602 +T/A.912.
14	During TIC on double line authority is T/C 6.02	During TIC on double line authority is T/B 912.
15	During TSL working authority for all trains is T/D 602	During TSL working authority for 1 st train on right line and all trains on wrong line is T/D 602 + T/A 912. 2 nd and subsequent trains on right line proceed on signal aspects.
16	During TSL working the speed of the first train is restricted to 25 Kmph	During TSL working the speed of the first train on wrong line is restricted to 25 Kmph.

17	During TSL working the speed of the 2 nd and subsequent trains is normal speed	During TSL working the speed of the 2 nd and subsequent trains on wrong line and all trains on right line is normal speed.
18	Authority to dispatch relief engine/train is T/A 602	Authority to dispatch relief engine/train is T/C 912
19	On single line when LSS become defective authority is PLCT.	On single line when LSS become Defective authority is PLCT +T/A 912.
20	On double line when LSS become defective authority is PLCT.	On double line when LSS become defective authority is T.369 (3b) +CO 10kmph up to next automatic signal.

What are the various types of blocks and what are the instructions for line block

Block (SR 15.06)

Block means an arrangement of blocking of track against movement of traffic over a particular section, allowing only material train/ TTM/tower wagon for maintenance.

There are four types of block.

- 1. Line block = blocking for engineering purposes. no traffic except material train and TTM
- 2. Power block: blocking against electric traffic. diesel may be allowed. exclusively for OHE maintenance
- 3. Integrated block = block for maintenance work for more than one department (TRD, Engg and S&T) simultaneously.
- 4. Shadow block means a block, which may be or may not be integrated, availed from either end of the block section between two block stations simultaneously.
- Ex- Changing of bridge girders, replacement of turnouts

Special instructions for line block

Engineering works are classified under the following three categories

- Category I normal routine maintenance. no special precautions & advice to operating official
 - ex: renewal of keys / bolts etc..
- Category II caution order by SM and SCOR to loco pilots (even without an SR) engg official to protect work spot

ex: greasing of fish plates / bridge painting, scattered renewal of sleepers

Category - III - interference to normal traffic /SR.

Ex .renewal of rails/sleepers, loading/un loading of ballast re girdering and welding of rail joints

Procedure for obtaining line block

- 1. AEN / PWI nominated shall apply to DRM for blocking of running line outside station limits.
- 2. Engg.branch shall co-ordinate with operating branch to issue `circular notice'. valid for 3 months.
- 3. if expires, fresh notice shall be obtained. If the work is taken up, it remains valid till the task is completed.
- 4. Two days before the work, DOM shall issue an a/c message indicating name of the engg.official, last train will be specified. in the case of daily work on re-laying a / c message valid for 7 days
- 5. Ack. of SMs, SCOR, TPC, CCC etc. shall be obtained on a/c message, other wise DOM shall stop the work. Material lorry may be allowed into the b/section
- Slots for integrated blocks for maintenance, least crowded time span have been indicated in WTT. Schedules for line blocks for the week- planned by Sr.DOM &Sr.DEN (co-ord) on previous week ends.
- 7. S&T , Elec. depts. shall plan simultaneously if safety is endangered, PWI can impose an emergency CO
- 8. SCOR will advise the Station Masters on either side who in turn will advise official-in-charge of the work about the commencement of the line block and the last train after the departure of which the line block will be taken up nominated official shall adhere to the block timings strictly.
- 9. SM shall issue Caution Order to all trains into the affected area general precautions
- 10.SCOR advice both SMs through a message of line block both SMs exchange messages with PNs about time & last train
- 11.On D/L, commutator shall be turned to TOL & caps placed. On S/L , `line block' collars placed on plunger.
- 12. Separate PNs taken for each unit and recorded in the authority red ink entries in TSR
- 13. Before permitting the block SMs shall ensure B/S is clear of trains if communication fails ,block shall not be permitted

Line block on field telephone

1. Permitted for any reason on controlled sections only.

- 2. Person nominated (not lower than PWI) in the circular notice shall only obtain line block.
- 3. DOM's all concerned message shall mention the name and last train
- 4. PN sheet shall be supplied by DRM & returned on completion of work.
- 5. Before leaving to the site he shall consult SCOR
- 6. After the nominated train is passed, spot shall be protected; PWI shall call SCOR and give his name, designation, circular notice reference no. etc.
- 7. SCOR shall then advice SMs on either side. SMs shall acknowledge by giving PNs SCOR shall record in the chart.. SMs will block the line and advice SCOR & engg. official on telephone.
- 8. Engg official then commence the work & keep in touch with SCOR
- 9. During control interruption engg official shall consult SM. SM will issue a written memo to block the line.
- 10. A material lorry may be allowed. A material train if mentioned in the circular notice may also be sent on T/462 OR T/A 462.
- 11.On completion PWI shall give "safety certificate" and a separate certificate that the block section is clear of material train
- 12. On completion of the work the engineering official-in-charge will contact the SCOR (SCOR will call both SMs) on the field telephone and then issue a message that track is certified fit for traffic, train working may be resumed. SCOR will issue train notice to both SMs and authorise them to cancel line block, resume normal working and obtain ack.
- 13. Extension of block engg official shall contact SCOR on field telephone and obtain the extension and in turn he shall send a written advice to SM on one end. SM shall advice SM on other end.

Line block on VHF/ portable radio communication

- a) Nominated engg. Official only to obtain block
- b) After the nominated train has passed, PWI shall protect the line (Obstruction) and call SM on VHF & give a PN.
- c) SM shall advice SCOR & SM at other end
- d) Once permission is obtained from SCOR ,SM shall advice PWI with a PN
- e) After completion of work and track made safe, remove protection convey a PN to his representative who is at station with a PWI signed written memo.
- f) Representative shall enter PN and time in the memo and hand over to SM
- g) SM will advise SCOR and SM of the other end and cancel the line block.

Emergency/no circular notice

SSE / SE / JE (P.way) shall give a written requisition to SM. SM shall co-ordinate with control for imposition of line block

Despatch of material train into block section

- Work & return -T / 462
- Work & clear next block station-T/ A 462 only one material train is permitted

Despatch of track tamping machine

- Work & return = T / 465
- Work & clear next block station = T / A 465 more than one machine is permitted
- T / 465(1st TTM) and CO s (for following units) -(return to same station) or COs for preceding and T / A 465 (last unit) (proceeding to next block station)

Despatch of tower wagon

- Work & return = T / 1708 and
- work & clear to next block station = T / A 1708
- More than one t.wgn is permitted
- T / 1708 (first tower wagon)+ CO s for following units(return to same station)or COs for preceding + last unit T/A 1708 (proceeding to next block station)

Speeds

- first TTM /T.wagon = normal speed and following = 25 / 10 kmph (Day /Night)
- SM receiving T / 462, T / 465, T / 1708 shall advice other SM under exchange of PN about block section clearance.

Integrated block

- Relevant authorities to be issued to different units
- CO mentioning preceding / following units & to maintain a gap of 150 mts.
 Each unit shall maintain 15 / 8 kmph. However only one unit is allowed along with TTM & T.wgn.

Shadow block

Relevant authorities issued by respective SMs. CO indicating the preceding / following units from both ends. Each shall maintain a gap of 150 mts & a good look out for obstruction from opposite side (15 / 8). Each unit shall return to the same side they started. No unit shall overlap the work spot. SMs shall collect back the authorities issued.

General instructions

- Official in-charge shall ensure that every unit has effective brake power fitted with effective communication like walkie talkie, CUG, field telephone etc.
- Right line despatch starter can be taken off.
- Wrong line pilot out memo.
- Every unit shall be protected at the work spot by a competent railway servant.
- If any unit is not moving ,it shall be protected by placing 2 detonators at 150 mts(10 mts apart) and competent railway servant stand at 45 mts on D/L , in-charge shall ensure that the units doesn't infringe the adjacent line
- No shunting is allowed towards the b / section where MT / TTM is working under block protection.
- All units start back at one time & maintain 150 mts gap.

Reception

- First unit on reception signal & following on calling-on or T 509, separately for each unit onto same line.
- Wrong line stop at opposite LSS & pilot-in memo separately for each unit onto same line
- on clearance, official in-charge shall give "safety certificate" in writing mentioning speed restriction if any
- SM shall advice SCOR & SM on other end about cancellation of line block, exchange messages with PNs, remove caps & resume normal working.

MARSHALLING (Appendix VIII)

I Wagons containing explosives

- 1 Maximum number of such wagons allowed by goods trains are ten, by mixed trains or parcel trains are three.
- 2. They shall be separated by dummy wagons as follows: Not less than three dummy wagons from , brake van, passenger coaches, wagons containing dangerous goods or inflammable articles and one from electric or diesel loco.
- 3. They shall be coupled close by each other as well as to other wagons.

b. Wagons containing petroleum and other inflammable liquids

- 1. No limit as regards o the number of such wagons.
- 2. Must be coupled closely.
- 3. Guard wagons: class A (flash point below 23°C)

From passenger coaches or brake van and other wagons containing explosives, dangerous goods and inflammable articles- not less than three

When hauled by Electric/diesel engines - not less than one from engine, BV and Passenger coaches

Class B (flash point above 23° C but below 65° C)

- 1. This wagon should be separated from Electric / Diesel Loco, B/Van, Pass Coach by one dummy wagon.
- 2. Compressed and liquefied gases by two wagons.
- 3. Explosives by three wagons.

Class C (flash point at 65° C and above)

When 8 wheeler B/V is used guard wagon is not required

c. Dead engines

- 1. Only one dead engine is permitted both on passengers and goods train.
- 2. It shall be attached next to engine only
- 3. Dead engine shall be manned by a competent railway servant not below the assistant Loco Pilot.
- 4. Dead engine is permitted in the section where double heading / triple heading is permitted.
- 5. In case of passenger carrying train, dead engines shall not be taken into account for the purpose of calculating brake power.
- 6. Shall not be attached by any superfast, Rajdhani/Shatabdi trains.
- 7. Brake power of dead engine must be 100%.

d. Marshalling of SLRs

- In case of Mail/Express trains, anti-telescopic or steel bodies SLRs must be marshalled as the last coach at both ends of the formations. In the absence of front SLR the coach next to train engine be kept empty and locked.
- In case of old design SLR (one side passenger portions other side design portion) it should be marshalled in such a way that the luggage portions I trailing outer most or next to engine.

- 3. In case of M/E trains two anti-telescopic or steel bodied coaches should be marshalled inside SLR at both ends. (Passenger trains one coach).
- 4. If wooden bodies SLR's to be used on ME trains it should be marshalled inside of two (incase of passenger one) anti-telescopic coaches.
- 5. If sufficient number of anti-telescopic SLRs are not available anti-telescopic/steel bodies SLR's to be provided in this order M/E trains, Main line passenger, Branch line passenger short trains.
- In case of short trains, SLR whether anti-telescopic steel bodies or not should be marshalled in middle. Outer most vehicle shall be 1(1st phase) or 2 (2nd phase) anti-telescopic/steel bodies coaches.

e. Marshalling of four wheelers

1. Single four wheelers must not be marshalled between two bogies, but a single four wheeler may be attached between the engine and a bogie vehicle to avoid delays in shunting en route.

Note: This rule is not applicable when ever banking engine/assisting not required engine is attached in rear of rear brake van.

- 2. A four wheeler coaching vehicle or goods wagon can be attached to a passenger train either in front i.e. next to engine or in the rear of the train.
- 3. When four wheeler is attached to the passenger train the maximum speed of the train should not exceed 75 Kmph on BG and 50 Kmph on MG.

f. Railway Officers saloons -

- 1. Shall not be attached to race specials, postal express trains and military specials. And also not permitted by AC SLR trains like sathabdi jana sathabdi etc..
- 2. Saloons of GM, HODs and CRS may be attached to any train except mentioned above.
- Not more than one saloon will be attached to a mail train.
- The saloons of Heads of Departments and Divisional Railway Managers shall ordinarily
 - be attached to Passenger, parcel and Goods trains.
- 5. COM's permission must be obtained for attaching their saloons to Mail or Express trains.
- The saloons of Divisional and other Officers may be attached to Passenger, Parcel and
 - Goods trains only.
- 7. Officers saloons may be attached to a light engine provided the saloon is fitted with

Vacuum/air brake and a tail lamp or a tail board is fixed.

- 8. A saloon can be attached to a train if the prescribed load permits it.
- 9. One saloon may be attached to a train in excess of the prescribed load but the actual tonnage must be shown in VG.
- 10. Saloons while being attached care must be taken to see the detention is minimum and attached operationally convenient.
- 11. Officers shall not take or send their saloons outside their jurisdiction without the prior consent of their Heads of Department and the COM.

BLOCK WORKING MANNUAL

Panel become blank (Appendix XI- 6)

- 1. Check the power supply, if it has failed
- 2. On electrified section change the switches to other AT or State Electricity supply.
- 3. On non-electrified section start generator.
- 4. If power is available and the fault continues, call the ESM/SI
- 5. Check the position of points and signals
- 6. Use crank handle to set the points and trains shall be dealt on authority T.369 (3b) duly clamping and pad locking the points.
- 7. If power failed and alternative supply is not possible, take action as mentioned above.
- 8. In non-electrified section, DC calling on signal has been provided, this signal can be taken off in case of power failure without starting generator, but it should be done after ensuring the correct position of the points.

Point indication flashing when point is operated (Appendix XI- 6)

- **1.** If the flashing continues for 10 seconds, restore the points to its original position. Try to operate the points 4 to 5 times from N to R and R to N.
- 2. If the flashing still continues physically verify the points at site and remove any obstruction in the points between the switch and stock rails.
- **3.** Again operate the points.
- **4.** If the flashing still continues, treat the point as defective and call for ESM/SI.

- **5.** Use crank handle to set the point to the required position and after setting they shall be clamped and padlocked.
- **6.** After setting the points the crack handle should be restored to HKT.
- **7.** After setting the points if 'N' or 'R' indication available signals can be taken off after clamping and padlocking.
- **8.** Other wise receive the train on authority T.369 (3b) after clamping and padlocking the points.

Route cancellation

Cancellation of route on Siemens panel (Appendix XI- 4)

- 1. Route cancellation procedure will be adopted to cancel the signalled movement or to change the route already set.
- 2. Before applying route cancellation ensure that the train has not passed the signal.
- 3. Press the concerned signal button **{GN}** and Emergency signal button **{EGGN}** to bring the signal back to **'ON'** position.
 - 4. Keep pressing 'GN' and 'EUUYN' buttons simultaneously till such time cancellation indication white dot appears by the side of the concerned signal.
- After white dot appears, release 'GN' and 'EUUYN' buttons and the flashing cancellation will become steady after an in travel of approximately 2 minutes.
- 6. Now press 'GN' and 'EUUYN' buttons. Keep 'GN' pressed and release 'EUUYN' and press concerned route button.
- 7. All track indications and white dot cancellation will disappear and the 'EUUYN' counter will record next higher number and the SM shall enter the counter number in the special register with reasons.

Route cancellation on Podanur panel (Appendix XI- 5)

- 1. Route cancellation procedure will be adopted to cancel the signaled movement or to change the route already set.
- 2. Keep the signal knob in normal position after ensuring that the train has not passed the Signal.
- 3. Press and release route cancellation button, white light indication appears below the counter and after **2** minutes route will be free.
 - 4. Route cancellation counter will record next higher number.
 - 5. Flashing white light indication below the counter will disappear.

- 6. SM shall record the counter number with all the particulars in the concerned register.
- 7. In case relay interlocked if route is locked after passage of the train, try to cancel the route by normal cancellation. In case route still remains locked cancel the route by calling on route cancellation and entries shall be in red ink TSR.

ROUTE CANCELLATION WHEN ROUTE LOCKED (Appendix XI- 4/SWR)

- At stations provided with relay interlocking the route may get locked up after the passage of the train due to track circuit failure
- 2. Try to cancel the route by normal cancellation method and if the route still remains unlocked, the same may be cancelled by 'calling-on' cancellation method as given below.
 - {A} Normalize home signal knob
 - {B} Reverse calling-on signal knob.
- {C} Press and release calling-on initiation button {COGGN}
 - {D} Normalize calling-on signal knob.
 - {E} Press and release the 'calling-on' route cancellation button.
- 3. A white indication appears near the 'calling-on' route cancellation button and after **240** seconds the route will get released.
 - 4. The 'calling-on' cancellation counter will record next higher number and the SM shall record the same in the special register with all the particulars.

VEHICLES RUNNING AWAY INTO THE BLOCK SECTION (BWM Part A-5.9,B-5.10,C-5.11/12)

- 1. SM when becomes aware that vehicles escaped into Block Section, shall give vehicles running away into the block section signal (six pause four/six pause five bell beats) to the other SM.
- 2. No train shall be allowed to enter Block section from either end.
- 3. If any relief engine has to be sent only after information is received that vehicle has come to a stop or after 30 minutes more than the running time of slowest goods train in that direction.
- 4. SM on receiving signal, acknowledge and take protective measures as may be considered expedient under the circumstances to prevent accident.
- 5. If station is on gradient falling towards next station, SM shall try to stop the vehicles by covering rails heavily with sand, earth or small broken stones for great distance and set points to loop line or dead end siding.

- 6. If can't be stopped, the trailing points set to force trail through them
- 7. If no train approaching or line is not on a falling gradient, the vehicles may be allowed to run through and warn the other SM.
- 8. If vehicle contain passenger shall not be set to dead end siding unless to prevent more serious accident.
- 9. On controlled section, SCOR be informed.
- 10. If portion of train or BV has run away detonators placed on track to attract attention of guard.
- **11.**When the obstruction has been removed, Train out of block section signal shall be sent

LC TROUGH CONTROL (BWM Part A-8.8,B-8.8,C-8.8)

- Whenever the station block instrument/phone is defective and no other means of communication is available, the SM shall immediately inform the SCOR & other concerned officials through a message.
- 2. Both SMs shall record all the particulars in TSR with red ink and exchange messages in a pro-forma as given in the Block working manual
- 3. The SCOR shall record the failure on the control chart and shall acknowledge while taking over / handing over the charge.
- 4. The SM who is having a train to dispatch will take permission from SCOR and the SCOR shall call the SM at other end on control phone and establish communication between both SMs.
- 5. Both SMs before granting / obtaining line clear shall identify each other by calling out their station names and also their full names.
- 6. Both SMs shall repeat the arrival and departure timings of last three trains to the SCOR, who shall cross check the timings with the control chart.
- 7. The SM who requires line clear shall clearly mention train number, description of the train {Express/Passenger/Goods} and also the direction {UP/DN}.
- 8. The SM at other end before giving line clear supported with a PN shall comply with all the conditions for granting line clear.
- 9. Both SMs shall record in TSR with red ink the train number in full, description, and arrival & departure timings of each train run between two stations during block failure.
- 10. Both SMs shall record the means of communication through which line clear is obtained or granted on the T/A 1425{outward} & T/B 1425{inward} documents.
- 11. After obtaining line clear the SM shall prepare the Paper Line Clear Ticket on Form No. T/C 1425 for UP direction & T/.D 1425 for DN direction and

- take the acknowledgement of loco pilot in T/A 1425 before handing over PLCT to him..
- 12. Both SMs shall record the 'Train Entering Block Section' and 'Train out Of Block Section' particulars in T/A 1425 & T/B 1425, TSR, communicate each other on control phone and also inform the SCOR.
- 13. All trains shall be stopped for issuing PLCT, the serial numbers of PLCTs issued to each train shall be recorded in remarks column of TSR against the entry.
- 14. Whenever line clear is cancelled, both SMs shall record the same in the 'D' column of T/A 1425 and T/B 1425 duly informing the SCOR.
- 15. The SCOR shall co-ordinate between both SMs to fulfill all the transactions and record all the PNs in the control chart which were issued by SM for granting line clear and also ensure that the block section is clear at the time of granting line clear.
- 16. Both SMs shall record the name of the Section controller in the remarks column of the TSR.

Line clear through VHF set. (BWM Part A-8.9,B-8.9,C-8.9)

- 1. Before actually signalling a train through VHF, the SM shall exchange messages in the proforma given in the BWM and record in red ink in TSR.
- 2. SM of both stations contact each other on common frequency/channel in their VHF sets and switch over to the freezed channel
- Common frequency/ freezed channel to each concerned shall be prescribed in the SWR depending on the location of station(whether on straight or branch line from junction)
- 4. Both SMs shall cross check PNs given for last three preceding trains, trains nos. and record these particulars in red ink in TSR.
- 5. SM at despatching end clearly mention train no. In full description and direction for which LC required.
- 6. SM at other end after complying conditions for granting LC shall grant LC supported by PN.
- 7. The train no., description, direction and arrival/departure of each train and PN obtained issued recorded in red ink in TSR by both SM's
- 8. SM record the means of communication in T/A.1425 and T/B.1425
- 9. After obtaining L/C SM prepare PLCT (T/C.1425 or T/D.1425) and deliver to LP taking his acknowledgement in T/A.1425
- 10. S.No. of PLCT mentioned in remarks column of TSR for each entry
- 11. SM's communicate train entering block section or train out of block section in TSR.

- 12. When L/C cancelled same to be recorded in 'D' column
- 13. All trains stopped for issue of PLCT
- 14. SM switch over to common channel after necessary transaction completed

PLCT working (BWM Annexure)

- Failure/suspension of B/I, LC shall be obtained by alternative means
- Both SMs shall exchange messages in the proforma and record in the TSR in red ink.
- Ensure that the entries in the TSR are complete and block section is clear
- The LC enquiry message for despatch (T/A 1425 out ward), received(T/B1425 inward) shall be written by both SMs with initials
- No abbreviation or curtailment of words or train description shall be used.
- The SM stamp should be affixed on PLCT
- All entries shall be made in red ink in TSR
- When block working is resumed make entry in red ink in TSR showing time and date of resumption
- Advise each other under exchange of PNs

Shunting or obstruction on double line in the block section in advance (right line)- Block Forward (G.R.1.02(9)).

Block forward (Rule 1.02.9) means to despatch a message from a block station on double line intimating to the block station immediately in advance the fact that the block section is obstructed or is to be obstructed.

- 1. SM X (sending station) will intimate about shunting/work.
- 2. If SM 'Y' (receiving/advance station) is prepared to allow the block section to be obstructed, he will give Private Number.
- 3. SM Y will turn the operating handle to Train On line position.
- 4. SM X will give block forward time and train entering block section time to SM Y.
- After completion of shunting SM X will give clearance time supported by PN.
- 6. SM Y will note the timings and PN and turn the operating handle to line closed position.

7. Entries shall be made in red ink in TSR by both SMs.

Shunting or obstruction on double line in the block section in rear (wrong line) - Block back (G.R.1.02 (8)).

Block back [Rule 1.02 (8)] means to despatch a message from a block station intimating to the block station immediately in rear on a double line or to the next block station on either side on a single line that the block section is obstructed or is to be obstructed.

- 1. SM X (sending station) will intimate about shunting/ work.
- 2. If SM 'Y' (receiving/rear station) is prepared to allow the block section to be obstructed, he will give Private Number.
- 3. SM X will turn the operating handle to Train On line position.
- 4. SM X will give block back time and train entering block section time to Y.
- 5. After completion of shunting SM X will give clearance time supported by PN and turns the operating handle to Line closed position.
- 6. SM Y will note the timings and PN.
- 7. Entries shall be made in red ink in TSR by both SMs.

Circumstances Block Instrument interrupted and block working suspended.

- 1. Call attention cannot be obtained on the block instrument.
- 2. The bell codes are received indistinctly or failed together.
- 3. When there is reason to believe that there is a contact between the block wire and any other circuit.
- 4. The instrument or its battery counter is found unlocked or seal missing.
- If the block instrument can be normalized before the arrival of the train.
- 6. When LSS lever can be reversed without line clear except token section.(Taking off LSS without line clear)
- 7. A train is required to enter the obstructed block section due to an accident or any other cause.
- 8. Operating handle cannot be turned to any of the three position in spite of correct process of operation (except in push button)
- 9. When a train arrives at a station without ATP.
- 10. Glass front of galvanometer/dial indicator if broken (except in token less Podanur BI)

- 11. When a material train/TTM/Tower wagon is required to be taken into a block section after line block has been imposed.
- 12. No deflection in the galvanometer for bell beats in token and token less handle type BI.
- 13. Line clear cannot be cancelled after correct operation.
- 14. If it is known that the instrument is defective in any way not specified above.

Token Block Instrument

- 1. Token broken/damaged
- 2. There is no token in the instrument.
- Token lost or over carried.
- 4. FSS/LSS key or LSS control key
- 5. Token cannot be extracted even after exchange of correct bell codes.

Token less Block instrument

- 1. Train on line buzzer fails
- Train arrival buzzer fails
- 3. Train on line indication fails to appear after the train has entered the block section.

Double line block instrument

- Indication of the TGT of X station does not correspond with TCF of Y station.
- 2. Whenever single line working is introduced.
- 3. When train entered block section on line clear and pushed back.
- 4. When the operating handle cannot be turned to TOL or 'Line Clear' or to 'Line Closed' in the process of granting or cancelling 'Line Clear'

Cancel last signal

The 'Cancel last signal' cancels the last signal given from the block station from which it is sent.

Where 'Is line clear' signal has been forwarded and it is afterwards found that the train to which it referred has to be detained for shunting or other purposes, or has to returned to block station from which that signal was sent, the 'Cancelling signal' shall be sent to the block station in advance, so that the previous signal may be cancelled.

a) Cancellation of line clear before the train enters block section

- 1. SM of X (sending station) shall ask consent for cancellation
- 2. Explain the circumstances supported by a Private Number.
- 3. SM of Y (receiving station) will give consent and repeat the PN.

I) Token Block instrument

- 1. Insert token in the block instrument,
- 2. SM will give cancel last signal code and prolong the last beat.
- 3. SM Y turn the operating handle to Line closed position and
- 4. Give cancel last signal and prolong the last beat.
- 5. SM X will turn the operating handle to line closed position.

ii) Daido token less handle type block instrument

- 1. SM X shall turn cancellation switch S-1 for cancellation from Normal to Reverse.
- 2. Wait for 120 seconds until 'Time Release' Indicator shows "Free".
- 3. Concerned counter registers next higher number.
- 4. Restore S-1 to normal and send 'Cancel last signal.'
- 5. Keep PB 1 and PB 2 pressed for 5 seconds on the last beat.
- 6. SM Y will turn the block handle to line closed position and
- 7. SM Y will give cancel last signal and keep pressing PB1 and PB 2.
- 8. SM X will turn the block handle to line closed position.

iii) Podanur/Kyosan push button block instrument

- 1. SM X shall operate the 'Cancellation' button/ along with Bell Code Button (BCB).
- 2. Counter registers next higher number.
- 3. Time release 'Free' indication appears after 90 seconds
- 4. SM X give 'Cancel last signal' bell, press 'Line closed' button and BCB
- 5. At the end of the last beat, SM Y will co-operate by pressing 'Line closed' button and Bell Code Button till 'Line closed' indication appears.
- 6. 'Line closed' indication appears in both the block Instruments.
 - 7. Acknowledge 'Cancel last signal' bell by SM Y.

iv) Double line SGE block instrument

- 1. SM X shall give 'Cancel last signal'.
- 2. SM Y will acknowledge 'Cancel last signal';
- 3. Holding the bell plunger pressed during last beat, SM Y turn the operating handle to 'Line Closed' position.
- 4. TCF dial displays 'Line Closed' indication at Y.
- 5. TGT dial displays 'Line Closed' indication at X.

b) Closing of Block Section after pushing back of the train:

- 1. SM X shall advise about the train pushing back.
- 2. SM Y will note the advice.
- Put back all relevant signals to 'ON' position.
- 4. SM X on complete arrival of train ensures the conditions for closing the block section are complied give clearance time supported by Private Number.
- 5. SM Y will repeat PN and note arrival time.

i) Token Block instrument

- 1. SM X will give 'Train out of block section' signal and prolong last beat.
- 2. SM Y will turn operating handle to 'Line closed' position.
- 3. SM Y prolongs the last beat.
- 4. SM X will turn the Operating handle to 'Line closed' position.

ii) Daido token less handle type block instrument

- 1. Before pushing back SM X shall operate S2 switch
- 2. Take off reception signals.
- 3. On complete arrival of train restore the S-2 to normal.
- 4. Send 'Train out of block section' signal through PB 1 and keep PB 2 also pressed for 5 seconds on the last beat.
- 5. SM Y turn block handle to 'Line closed' position.
- 6. Acknowledge 'Train out of block section' signal and press PB 1 & PB 2 for 5 seconds on the last beat.
- 7. SM X turns the block handle to 'Line closed' position.

iii)Podanur/Kyosan push button block instrument

- 1. SM X shall take 'OFF' the reception signals.
- 2. On arrival operate the 'Cancellation' button along with the Bell Code Button.
- 3. Counter registers next higher number.
- 4. SM X will give 'Train out of block section' signal; press BCB along with 'Line-closed' button
- 5. At the end of last beat, SM Y will press BCB and 'Line closed' button till 'Line closed' indication appears.
- 6. 'Line closed' indication appears at station X.
 - 7. SM Y will acknowledge 'Train out of block section' signal

Bell codes (Special signals)

Ref.No	Indication	Code how signaled and ack.
5	(A) Cancel last signal (B) Signal given in error	00000
6	Obstruction danger signal (general)	000000
7	Stop and examine train	000000 - 0
8	Train passed without tail lamp or tail board	000000 - 00
9	Train divided	000000 - 000
10	Vehicles running away in wrong direction on double line or into the block section on single line	000000 - 0000
11	Vehicles running away in right direction on double line	000000 - 00000
12	Testing	000000000000000

ACCIDENT MANUAL

Accidents: For the purpose of railway working, accident is an occurrence in the course of working of railway which does or may affect the safety of the railway, its engine, rolling stock, permanent way and works, passengers or servant or which affect the safety of others or which does or may cause delay to train or loss to the railway. For statistical purposes accident has been classified in categories from 'A' to 'R' excluding 'I' and 'O'.

Classification of accident: Accident is classified under the following heads:

- 1. Train accidents
- 2. Yard accidents
- 3. Indicative accidents
- 4. Equipment failure
- 5. Unusual incidents
- 1. Train accidents:

Train accident is an accident that involves a train. Train accidents further divided as

- a. Consequential train accidents and
- b. Other train accidents
- Consequential train accidents: Having serious repercussions in term of loss of human life, injury, loss to railway property or interruption to rail traffic.

Collision - A-1 to A-4, Fire - B-1 to B-4, Level crossing - C-1 to C-4 Derailments - D-1 to D-4. Miscellaneous - E-1

b. Other train accidents: Not covered under consequential train accidents.

B-5, B-6, C-5 to C-8, D-5 and E-2.

- II. Yard accidents: Take place in yard and does not involve train- A-5, B-7, C-9 and D-6.
- III. Indicative accidents: They are serious potential hazards.

Averted collision - F

Breach of block rules - G

- Train entering block section without any authority or with improper authority
- Train received on blocked line not constituting an averted collision.
- Train received on/or entering wrong line at a station or catch siding or slip siding or sand hump etc.,

Train passing signal at danger – H

IV. Equipment failure: Failure of loco, rolling stock(J), permanent way(K), OHE(L), S&T equipment.(M)

J, K, L and M.

V. Unusual incidents: Related to law and order but not resulted into the train accidents –

Train wrecking/sabotage (N), Casualties (P), Other incidents (Q) & Misc-cattle run over(R).

Engine Failure and Time Failure:

- (a) An engine is considered to have failed when it is unable to work its booked train from start to destination. Reduction of the load for a part of the journey would constitute an engine failure, provided this is due to a mechanical defect on the engine or mismanagement on the part of the engine crew.
- (b) When an engine causes a net delay of one hour or more throughout the entire run owing to some mechanical defect or mismanagement on the part of the engine crew, it would constitute a time failure. Trains stalling due to engine trouble or mismanagement by the engine crew necessitating working or the train in two portions would constitute a time failure provided the net loss of time on the entire journey exceeds an hour.

Accident Sirens

- 2 long Accident takes place in the loco shed in traffic yard adjoining loco shed.
- 2) 3 long Accident takes place at out station but main line is clear.
 Only ART required.
- 3) 3 long one short Accident takes place at out station but main line is clear and the relief train is to be turned out with medical van.
- 4) 4 long Accident takes place at out station and main line is blocked and the relief train is to be turned out without medical van.
- 4 long one short Accident takes place at out stations the main line is blocked and the relief train to be turned out with medical van.

The duration of long given shall be 1/2 minute and 5 seconds for short with 1/2 minute interval between two successive calls.

MRT and ART

- MRT Stands for medical Relief train

ARMV-I Accident relief medical van(MRT)

- MRT Comprises of c) Medical van b) Auxiliary Van

ART Stands for Accident relief Train

- SPART Self Propelled Accident Relief Train

- ART Comprises of

i) Crane ii) Hydraulic rerailing equipment (MFD or LUAS)

iii) Power and tool van iv) engineering equipment van

v) Mechanical equipment van

vi) Electrical equipment van vii) Staff kitchen car and brake van

MFD stands for-Maschiven Fabrick Deutshland

- Mock drills shall be conducted once in 3 months
- ART shall be turned out within 30 minutes during day and within 45 minutes during night.
- MRT shall be turned out within 15 mts with a direct despatch facility and within 20mts without direct despatch facility.

a) Serious accidents:

Accidents to a train carrying passengers which is attended with loss of life or with grievous hurt to a passenger or passengers in the train, or with serious damages to railway property of the value exceeding Rupees Two Crores. Any other accident which in the opinion of the Chief Commissioner of Railway Safety or Commissioner of Railway Safety requires the holding of a inquiry by the commissioner of Railway Safety shall also be deemed to be a serious accident. However the following shall be excluded.

- Cases of trespassers/passengers run over or /and injure or killed through their own carelessness.
- b. Cases of railway servant or other persons holding pass/tickets are killed or grievously injured which travelling outside rolling stock but excluding vestibule or run over at LC or elsewhere on track by a passenger train.
- c. No railway servant/passenger killed at LC gate accident unless CRS is of the opinion to hold an inquiry by CRS.

b) Averted collision:

- 1. It is a circumstance under which, but the vigilance shown by any person or persons, a collision would have occurred.
- 2. Collision was averted due to the vigilance shown by any person or persons.
- 3. Averted collision may be in the block section or with in the station limits between the trains or between a train and an obstruction.
- 4. If, outside the station limits, the distance between the two trains or the train and obstruction is 400 mts or more- it may not be treated as an averted collision.
- 5. If, within the station limits there is intervening stop signal at danger governing the moving train and that moving train averted the collision by obeying the stop aspect may not be treated as an averted collision
- 6. Averted collisions come under indicative accidents.
- 7. Inside station limits the SM shall immediately reckon the distance between the two trains or between train and obstruction in the presence of Loco Pilot and Guard and enter it in the station Diary. In case of outside station limits the Guard of train shall reckon the distance between two trains or train and obstruction in the presence of Loco Pilot and enter in the CTR.

Duties of Station Master in case of serious accident to passenger carrying train?

DUTIES OF SM IN CASE OF SERIOUS ACCIDENT

I. OBJECTIVES TO BE ACHIEVED

- 1. Save life and alleviate suffering.
- 2. Protect property including mails.
- 3. Provide succor and help to other passengers at the site of accident.
- 4. Ascertain the cause of accident, and
- 5. Restore through lines of communication.

II. DUTIES OF SM.(SCR DM Plan)

- 1. Ensure to put back the signals clamp and pad lock the points against the line on which accident took place and also arrange to protect adjacent line if required.(Accident in the yard)
- 2. Ensure to put back the signals controlling the movement of trains entering into affected block section and no train shall be allowed into obstructed block section except relief trains.
- 3. Note the position of signals, points, levers and record the same.

- 4. Put 'Line blocked' lever collars in the cabin and on SMs slide control.
- 5. The following information shall be collected and repeated to the control office by the SM,
 - A] Time of accident, location with KM number and between stations.
 - B] Line UP or DN, Single / Double line. And Gauge BG or MG,
 - C] Train / Trains involved i.e. Mail / Express / Passenger / Goods / Mixed train etc.
 - D] In case of goods train type of wagons involved.
 - E] Nature of accident viz. Collision, Derailment, LC gate etc.
 - F] Causalities / Injured.
- 6. If any accident falls under section 113 of Railway act 1989, SM shall inform DM, SP, Police station.
- 7. SM shall fill up the above information on form no, ACC-I before repeating to the control.
- 8. Call ART / MRT as the case may be.
- 9. Arrange first aid and take the assistance from staff qualified in first aid.
- 10. Call local doctors and inform dispensaries and hospitals.
- 11. Arrange immediate transport of injured to the hospitals / dispensaries.
- 12. Arrange shelter for injured and make a list of dead and injured
- 13. In case of suspected sabotage, preserve clues, inform local police, district magistrate, SP, CSC of railways and GRP etc. .
- 14. Arrange photographer and commence restoration work after getting clearance from police.
- 15. Arrange drinking water and catering to the passengers and arrange to protect their luggage.
- 16. Assist ladies, children, and aged people and injured and also arrange to issue complementary passes.
- 17. Open information centre and assistance booth to give the particulars of passengers injured / died and also display the names of injured / died at the station.
- 18. Arrange tarpaulins to cover goods and white cloth to cover dead body and announce through PA system about the diversion and regulation of trains.
- 19. Arrange ex-gratia amount to the injured and kin of the dead as per the extant rules and cash can be drawn from station out standings.

WEATHER WARNING

- 1. Whenever storms, gales or heavy rainfall are expected the meteorological department issues telegram of warning.
- 2. Rainfall above 5 cm in 24 hours is considered as dangerous.
- 3. Heavy wind velocity above 65 kmph is considered dangerous.
- 4. SCR is divided into 7 zones for the purpose of weather warning.
- Weather warning telegram classified as 'XXW' (weather warning) or 'OOO' weather immediate.
- State meteorological centers functions at Hyderabad (AP), Bangalore (Karnataka), Mumbai (M.S) and Cyclone warning centre at Visakhapatnam.
- 7. These telegrams are issued to the central control office and divisional control offices concerned.
- 8. The Chief Controller shall give the copy of message to all controls i.e. Engineering Control, other controls and Divisional Control office concerned. It is the responsibility of these controls in their turn, to inform the officers, Supervisors and all concerned pertaining to their departments for taking necessary steps to be in readiness for meeting any eventualities.
- 9. The Chief Controller of the division shall give the copy of message to all controls i.e. Engineering Control, other controls. It is the responsibility of these controls in their turn, to inform the officers, Supervisors and all concerned pertaining to their departments for taking necessary steps to be in readiness for meeting any eventualities.
- 10. The Section Controller shall repeat the message to Station Masters on section likely to be affected and record the names of Station Masters on duty to whom the telegram has been repeated
- 11. On receipt of weather warning from SCOR, SM take action as follows:
 - i. SM where AEN/PWI are headquartered immediately hand over a copy of verbatim telegram and obtain acknowledgement
 - ii. If they are not available at HQ SCOR advised who shall be responsible to repeat.
 - iii. SM and explains the gang mate and obtain his acknowledgement.
 - iv. A register(Weather warning Register) maintained at station in prescribed Performa includes
 - A. Date & time of receipt
 - B. Text of message in full

- C. Names & designation of officials to whom message repeated and their acknowledgement taken.
- D. Suitable action by PWI/Gang.mate will be taken including introducing monsoon patrolling
- **12.** A copy of the message on which acknowledgement is obtained should be pasted in the Weather Warning Register

Over Dimensional Consignment [ODC] (IR Operating Manual/WTT)

- 1. A consignment the dimensions of which exceeds the standard moving ones is called an over dimensional consignment [ODC] or Infringed Standard Moving Dimensions [ISMD].
- 2. An over dimensional consignment is one which, when loaded upon a truck with lashing and packing, infringes the standard moving dimension at any point on the entire route from the booking station to the destination.
- 3. ODCs are classified in different categories according to the extent to which the clearance in respect to length, width and height of any consignment.
- 4. The clearance referred to above is of two types gross clearance and net clearance.
- 5. Gross clearance means the extent of clearance when the consignment is stationary and the net clearance means the extent of clearance as after allowing for horizontal lurching and vertical bouncing.
- Classification of ODC:

Gross clearance:

Class 'A' - With gross clearance of 22.8cm (9inches) and above

Class 'B' - With gross clearance of 15.24 cm (6inches) and

above but less than 22.86 cm (9 inches)

Class 'C' - With gross clearance of less than 15.24 cm (6 inches)

but not less than 10.16 cm (4 inches)

Class	Clearance	Sanction	Time of	Speed[Escort
		Authority	Movement	BG	MG	
A	Net clearance of 150mm (6") and above	СОМ	Day/Night	75	25	Not Necessary
В	Net clearance of NLT 75mm (3") & NMT 150mm (6")	COM/CE	Day/Night	40	25	PWI, TXR, TI/Spl.Gd, OHE official in OHE area
С	Net clearance of less than 75 mm (3")	COM,CE CRS	Day only	25	15	SSEs(PWAY, C&W, S&T, OHE) TI

- 7. Whenever ODC consignment is offered for booking, SM shall verify the consignment.
- 8. Apply to Sr.DOM who shall obtain sanction from competent authority.
- Application must show length width, height & weight of load accompanied by sketch.
- 10. While comminuting sanction for movement, route through which it has to be moved mentioned.
- 11. Restrictions according to class of ODC must be strictly observed.
- 12. It should be loaded carefully and avoid change of shifting enroute.
- 13. While examination by SE(C&W) he must see load is well secured, within CC of wagon, axle load restriction & under gear of wagon.
- 14. After loading Sr.SE(C&W) advise SM of various dimensions & issue 'fit to run' certificate for movement.
- 15. SS/SM inform Sr.DOM and office of COM
- 16. Operating Branch arrange to advise COM of other railways.
- 17. SS/SM shall furnish full particulars of wagon to control office.
- 18.CO given to Guard & LP to observe any other speed restriction and precautions to be observed.

19. Movement:-

- i. Will be moved only after getting approval from competent authority.
- ii. The Number of wagon entered in Red ink in VG and handover to quard.

- iii. SS/SM to advise SCOR, the train No.
- iv. Dy Chief Controller informs adjacent control office and sees it is moved only through authorized route.
- v. Shunting of ODC to be avoided. Loose and rough shunting is prohibited.
- vi. When ODC is detached, SM and Guard are responsible for safe placement and securing.
- vii. The load must be evenly placed when more than one wagon used.
- 20. For the movement of ODC a minimum clearance of 390 mm has been laid down in case of 25 KV AC traction. If the clearance is less than 390 mm up to 340 mm, speed shall not exceed 15 Kmph and OHE staff escort is required. If it is less than 340 mm ODC has to be moved with power of at a speed of 15 Kmph.
- 21.A circular shall be issued to all stations on the route to reach them sufficiently in advance. ODC shall be normally cleared by through goods trains.
- 22. 'C' class ODC shall proceed with a restricted speed of 5 Kmph while passing through a station, yards, curves, gradients and turnouts.
- 23. The Guard shall not allow the train to enter into electrified section (clearance is less than 340 mm) until permit to work is received by him. SM at starting point shall advise the Loco Pilot in writing to follow the instructions of authorised person (who will give permit to work) to stop the train as and when required.

FIRST AID

The immediate treatment given to the victim of an accident or sudden illness before the arrival of the doctor is called first aid.

Aim / Objectives:

- Save the life.
- Promote the recovery.
- Prevent the worsening of the condition.
- Arrange transport to shift him to hospital

Contents of the First Aid box:

1.	Set of splints	:	1	
2.	Roller Bandage		:	10
3.	Triangular bandage	S	:	4
4.	Tourniquet/Rubber	band	dages	: 2
5.	Cotton Wool	:	4	
6.	Safety Pins	:	10	
7.	Adhesive Dressing	:	20	
8.	Paracetamol Tab	:	20	
9.	Diazepam Tab		:	10
10.	Antiseptic Cream	:	1	
11.	Injury Card	:	1	

Types of accident relief medical equipment:

With a view to provide prompt medical aid, the following types of accident relief medical equipments are provided in our railways.

- 1. Scale one medical equipments (MRV) are available at nominated stations mentioned in working time table.
- 2. POMKA (Portable Medical Kit for Accidents) available in all health units, poly clinics, sub-divisional, divisional and zonal hospitals.
- 3. Scale two medical equipments (ARME) are available at specified stations in boxes mentioned in working time table.
- 4. First Aid boxes are provided with station masters, passenger carrying train guards, workshops, marshalling yards, loco sheds and C&W depots.
- 5. Special First Aid boxes are provided in all long distance super fast, shatabdi, rajdhani expresses, Dy.SS (Commercial), AC coaches of some of the nominated trains.
- 6. First Aid boxes for gang men.
 - First aid boxes available with station masters and guards of passenger trains are to be inspected by ADMO once in a month.

- The augmented first aid box is available with train superintendent, AC coach attendant, Dy. SS (Comma).
- This box contains around 49 items and this is to be utilized for giving medical aid to the passengers by a doctor only.
- Keys of the first aid boxes for locations such as stations, marshalling yards, workshops, loco sheds, carriage and wagon depots etc, which will be kept with the supervisors on duty.
- The first aid boxes with guards of train carrying passengers will have no keys.

Utilization of first aid box:

Splints:

These are used to immobilize and support the fractured limbs.

Roller Bandages:

It is used to retain dressings and splints in position

Triangular Bandage:

- To retain dressings and splints in position and to immobilize the fractures.
- To support an injured pact or in the form of slings.
- To control bleeding.
- To reduce or prevent swelling.
- To assist in the lifting and carrying of casualties. Mainly used as bandages like head bandage, chest bandage, shoulder bandage, elbow bandage, hand bandage, hip bandage, foot bandage etc. It is also used as slings like arm sling, triangular sling and cuff and collar sling.

Tourniquet / Rubber Bandage:

It is used to stop bleeding and to stop spreading of poison when snake bites. It is used only for hands and legs. It is to be released at regular interval.

Cotton wool:

It is used to clean/pad the wounds. It is also to be utilized to absorb discharges when there is a wound.

Safety Pins:

It is used when Triangular bandage used for victim.

Adhesive Dressings:

It is used for minor & superficial wounds only.

Paracetamol Tab:

These are used to relieve minor pains.

Diazepam Tab:

It is a sleeping pill to be used in case of severe pains such as fractures etc.

Antiseptic Cream:

It is used to minimize or prevent infection to wounds.

Injury Card: It is for maintaining the account of the first aid box items.

Rules of First Aid:

The best advice to the First Aider is Make Haste slowly.

- a) Reach the accident spot quickly.
- b) Be calm, methodical and quick.
- c) Look for breathing, bleeding and shock.
- d) Start artificial breathing if casualty not breathing stop bleeding and then treat the shock .Avoid handling of the casualty unnecessarily.
- e) Reassure the casualty.
- f) Arrange for despatch to the Doctor or to the Hospital.
- g) Do not attempt too much. Give minimum assistance so that the condition does not become worse and life can be saved.

The three emergency situations where a casualty is especially at risk because of interference with vital needs are:

- a) Lack of breathing and / or heart beat.
- b) Severe bleeding
- c) A state shock.

Steps to be followed while rendering effective help to a person who met with an accident.

- D-Danger
- R-Response
- A-Airway
- B-Breathing
- C-Circulation of Blood.
- 1. Remove the casualty from the danger; shift him / her to a safe place.
- 2. Find out whether the casualty responding or not. If responds he / she is conscious otherwise unconscious.
- 3. If unconscious check ABC if any failure restore artificially immediately.
 - AIRWAY- Airway may get blocked due to
 - Tongue falling back
 - Foreign body in the airway

To check airway

- Lay the casualty on his back
- Open the mouth and see in side
- If tongue fallen back tilt the head slightly back, to bring the tongue to its normal position and open the mouth.
- If any foreign body visible in side the mouth it is to be removed by inserting two fingers in to the mouth carefully.
- After clearing the airway the casualty to be put in recovery position.
- Once air way clear breathing starts automatically.

Breathing

- Look for the person's chest to rise and fall.
- Listen for the sounds of inhaled or exhaled air.
- > Feel for exhaled air by putting your finger near the casualty's nose
- If no breathing give two inflations of artificial respiration.

Circulation

- Feel for a pulse, by gently pressing two fingers (do not use the thumb) on the person's neck between the Adam's apple, or voice box, and the muscle on the side of the neck.
- If you are not feeling the pulse it indicates that heart not functioning
- Restore the heart through cardiac massage

ASPHYXIA (SUFFOCATION)

Definition:

When lungs are not getting sufficient fresh air, important organs of body mainly brain deprive of oxygen, it is a dangerous condition called asphyxia.

Causes:

- Drowning
- Breathing polluted air
- Pressing of wind pipe (Hanging, Throttling and Strangulation)
- Choking
- Pressure/weight on chest.
- Electric shock
- Some poisons.

Signs and Symptoms of Asphyxia/Suffocation:

- Low / No Breathing
- Blue colour of cheeks and lips with congestion of face.
- Swelling of veins at neck.
- Unconsciousness.

General Treatment for Asphyxia:

- Remove cause from casualty or casualty from cause.
- Ensure more fresh air (By opening doors and windows and removing the people surrounded); loosen the tight clothing at chest and neck regions.
- Start artificial Respiration without wasting even few seconds.
- Arrange medical aid.

Note:- (1). Normal Breathing (Respiration) Rate 15 – 18 times per minute.

(2) Normal Heart Beat/pulse rate 72 times per minute.

Methods of Artificial Respiration:

- Mouth to Mouth Method of artificial respiration
- Mouth to Nose Method of artificial respiration

Mouth to Mouth Method of Artificial Respirations:

- Place the casualty on his back on a plain and hard surface.
- Sit by the side of the face and place the hand by the side of chin and tilt the head slightly back so that clear ventilation at throat.
- Cover the casualty's mouth with clean cloth and pinch the nostrils.
- Open your mouth and take fresh air and cover the lips of casualty with your lips and blow the air into the mouth of casualty @ 10-12 times per minute.
- While blowing ensure that nostrils are pinched and chest is rising. If chest
 is not raising it indicates some obstruction in air passage clear the air
 passage and restart mouth to mouth artificial respiration. This process to
 be continued till the normal breathing resumed or Doctor arrives which
 ever is earlier.

Mouth to Nose method of artificial Respiration:

This method will be adopted only when mouth can not be opened due to injury inside the mouth or jaw fracture or the person suffering with fits convulsions. In this method blow the air into the nose of the victim by closing the mouth of the victim with fingers.

WHEN HEART STOPS FUNCTIONING

If the Heart is not working you will notice the following:

- The face is blue or pale.
- Heart beat and pulse at the root of Neck (carotid pulse) are not felt.

- **Note:-** (1). Even if the casualty is breathing but the breathing is not normal, it is wise to start artificial respiration.
 - (2). Do not begin heart compression until you are sure that the heart has stopped beating.

External heart compression or External cardiac massage:

- 1. Place the casualty flat on his back on the ground and remove the cloths over the chest.
- 2. Sit on the right side of the casualty on your knees
- 3. Feel and mark the lower part of the sternum.
- 4. Place the heel of your left hand on the marked point make sure that the palm and fingers are not in contact with chest.
- 5. Place the heel of the right hand over the left hand.
- 6. Push the sternum towards the spine. It can be pressed upto 1 to 1.5 inches.
- 7. Adults should be given about 100 compressions per minute. For children from 2 to 10 years compressions with one hand heel will be enough, but compressions should be @ 100 times per minute. For infants below 2 years compressions with two fingers is good enough and applied at a rate of 100 times per minute.
- 8. Press firmly but carefully, carelessness may cause injury to ribs.

If the treatment is effective

- colour will become normal.
- Pupil will contract.
- Carotid pulse begins.

CPR (Cardio Pulmonary Resuscitation)

If heart and breathing both are failed give CPR - Cardio Pulmonary Resuscitation Give 30 heart compressions of cardiac massage than two inflations of artificial respirations and repeat the process.

SHOCK

Definition:

Shock is severe depression to vital functions of organs like brain, heart, lungs etc. due to less blood supply to the brain.

Causes:

- Wounds
- Fractures
- Burns & Scalds
- Snake bite
- Sunstroke

- Heart attack
- Dog bite
- Electrical shock etc.

Sign and symptoms of Shock:

- 1. Giddiness (symptom)
- 2. Pale colour of face (Sign)
- 3. Coldness (symptom)
- 4. Cold clammy skin (skin touch to cold with seating) (sign)
- 5. Rapid and weak pulse (sign)
- 6. Nausea (vomiting sensation) (symptom)
- 7. Vomiting (sign)
- 8. Unconsciousness (stupor/coma) (sign)

General Treatment for Shock:

- 1. Reassure (Encourage) the casualty if he is conscious.
- 2. Keep the casualty in supine position (Face upward) and head lower than body by raising the foot side of cot and head must turn to one side. Head lower to supply more blood to brain and turn one side to avoid tongue fall back and block wind pipe.
- 3. Cover with blanket to warm. Do not use hot water bottles, do not massage and do not give alcoholic drinks.
- 4. If he is conscious give sips of water, tea / coffee on request but do not give if suspects any operation.
- 5. Give pain relievers and arrest bleeding if necessary.
- 6. Arrange medical aid.

WOUNDS AND HEMORRHAGES (BLEEDINGS)

Definition:

Wound is caused due to breakage of skin / tissue.

Types of Wounds:

- Contused Wounds
- Lacerated Wounds
- Punctured Wounds
- Incised Wounds.
- 1. <u>Contused wounds</u> are caused by blunt instruments where there is no opening. Treatment put an ice piece over the wound.
- 2. <u>Lacerated wounds</u> are caused by irregular edges of instruments like glass pieces metal pieces, machine injuries, animal sites and occurrences where the edges of wound is irregular. Clean the wound with water and

- pick any floating foreign body. Cover the wound with a clean cloth or apply antiseptic cream.
- 3. <u>Incised wounds</u> are caused by sharp edged instruments like razor / knife where the edge of wound is in straight line. Loss of blood is more hence arrest the bleeding immediately.
- 4. <u>Punctured wounds</u> are caused by sharp edged instruments like needles, nails and most of gun-shot wounds where less opening and more deep. If any wound on the chest to be covered and packed with a pad and ensure proper blood supply to brain.
 - The circulatory system consists Heart, arteries, veins and capillaries.
 - Heart beat rate 72 times per minute average.
 - Pulse rate also 72 times per minute average.
- While noticing the pulse we have to observe rate, rythm and strength.

Types of Bleedings (Hemorrhages):

- Artery Bleeding Bright red in colour and flow in jets.
- Vein Bleedings Dark red in colour and flow continuously.
- Capillary Bleedings Red in colour and oozing from all parts of wound.

According to the place of wound bleeding are two types:

- External bleeding
- Internal bleeding

Danger of wounds:

- It allows precious blood to escape from body.
- It permits harmful bacteria/virus or other injurious agents to enter into body.

Methods to arrest Bleeding:

• Direct Pressure Method- Whenever a person suffering with external bleeding and wound is free from any foreign body direct pressure method to be used for arresting the bleeding. Clean the surroundings of the wound. Put a dressing/pad and press the wound. Bleeding gets stopped

Indirect Pressure Method-

It is applied by two ways

- > By using Tourniquet bandage
- > By pressing Pressure Points

For the amputated limbs, when a foreign body in the wound which can not be removed, very big wound and direct pressure method fails. Tourniquet bandage is used to stop bleeding for hands and legs only. For other parts pressure points to be pressed. Tourniquet bandage to be tied

above the wound towards the heart side at single bone area. It is to be relaxed once in 15 minutes.

Important Pressure Points:

- 1. Carotid pressure point on the neck either side of voice box.
- 2. Sub-clavian pressure point on the inner end of collar bone.
- 3. Bronchial pressure point. on the inner side of upper arm.
- 4. Femoral pressure point on the thigh bone.

General Treatment (First Aid) to Wounds:

- 1. Place the victim in sitting/lying position and elevate the injured part if possible.
- 2. Expose the wound and clean the wound and surrounding area but do not disturb blood clot if already there.
- 3. Remove any foreign bodies which are floating.
- 4. Arrest bleeding by applying pressure directly on the wound by putting a pad.
- 5. If bleeding could not be controlled by direct pressure method or if you find any foreign body inside the wound or wound is too big apply indirect pressure method.
- 6. Apply antiseptic cream, dressing and bandage.
- 7. Immobilize the part where it is possible.
- 8. Give pain relievers and treat for shock.
- 9. Arrange medical Aid.

Nose bleeding Treatment (Hemorrhage):

- 1. Advice the victim to take breath through mouth.
- 2. Place the victim near a window or against current of air in sitting position with the head slightly bent forward.
- 3. Pinch the junction of the nose just below the hard part.
- 4. If available put ice piece over the nose or a wet cloth.
- 5. Warn him not to blow the nose.
- 6. Do not block the nostrils.
- 7. Arrange medical aid.

Ear bleeding Treatment:

- 1. Place the victim on his back.
- 2. Do not block the ear passages
- 3. If one ear bleeding turn the head to the same side from which blood is coming out. and see that the affected ear is down.
- 4. If both ears bleeding keep face upward and head little bit low for free drainage of blood and raise the legs.
- 5. Do not block the ear.
- 6. Arrange medical aid.

Internal Bleeding:

Symptoms of internal bleeding

- Giddiness.
- Skin becomes pale, cold and clammy.
- Pulse gets rapid but very weak.
- Sweating, Thirsty, feels vomiting sensation.
- Become unconscious.

Treatment for internal bleeding:

- 1. If the person id unconscious, check air-way, breathing and circulation of blood. If any failure is noticed, restore them.
- 2. Lay him on his back and raise the legs by using pillow to enable the blood supply to the brain.
- 3. If he is conscious lay him on his back and raise the legs by using pillow to enable the blood supply to the brain.
- 4. Shift him to hospital as early as possible.

Head injury:

As a result of head injury, blood and brain fluid may flow out of the nose, ear or mouth.

Symptoms:

- Giddiness.
- Skin becomes pale, cold and clammy.
- Pulse gets rapid but very weak.
- Sweating, Thirsty, feels vomiting sensation.
- Become unconscious.

Treatment:

- Ask the person not to blow his nose.
- Do not pack ear or nose.
- Lay the person on the affected side.
- Ensure tongue should not fall back.
- If any ear bleeding noticed, do not block the ear passage.

BURNS AND SCALDS

Definition:

Burn is an injury caused by

- Dry heat such as fire / flame
- Friction touching speedy moving objects
- Corrosive (burning nature) chemicals like acids / alkalis
- Touching an object which was charged with high tension electric current.

Scald is an injury caused by moist heat such as hot water, milk, oil, tar, steam etc.

Degrees of burns:

1st degree - Redness of skin, blister formation

2nd degree - Internal tissue damage

3rd degree - Complete charring of part.

General treatment for burns and scalds:

• If a person's cloth catches fire do not allow him to run. Pour plenty of water or gently place him on ground and roll him slowly to put off flames.

- Cool and clean the affected area with wet cloth / cotton or flood with water or dip the effected area into water if it is possible.
- Remove any constraint articles like bangles, rings, watches immediately.
 Otherwise they can not be removed later.
- Remove the burnt cloths by cutting which is not stick to the skin.
- Cover the area preferably with clean cloth but do not disturb blisters.
- Do not apply antiseptic cream for major burns
- If he is conscious give water with pinch of salt to make good of lost salt and water, weak tea with more sugar also may be given if he is not diabetic patient.
- For major burns do not apply antiseptic cream.

"If you don't like something, change it. If you can't change it, change your attitude. Don't complain"

FRACTURE, DISLOCATION, SPRAIN AND CRAMP

Definitions:

- Fracture is breakage, crack / bend of a bone.
- Dislocation is displacement of one or more bones from joint.
- Sprain is wrenching tearing of cartilage near a movable joint.
- Strain is over lapping of muscles at a particular place.
- Cramp is sudden painful involuntary contraction of voluntary muscles.

Causes of Fractures: Direct force, indirect force and muscular contraction. Signs and symptoms for Identification of fracture:

- Pain
- Swelling
- Loss of power
- Deformity (change in shape or size).
- Tenderness (Sever pain by gentle touch)

Types of Fractures:

- Simple Fracture means the broken ends of the bone do not come out by opening the skin and thus remain inside only.
- Compound Fracture means the broken ends of the bone comes out by opening the skin and the fractured bone is in contact with outside air as a result of an injury.
- Complicated Fracture means the fractured bone damages an important internal organ like the brain, a major blood vessel, the spinal cord, lungs, lever, spleen etc.

General Treatment for Fractures:

- Immobalise and support the affected part/limb by means of splints, Bandages/Slings etc.
- It is important to immobilize the area both above and below the injured bone.
- Give pain relievers and treat for shock if necessary.
- Ice packs can be applied to reduce pain and swelling (Not to be placed directly over the wound.
- Arrange medical aid as early as possible.

Sprain and Strain Treatment:

- Place in suitable position and put firm bandage and in case of strain wet it with water frequently.
- Arrange medical aid.

POISONS

Definition:

Any substance (liquid, solid or gas) when enter into body in sufficient quantity which is harmful to the body and has power to injure health or destroy life is called poison.

Gaseous poisons:

These are entered in to the body through breathing.

Treatment:

Take the person to safe place and start artificial respiration if necessary. Before entering into room, make proper ventilation and first aider has to cover his face with wet cloth. Take long breath and hold it. Shift the victim to the hospital as early as possible.

Swallowed Poisons:

These are entered in to the body through mouth.

Treatment:

Act quickly and collect poison or container and send messenger for doctor. Before doctor arrives,

- Check whether he is conscious or not. If unconscious, check air way, breathing and circulation. If there is no breathing, start artificial respiration and if there is no pulse start CPR.
- If conscious, dilute the poison by making him to drink more water, milk, tender coconut, white portion of the raw egg.
- If the poison is corrosive in nature, do not induce vomit.
- Neutralize the poison by giving antidotes. For acids chalk powder mixed in water and for alkalis lemon juice.
- If the poison is non corrosive such as pesticides, excess dose of sleeping pills, mosquito killers, rat killers etc. induce the person to vomit by tickling or by giving large quantity of concentrated salt water.

SNAKE / DOG / SCORPION BITE TREATMENT

Snake bite:

- Tie rubber (Constriction) bandage (if the bite took place on legs / hands) above the wound towards the heart side. This must be released at regular intervals.
- Wash the area immediately with flow of water.
- Reassure the victim because most of the persons are dying due to fear.
- Don't allow him to run or walk.
- Treat the wound.
- Treat for shock.
- Give artificial respiration if there are any signs of failure of breathing.
- Arrange medical aid or carry the person to the doctor.

Dog bite:

- Wash the bitten area with soap water and with antiseptic solution.
- Encourage bleeding and do not cover the wound.
- Collect information about dog and dog bite such as it is pet / stray dog and whether it is a provoking / non provoking bite.
- Arrange medical aid.

Scorpion bite:

- Wash the bitten area.
- Apply sodium bi-carbonate or potassium permanganate and sodium bicarbonate mixture on the bitten area.
- Arrange medical aid.

Drowning:

- Remove the person from the water.
- Lay him on the ground on his stomach and turn the head to one side.
- Apply pressure on the back (waist portion) or raise the belly so that the water gone into lungs should come out.
- Once lungs got vacated, breathing will start. If it has not started, give artificial respiration to restart the breathing.
- Arrange medical aid.

UNCONSCIOUSNESS (INSENSIBILITY)

When sensory organs are not in working condition except in sleep, the condition is called unconsciousness. Unconsciousness is due to interruption of the brain action through some interference with the functions of the nervous system.

It is of two types.(1) Stupor (partial) 2) Coma (complete)

Causes:

- Ensure abundant supply of fresh air.
- If breathing stops or appears to be failing, start artificial respiration.
- If breathing is not noisy, keep face upward and head and shoulders to be raised slightly.
- If breathing is noisy keep in recovery position.
- Undo all tight clothing, especially around neck and chest.
- Apply the specific treatment for the cause.
- Wrap the victim in a blanket.
- Do not leave the casualty alone.
- Do not attempt to give food / fluids while in unconscious through mouth.
- Shift him to hospital.

EPILEPSY (FITS)

Signs and Symptoms:

- 1. Suddenly looses consciousness.
- 2. Sometimes remain rigid with flush face.
- 3. Convulsions start with froth at mouth.
- 4. Pulse will be in bouncing condition.
- 5. Body becomes stiff.

Treatment:

- Do not stop convulsions by force.
- Try to remove hard articles away from the victim.
- Wipe away the froth from his mouth.
- Keep careful watch for a possible failure of breathing and heart.
- Wait till he comes to the normal condition.
- Protect the tongue by placing soft material between the teeth.
- Once he becomes normal, advice the casualty to see the doctor.
- Do not keep any metal in to the hands and do not pour water

"If money is your hope for independence you will never have it. The only real security that a man will have in this world is a reserve of knowledge, experience and ability"

ZONAL RAILWAY TRAINING INSTITUTE MOULA ALI

OBJECTIVE QUESTIONS OF G&SR, ACCIDENT MANUAL, BLOCK WORKING MANUAL

CHAPTER NO - I & II

1.	is the authorized officer of Sou	ıth Central railway.
	(S.R.1.02(5))	
2.	Subsidiary rules are framed by	(S.R.1.02(5))
3.	Special instructions are issued by	(G.R.1.02(50))
4.	Station Limits are available betweenStation. (G.R.1.02(52))	signals at a Block
5.	At Class 'D' station, station limits are at	vailable between
6.	means the person on duty	who is for the time
	being responsible for the working of the traffic with (G.R.1.02(53))	thin station limits.
7.	On Double line class 'B' station Multiple Aspect Signallies between and	
8.	On single line 'B' class MAS station, Station sec	
9.	Block stations are sub-classified as, (G.R/S.R.1.03(2))
10.	The classification of a station shall be mentioned in(S.R.1.03(1))	
11.	Any Block Station which cannot be worked under Class 'C' conditions is termed as	
12.	Whenever L Ps / AL Ps / SMs / Guards / Switchmer Railway, on transfer, they shall attendindependent charge. (S.R.2.03.2)	•
13.	No Railway Servant directly connected with the working or use any alcoholic drink, sedative, narcotic or stimulant within hours before the commence take or use any such drink, drug or preparation when on or	drug or preparation ment of his duty or
14.	If train parting is observed by any F signal should not be exhibited.	Railway Servant, (G.R.2.11.2(d))
15.	If any railway servant notices that a train has parted, he the attention of the LP and Guard by and p together above his head and separate them smartly. (S.R.	out both his hands
16.	When there is a severe storm endangering the safety of SM shall not or	
17.	Wind velocity can be measured by	(S.R.2.11.3)
	· · · · · · · · · · · · · · · · · · ·	•

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CHAPTER NO. 111

1.	Signals used for controlling movement of trains as per G & SR are, and
	(G.R.3.02)
2.	The normal aspect of Distant signal is(G.R.3.07(4))
3.	The normal aspect of Distant signal on double distant signal area is (G.R.3.07(6))
4.	When colour light Distant signal is combined with Gate/LSS, the normal aspect of that signal is(G.R.3.07(7))
5.	(S.R.3.07.2) is eliminated wherever two Distant signals are provided
	At stations provided with Advanced starter and starter, the shall be taken off first and then the(S.R.3.10.1)
7.	are provided at certain cabins which when reversed, lock the levers of all running Semi-Automatic signals and enable the signals to function as Automatic signals. (S.R.3.12.2)
8.	When LSS (on double line) is to be passed at 'on' in addition to T/369(3b), Caution Order restricting the speed to up to next Automatic Stop signal, shall be issued.(SR 3.12.1)
	When a colour light Distant is combined with LSS/Gate signal, marker shall be dispensed with on the signal post. (G.R.3.17,Note)
10.	The Aspect of the Calling On signal when taken 'OFF' is(G.R.3.13(6))
11.	Calling ON signal cannot be taken "OFF" during (end) point failure. (SEM 7.19.5(c))
12.	Calling ON signal is to be used only on two occasions; they are
	(G.R.3.69.(3)c, G.R.5.09.2(a))
13.	Condition for taking off calling on signal is that the train has been brought to aat the stop signal.(G.R.3.45)
14.	To take "OFF" calling ON signal, the train must be in thetime . (SEM 7.19.5(c))
15.	.Shunt signals are of types, and they are(G.R.3.14(1))
16.	Shunt signal below stop signal will show light in "ON"

	Position light shunt signal shows colour lights in 'OFF' position. (G.R.3.14(9))
	The Aspect of shunt signal when taken 'OFF' is (G.R.3.14(9))
19.	The Aspect of the shunt signal at 'ON' is(G.R.3.14(9))
20.	Shunt signal detects(S.R.5.14.5))
21.	type of shunt signals shall be provided in colour light area. (SEM 7.42.2)
	is the authority to pass defective Independent shunt signal or shunt signal below stop signal at "ON". (S.R.3.14.1)
	When Shunting Permitted Indictor is defective, is the authority for the LP. (S.R.3.14.3.3)
24.	Route indicators are treated as (S.R.3.19.1)
	Whenever the miniature light repeater in the colour light signaling territory is found to be defective and aspect is not visible, the corresponding signal shall also be treated as (S.R.3.23.2.4)
	When a signal is newly erected or shifted, caution order shall be given for a period of days and notified inof lobbies. (S.R.3.26.1)
	Shunting limit board/Advanced starter is provided at a single line station where shunting(obstruction) is permitted out side the outermost facing points in the direction of(G.R.3.32(1))
	At a Class 'B' station, Single line with MAS, the distance from Home signal to outermost facing points shall not be less thanmeters.(G.R.8.01(2)b,G.R.3.40(3)b)
	Block Section Limit Board is provided at station with signals where the first point is a trailing point or where there are (G.R.3.32(2))
30.	Outlying siding points are indicated by mark board.(S.R.3.35.2)
31.	Home signal lever/switch will be normalized after the passage of(G.R.3.36.(2)(b))
	Taking 'off' the approach Stop signals can be delayed to ensure busy level crossing gates, if any, are closed only for before the arrival of the train, to avoid complaints from road users. (S.R.3.36.1)
	SM shall test the working of the reception signal and record results of the tests in(S.R.3.36.3.2)
	The speed of a goods train while entering goods terminal yard is restricted to kmph. (S.R.3.36.4)

35.A signal which is taken "OFF" for a train will be put to "ON" position on emergency to (S.R.3.36.5.1)	ly in
36. To put back starter/advanced starter for departing train LP of the train sh be advised by a and obtain acknowledgem (S.R.3.36.5.3.1)	
37. Fixed signals except Automatic Signals shall always show their r aspect in the normal position. (G.R.3.37)	nost
38. Even though departure signals are taken off, LP shall stop at stations wl stoppages are scheduled in the(S.R.3.37.1)	nere
39. On single line immediately after the arrival of a stopping train, the point should be immediately set against the (G.R.3.38(2))	
40.On double line immediately after the arrival of a train, the point should be immediately set aga the(G.R.3.38(2))	
41. When all the line at a station are blocked by passenger carrying trains, still line clear is granted for a train, the points shall be set(S.R.3.38.6)	
42. After the operation of every motor operated point, theindications must be checked by the SM to see that the points in working condition. (S.R.3.38.7.1)	
43. Signal over lap in M A S shall not be less than me which shall be reckoned from on single line (0 3.40.(1)(b),(3)(b))	
44. Signal over lap in M A S shall not be less than me which shall be reckoned from on Double line. (43.40.(1)(a),(3)(b))	tres G.R
45. Whenever a stopping train is to be received on a line not provided with t circuit or axle counter, Station Master shall ensure personally that nominated line not only upto berthing place but also fo adequate distance beyond it.[S.R.3.40(2)]	the
46 signals are prohibited to be used shunting purposes.(G.R.3.46)	fo
47. Slip siding is intended to protect(S.R.3.50.3	
48. Catch siding is intended to protect(S.R.3.50.3	
49. Catch and slip sidings shall not be used for purposes. (S.R.3.50.3.1, 3.2)	and
50. Normal setting of points wherever catch/slip sidings are provided is(S.R.3.50.3.3)	for

	when the block instrument is in position (BWM-Part B-3.4)
52.	All points shall normally be set for theline. (G.R.3.51(1))
53.	Whenever points/signals/Block Instrument is disconnected by SI/ESM, SM shall ensure that is issued by SI/ESM. (S.R.3.51.6)
	SM shall inform cabin man/CASM/SWM under exchange of whenever the points/signals/block is disconnected
	(S.R.3.51.6)
	When the disconnected signal/point is reconnected, SI/ESM shall test jointly with(S.R.3.51.6)
56.	From the time of disconnection to reconnection, the trains shall be admitted by method. (S.R.3.51.7.1)
	Whenever signal Inspector is testing the signal, the remark shall be recorded in(S.R.3.51.9.1)
	By waving green flag by day and a white light by night up and down vertically as high and as low as possible indicate(G.R.6.08(3))
	Violently waving a white light horizontally across the body of a person indicates(G.R.3.53)
60.	A green flag/green light moved slowly up and down indicates(G.R.3.56)
61.	VTP is painted (S.R.3.61.4.1)
62.	VTP is located at meters from either side of station (S.R.3.61.4)
	Number of detonators are given to each fog signalman. (S.R.3.61.5)
64.	Nominated fog signalmen are two from department and two from department. (S.R.3.61.12)
65.	For signalmen's assurance will be taken in
	Maximum speed of a train shall be restricted tokmph on Absolute block system. (S.R.3.61.9)
67.	Maximum speed of trains during dense fog in automatic block system is when aspect of signal ahead is proceed (S.R.3.61.9)
68.	Maximum speed of trains during dense fog in automatic block system is when aspect of signal ahead is attention (S.R.3.61.9)

	aximum speed of trains during dense fog in automatic block system when aspect of signal ahead is caution (S.R.3.61.9)
	ne knowledge of staff to use detonators shall be tested by the testing ficials once in(S.R.3.64.4.2)
71. N	ormal life of a detonator is(S.R.3.64.5.3)
	ne signals to be used to warn the incoming train of an obstruction shall be aat night or a red flag during day.(G.R.3.65)
	henever a signal/point/block instrument is defective, SM shall make an antry in(S.R.3.68.2)
	Thenever a signal which is detecting a point becomes defective, these points re treated as(S.R.3.68.5)
75. A	blank signal under complete power off situation is to be treated assignal. (S.R.3.68.6)
	re-warning about defective reception signal is not required when there is signal provision or when is provided. G.R.3.69(1))
77. W si	Then home is defective and pre warning is given, the LP may pass such gnal on receipt of at the foot of the gnal.(G.R.3.69(1))
sł	Then Loco Pilot is pre warned about the defective signal, Station Master hall ensure that the conditions for that signal have een fulfilled. (G.R.3.69(3))
	re-warning when given it will be given in the form No (S.R.3.69.2.1)
	Then train is received on Calling ON, in Podanur Panel, Calling "ON" ancellation takes seconds.(App. XI-5(v)
	ne axle counter shall be reset only after ensuring that the monitored portion(S.R.3.69.5.1)
	Thenever axle counters are to be reset, it should be done by station master of duty along with onestaff. (S.R.3.69.5.3)
	uthority to pass defective starter signal (if it is not LSS) is 6.R.3.70(1))
84. W	hen IB distant fails in "OFF" position, is authority for trains before despatching. (G.R.3.71(2)/G.R.3.75)
	n Double line when LSS is defective is the authority to art a train. (G.R.3.70(2))
86. C	On Single line token less section when LSS is defective

87. When Loco Pilot passes starter at "ON" partly and stopped before Advance Starter, subsequently line clear is taken, will be given. (S.R.3.70.2)
88. When Gate signal is at ON, the LP shall waitby day/night and gatema not available, LP may pass the gate on the hand signals ofafter ensuring that gate is closed. G.R.3.73(2))
89. When Gate signal is at ON, the LP shall waitby day/night and gatema exhibiting hand signals. LP may(G.R.3.73(2)(b)
90. When LP passed the Gate signal at ON and gateman is not available, the LP of the first train shall(S.R.3.73.2)
91. Gate-cum-distant signal will be located at a distance of meters i rear of the gate. (S.R.3.73.3)
92. If a signal is showing white light in place of a colour light, it is treated as signal is showing(G.R.3.74(1)(C))
93. When Loco Pilot finds a reception stop signal in semaphore area in OF condition without light, he shall observe(G.R.3.74(1)(e))
94. Whenever colour light signal is flickering / bobbing and does not pick up steady aspect at least for time, the signal shall b treated as defective.(S.R.3.74)
95. When I B S is defective is the authority to b given to Loco Pilot. (S.R.3.75.2)
96. When I B S is at "ON" the Loco Pilot shall stop and contact immediately.(S.R.3.75.4)
97. When IBS is at "ON" and the telephone is out of order, Loco Pilot after waitin for minutes shall proceed at a speed of kmp when view is clear/not clear upto next stop signal. (S.R.3.75.4)
98. Whenever axle counter of I B S is functioning improperly, SM in rear with th co-operation of SM in advance shall operate buttons to reseanalog axle counter. (S.R.14.13.1)
99. Wherever I B S is provided, LSS is interlocked with(Appendix B of SWRs where IBS is provided)
100. When Loco Pilot pass I B S at "ON" indication will appear to SM in rear.(S.R.14.14.1.1)
101. When Loco Pilot passes LSS in "OFF" position indicatio will appear which will become normal by putting bac(S.R.14.14.2)
102. When Loco Pilot passes I B S in "OFF" position, indication w appear after which block instrument is to be put in position. (S.R.14.14.3)

103. Whenever I B	S or I B distant signal bulb	is fused OFF,
indication shall app	pear along with buzzer. (S.R.14	.14.1.4)
the L.C. Gate as _	terlocked with L.C. Gate, becon and ensure L.C with gateman before 75.2)	. Gate is closed by
105. Under no circ trailed through poi	umstances should a train be nts (S.R.3.77.2)	over the
further details are	o Pilot notices a signal warnir noticed, after stopping up to the next block st	by day/night, he shall
	clearly understand that if no sometime board he should control the(S.R.3.78.1)	O .
	to record observations of the din all lobbies.(S.R.3.85)	of Loco Pilot during his run

CHAPTER - IV

1.	The control office should advise the standard time by a general call to the stations atdaily. All SMs should correct the time and make an entry in the(S.R.4.01)
2.	ODC shall be allowed to be attached by a train for transport only with the prior sanction of(App.VIII 9.2)
3.	Loco Pilot shall not make up between any two stations more time than is allowed in(G.R.4.08(2))
	In case of speedometers of loco is defective at crew changing points, the train should not be till attended or loco changed.(SR 4.08.2.1) In case of speedometers of loco is defective during run, train should run with % reduction in MPS upto the crew changing point.(SR 4.08.2.1)
6.	The speed of trains over Non-Interlocked points, turnouts and crossover shall not exceed KMPH normally(G.R.4.10(1))
7.	The speed of a passenger/goods train on 1 in 8 ½ turnout (curved switch of 52/60 km rails) on PSC sleepers is restricted to kmph. (S.R.4.10)
8.	The speed of a passenger/goods train on 1 in 8 ½ turnout (thick web switch of 52/60 km rails on symmetrical layout) on PSC sleepers is restricted to kmph. (S.R.4.10)
9.	Engine pushing is not permitted with out the prior permission of(S.R.4.12.2.1)
	.While the train is pushing, it can be received on single line by reception signals and on double line by
	(S.R.4.12.5)
11.	An engine exclusively deployed for shunting purpose shall put on colour marker lights on both sides. (G.R.4.14(2))
	.When head light is defective after putting marker lights 'on' the train can go with a restricted speed of(G.R.4.14(5))
13.	In normal position side lights shall showtowards rear and towards engine.(S.R.4.15.1)
14.	At night, when passenger carrying train waiting at a station for precedence, Guard shall change the side light adjacent to the line on which the following train is to be admitted, to showlight towards rearlight towards engine. (S.R.4.15.1)
15.	.Side lights may be dispensed with for andtrains. (S.R.4.15.4)
16	Last vehicle indicator during night shall bered

17.	When an assisting engine is attached in rear of a train shall be fixed behind the assisting engine
	(S.R.4.16.2)
18.	Light engines or coupled engines shall havein rear (S.R.4.16.4)
19.	When a Station Master observes that a train has passed without tail lamp/tai board, should givebell signal to rear and bell signal to station in advance. If BPAC is not
	provided, he shall also stop the trains proceeding on adjacent line and issue(S.R.4.17.2.2)
20.	In case of obstruction on track, Guard must exhibit the hand signal lamp at night orduring day,(G.R.3.65)
21.	Guard shall report to the Station Master of the next important station, any stoppage or other irregularities in train working record the details inand send a special report to the (S.R.4.18.2)
22.	Dy.SS/TNC of the originating station shall record the intactness and availability of the BV equipment in the register and obtain acknowledgement of thein the register apart from VG, (S.R.4.19.4.4.1)
23.	Guard shall obtain acknowledgement of Dy.SS or SE / JE-C&W in the at destination station about the intactness of OTL
	and seal. (S.R.4.19.4.8.7)
24.	The number of persons permitted to travel in the brake-van of goods trains, in addition to the Guard, should not exceed(S.R.4.23.1)
25.	In emergency a goods train with out brake van is ordered by (S.R.4.23.2.1)
26.	Maximum number of coaches in addition to the officers' inspection coach attached in rear of SLR of Passenger or Mail & Express trains is(S.R.4.24.1)
27.	Damaged engine or vehicle may be attached behind the rear BV of goods train on receipt of written advice in duplicate from the or the as the case may be. (S.R. 4.24.4)
28.	Onlydamaged vehicle or damaged engine shall be attached behind the rear brake van of goods/mixed train. (S.R.4.24.4)
29.	Attaching of damaged vehicle/engine may be done duringand ir clear weather. (S.R.4.24.4)
30.	Damaged vehicle/engine when attached to a goods train shall be accompanied by(S.R.4.24.4)
31.	Entries of vehicles attached to a train at intermediate stations must be made by the at those stations. (S.R.4.25.3.1)

32.In an emergency, a goods train without Guard can be ordered by (S.R.4.25.4)
33shall be issued to the Loco Pilot by Station Master wit
necessary endorsement stating that the train is to run without Guard (S.R.4.25.4.3)
34. Where IBS is provided, the SM shall not dispatch a train in rear of the train running without Guard reaches the(S.R.4.25.4.4)
35.In Automatic block territory, no train shall be allowed to follow a train withou brake van/guard until it arrives complete at the nex(S.R.4.25.4.9)
36. Running of goods train without is strictly prohibited durin tempestuous weather, total interruption of communications and durin temporary single line working.(S.R.4.25.4.6)
37. Running of goods train without Guard should not be permitted if the last vehicle is not(S.R.4.25.4.10.4 note 2)
38. Trucks loaded with girders, machinery, long timber etc. shall be inspected be Guard at stopping stations and if the fastenings have or the loads they shall be re-secured before the train is allowed to proceed or else the trucks detached. (S.R.4.28)
39. In case a hot axle box found running between stations, the train shall b brought to aimmediately and after attending LP should exercise hid discretion with regard to the (S.R.4.29.2)
40. When SM receives advice of Hot axle, that train shall preferably be admitte on line. (S.R.4.29.3)
41. The Fit to proceed (Brake power certificate form No must b possessed by the Loco Pilot of the train till the train completes it(S.R.4.31.4)
42.At the station after loading/un loading; or tippling; or while clearing stable stock from a station; or incase of invalid BPC, thecheck shall b conducted. (S.R.4.31.5)
43. Whenever train engine is changed,test should b conducted and same shall be recorded by the LP and Guard i their(S.R.4.31.6)
44. Time permitted for GLP check of a train consisting of 60 units (four wheele isminutes. (S.R.4.31.5(note))
45. Guard and Loco Pilot shall prepare a GLP check memo jointly on a plai sheet in(S.R.4.31.5B)

46.	At the originating station for coaching trains, the TXR staff shal of Guard's compartment (if it is not leased) and luggage portions (if it is not leased or not loaded with parcels) of front / middle SLR and lock with Universal lock. (SR 4.34.5)
47.	At stations, where PA system is not provided, SM gives permission to Guard to start the train by ringingbeats for Down train,beats for Up trains and 4 beats for branch line.(S.R.4.35.2.1.2)
48.	Guard shall report to Station Master of the next station, any stoppage or othe rregularities in train working, record the details in the(S.R.4.36)
49.	While at a station, the Loco Pilot is to obeyorders.(GR.4.39(b))
50.	The Loco Pilot and Assistant Loco Pilot shall each signal; call out the of the signal to each other. (S.R.4.40.1)
51.	The validity of CC rake BPC isdays orkm which ever is earlier.(C&W JPO 5/2008-3.3)
52.	The validity of Premium rake BPC is(C&W JPO 5/2008-4.7)
53.	The grace period given for Premium end to end BPC is(C&W JPO 5/2008-4.7)
54.	The validity of End to end BPC is(C&W JPO 5/2008-5.1.II)
55.	LP and ALP shall look back frequently during journey to see whether the trains following in a
56.	The Loco pilot /ALP and Guards must look back at the Gang Staff and Leve Crossing Gates to see whether anysignal is exhibited by them.(S.R.4.41.2)
57.	S M shall arrange points man to show all right signals for a run through train rom side. (S.R.4.42.5.1)
58.	Loco Pilots/Motormen of DEMUs, DHMUs, EMUs and MEMUs are from exchanging 'All right' signals. (S.R.4.42.7.4)
59.	Cut off angle cock must be in position except front side of local and rear side of L V to ensure brake continuity. (App.VI-2.1)
60.	A goods train having 56 wagons, the B P pressure in engine shall be(App
	VI -2.2)
61.	A goods train having 58 wagons, the B P pressure in loco shall be and in B V (App. VI -2.2)
62.	Normally minutes allowed to goods trains to start after engines have been attached. However, in case of formations tested by Vacuum Exhausters/Air-Compressors, the time taken for starting the train, after engines attached, shall not exceed minutes. (App. VI -3.4)

63.	above Tones. (App.VI-5.5)
64.	When train is stabled for more than hours at station other than loading and unloading station, fresh B P C is required.(C&W JPO 5/2008)
65.	Fresh B P C is required whenever more than eight-wheeler vehicles are attached or detached, to/from a train. (App.VI – 6.4)
66.	All passenger carrying trains of all description shall haveoperative vacuum cylinders with effective brake power at the starting station. (App. VI - 13.1.1)
67.	F P pressure in loco shall be and in BV(App. VI -14.2)
	All trains shall have Twin Pipe working. (App. VI - 14.2)
69.	The effective brake power in case of Mail/Express at the originating station should be% and enroute can be not less than%(App. VI - 16.2)
70.	The effective brake power in case of passenger and CC rakes at the originating station should not be less than% and enroute shall be(App. VI -16.2)
71.	When a train is held up at FSS for more than minutes, the Loco Pilot shall depute Assistant Loco Pilot to go to Station. (G.R.4.44.(1))
72.	When a train is held up at FSS for more than minutes, the Guard shallin rear. (G.R.4.44.(1))
73.	When working a passenger train the Loco Pilot shall ensure that the passenger bogies do not over shoot the(S.R.4.49.1)
74.	When SM / Station Staff does not exchange 'all-right' signals, the Loco Pilot shall give engine whistle code.(S.R.4.50.2)
75.	When engine whistle fails on run, after clearing block section, the loco shall be attended or it shall be(S.R.4.50.4)
76.	Engine whistle code 00- indicates(S.R.4.50.11)
77.	Whenever train stopped without clearing fouling mark, Guard shall inform the SM at once andto prevent any movement on the fouled line.(G.R.4.56)
78.	At Stations, the LP of the train shall bring his engine to a stop as close as possible to theto ensure clearing of the fouling mark. (S.R.4.58.2)
79.	Material train shall be ordered to work with the permission of

80.To despatch a material t to the same station,		
81.To despatch a material the next station,		
82.The B P C of a material the train by T X R once	-	
83. The required brake power not less than		depot shall be
84. While stabling a materia with the		
85. The maximum speed of crossing is		ver points and
86.TTM is permitted t	block section	only during
87. When TTM's are followinmts. (S.R.4.65	ance to be kept be	tween each is
88.When TTM's are follow restricted to		cond TTM is

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CHAPTER - V

1.	SWR should be issued afresh once inyears or after issue ofamendment slips which ever is earlier. (S.R.5.06.8)
2.	Fresh declaration shall be obtained from a member of staff resumes duty at a station after an absence ofconsecutive days or more. (S.R.5.06.13)
3.	In case of T/A to T/H 602, T/J 602, T/609,to, T/A to T/D 912, T/A 1525 and T/1525, the prescribed printed forms shall only be used. (S.R.5.07)
4.	To receive a train on to an obstructed line, the Loco Pilot shall be given authority where there is no calling ON signal and signal post telephone. (S.R.5.09)
5.	While receiving a train on obstructed line, SM shall arrange to post one competent Railway servant to show hand signal from meters before the obstruction. (G.R.5.09(4))
6.	To receive a train on to non signalled line, the Loco Pilot shall be given(Note below G.R.5.10)
7.	To despatch a train from non-signaled line, where tangible authority is not given as A T P, authority should be given in addition to ATP. (G.R.5.11(1))
8.	To start a train from a station having common starter, the Loco Pilot shall be given + + (S.R.5.12.(1))
9.	The speed during shunting operations shall not exceed(G.R.5.13(3))
10.	The shunting staff need not accompany during shunt movement of light engine/s on to aexcept in case of doubt. (S.R.5.13.1)
11.	Slip coaches shall not be kept on blocked line in the rear of a(S.R.5.13.2)
12.	While performing shunting on passenger carrying trains, the shunting engine or train engine with or without sectional coaches, before coming on to the formation should be stopped metres before the formation.(S.R.5.13.3)
13.	At station where separate shunting staff are not employed, shunting operations shall be personally supervised by(S.R.5.14.1)
14.	While backing a full train from one line to another via main line the shunting supervision is done by(S.R.5.14.2)
15.	Carriages containing passengers shall not be moved for shunting without the personal order of theand(S.R.5.14.4)

16	While performing shunting, the points which are not protected by signals must be locked by or by nethod. (S.R.5.14.5)
17	While shunting wagons containing explosives, the supervision shall be done by(S.R.5.14.6)
8	The maximum speed while shunting of wagons containing explosives and P O L products shall be kmph. (S.R.5.14.6(b))
19	Where shunting operations are supervised by Guard/SM, Loco Pilot shall be given Form No(shunting instruction form) (S.R.5.14.9)
20	Shunting of roller bearing vehicle on a steep gradient shall be done only with ocomotive attached towards the(G.R.5.20(b))
21	For shunting purpose gradient is considered as steep gradient for roller bearing wagons and gradient for non roller bearing wagons. (G.R.5.20(b)Note)
	Maximum Hand shunting speed is kmph. S.R.5.20.5.6)
23	To detach loco of a goods train having BOX 'N' / BCN / BRH, etc., minimum no. of vehicles effective hand brake are to be applied from each end including hand brakes of B V.(S.R.5.234.6)

CHAPTER - VI

1.	When Loco Pilot of the train experienced any abnormal condition in the track, stop his train at next block station without clearing and inform Station Master.(SR 6.07.1(a))
2.	When Loco Pilot of the train experienced any abnormal condition in the track, in case of IBS and Automatic block territories, he must inform and to stop the movement of trains(SR
	6.07.1(a))
3.	When 'lurch' is reported and subsequently a train is sent with engineering official, caution order is given to the LP to short of the expected portion of the track .(SR 6.07.1(d))
4.	When 'lurch' is reported and subsequently a train is sent in the absence of engineering official, caution order is given to the LP to stop dead and proceed atkmph if considered safe otherwiseto station. SR 6.07 (e).
5.	Rail fracture of less than 30mm, the speed of first train shall bekmph, the speed of second and subsequent trains shall bekmph. (SR 6.01.3.1).
6.	The Station Master who received the message about the rail fracture through LP, he shall arrange to issue caution order ofkmph over the fractured rail.(SR 6.01.3.3)
7.	Rail fracture of more than 30 mm or multiple fractures, certification by is required to pass trains. (SR 6.01.3.4)
8.	On Double line to dispatch the train against the established direction of traffic for any reason other than introduction of TSL working, the SM shall issueto Loco Pilot. (SR 6.02.5)
9.	TSL working shall be introduced between the nearest stations provided with on either side of the obstruction.(SR 6.02.1.4)
	During T S L working the block instruments shall be kept and locked in position. (SR 6.02.1.4)
11.	train shall not be dispatched on T/J.602. (SR 6.02.5)
12.	When a train is dispatched on T/J.602(shall not be passenger carrying train), the speed shall not exceed kmph. (SR 6.02.5)
13.	During Temporary Single Line working, Loco Pilot and Guard shall be given authority(SR 6.02.1.8)
14.	During T S L working, the speed of first train shall bekmph.(SR 6.02.1.11)
15.	During T S L working the speed of second and subsequent trains shall (SR 6.02.1.11).

16	During TSL working when the train is proceeding on wrong line, the train shall be piloted out on a (SR 6.02.1.14.1)
17.	During T I C on double line is the A T P authorizing the Loco Pilot to proceed with a restricted speed of kmph.(SR 6.02.3.3)
18	.When trains are dealt on T/C 602, the time interval between two trains shall be minutes.(SR 6.02.3.5)
	During T I C on Single Line /Double line and T S L working, except signal, all other signals can be taken OFF (SR 6.02.3.6).
20	During TIC on Double line, if no one from the station turns up within minutes, Guard shall protect the train in rear and ALP may be sent to station. (SR 6.02.3.12)
21.	.When motor trolley / Tower car is sent for opening communication, it shall be accompanied by(SR 6.02.4.2.4).
22.	Light engine/vehicle which is going to open communication shall proceed on authority.(SR 6.02.4.3)
23.	When enquiry is made for more than one train during TIC on S/L, forms are given to the light
	engine/vehicle which is going to open communication. (SR 6.02.4.4.2)
24.	Light engine/vehicle, which is going for opening of communication, shall proceed with a restricted speed of kmph.(SR 6.02.4.6.1)
25.	After opening communicationis A T P for the light engine/vehicle to come back.(SR 6.02.4.9)
26.	.UP / DN CLCT is prepared in Form No// (SR 6.02.4.15)
	.When there is even flow of trains, enquiry and reply messages are sent through(SR .6.02.4.16)
28.	After opening the communication, the speed of first train waiting shall be(SR 6.02.4.18)
29.	If enquiry is made for more than one train and reply is also received, the second train can be allowed to go with a restricted speed of kmph after a clear interval of 30 minutes.(SR 6.02.4.18)
30	As soon as any one of the communication restored, the Station Master must send a message to the SM of other station in the prescribed form(SR 6.02.4.22)
31.	If it is required to dispatch a relief engine or relief train into obstructed block section, it can be dispatched by issuing(SR. 6.02.6.1)

32. If a passenger train/goods train does not turn up even after normal running time and/ minutes, S M shall arrange to send competent railway servant. (BWM Part I 5.5a(II).2)
33. If Loco Pilot enters block section with out authority and subsequently sends his Assistant Loco Pilot with a memo to SM in rear, that S M shall give(SR 6.06.2)
34. If Loco Pilot enters block section with out authority and subsequently sends his Assistant Loco Pilot with a memo to SM in advance, that S M shall give(SR 6.06.2)
35. When a train parts on its journey, the tonnage of the train shall be jointly checked by the and the and also by the (SR 6.08.1.3).
36. When train stopped due to inability of the engine to haul the load and If it is not possible to get the relief engine or push back the train, the crew can decide to the train.(SR 6.09.1)
37. During divided train working, the Guard will prepare a written permission in the formand give to Loco Pilot to proceed to the next station.(SR 6.09.3.2)
38. When a goods Train runs without Guard has to be divided, the Loco Pilot shall bring first portion by preparing a(SR 6.09.9.1)
39. When a train without guard is divided in the section, after dropping the first portion, light engine returning to pickup second portion shall proceed onauthority. (SR 6.09.9.4)
40. In case of fire accident in a passenger carrying train, the first objective to be achieved is to(GR 6.10.1)
41. If a fire is noticed in a running train, the LP shall at once stop the train. The vehicles behind the one on fire shall beand the front portion of the train then moved forward to prevent the catching of fire.(S.R.6.10.1.1)
42. In the event of a fire on fire on any part of the electrical equipment, the affected part is first to be completelyfrom the Distribution System. (S.R.6.10.11)
43shall not be used for extinguishing fires on electrical equipment. (S.R.6.10.11)

CHAPTER - VII, VIII & IX

1.	On Absolute Block System, no train shall be allowed to leave a block station unlesshas been received from advance Block station.(GR 8.01(1) (a)					
2.	The adequate distance (BOL) beyond FSS on multiple aspect signaling for granting line clear is(GR 8.01(2)(b).					
3.	At a class 'B' station on double line equipped with MACLS, to grant line, clear line must be clear up toor(GR 8.03 (1) (c) (ii)					
4.	At a class 'B' station on single line equipped with MACLS, to grant line clear line must be clear up toor or or or or or or					
5.	At a class 'C' station line clear shall not be given unless- the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is(GR 8.04 (a)					
6.	The automatic signal shall not assume OFF position unless the line is clear not only upto the next Automatic signal but also for an adequate distance of not less thanmetres on D/L (GR 9.01.(1) (c)(i)					
7.	Automatic stop signal is identified byboard GR 3.17(1)					
8.	Semi automatic stop signal is identified bylight when working as automatic signal. GR 3.17(1)					
9.	Normal aspect of Automatic signal is (GR .3 37(2)					
10.	All Guards, Loco Pilots, Assistant Loco Pilots, Motor men who are required to work in automatic block system shall undergo one day intensive training and a certificate shall be renewed once inmonths. (SR 9.014)					
11.	SMR/SS/TI shall renew the competency certificates (Automatic section) for the and LI for (SR 9.01.5)					
12.	When Loco Pilot passes an automatic signal at ON, he shall observe an SR of(S.R 9.02.3)					
13.	On Automatic Block System, single line, the shall be established only after line clear has been obtained.(GR 9.03(1)(b)					
14.	When LSS fails on single line automatic block system, shall be given to Loco Pilot and the first train shall go					
4-	with a restricted speed ofkmph (SR 9.06.4 and 5)					
15.	When LSS fails on double line automatic block system, shall be given to LP of the train to go with a restricted speed ofkmph (SR 3.12.3).					

16. During prolonged failure of signals but communications are available on E Automatic Block System, the authority given to Loco PilThe Loco Pilot of first train shall go with a restricted speedkmph.(SR 9.12.1 5.1)	ot
17. When signals and communication fail on DL Automatic Block System, the authority given to the Loco Pilot iswhich authorizes the LP to go with a restricted speed ofkmph.(SR 9.12 2.2.4)	
18. The time interval between two trains during signal and communication failu on DL Automatic Block System shall beminutes or the running time whichever is more.(SR 9.12.2.2.5)	
19. During TSL working Automatic Block System, the first train proceeding or right line when signal and communications are working shall proceed ofauthorities (SR 9.12.3.14.1.1)	
 During TSL working Automatic Block System when signals ar communications are working, the second and subsequent trains proceeding on right line shall proceed on (S 9.12.3.14.1.2) 	ng
21. The first train running in the wrong direction during TSL working on Automat block system shall proceed with a restricted speedkmph.(SR 9.12.3.10)	
22. The second and subsequent trains running in the wrong direction during TS working on Automatic block system shall proceed with a speed (SR 9.12.3.10)	
23. Authority to dispatch a light engine on single line Automatic Block syste during prolonged failure of all signals when no communications are availab is (SR 9.12.5).	
24.To dispatch a relief loco/train into the occupied block sectionis given as the ATP for the relief loco/ train. the automatic block system. (SR 9.12.6)	
25. Relief loco/train shall proceed with a restricted speedkmph (SR 9.12.6.1.3)	of
26.On Automatic Block System when the train is unable to proceed further obtain permission only fromto push back. Such permission can be given only provided that(S 9.13.2)	ch
27. A fixed signal which can be operated either as an Automatic stop signal or manual stop signal, as required, is called(GR 3.12(b)	
28.LP shall pass a Semi Automatic signal with extinguished .A' marker at 'ON' or receipt of written authority+PHS. (SR 9.14.6)	nc

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CHAPTER NO. XIV, XV, XVI, XVII

1.	No person shall operate the electrical block instruments unless he holds a issued by Principal/ZRTI which shall be
	valid for a period of years.(GR 14.04(1).
2.	proceed on Single Line token less sections/Double line sections. (G.R.14.08)
3.	At stations where cabin & BPAC is not provided, the Guard of the train, after verifying the last vehicle is standing clear of the fouling mark, shall give an all right signal to Station Master by(SR 14.10.3.1)
4.	The Station Master on duty shall send the "train out of block section" signal only seeing the(SR 14.10.3.2)
5.	Resetting button is used to reset the axle counter whenever the IB Home is passed at 'on'. (SR 14.13.1)
6.	Where IB signal is provided, resetting buttonis used to give co-operation to the station in rear. (SR 14.13.1)
7.	Where IB signal is provided, resetting buttonis used to reset the analog axle counter due to failure or improper counting. (SR 14.13.1)
8.	Where IB signal is provided, when reset is initiated, digital axle counter enters into preparatory reset mode. The first train shall be dealt on(SR 14.13.2.3 (a)
9.	When K1 indication appears, on complete arrival of the train at the station in advance, SM must inform arrival to SM of rear station underand make all entries in the TSR/Station Diary in (SR 14.14.1.1.4)
10.	When a train passes IBS at 'on' and k1 indication appears and IB section is occupied by a train, SM shall adviseto stop the train. (SR 14.14.1.1.2.1)
11.	On Double line or on Single Line when block instrument is defective is given as A T P for the Loco Pilot.(SR 14.25)
12.	block means blocking of a portion of line for maintenance work by more than one department. (SR 15.06.1.3)
13.	block means a block, availed from either end of the block section between two block stations simultaneously. (SR 15.06.1.4)
14.	Engineering works comes under category III (loading/unloading of ballast) requires (SR 15.06.2.1.6.1)
15.	Engineering branch will arrange with the Operating branch for the issue of a circular notice, which shall be valid for (SR 15.06.2.1.6.3)

16.	After issuing circular notice, the DOM will issue an all concerned message at leastdays in advance. (SR 15.06.2.1.6.4)
17.	The engineering official, who shall not be below the rank of a will be authorized to obtain blocks on the field telephone.(SR
	15.06.2.4.1)
18.	When more than one TTM/Tower Car are programmed to go in the same block section and return to the same station the authority for the firs TTM/Tower car is and authority for the subsequent TTM/Tower car is (SR 15.06.4.!(c).
19.	When more than one TTM/Tower Car are programmed to go in the same block section and proceed to the next station the authority for the first and subsequent TTM/Tower car isand authority for the last TTM/Tower car is(SR 15.06.4.1(d).
20.	authority is given to the Tower Wagon to go into the section work and return to the same station during power block. (SR 15.06.4.2(a)
21.	authority is given to the Tower Wagon to go into the section work and proceed to the next station during power block. (SR 15.06.4.2(b)
22.	The Speed of the Tower Wagon when following each other is restricted tokmph during day/night and the distance to be kept ismeters.(SR 15.06.4. 3)
23.	When material train, TTM and Tower wagon are permitted in the same block section to work the distance to be kept between them ismeters (SR 15.06.4.4.1)
24.	During integrated block/shadow block, if it is necessary to dispatch materia train and TTM and tower wagon into the block section, they shall maintain the speed ofkmph when view is clear and during day time andkmph when view is not clear and during night time.(SR 15.06.4.4.1/2).
25.	Number of material trains permitted during the line block or integrated block or shadow block is (SR 15.06.4.4.2)
26.	During line/integrated/shadow block, if the units are allowed on to the wrong line, units shall be piloted out onafter ensuring correct setting, clamping and padlocking of the points. (SR 15.06.7)
27.	During line block, to receive the units coming on right line, the first unit car be received on and the following units will be admitted or or written authority T/509.(SR 15.06.10.1)
28.	During line/integrated/shadow block, if the units are coming on wrong line units shall be received onafter ensuring correct setting clamping and padlocking of the points. (SR 15.06.10.2)

29.	On completion of work and after ensuring that the block section is free, the respective official in charges of various units will hand over to the SM a(SR 15.06.11.1)
30.	When major work such as relaying and re girdering is in progress a speed restriction of kmph shall be observed on the adjoining line of DL//MULTIPLE/ line section.(SR 15.09.6)
31.	In token less section is given as ATP for the movement of motor trolley (SR 15.25.7.2.1.2.)
32.	On single line, Station Master, after the arrival of motor trolley inform the Station Master of the rear station supported by a (SR 15.25.7.2.3.1)
33.	When motor trolley is following a full length train or engine or another motor trolley, authority is given as A T P (SR 15.25.7.4.3)
34.	When a motor trolley is following a train, it is treated as of the train which it is following. (SR 15.25.7.4.5)
35.	On arrival at the station, the official in charge of the motor trolley will deliver the authority to the SM with ato the effect that the motor trolley has arrived. SM shall paste that authority in the (SR 15.25.7.2.2)
36.	On arrival of the (last) following motor trolley at the station, the official in charge will sign in thein token of his motor trolley having arrived intact.(SR 15.25.7.4.8)
37.	Trolley/Lorry notice is given in form No by P W I.(SR 15.27.1.1)
38.	When Station Masters of both ends received Trolly/Lorry Notice, they shall stop all the trains entering into the section and issue (SR 15.27.2.1)
39.	During night a lorry or when lorry is loaded with rails, girders or heavy material shall always be worked under the rules for working of (SR 15.27.2.1/2.2/2.3)
40.	is a self propelled one which can run on railway track as well as on road. It shall be treated and signaled as a (SR 15.27.9.1.1)
41.	The RRV shall run under the supervision (in charge) of(SR 15.27.9.2.1)
42.	When RRV is to be dispatched from a station provided with track circuit/panel, such movements in the block section would be dealt only on(SR 15.27.9.5.3.1)
43.	On tracking and offs tracking of RRV in mid-section shall be done from a (SR 15.27.9.5.4.1).

44.	"Danger Zone" means the zone lying around any live equipment. (SR 17.02)		_ metres_radius
45.	The competency certificate issued by isolators in emergency is valid for	,	
46.	When the tower wagon is moved, attaand the speed of speed of the(S	the train should be r	
47.	When healthy section is temporarily entered faulty section, Station Master first train on healthy section to _ 17.09.16(b))	to issue caution order	to the LP of the
48.	When healthy section is temporarily entered faulty section, the speed of the day / night.(SR 17.09.16(c)		
49.	During power block15.06.1.2)	_ trains are only perm	itted to run.(SR

APPENDIX I & II

1.	In the Caution order, the names of the stations concerned should be written in fullshould not be used.(Appx I (5.2).
2.	The caution order should have all the speed restrictions in force inorder.(Appx I (5.3)
3.	The LP shall not start the train/the Guard shall not give signal to start from a notice station until they have received(Appx I (6.3)
4.	In case of change of train crew en route, the Loco Pilot/Guard taking over charge must take over all Caution Orders from the who is being relieved. (Appx I (8)
5.	In case a train is worked with an assisting engine / banking engine, the LP and ALP of such engines shall also be issued with the(Appx I (9.1)
6.	SM shall bring forward the caution orders in the caution order register everyathrs in geographical order.(Appx I (12.1)
7.	Serial numbers shall be used for both imposition and cancellation of speed restrictions in the caution order message register throughout the year commencing fromto (Appx I (12.3))
8.	At notice stations instead of preserving train wise record copies, one of caution order for each direction for each day be
	preserved.(Appx I (13.1))
9.	Record copies of the caution orders shall be preserved for a period ofmonths. (Appx I (13.3))
10	Level crossing gates situated within outermost stop signals of a station are under the control of(PWay Manual 909(1))
11.	Level crossing gates situated out side the outermost stop signals of a station are under control of(PWay Manual 909(2))
12	At engineering level crossing interlocked gate, if the running time is less than 10 minutes, the Station Master will advise the gateman particulars of the train after/before (App II Annex! (1 (iii)).
13	The interlocked level crossing gate should be treated as when the signal protecting the LC gate becomes
	defective. (Appx II Annex I (3))
14.	At engineering/traffic level crossing non interlocked gate, normal position closed to road traffic, the Station Master will advise the gateman particulars of the train before (Appx II Annex III 2.(i))
15	If the communication with L C Gate fails, SM shall stop all trains and issue (Appx II. Annex III 3 (1))
16	At engineering/traffic level crossing non interlocked gate, normal position open to road traffic, the Station Master(gate is connected to dispatching end)

	will	advise	the	gateman (Appx II	•			the	train	before
17.		to road t	raffic,	level cross the Station gateman (Appx II A	n Master(ç particula	gate is ars	s conn of	ected to	o receivi	ing end)
18.	Certif		•	ency issue Annex VII 2		eman	will b	e valid	for a p	eriod of
19.	plann	ing, SM s	shall inf	with gate more or more or with gate more or more or with gate more	an about	the c	ancell	ation of		_
20.	The i			vorking of I XIV -list o	_		incorp	orated i	in the A	ppendix

APPENDIX III, IV, V, VI VII and VIII

1.	During non interlocking working, theline should not be used for reception of trains coming from opposite direction. (Appx III 2.4)
2.	Engineering and S&T officials shall send a circular notice to the Sr.DOM/DOM at leastdays before the work is due tocommence. (Appx III 3.)
3.	The staff should also sign inregister in token of having understood the train working instructions during NI working. (Appx III 4.1(ii)).
4.	A common NI home signal without route indicator should be provided withaspect for any indirect reception of trains. (Appx III 4.4)
5.	signal shall not be disconnected throughout the NI working except at the fag end.(Appx III 4.6)
6.	All trains must be brought to a the FSS and then allowed to enter (taking off signals) cautiously at speed not exceedingkmph.(App III 5.2)
7.	During non interlocking working, speed of the trains on main line shall not exceedkmph. (Appx III 5.2).
8.	During NI working, the LP shall not pass the outermost facing points even though signals are taken off unless he also receivesat points. (Appx III 5.3)
9.	During NI working the ASM/Guard/SWM in charge of the goomties shall be responsible for correctbefore exchanging PN to take off signals.(Appx III 5.4.3)
13.	The name of the night patrolman with arrival and departure time shall be recorded by SM inbook and also in theand(Appx IV 10.2)
14.	If the night patrolman does not turn up even after minutes beyond the schedule arrival time, SM shall stop all the trains and issue caution order restricting the speed to kmph.(Appx IV 10.4).
15.	As and when there is change of traction and reversal of enginetest must be conducted. (Appx VI 15)
16.	Station Detonator Register containsparts.(Appx VII 9 (a)).
17.	Particulars of Fog Signalmen posted at the station from time to time shall be recorded in the Part of Station Detonator Register.(Appx VII 9 (a))
18.	Particulars of receipt and stock of detonating (fog) signals at the station, to be filled in whenever detonators are used or received are to be recorded in the Part of Station Detonator Register.(Appx VII 1 (a))
19.	Maximum number of wagons containing explosives permitted by goods trains is and by mixed train.(Appx VIII 1.1)

20.	Minimum number of wagons is to be given as support wagons from Loco when wagons containing explosives are attached by Goods Train.(Appx VIII 1.3.1)
21.	Minimum number of wagons is required to be given as support wagons from B V / Passenger coach / other inflammables when explosives are carried by a train.(Appx VIII 1.3.2.)
22.	The liquids, the vapours of which have flash point below 23 C classified underClass. (Appx VIII 2)
23.	Class 'A' POL product when carried, minimum number of wagons are given as support wagon from loco and from brake van or passenger carriage. (Appx VIII 2.3)
24.	When a Brake Van is provided, no dummy wagons are required from loco and other vehicles.(Annexure-VIII paras, SRs 2.3.3)
25.	Class 'B' POL product when carried, minimum number of wagons is given as support wagon from loco and BV.(Appx VIII 2.4)
26.	For the purpose of marshalling, the empty oil tanks also shall be treatedtank wagons.(Appx VIII 2.6)
27.	Tank wagons containing petroleum and other inflammable liquids and oxygen/air not to be carried together.(Appx VIII 2.10)
28.	A single four wheeler must not be marshaled between twoAppx VIII 8.5.1)
29.	To attach a dead engine to a train, a certificate 'fit to run' issued by Section Engineer//Power controller is required.(Appx VIII 9.5.1 (i))
30.	Dead engine shall be escorted by competent railway servant not lower than (Appx VIII 9.5.1 (i)).
31.	number of dead engines is/are permitted to attach to passenger carrying train.(Appx VIII 9.5.2 (I))
32.	No dead engine should be attached to anytrain under any circumstances.(Appx VIII 9.5.2(v))
33.	Officers inspection carriages are not to be permitted by (a)(c)(d)trains.(Appx VIII 10.1 and rake link)
34.	More than one Inspection Carriage is not permitted bytrains.(Appx VIII 10.2)
35.	can be attached in excess of the permitted load.(
	A mail/express train shall have at least one after loco and as rearmost vehicle. (
	Appx VIII 11 1 1)

37	In rear of rear S L Rexcluding one Inspection carriage for express train	coaches can be attached ns.(SR. 4.24.1)
38	In case of short trains running with single SLR, the in the of the formation(Appx-VIII1	
39	.When center S L R is provided in short trains, a	
	coaches are permitted on either side of S L R. (SR	l. 4.24.1)

APPENDIX X and XI

1.	In Siemen's panel to take "OFF' signal and buttons are to be pressed.(Appx XI II 4 iii (b3)
2.	In Siemen's panel route button colour is (Appx XI II . 4(b))
	In Siemen's Panel colour of the point button is (Appx XI II . 4(b))
4.	In Siemen's/Podanur Panel colour of the signal button/knob is(Appx XI II . 4(b))
5.	EGGN button is for(Appx XI II . 4(b))
6.	EUUYN button is for(Appx XI II . 4(b))
7.	EUYN button is for(Appx XI II . 4(b))
8.	WN button is for(Appx XI II . 4(b))
	GN button is for (Appx XI II . 4(b))
10	. WWN button is for (Appx XI II . 4(b))
11	In the Siemen's panel 'NCR' indication along with audible warning appears after a button is kept pressed for a prolonged period of seconds or more.(Appx XI II 4. c (i))
12	.In the Siemen's panelrelated buttons have to be pressed and released simultaneously to operate a given function(Appx XI II 4. c (ii)(a))
13	. Emergency point button code is(Appx XI II 4(b)).
14	. Points can be altered only when indication is available.(Appx XI II 4.(ii)(b))
15	.To put back the signal to "ON" position in Siemens's panel and buttons are to be pressed.(Appx XI II 4 V 2)
	.In Podanur Panel Point button has positions andindications.(Appx XI II 5 b(2))
	. Point switch in Podanur panel is colour, where as point button in Siemen's panel is colour.(Appx XI . II 5 b .2)
18	.Route cancellation takesseconds after initiation (Appx XI II 5 (v))
19	. After the arrival of the train on calling "ON" in Podanur panel the time taken to cancel calling "ON" is seconds.(Appx XI II 5 (v))
20	. Whenever panel is not in use, it should be (Appx XI II 6 (1)).
21	.When power supply fails in Non-electrified area, one generator can be used for a maximum of hours at a time.(Appx XI II 6 ii (f 4)
22	. Even though route is locked, Gate can be opened by usingwhich takesseconds to release Gate key.(Appx XI II 6.e (c))
23	. Frequent power failures are to be reported to(Appx XI II 6 ii (i)

24	Rusty" rail caps are to be placed when any line is not used for more than hrs.(Appx XI II 6 Dos for SMs)			
25	At the Panel interlocked station, the Station Master shall test emergency cross overto ensure its proper functioning.(Appx XI II 6 Dos for SMs)			
26	When points are flashing the SM shall ensure that there is no between stock rail and switch rail.(Appx XI II 6 Dos			
	or SMs).			
27	DYN knob is for(Ref S W R)			
28	28. For resetting the loop line axle counter, the SM shall take the co-operation o			

APPENDIX XII, XIII, XIV and XV

1.	In case of train shunting, written instructions will be given in form No(Appx XII).
2.	On double line section, shunting within the station section can be when line clear is granted for a train.(App XII 7.1)
3.	On Double line, to perform shunting beyond LSS, SM shall doand givewritten authority.(Appx XII 8)
4.	On double line, when shunting is permitted beyond LSS in SWR in rear of a travelling away train, the written authority is(Appx XII 8)
5.	On single line token less sections, to perform shunting beyond LSS and up to FSS, the authority is(Appx XII 9.2)
6.	On double line, to perform shunting beyond Outer most facing points/BSLB, the authority is(Appx XII 10)
7.	To shunt beyond the FSS on single line sections, the movement should be treated like amovement and LP shall be given+ a memo to push back.(Appx XII 11).
8.	S & T works which don't require the permission of SM for maintenance are grouped as (Appx XIII-4).
9.	S & T works for maintenance which require the permission in writing by SM are grouped as (Appx XIII-4).
10	.S & T works for maintenance which definitely require Disconnection/Reconnection are grouped as(Appx XIII-4)
11	.Disconnection Notice will be accepted by Station Master in consultation with(Appx XIII 5)
12	message from the Station Master is only the intimation for the S&T maintenance staff to attend the defect/failure.(Appx XIII 7)
13	.The Relay room shall be kept locked with two independent locks or single lock with double key, one key of the lock shall be kept with(Appx XIII-4)
14	.The Station Master shall hand over the Relay room key to the S&T staff after obtaining the signature in theregister.(Appx XIII-6)

APPENDIX XVI and XVII

1.	According to the density of traffic to the sidings, the rakes will be moved as per (A) One Pilot Only System or (B)System. (Appx XVII)
2.	is authorized to prescribe either one pilot only system or multiple pilot system of working on the basis of traffic to be dealt.(Appx XVII)
3.	At serving station where sidings are take off, the Station master must maintainregister to record the detail of all pilot movements.(Appx XVII)
4.	of the train or in his absence anystaff deputed by Station Master is in charge of the Pilot.(Appx XVII)
5.	of the Pilot is responsible for the safe working of the Pilot and for the correct setting and securing of points.(Appx XVII)
6.	In thesystem, before leaving station, LP will be given authority to proceed to the siding and return to the station.(Appx XVII)
7.	On complete arrival of the Pilot train inside the fouling mark, the shall make an endorsement in the Pilot Movement Register. (Appx XVII)
8.	In thesystem, LP will be given separate authorities from station to siding and siding to station.(Appx XVII)
9.	Reception of pilot train into station can be done by taking offor(Appx XVII)
10	In the Multiple Pilot system, in the event of failure of means of communication with siding, SM has to adoptsystem till restoration of any one of the communication.(Appx XVII).

BLOCK WORKING MANUAL

 In the Daido handle type block instrument, to cancel the Line clear, when train has not left the stationswitch is to be operated. (BWM-B- 1.2(j))
 In the Podanur push button block instrumentindicator is an aid to the SM to verify if all relevant controls, levers/knobs, signals etc., are normal. (BWM-B-1.3(o))
 When Home signal is defective on D/L & S/L token less area, its lever/knob should be kept inposition to prevent(BWM- C-1.5 note)
 Bell code to be given SM in advance when unsafe condition on a run through train is observed is(BWM-A-B-C-2.3.6(b))
 When acknowledgement cannot be obtained for 'Call attention' bell beat, after seconds, again Call attention shall be given by SM. (BWM-A-2.5(d), B-2.4(d),C-2.4(d))
6. The Station Master taking over charge shall test the block instrument and make a record of the result then and there in the(BWM-A-2.6 (e)note,B.2.6 (e)(i),C-2.7(e) note)
7. The Station Master who ask/grants line clear shall remain on duty till thesignal is received /acknowledged. (BWM-A-2.9 (a) ,B.2.7 (a), C-2.8(a))
8. SM shall test the Podanur push button block instrument /SGE block instrument by attempting to take off without obtaining line clear(BWM-B-2.6 (e)(iii),C-2.7 note (e) iii)
9. The time of relief and handing over the block instruments shall be recorded by the outgoing SM in the along with the last number registered in the counters. (BWM-A-2.6 (e), B.2.6 (e),C-2.7(e))
10.On double line block instrument will be operated for obtaining line clear, by and for closing block section by(BWM-C-3.2(A) i 9)
11. In push button token less block instrument,button is to be operated for cancellation of line clear along with BCB. (BWM-B-3.3(B)4)
12.In podanur push button block instruments, when cancellation button is operated, indication appears after lapse ofseconds. (BWM-B-3.3(B) 5)
13. In Single line Electrified sectionstype of block instruments are only provided. (No.74/W3/SGF/6 dated 18.05.1982)
14. In push button token less block instrument when shunt key cannot be extracted for shunting purposes, the SM shall advise the SM at the other end

givenfor performing shunting.(BWM-B-3.7.7)	be
15. For all Goods trains at originating station "is line clear" should asked(BWM-A-3.10,C-3.5(c))	be
16.At train starting station 'is line clear' shall be askedminubefore the booked departure of the passenger carrying train. (BWM 3.10,C-3.5(c))	tes -A
17. At intermediate stations, for all stopping trains with a halt of less than f minutes' is line clear' shall be asked when(BVA-3.10,C-3.5(c))	
18.in the case of train is booked to run through a station, is line clear shall askedminutes before the train is due to pass. (BWM-A-3.10, 3.5(c))	
19. For run through trains whose running time is less than seven minutes, L clear is to be obtained immediately aftersignal is received.(BWM-A-3.10, C-3.5)	the
20Private Number sheets shall be supplied to each Stat Master. Onlysheet shall be in use at a time. (BWM-A-3.22 (B-3.18 (e),C-3.13(e))	
21.On double line sections when a train is pushed back after entering the bloosection on normal ATP, the next train shall be dispatch on(BWM-C-5.5 note)	
22. When Block forward or Block back is done on double line sections, the block instrument shall be kept inposition directly. (BWM 5.3.1,5.4.1)	
23. The Guards/Loco Pilots of all trains who are provided with VHF sets a Portable Field telephone, when delayed in the block section for or for passenger carrying/goods trains shall inform the Stati Master/controller. (BWM-A-5.5 (b), B.5.6 (b), C-5.7(e))	vei
24.A relief engine should be sent, if the engine or vehicles running away had not arrived even after a lapse ofminutes more than the running the of the slowest speed goods train. (BWM-A-5.9 (a), B.5.10 (a) 5.11(b),5.12(b))	me
25. After the testing signals are exchanged, entries in red ink shall be made the and signed by both SI/ESM and the Station Master. (BW A-7.4 (f), B-7.4 (d),C-7.3(d))	
26.When 'Train on line' buzzer fails, the block instrument shall(BWM-B-8.1(a)vii)	be
27. Block instrument failure either at station 'X' or station 'Y' shall be recorded both Station masters of 'X' and 'Y' in theirregist	-

28. In the event of failure or suspension of block instrument, before signaling a train through any alternative means of communication both SMs shall and record in the TSR in red ink. (BWM-A-8.5(d), B-
8.5(d),C-8.6(d))
29. Before despatchig a train using the Block telephone, Both SMs shall cross checkfor the last three preceding trains and record these particulars in the TSR. (BWM-A-8.7(b), B-8.7(b), C-8.7(b))
30. Before despatchig a train using the Control telephone, Both SMs shall cross checkfor the last three preceding trains and record these particulars in the TSR. (BWM-A-8.8(c), B-8.8(c), C-8.8(c))
31.VHF sets as a means of communication for prolonged duration ofhours or more should be permitted only in the presence of supervisory staff. (BWM-A,B,C-8.9 Note(i))
32. When BPAC fails, it goes tomode after resetting the instrument with cooperation with SM/advance.(S.R.14.3.2.3)
33. When there is no response for call attention bell, efforts shall be made to attract attention of SM/advance on other means after a lapse ofminutes. (BWM-A-B-8.5(a),C-8.6(a))
34. In Automatic block system, alternate means of communications are (i) wherever available (ii) Fixed telephone such as Railway auto-phone and (iii) and (iv)VHF set.(S.R.9.12.3.5.1)
35. Even if tail lamp/tail board is not found closing block section need not be held up where are provided.(S.R.4.17.2 Note)
36. During PLCT working entries shall be made at receiving end in in addition to TSR.(BWM-Annex-1.1(b))
37. While issuing PLCT, loco pilot's signature is to be obtained in(BWM-Annex-1.5(a))
38.All block instruments are provingposition of Home signal(S.R.3.24)

ACCIDENT MANUAL

1.	Accidents are classified as a] b)
2.	An example of consequential accident is
3.	An example of indicative accident is
4.	Passing stop signal at Danger istype of accident.
5.	In an accident if the damage to Railway property exceeds Rupees 2 crores , such accident shall be treated as accident
6.	If, outside station limits, the distance between two trains isor more, such occurrence may not be treated as averted collision.
7.	Reportable Train accidents means all accidents falling under the purview of sectionof the Railway Act 1989.
8.	Target time to submit the enquiry report by the committee to DRM/GM is
9.	When SM receives message about unsafe condition of tanks, rivers and bunds, he shall stop the train and issue caution order to observe
10.	.When murder is reported in second class compartment, carriage will be detached at the station where the
11.	An example of breach of block rules is
12.	If gate telephone fails for more than minutes, it shall be treated as equipment failure.
13.	.Whenever accident takes place, blood samples are to be collected from in addition to GLP of the ill fated train.
14.	Accident siren three long indicates
15.	. Accident siren when accident takes place at out station, main line obstructed and MRT required is
16.	.The target time for turning out ART isby day andby night.
17.	ARME scale –I comprises of and
18.	Scale II ARME is stored in boxes in specials rooms at two extremes on the
19.	. The target time for turning out MRT is for direct/indirect dispatch.
20.	. Mock drills for ART shall be conducted once in .

21. Rainfall above for running trains.	_ cm in 24 hours is considered as dangerous
22.Heavy wind above running trains.	kmph is considered dangerous for
 South Central Railway is divided Weather Warning. 	d intozones for the purpose of
	ing message, the Station Master should over to the parties concerned and obtain
25. In case of death in Train accide /is paid as ex-gratia.	nt/manned LC gate accident Rs
26. In case of serious injury in a trail gratia	n accident Rs is paid as ex-
27. Whenever accident takes place, Noand	, SM and GLP has to prepare report in formsrespectively.
28. The amount of compensation to Rs	be paid in case of death in railway accident is
29. The claim for compensation shal date of accident through	II be made withinfrom the

REFRESHER SM/ASM(APRIL12)

VARIOUS SPEED RESTRICTIONS

S.No	DESCRIPTION [AT STATION]	SPEED[kmph]	RULE REF.
1.	Failure of LSS in Automatic block – D/L	10 up to next signal	SR.3.12.3
2.	Goods trains -entering terminal yards	15	SR.3.36.4
3.	While testing detonators	811	SR 3.64.5.6
4.	Maximum speed on calling on 'off'	30	SR 3.79
5.	On non-interlocked points	15	GR. 4.10
6.	1 in 8½ turnout—a]goods b] Passenger carrying trains c] with curved switches, PSC sleepers and52/60 kg rails both passenger and goods d) symmetrical split with curved switch 52/60kg rails including Thick Web Switch on PSC sleepers both passenger and goods	15 10 15 30	SR.4.10
7.	TTM speed over points and crossings	10	SR 4.65.1.1
8.	Trolly over points and crossings	15	SR.15.25.10.2
9.	STD.I (R) Interlocked M/L facing points	Up to 50	Appendix XI 1.3
10.	STD.II (R) Interlocked M/L facing points	Up to 110	Appendix XI 1.3
11.	STD.III (R) Interlocked M/L facing points	Up to 140	Appendix XI 1.3
12.	STD.IV (R) Interlocked M/L facing points	Up to 160	Appendix XI 1.3
13.	STD III interlocked M/L facing points	MPS	SEM Part I

	[IN BLOCK SECTION]		
14.	IBS at 'ON'phone defective	15/8	SR.3.75.4
15.	During dense fog—in section	Absolute-60 Automatic - Green- 60 Double yellow -30 SingleYellow- restricted speed	SR.3.61.9
	While pushing the train—		
16.	a) Guard in the leading vehicle	25	SR.4.12.2.3
10.	b)Guard is not in the leading vehicle	8	
	c) without brake van	Walking speed	
17.	Patrol or Search light special with one or more vehicles in front	40	GR 4.12.1
18.	Failure of Headlight	40 or severest SR	SR.4.14
	Shunting		
19.	Generally	15	SR 5.13
19.	Explosives	08	
	Non-roller bearing—Hand shunting	05	SR 5.20.5.3
	Rail breakageup to 30mm		
20.	I train	10	SR.6.01.2.3.3
	II and subsequent trains	15	
21.	When train/engine is sent into occupied block section on T/A602	15/10	SR 6.02.6.1
22.	Light engine proceeding on T/B602 to open communication	15/10	SR 6.02.4.6.1
23.	During TIC on D/L Train proceeding on T/C602	25/10	SR 6.02.3.3.2
24.	When Block Tkt [T/J 602] is issued	15/8	T/J.602
25.	First train during TSL. working	25	SR 6.02.1.11

26.	During TIC on S/L When line clear is obtained for more than one train speed of second and subsequent trains	25/10	SR.6.02.4.18
27.	On seeing flasher light	20/10	SR 6.03.7
28.	When 'lurch' is reported and subsequently a train is sent with engineering official, caution order	Stop dead short of expected portion of the track.	SR.6.07.1(d)
29.	When 'lurch' is reported and subsequently a train is sent without engineering official, caution order	Stop dead before the affected KM and proceed with 10km after satisfying condition of the track	SR.6.07.1(e)
30.	Light engine returning on T/609 to clear left over portion	25	SR 6.09.7
31.	When LOCO PILOT passes Automatic signal at ON	10	SR.9.02.3
32.	Failure of LSS in Automatic block S/L— First Train	25	SR.9.06.5
33.	First train is proceeding on T/D912	25	SR.9.12.1.6.2
34.	When train is proceeding on T/B912	25/10	SR.9.122.4.3
35.	During TSL Working in automatic block First train on wrong line	25	SR.9.12.3.10
36.	Speed of the relief engine on T/C 912	15/10	SR 9.12.6.1.3
37.	Speed of the following tower wagon/TTM (day/night)	25/10	SR 15.06.4.3
38.	Speed of the Material train/tower wagon/TTM during integrated/shadow block (day/night)	15/8	SR 15.06.4.4.1
39.	After stopping at Stop Indicator	8	SR15.09.3

40.	When major work is in progress—speed of trains on adjacent line	50	SR 15.09.6
41.	When water rises over ballast level but below rail level	Stop and proceed 8 (2 gang men should walk abreast on sleepers)	SR.15.17.3
42.	When water overtops the rail	Stop and proceed 8 after certification by PWI	SR.15.17.3
43.	Motor trolly during night	30	SR.15.25.10
44.	Passing neutral section —minimum	30	SR.17.07.1
45.	In cases of emergency Asst.Loco Pilot drives the train up to next point where he can be relieved	40	SR.17.09.5.7
46.	Electric loco leading driving compartment is defective a)Loco Pilot remains in leading driving comp. Train is driven by Asst.Loco Pilot from rear driving compartment B) Loco Pilot drives from rear driving compartment. Asst. remains in the leading compartment	40 15	SR.17.09.12.2 SR.17.09.12.3
47.	First train to enter healthy section which is temporarily isolated and reenergized	60/30	SR.17.09.16
48.	When patrolman has not turned up after 15 mts beyond schedule arrival	· • • • • • • • • • • • • • • • • • • •	
49.	When a four wheeler vehicle is attached to passenger carrying train.	BG—75 MG—50	App.VIII8.5.3
50.	Unsafe condition of bunds of Tanks or Rivers	Special caution	Accident Manual 401

51.	When ODC is by train	BG	MG	
	Class A	75	25	WTT
	Class B	40	25	
	Class C	25	15	

AUTHORITIES

1. Normal authority to proceed on Single Line token section is TOKEN 2. Normal authority to proceed on Single Line token less section and on Double line section is **OFF POSITION OF L.S.S.** 3. When a Loco Pilot has been advised of a defective reception stop signal of a station in advance through the S.M. of station in rear, the authority to pass such signal is T/369(1) +PHS AT THE FOOT OF THE SIGNAL defective 4. Authority to pass OUTER/HOME/STARTER signal is T/369(3b)+PHS 5. Authority to pass defective Shunt signal / Shunting permitted indicator is T/369(3b)+PHS 6. When train has passed starter signal partly when the signal is at ON and stops, it shall be started on_T/369(3b)+MEMO(COUNTER SIGNED BY **GUARD)+PHS+ATP** 7. When LSS becomes defective on Double Line in Automatic block system (T.369(3b)+CO (10 kmph up to next signal.) 8. Caution order (Divisional/Sectional) T/409 9. Caution order (Nil) T/A 409 10. Authority for the material, after completion of work coming back to the same station -T.462 11. Authority for the material after completion of work going to the next station ----T/A.462 12. Authority for the TTM, after completion of work coming back to the same station -T.465 13. Authority for the TTM, after completion of work going to the next station -T/A.465 14. Authority when more than one TTM is permitted in the same section and returning back to the same station for the First TTM is-T.465 and subsequent TTMs----CO 15. Authority when more than one TTM is permitted in the same section and going to the station in advance first &subsequent TTMs --- CO and last TTM is given---T.A 465 16. Authority to receive a train on to an obstructed line/ non-signaled line____T/509 17. To start a train from a line not provided with Starter Signal and ATP is not tangible ATP+T/511

of linesATP+T/512 +common starter taken 'off'
19.To send a relief engine/train or train into occupied bloc sectionT/A.602
20. Engine going for opening up communication during total interruption communication on Single LineT/B602
21.To dispatch a train during total interruption of communication on Double Lir sectionsT/C602
22. For working trains during T S L working on double lineT/D602
23. For engine going for opening up communication during total interruption communication on Single Line when Line Clear is required for more than or trainT/B602+T/E602
24.In case of even flow of traffic during TIC on S/L, after opening up communication, Line clear enquiry can be made for subsequent train throughT/E602
25. Conditional line clear reply messageT/F602
26. Conditional Line Clear Ticket for UP/DOWN trainsUP-T/G602. DOWI T/H602
27. Form that has to be used for exchanging messages after any one of the means of communication is restoredT/1602
28. Block Ticket is prepared in Form No T/J602
29. Written permission given by Guard to Loco Pilot during divided train workinT/609
30. When a train without guard is divided in the section, after dropping the fir portion, authority for light engine returning to pickup second portionT/A 602
31. Shunting order (Shunting instruction form)T/806
32.Authority to go up to opposite FSS for shunting purpose in Toke area T/806
33. Authority to go up to opposite FSS for shunting purpose in Token les areaT/806+SHUNT KEY OR T/806+PN
34. Authority to go beyond opposite FSS for shunting purpose on Sing lineATP+WRITTEN MEMO TO PUSH BACK+TAKING OFF SIGNALS
35. Authority to enter block section in rear on Double line section for shuntir purposeT/806(WITH PN)
36. Authority to enter block section in advance on Double line section for shuntir purpose TAKING OFF SHUNT SIGNAL BELOW LSS/LSS LEVE

37. Authority to enter block section in advance on Double Line section for shunting purpose behind the travelling away train taking of shunt signal below LSS or T/806 without PN
 When LSS becomes defective on Single line Automatic block system (T/A912+PLCT)
39. During prolonged failure of all signals and communication on Double Line Automatic block systemT/B912
40. For relief engine/train to enter occupied block section in Automatic block systemT/C912
41. During prolonged failure of all signals and communication is available or Double Line Automatic block systemT/D912
42. Authority to despatch the trains during temporary single line working or Automatic block system (first train on right line and all trains on wrong line) - T/D 602 + T/A 912
43. Authority to open communication on single line automatic block system is - T/B 602 + T/A 912
44. Before issuing PLCT –Line Clear EnquiryT/A1425
45. Before issuing PLCT –Line Clear Reply T/B1425
46. PLCT-UP T/C1425
47.PLCT-DOWN T/D1425
48.To pass Home Signal of class C station on Double line sectionPLCT
49. In IBS area, before a train leaves the station if it is known that the IBS/LSS/AXLE COUNTER/TRACKCIRCUIT is failed PLCT+T/369(3B)
50. When Loco Pilot enters block section without an ATP and report is sent to station in rear, the SM givesPLCT
51.Trolley/Lorry/Ladder Trolley Notice T/1518
52. Motor trolley permit in token less single line and double line sections or Absolute Block systemT/A1525
53. Motor trolley permit in single line and double line sections on Automatic Block systemT/A1525
54. Motor trolley permit to follow a train/engine/another motor trolley T/1525
55. Authority for Tower Wagon, after completion of work coming back to the same station- T.1708

58. Authority when more than one Tower wagon is permitted in the same section and going to the station in advance first &subsequent Tower wagon(s)CO and last tower wagon is givenT/A 1708
59. S&T Disconnection and Reconnection NoticeS&T(T/351)
60. Train Examination AdviseT/431
61. BPC form no R.S.6
62. Combined Train ReportT/720.
UPDATED UPTO AMENDMENT SLIP NO. 8

COMMERCIAL STUDY MATERIAL

FOR

REFRESHER STATION MASTERS

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TATKAL RESERVATION

- 1. To meet the urgent travel requirement of passengers at short notice, *tatkal* reservation is provided.
- 2. Tatkal reservation is provided to full fare paying passengers only and not allowed on any concessional tickets / free pass holders.
- 3. Tatkal advance reservation will commence 1 day in advance excluding the day of journey at the train starting station.
- 4. Tatkal scheme is available in all classes except IAC and in all trains except ordinary trains.
- 5. Tatkal booking is done on first come first serve basis.
- 6. A maximum of 4 passengers can be booked on a tatkal ticket.
- 7. Separate quota is earmarked in each class as per demand.
- 8. The Tatkal Charges are 10% of basic fare for II Sitting and 30% of basic fare for all other classes subject to minimum and maximum as given below:-

Class	Minimum Charges	Maximum Charges
II	10.00	15.00
SL / ACCC	75.00	150.00
3 AC / 2 AC / EC	200.00	300.00

- 9. The above charges will be levied uniformly both in peak period and nonpeak periods.
- 10. Reservation under this scheme shall be available up to preparation of chart.
- 11. At the time of preparation of charts, the vacant tatkal accommodation shall be released to the RAC, Wait Listed passengers and no tatkal charges shall be realized.
- 12. After preparation of charts, there will be no tatkal accommodation and all vacant berths in the train will be treated as normal train accommodation only.
- 13. Tatkal tickets will be issued for actual distance of travel, subject to the distance restriction applicable to the train.
- 14. The same Tatkal berth / seat may be booked in multiple legs till preparation of charts.
- 15. Change of name on tatkal ticket is not permitted.
- 16. Normally, Duplicate Tatkal Ticket shall not be issued. However, Duplicate Tatkal ticket may be issued in exceptional cases on payment of Full fare including Tatkal charges
- 17. Boarding enroute is permitted as per rules.
- 18. Wait list tickets may be issued under tatkal scheme up to the extent of tatkal quota.
- 19. Unutilized quotas of defence, foreign tourists etc will be used for clearance of tatkal wait list on priority.
- 20. The vacant tatkal quota at originating station should not be transferred to the tatkal quota of intermediate stations.

- 21. Whenever extra coach is attached, general wait list should be cleared first and then tatkal wait list.
- 22. Cancelled berths in general quota should be allotted to general and tatkal wait list passengers alternately.
- 23. If there is no tatkal wait list, the berths available due to cancellation in tatkal quota should be allotted to general quota.
- 24. If there is no general wait list, the cancelled berths can be allotted to tatkal passengers.
- 25. Tatkal reservation is also available in the holiday / summer special trains etc.
- 26. Agents / RTSAs shall be restricted from the booking Tatkal tickets at the counters between 0800 hours and 1000 hours.

Procedure for Booking:

- 27. Tatkal tickets shall be issued only on production of one of the following nine proof of identity:.
 - i) Voter Photo Identity Card
 - ii) Passport
 - iii) PAN Card
 - iv) Driving Licence
 - v) Photo Identity Card issued by Central / State Government
 - vi) Student Identity Card with photograph issued by recognized School/College for their students
 - vii) Nationalised Bank Passbook with photograph
 - viii) Credit Cards issued by Banks with laminated photograph
 - ix) Unique Identification card, "Aadhaar"
- 28. A self attested photo copy of identity proof of anyone passenger to be attached to the requisition slip.
- 29. Provision of capturing the number of proof of identity for all the four passengers has been provided.
- 30. Those passengers who want to indicate the number of proof of identity for more than one passenger will be required to produce copy(ies) of prescribed proof(s) of identity for additional passenger(s) also.
- 31. The numbers of such identity card(s) will also be captured *by* the system and will be reflected in the reservation chart and on the ticket.
- 32. Once the Tatkal ticket has been booked, details of additional Identity Cards shall not be captured subsequently.
- 33. It will not be mandatory for the passenger(s) to go to the counter to book the Tatkal ticket, however, the proof will have to be sent in the aforementioned manner.
- 34. During the journey, the passenger, whose identity card number has been indicated on the ticket, will have to produce original proof of identity indicated on the ticket.
- 35. Otherwise, all the passengers booked on the ticket shall be treated as travelling without ticket and charged accordingly.

- 36. Indication will come on the ticket regarding carrying the same original proof of identity during the journey, as indicated on the ticket.
- 37. In case the number of proof of identity of more than one passenger has been indicated, during the journey, even if anyone passenger produces the original identity card indicated on the ticket as well as reservation chart, all the passengers can undertake the journey.
- 38. If the passenger whose identity card number is indicated on the ticket is not travelling, all other passengers booked on that ticket, if found travelling in train, will be treated as travelling without ticket and charged accordingly.
- 39. In case of partial cancellation, if the passenger, whose identity card number has been indicated, is getting cancelled in a PNR, the number of proof of identity of at least one of the remaining passengers needs to be provided.

Refund on tatkal tickets:

No refund is granted on fully confirmed tatkal tickets. For refunds on wait list tatkal tickets, normal rules applicable for general tickets are applicable to tatkal tickets. In case of cancellation of partially confirmed Tatkal ticket, refund for only waiting list Tatkal ticket will be given.

Full refund of fare and Tatkal Charges will be granted on the tickets booked under this scheme in the following circumstances:-

- If the train is delayed by more than 3 hours at the journey originating point of the passenger & not the boarding point if the passenger's journey originating point and boarding point are different.
- If the train is to run on a diverted route and the passenger is not willing to travel.
- If the train is to run on diverted route and boarding station or the destination station or both the stations are not on the diverted route.
- In case of non-attachment of coach in which tatkal accommodation has been earmarked and the passenger has not been provided accommodation in the same class.

If the party has been accommodated in lower class and does not want to travel. In case the party travels in lower class, the passenger will be given refund of difference of fare and also the difference of tatkal charges, if any.

No refund will, however, be permissible on the reservations made under tatkal scheme in case the coach, in which accommodation under tatkal scheme has been earmarked, is not attached and the accommodation has been provided to the tatkal passengers in the normal train service in the same class.

For the purpose of granting refunds & issuing TDR, the time limit will be same as applicable for refund of normal ticket.

E – TICKETING

Indian Railways has launched the scheme of e-ticketing to facilitate public to book their tickets on line from the comforts of their home / office. The tickets can be booked through the web site of *Indian Railways Catering and Tourism Corporation Ltd.*, <u>www.irctc.co.in</u>.

Booking of e-tickets

- 1. Customers should register in the above site to book tickets. The registration is free.
- 2. No user can register more than once in the site.
- 3. Before registration, customers should go through the "Terms and Conditions" which are available in the website.
- 4. Full fare tickets, child tickets and tickets to senior citizens at concessional rates can alone be booked through the web site.
- 5. e-tickets can be booked for journey between any two stations in the route of the train including originating and destination. e reservation is available for all trains.
- 6. Booking timings are 00.30 hrs 23.30 hrs on all days including Sundays. On opening day of advance reservation, booking starts at 08.00 hrs.
- 7. Confirmed, RAC, WL and Tatkal Tickets can be booked under e- ticketing.
- 8. Booking in general, ladies and tatkal quotas is permitted but there is no choice of allotment of berth.
- 9. Non refundable service charge is collected by IRCTC as follows:

For SL / II Class	Rs.10/- per ticket irrespective of number of passengers
For all other classes	Rs.20/- per ticket irrespective of number of passengers

- 10. An individual can book a maximum of 10 tickets in a month.
- 11. Booking will be confirmed on line, on completion of the transaction.
- 12. Payment can be made through Net Banking, Debit Cards or Credit Cards.
- 13. After payment is made, the passenger should take out a print of the ticket, called *Electronic Reservation Slip* (ERS).
- 14.ERS is the printout in standard specified proforma containing reservation particulars and instructions.
- 15. A screen-shot of the e-ticket displayed through laptops/palmtops/ Mobile phone is known as Virtual Reservation Message (VRM).
- 16.ERS/VRM along with any one of the nine prescribed ID proofs in original constitutes the travelling authority.
- 17. Any one of the passengers on a ticket has to carry any one of the following photo identity cards during journey.
 - Voter Photo Identity Card
 - Passport
 - o PAN Card
 - Driving License

- Photo Identity Card issued by Central / State Government
- Student Identity Card with photograph issued by recognized Schools / Colleges for their students
- Nationalised Bank Passbook with photograph and
- o Credit Cards issued by Banks with laminated photograph
- Unique Identification card, "Aadhaar"
- 18. Failing which all the passengers booked on an e-ticket / m-ticket will be treated as travelling without ticket and excess charged accordingly.
- 19. Before printing ERS, the passenger need not feed the ID particulars in the system.
- 20. ERS/VRM along with one of the nine prescribed proofs of identity in original will also authorize the passenger to enter the platform on the day of journey and he/she need not required to purchase platform ticket.
- 21.ERS/VRM along with original id proof will be required to be produced on demand of Ticket Checking Staff on the platform.
- 22. If the passenger or any one of the passengers on a ticket is not able to carry the ERS but is carrying the proper identity card, he / they can perform the journey after paying a charge of Rs.50.00 per ticket to the travelling ticket examiner as penalty, if his / their name / names is/are available in the chart.
- 23. If the name(s) is/are not available in the chart, the passenger(s) is/are not authorized to board the train.
- 24. Booking on concessions, passes, pre bought tickets, break journey tickets, police warrants etc. are not permitted.
- 25. Modification of e-tickets is not permitted on line.
- 26. However, change of name and boarding point can be made at PRS counters as per rules.
- 27. Passenger(s) can not travel if the status of reservation is WL at the time of preparation of chart.

Cancellation of e-tickets:

- E-tickets will not be cancelled at railway counters.
- e-tickets can be cancelled through internet till preparation of chart.
- WL e-tickets not confirmed at the time of preparation of chart will be cancelled automatically by IRCTC online.
- Refund amount will be credited to the customer's bank account.
- After preparation of chart, the user should send e-mail (e.tickets @irctc.co.in) to IRCTC for cancellation of tickets.
- IRCTC will process the refund case with railways off line and refund will be credited to the customers account.

Partially Confirmed / RAC / WL Tickets:

If on one PNR there are more than one passenger and one passenger is having Confirmed / RAC status and rest are on WL or vice-versa, names of all passengers booked on such PNR will appear in the chart.

A certificate can be obtained from ticket checking staff in the train regarding non-travelling of WL passengers on such tickets. Refund can be obtained there after.

If all such passengers do not want to travel before chart preparation, on line cancellation can be done as at present. However, after chart preparation, online request can be sent to IRCTC for seeking refund. IRCTC will arrange the refund as per extant refund rules after verification of the same from Zonal Railways concerned.

RESERVATION ON PASSES

Pass holders or their representatives should present their pass along with the requisitions duly filled in to the reservation clerk who will issue ticket and make endorsement on the face of the pass indicating the train number, date of journey, status of tickets, etc.

Holders of Privilege, Duty, Post Retirement, Complementary, Metal and other passes may be allowed to seek fresh reservation only if the earlier reservation is cancelled.

In case of confirmed reservation on Privilege, Post retirement, Complimentary and other passes, the pass holder can make reservation a maximum of three times provided the earlier one has been cancelled before chart preparation.

If the confirmed reservation is not cancelled before preparation of charts, the pass will be treated as used. In exceptional cases, discretionary powers for allowing reservation on such passes only once can be delegated to JA Grade level office. At Divisional level, where any JA Grade level Commercial Officer is not available, the next senior most Commercial Officer may be delegated these powers.

There will be no restriction in number of cancellations in case of duty pass, metal pass and in case of tickets having a status of fully / partially WL (at the time of cancellation) against Privilege, Post Retirement and Complimentary passes. However, fresh reservation will be given only after the earlier one has been cancelled within the normal prescribed time limits.

Telephonic requests for reservation and cancellation will not be entertained.

The portion of break journey will be treated as separate journey i.e instructions given above will be applicable for each leg of journey separately.

It will be the responsibility of Office / Staff making reservation on Metal / Duty passes to ensure that between the same stations and on the same date, reservation should not be made in two separate trains or in different classes by the same train.

BOOKING OF MOTOR CYCLES, CYCLES AND AUTOS

- 1. These articles must be loaded in the brake van and not allowed with passengers in the compartment.
- 2. No free allowance is granted.
- In case they are found un-booked with passengers either in a compartment or at destination, the same should be charged at six times of the scale 'L' for the entire distance subject to a minimum of Rs.50/- per article.
- 4. Railways do not accept any liability of detachable fittings unless they are separately packed and a receipt is given to them.
- 5. Such detachable fittings must be included in the minimum weight for charge.
- 6. These are charged at the scale applicable to the type of train by which it is carried as per the standard weight per article (unpacked) as given below.

Type of vehicle	Chargeable weight
Auto rickshaw	600 kgs
Bicycles	40 kgs
Bicycles children	20 kgs
Motor cycles & mopeds	100 kgs (upto 60 cc)
Motor cycles & scooters	200 kgs (above 60 cc below 350
	cc)
Motor cycles	250 kgs (350 cc and above)
Rickshaws	150 kgs
Chairs invalid	150 kgs
Tricycles	100 kgs

- 7. Payment of percentage charge on excess value (PCEV) is compulsory on scooters and motorcycles when the declared value exceeds the railway liability.
- 8. Copy of the RC book to be submitted at the time of booking in case of motor cycles ,scooters and autos

WHARFAGE ON PARCELS

Wharfage is levied on consignments not removed from railway premises after expiry of free time.

Classification of Stations:

For the purpose of granting free time for removal of consignments and levy of wharfage, stations are classified into two groups.

- Notified Stations.
- Other than Notified Stations.

Permissible free time for removal:

Permissible free time for removal of consignments (other than leased) from railway premises is as follows.

Type of	Permissible free time for removal			
Station	Parcel / Luggage	2 /3/4 wheelers	Live Stock	
Notified Stations	10 hours of working of delivery section of parcel office after consignment is unloaded	6 hours of working of delivery section of	6 hours of working of delivery section	
Other than Notified Stations	18 hours of working of Parcel office after consignment is unloaded	parcel office after consignment is unloaded	of parcel office after consignment is unloaded	

Note:

Under any circumstances, live stock shall be removed from the Railway premises within 24 hours from the time of their arrival at destination, failing which they may be disposed off in accordance with the provisions of Sec 84 of RA'1989.

In case of leased traffic, free time for removal of consignments at destination station and free time for advance stacking at originating station shall be applicable as per the leasing policy.

Reckoning of National Holidays:

National Holidays, namely, 26th Jan, 15th Aug and 2nd Oct will not be reckoned in calculating free time for removal from Railway premises and for charging wharfage except in the case of

- (1) Live stock, perishable items at all stations and
- (2) Parcel / Luggage unloaded at Notified Stations.

Wharfage Rates:

The wharfage rates are as follows:

Type of	Rate of Wharfage Charge				
Type of Station	Parcel / Luggage	2 wheelers MC/ Cycle	3 or 4-wheelers,.	Live Stock	
Notified Stations	Rs.1.00 per 50 kgs or part thereof per hour or part of an hour	O per s or ereof our or of an or per hour or part of an hour or of an hour	•	Rs.10.00 per head per hour or part of an hour	
Other than Notified Stations	Rs.0.50 per 50 kgs or part thereof per hour or part of an hour		Rs.10.00 per head per hour or part of an hour		

Note:

The expenses entailed in feeding the live stock will also be leviable irrespective of the fact whether the live stock was removed within the free time or beyond the free time.

Higher Wharfage Charge:

Higher wharfage rates may be notified by the DRM after giving advance notice of 48 hours for speedy removal of parcels at congested parcel offices upto six times the normal rate for that station in stages.

LIABILITY OF RAILWAYS FOR DEATH AND INJURY TO PASSENGERS IN ACCIDENT

Sections 123 to 129 of Railways Act 1989, deal with the liability of railway administration for death and injury to passengers due to accident..

Sec 123: Deals with definitions of various words and expressions

Accident:

- collision between trains one of them being a passenger carrying train
- derailment or other accident to a train or any part of atrain carrying passengers, which endangers the safety of passengers or their baggage.

Untoward incident:

Section 124: Extent of Liability

Deals with the extent of liability of the railway administration in case of death or injury to a passenger or damage to his goods in an accident. Compensation in case of death is Rs.4,00,000/- Exgratia is as follows.

Train accident	Amount
Death	Rs.15,000/-
Grievous injury	Rs.5,000/-
Simple injury	Rs.500/-
Accident at manned level crossing	
gate	
Death	Rs.6,000/-
Grievous injury	Rs.2,500/-
Simple injury	

Note: Exgratia means immediate relief rendered to the victims at the spot of any accident as a measure of immediate relief.

- Exgratia will be paid on certification of Railway Doctor
- After payment is made to victims the acknowledgement of the party should be obtained
- Exgratia is paid in addition to the compensation allowed as per rules by RCT.

The rate of ex-gratia in case of grievously injured passengers who are hospitalized is as follows:

In case of grievous injury involving hospitalisation	Rate of ex-gratia
Upto 30 days of hospitalisation	Rs. 5000/- (Rs. Five thousand)
Upto further six months of hospitalisation.	Rs. 1000/- (Rs. One thousand) per week or part thereof the period for indoor treatment.
Upto further six months of hospitalisation	Rs.500 (Rs. Five hundred) per week or part thereof the period for indoor treatment.

- . The maximum period for which ex-gratia payment is payable to the grievous injured will be 13 months.
- The period for treatment as indoor patient for more than 30 days would need to be certified by a Railway Doctor for the purpose of further exgratia payment up to the period of 13 months. In case where the injured is taking treatment in other than Railway hospital, the treatment has to be certified by Railway Doctor.

Section 124 A: Compensation on account of untoward incident

Deals with compensation payable in case of untoward incidents, provided that no compensation shall be payable under this section by the railways if the passenger dies or suffers injury due to.

- Suicide or attempt to suicide by him / her
- Self inflicted injury
- His / Her own criminal act
- Any act committed by the passenger in a state of intoxication or insanity
- Any natural cause or decease or medical or surgical treatment unless such treatment becomes necessary due to injury caused by the said untoward incident.

Explanation: For the purpose of this section, "passenger" includes

- A railway servant on duty
- A person who has purchased a valid ticket for traveling, by a train carrying passengers on any date or valid platform ticket and becomes a victim of an untoward incident.

Section 125: Application for compensation

This section lists out the persons who can make an application for compensation and the time within which such application can be made. Application can be made to the concerned claims.

- By the person who sustained the injury or suffered loss or
- By any agent duly authorized by such person on his behalf or
- Where such person is a minor, by his guardian or

- Where death has resulted from the accident or the untoward incident, by any dependent of the deceased or
- Where such a dependent is a minor, by his guardian.

Section 126: Interim relief by Railway Administration:

When a person wants interim relief as per section 126, he may apply to railway administration, which may pay interim relief as per case, which may not be more than the amount of compensation payable by *Railway Claims Tribunal* after taking into account of the interim relief.

Section 127: Determination of compensation in respect of any injury or loss of goods.

Section128: Saving as to certain rights.

Section129: Power to make rules in respect of matters in this chapter

PASSENGER AMENITIES

Indian Railways are a century and a half old. During these 150 years of glorious service, Railways played a vital role in the country's need for large scale movement of traffic – both freight and passengers. The Indian Railways are contributing a lot in the economic growth of the country as well as promoting national integration.

Indian Railways serve as the principle mode of passenger transport in the country. Nearly 19 Millions of passengers are carried by Indian railways daily. With the quickening pace of modernization now sweeping the country, the Railway traveler expect much more from the Railways than he did in the past. To fulfill the increased expectation of the passengers, it is necessary that sufficient passenger amenities at stations and on trains have to be provided.

'150th year of Indian Railways i.e 2002-3 has been declared as **passenger's amenities year'**. The year 2003-04 has been declared as "Customer Satisfaction Year". The year 2006-07 was declared as the year of "Passenger Service with a Smile". Every year, general steps relating to safety, security, punctuality and cleanliness will be taken so that the customers would derive greater satisfaction from the Railways.

The allocation under the plan head 'Passenger and other users amenity' was to the tune of Rs.1300 crores for the year 2010-11. In order to provide upgraded passenger amenities at stations, 375 stations have so far been selected as "ADARSH" stations. Some of the thrust areas identified for them are as follows.

- Provision of all India train enquiry system.
- Conversion of stalls into modular stalls and provision of automatic vending machines
- Improvement in circulating areas.
- Improvement in waiting halls, booking offices and other infrastructural facilities / amenities.

Special attention is paid by Indian Railways with regard to

- Cleanliness at stations and trains
- Customer's satisfaction and care
- Catering and vending services
- Safety, security and punctuality
- Issue of unreserved tickets through SPTM
- Issue of unreserved tickets through UTS
- Passenger reservation system
- Provision of minimum essential passenger amenities at stations

Indian Railways have initiated training for front line staff to help them for dealing with the rail customers in a better manner. The program aims at inculcating a value system among them and to make them helpful to the rail users. The program would also help to increase the performance level of the employees by sensitizing them to the need of the customers, thereby solving their problems more effectively and in a positive manner.

Categorization of stations:

- Stations have been categorized into seven categories A1, A, B, C, D, E and F depending upon the earnings which is an indicator of passenger traffic.
- All suburban stations have been included in Category 'C' in order to accord high priority in view of a large passenger using them.
- The categorization shall be reviewed every 5 years. The next review will be carried in the financial year 2012-13 based on the earning of 2011-12.
- Annual passenger earnings: This is an important parameter for deciding the category of a station. It consists of earnings from both reserved and unreserved passengers. Data in respect of reserved passengers should be obtained from PRS and should be included in the station earnings.

S.No	Category	Criteria
1	'A1'	Non suburban stations with annual passenger
ı	Ai	earnings of more than Rs.50 crores.
2	'A'	Non suburban stations with an annual passenger
	^	earnings of Rs.6 crores and upto Rs.50 crores.
		Non suburban stations with annual passenger
3	'B'	earnings between Rs.3 crores and Rs.6 crores.
3		Stations of tourist importance or an important
		junction station as decided by GM
4	'C'	All suburban stations
5	'D'	Non suburban stations with an annual passenger
5	D	earnings between Rs.50 lakhs and Rs.3 crores
6	'E'	Non suburban stations with annual passenger
0		earnings less than 50 lakhs.
7	'F'	All halt stations

Minimum Essential Amenities (MEA):

 When a station is constructed certain minimum amenities should be provided at each category of station. These were earlier termed as basic amenities / infrastructural facilities and now are called 'Minimum essential amenities'. Booking Facilities, Drinking Water (Piped / Hand Pump), Waiting Hall / Shed, Seating arrangements, Platform (Shelter/ Shady Trees), Urinals, Latrines, Lighting,

Fans, Clock, Time Table Display etc, are the MEA

Recommended Amenities:

Once the essential amenities are provided at a station, further augmentation of these amenities as per norms will be known as recommended amenities. These norms are recommendatory.

Desirable amenities:

Desirable amenities are considered to improve customer satisfaction and interface process at the station. The quantum of these amenities would depend upon the category of the station. It should be noted that provision of desirable amenities need not wait for complete provision of recommended amenities. The amenities out of the list given should be provided based on the need and relative importance of the station.

Retiring Rooms, Waiting Rooms (With bathing facilities), Cloak Room, Enquiry Counter, PA System / Computer based announcement, Public Phone Booth, Parking / Circulating Area, Automatic Vending Machines, UTS, Pay & Use Toilets, ATM, Bookstalls etc are some of the Desirable amenities

Other important aspects:

- All toilets should be gradually converted into pay and use system
- All the signage should be standardized
- All stalls should be made modular and reduced in size
- Efforts should be made to make the stations cooking free and reduce the number of trolleys
- Ban-Marries should be provided at A1,A, B & C class stations
- The number of trolleys and catering stalls under the covered shed should be reduced to a minimum
- In a circulating area, proper traffic movement flow plan should be made. A green patch should also be developed.
- Automatic vending machines should be encouraged to replace existing vending stalls
- Enquiry and booking offices should be specially brightened up at all the stations
- The illumination of the station should be improved

Amenities for Physically challenged persons:

- Provision of standard ramp with railing for barrier free entry.
- Earmarking at least 2 parking lots for vehicles used by disabled persons.
- Provision of non-slippery walkway from parking lots to main station building.
- Provision of signage of appropriate visibility.
- Provision of at least one drinking water tap suitable for use by a disabled person.
- Provision of at least one toilet on the ground floor.
- "May I Help You" booth.
- Provision of facility for inter-platform transfer.
- Engraving on edges of platforms.

Maintenance of passenger amenities:

- It is important to maintain the amenities provided at all stations in working condition at all times.. Hygiene and cleanliness should be an important activity for day to day monitoring.
- provide adequate imprest cash with station masters of stations where railway maintenance staff is not available to enable them to organise expeditious repairs of small items of passenger amenities such as hand pumps, taps, water trolleys, clock, fans etc.

PREFERENTIAL TRAFFIC ORDER

- No undue preference should be given to any individual or commodity by Railways in allotment of wagons as per section 70 of the Railways Act 1989.
- 2. But as per section 71 of Railway Act 1989 powers are given to Central Government to give preference for the moment of certain commodities in the interest of nation.
- 3. Railway Administration shall give priority / preference mentioned in the order.
- 4. PTO is current or valid for one year, but can be extended from time to time.
- 5. All the commodities are grouped into 4 priorities, namely A, B, C and D.

Priority 'A':

Military Traffic, when sponsored by MILRAIL and approved by Railway Board.

Priority 'B':

Goods for emergency relief work for victims of natural calamities, like floods, drought, earth-quake etc. when sponsored by an officer not below the rank of Deputy Secretary of Central / State Government or a non-official organization accepted by the originating Zonal Railway or Railway Board.

Food grains and levy sugar for Public Distribution System or other welfare schemes sponsored by FCI and approved by Zonal Railways / Railway Board

Priority 'C':

Coal, Edible Salt, Raw Material to Steel plants, Fertilizers and POL

Priority 'D': All traffic not included in priority 'A' to 'C'

General instructions:

- 6. Traffic will have preference over other traffic within the same class of priority in the following order:
 - Traffic covered by contractual obligation and / or guaranteed under specific schemes like Wagon Investment Scheme (WIS), Freight Forwarder Scheme (FFS), and Terminal Incentive – cum - Engine on – Load Scheme (TIELS).
 - Traffic in rakes from a Siding / Goods Shed having round the clock working.
 - Traffic in rakes from a full rake handling siding having mechanized system of loading.
 - Traffic offered for distance of more than 800 Kms will have preference over other traffic within the same classification and priority.
- 7 Traffic offered in single point block rakes (including clubbed single point rakes) will be given preference over two point / multi point block rakes and mini rakes within the same class of priority.
- 8. COM is authorized to reserve and notify maximum upto 2 days (Two days) in a week for allotment of Rakes as per the oldest date of Registration (ODR) irrespective of the class of priority.

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WAGON DEMAND REGISTRATION

Registration:

- 1. Any person who desires of dispatching his goods by wagon should register his indent in wagon demand / priority register.
- 2. The following particulars should be shown in the wagon demand register.
 - Date and time of registration, serial number, consignor's and consignee's name and address, station to, name of the commodity, type of wagon required, signature of the party or signature of the person registering the demand.
- 3. Wagon demand registration fee is collected for the wagons registered under different gauges as under":

0.000	WDRF per	WDRF per
Gauge	wagon`.	Standard rake `.
BG	500	15,000
MG	400	12,000
NG	300	1.500

- 4. W.D.R.F. may be collected in cash or through credit note.
- 5. A separate money receipt in two portions will be issued with following particulars; name of the consignor, priority number, date of registration, station to, commodity, name of the person who is authorized to take refund, type of wagon indented.
- 6. After collecting the W.D.R.F., the indents are registered in priority registers maintained separately for wagon loads and train loads for each series and signature of the party is obtained.
- 7. Any number of indents can be accepted, except to quota points, where individual railways impose restrictions.
- 8. No indent should be accepted for destination which has been restricted "Until further advice"
- 9. Clubbing of commodities is permitted upto a maximum of 2 in a wagon.
- 10. A maximum of 12 RRs can be issued per wagon.
- 11.Rs100/- extra is collected for issue of every additional railway receipt issued per wagon.
- 12. These registers are kept open to public for inspection.

Exemptions from payment of WDRF:

- Kit wagons booked on kit passes issued to railway employees on retirement on transfer account
- Railway material consignments booked by railway officials
- Container traffic
- Military Traffic
- Platinum, Gold and Silver card holders

Forfeiture of wagon demand registration fee:

Wagon demand registration fee is forfeited under the following circumstances

- When wagon demand is cancelled after the physical supply of wagons.
- When wagon demand is cancelled within 10 days of registration.
- When loading is not commenced within the free time allowed for loading.
- When consignor has given in writing to detain the wagon and the loading is not commenced within 24 hours from the expiry of free time, indent is cancelled, WDRF is forfeited and demurrage charges levied without granting any free time.
- When consignor is not willing to pay freight charges as per existing railway tariff.
- An amount equal to WDRF will be collected from premier customers when they cancel their indents under any of the above conditions.
- When WDRF refund is not claimed within 3 years as per limitations Act..
- When a rake is supplied to an indenter at congested goods shed and he
 commences loading within the free time but does not complete the loading
 within twice the permissible free time, one subsequent pending indent of
 the said consignor will be cancelled along with forfeiture of WDRF.
 Similarly, if he does not complete the loading within three times the
 permissible free time, another pending indent will be cancelled along with
 forfeiture of WDRF and so on.

Refund of wagon demand registration fee:

Station master is empowered to give refund of wagon demand registration fee when paid in cash and WDRF is refundable under the following circumstances.

- When wagon is booked and loaded.
- When supply of wagon is not made up to 10 days and the consignor wants to cancel his indent.
- When open wagon is supplied against an indent for covered wagon or vice versa and the consignor is not willing to load.
- When restrictions are imposed without any time limit.

Note:

- 1. On surrender of money receipt, refund is granted.
- 2. If money receipt is lost refund can be granted on execution of a stamped Indemnity Bond.
- 3. The amount can be adjusted towards the freight charges in case of paid traffic.
- 4. When WDRF is paid through credit note, refund will be granted by CCM

Change / Cancellation of Indents under special conditions:

Cancellation of indents will be dealt differently when Railway Board issues notice to withdraw transportation of particular business segment or a particular stream of traffic or even a specific commodity for any of the following reasons.

- Disruption of a particular section due to Force majeure conditions
- Closure of the section after due notification
- Closure of the originating goods shed after due notification
- Closure of the destination goods shed after due notification
- Phasing out or withdrawal of a particular type of rolling stock altogether for which indent had been placed

In cases where the originating station is affected, no change of indent will be permitted.

In all the above cases where destination station is affected except (iii), the consignor may be allowed to change the destination station of the indent to any other destination within Zonal Railways of initial destination station.

In case of phasing out or withdrawal of a particular type of rolling stock, the consignor may also be allowed to change the indent to another type of stock.

The above change may be permitted by the booking station only after the receipt of the confirmation from the zonal railway of the destination station. Not more than one such change may be permitted.

If the consignor does not opt for change up to 30 days from the date of issuance of such notice, the indent shall be treated as cancelled on 31 st day and the registration fee shall be refunded.

Change of commodity:

- 1. It is permitted by DCM if the commodity is within the same priority.
- 2. It is permitted only once

Supply of wagons or allotment of wagons:

- 1. Each demand of wagon registration is given a serial number in the order of priority.
- Separate priority registers should be maintained for wagonload traffic and trainload traffic.
- 3. Allotment / loading orders are issued in accordance with the priority of registration as per preferential traffic order.

- 4. Stations should load wagons in accordance with the allotment / loading orders from the appropriate authority i.e. Sr.DOM.
- 5. The loading order given is called as Specific Loading Order (SLO).
- 6. At some stations, station masters are authorized to give loading orders in case of inward released wagons, which is called as 'back loading'.
- 7. The allotment or loading orders should be exhibited on the notice board of the station for the information of the public.
- 8. Before allotment of wagons, the registers of bans and restrictions should be verified to see whether the commodity is banned from booking or a particular route is closed for traffic.
- 9. All wagons allotted and supplied should be certified by TXR (Train Examination) staff.
- 10. If TXR is not available the wagons are jointly selected by the consignor and the station master after physical check.
- 11. Non-water tight wagons should not be supplied for goods damageable by wet.

COMPOSITION OF BLOCK RAKES

SI No.	Type of Wagon	Standard Rake	Minimum number of wagons
Open	wagons		
1	BOXN, BOXNHS, BOXNHSMI, BOXNHA, BOXNEL, BOXNLW, BOXNMI	59	58*
2	BOXNHL	58	57
3	BOX	35	30
4	BOST	45	43
5	BKCX	32	30
6	BOY, BOYN, BOYEL	53	50
Hopp	er Wagons		
7	BOBR	53	50
8	BOBRN	59	56
9	BOB, BOBC, BOBX, BOXK, BOBS	40	40
10	BOBSN, BOBSNMI, BOBY, BOBYN	53	48**
Flat V	Vagons		
11	BRN / BRNA / BRNAHS / BFNS	43	41
12	BRH / BRS	35	30
13	BFR / BFK / BFKI	35	30
14	BFKHN	40	35
Cove	red Wagons		
15	BCN, BCXN*****	41	39
16	BCNA, BCNAHS	42	40
17	BCNHL	58	57
18	BCX	40	35

19	BCCN	30	29
20	NMG	25	24
Tank	Wagons		
21	BTPN (Except Veg Oil)	48	46
22	BTPN(Veg Oil) / BTFLN	50	48
23	BTAP	51	49
24	BTCS	59	57
25	BTAL	35	32
26	BCCW (Bulk Cement)	58	56
27	BTPGLN / BTPG	32	30
28	Tank Wagon (4 wheeler) @	72	68
29	Tank Wagons TG type (4 wheeler)	64	62
Mixed	Rakes (BG)		
30	BOXN & BOYN	55	55 (minimum 15 of each type)
31	BOX & BFR / BRH***	35	30 (minimum 10 of each type)
32	BOXN + BRN / BRNA / BRNAHS / BOST / BFNS****	45	40 (min. 10 of each type & max. 20 of BOXN)
33	BOST + BRN / BRNA / BRNAHA / BFNS*****	43	41 (min.10 of each type)
34	BCN / BCNA / BCNAHS / BCXN*****	41	38
35	BTPN / BTCS	55	BTPN wagons will not be more than 25

PCC OF THE WAGONS

- 1. The goods tariff indicates the chargeable weight as PCC for the different main commodity heads..
- 2. All the commodities are charged at different weight conditions in three routes **Excepted CC+6**, **Universalised CC+6** and **CC+8**.

3. The current PCC of various types of wagons is as follows.

				CC + 8 F	Route	
				For ores,	All other	
				gypsum,	Commodities	
	_ ,			limestone &		
S.	Type of	Excepted	Universalized	dolomite, stones,		LT
No	Wagon	CC+ 6	CC + 6	clinker, cement,		
				all types of coal,		
				slag, DAP &		
				NPK fertilizers		
OPE	N WAGO	NS				
BO	KN					
BO	KNCR					
BO	KNHS	64	66	68	66	1
BO	KNHSMI					
BO	KNMI					
			68#			
BO)	KNHL	66	66 (for all	70	66	1
	XIVI IL	00	other	70	00	'
			commodities)			
BO	KNHA	63	65	67	65	1
				70 (for ores,		
				gypsum,		
				limestone,		
			68#	dolomite, stones		
	KNLW,	66	66(for all other	& clinker)	66	1
BOX	KNLWMI		commodities)	68 (for cement,		-
			,	all types of coal,		
				slag.)		
				66 (for DAP &		
			67#	NPK fertilizers)		\vdash
			65 (for all			
BO	KNR	65	other	69	65	1
			commodities)			
BO	KNEL	64	65	67	65	1
	K, BOXT	59	60	60	60	1
BO		60	60	60		
BO					60	1
BO	Υ,	66	67	69	69	1
BO	YEL	00	07	03	08	<u> </u>

BOYN	66	68	70	70	1
BOI	63	63	63	63	1
BOST	61	63	63	63	1
HOPPER					
BOBR	61	62	64	64	1
BOBRN	61	63	65	65	1
BOBS	60	62	64	64	1
BOBSN, BOBSNMI	56	58	60	60	1
BOBX	61	63	65	65	1
BOB	61	62	62	62	1
BOBC	45	45	45	45	1
BOBY	59	60	60	60	1
BOBYN	61	62	62	62	1

FLAT					
BRN	66	66	66	66	1
BRNA	63	63	63	63	1
BRNAHS	63	63	63	63	1
BFNS	60	61	62	62	1
BRH	62	62	62	62	1
BRHC,	61	62	62	62	1
BRHT	04	00	00	00	4
BRS, BRST	61	62	62	62	1
BFR	44	44	44	44	1
COVERED					
BCN	59	61	63	61	1
BCNA,	62	64	66	64	1
BCNAHS				04	ı
BCX	58	58	58	58	1
BCXN	60	61	61	61	1
BCNHL	66#	68#	70		
	66 (for sugar salt	68 (for sugar salt	68 (for sugar,		
	and MOP)	and MOP)	salt & MOP)	-0	_
	62 (for Rice)	62 (for Rice)	62 (for Rice)	58	0
	58 (for all other	58 (for all other	,		
	commodities)	commodities			
BCCW	64	66	68	68	0

For ores, gypsum, limestone & dolomite, stones, clinker, cement, all types of coal, slag, DAP and NPK

The PCC for tank wagon is as arrived from the calibration chart issued by Central Tank Wagon calibration committee. If chart is not issued then chargeable weight will be the stenciled CC.