

**EAST COAST RAILWAY  
SAMBALPUR DIVISION**

Sl. No. SWR/MRBL/09

**STATION WORKING RULES OF MURIBAHAL STATION (CODE: MRBL)**

BG/MG/NG :BROAD GAUGE

Date of issue: 15.04.2013

Date brought into force: 18.04.2013

**NOTE:** - The Station Working Rule (SWR) must be read in conjunction with General and Subsidiary Rules and Block Working Manual. These rules do not in any way supersede any rule in the above books.

**1. STATION WORKING RULE; -**

- 1.1 **STATION WORKING RULE DIAGRAM NO.** SI/ WRD -22097,ALT-A.  
1.2 **SIGNAL INTERLOCKING PLAN NO.:** - S .I – 22097, Alt-A.

The Station Working Rule diagram and Signal Interlocking Plan shows the complete lay out of the yard, siding, normal position of points, the Signalling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This must be referred to for giving details of the point's number and signals when reporting accidents.

**2. DESCRIPTION OF STATION: -**

MURIBAHAL is a two-line station situated in Titlagarh - Raipur section at KM. 184.458 from Raipur. It is Standard – II (R) interlocked, Class 'B' station with central panel having multiple aspect colour light signalling and Block proving axle counter have been provided at either side of the station.

**2.1 GENERAL LOCATION:-**

- 2.1.1 **NAME OF STATION:** - MURIBAHAL (Code-MRBL)  
2.1.2 **CLASSIFICATION OF STATION:** - 'B' class  
2.1.3 **NAME OF THE SECTION:** - Titlagarh – Raipur, Single Line, Non-RE, BG section  
2.1.4 **ROUTE:** - D Spl.  
2.1.5 **LOCATION:** - 184.458 km from Raipur.

**2.2 BLOCK STATIONS, IBH, IBS ON EITHER SIDE AND THEIR DISTANCE AND OUTLYING SIDINGS: -**

- i) Raipur end - KANTABANJI (Code: KBJ) inter distance 15.065 K.M.  
ii) Titlagarh end - RAHENBHATA (Code: RNBT) inter distance 10.542 K.M.  
iii) Passenger halt: - Nil  
iv) Flag station: - Nil  
v) Outlying siding: - Nil  
vi) D.K. station: - Nil.  
vii) IBH: - Nil  
viii) IBS: - Nil

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**2.3 BLOCK SECTION LIMITS: -**

Sl. No	Between Stations	The point from which "Block Section" commences.	The point at which "Block Section" ends.
1.	MRBL – KBJ	DN Advanced starter signal No:12 of MRBL Station	UP Advanced starter signal of KBJ
2.	MRBL- RNBT	UP Advanced Starter of Signal No.11 of MRBL Station	DN Advanced starter signal of RNBT

2.3.1 **STATION SECTION:** The portion between UP & DN Advanced starter signals of MURIBAHAL station.

2.3.2 **STATION LIMIT:** The portion between UP and DN Outer signals of MURIBAHAL Station.

**2.4: GRADIENT: -**

(i) Station section towards Titlagarh end.

From	To	Inter distance	Gradient
CSB	408.00 M	408.00 M	1 in 700 F
408.00 M	531.00 M	123.00 M	1 in 400 F
531.00 M	3877.00 M	3346.00 M	1 in 150 F
3877.00 M	Block section	-----	Level

(ii) Station section towards Raipur end.

From	To	Inter distance	Gradient
CSB	224.00 M	224.00 M	1 in 700 R
224.00 M	305.58 M	81.58 M	1 in 400 R
305.58 M	474.00	168.42 M	Level
474.00 M	3989.00 M	3515.00 M	1 in 150 F
3989.00 M	Block section	----	Level

**2.5 LAY OUT: -**

- i) No. of running lines :- 2 ( Two )
- ii) No. of sidings :- Nil
- iii) No. of Passenger platform :- 1 (One)  
Rail level Passenger Platform beside Line no.-1  
(362.658 x 15.24 M)
- iv) No. of goods shed platform :- Nil.

**2.5.1 RUNNING LINES, DIRECTION OF MOVEMENTS AND HOLDING CAPACITY IN CSL: -**

(i)

Sl.No	Line No.	Description	CSL	Isolation at KBJ End	Isolation at RNBT End
1.	Line No.1	Loop line	690 M	Sand Hump.	D.S Point
2.	Line No.2	Main line	690 M	-	-

(ii) **DIRECTION OF MOVEMENTS: -**

Trains arriving from Kantabanji end are UP trains.  
Trains arriving from Rahenbhata end are DN trains.

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2.5.2 **NON-RUNNING LINES AND CSL.:** - Nil

2.5.3 **ANY SPECIAL FEATURES IN THE LAYOUT:** - NIL

2.6 **LEVEL CROSSINGS:** -

2.6.0 i) Level Crossings: - (Station Section)

Sl. No	Location	Km.	Normal position	Class	Type	Operation	Communication
1	UP Home and DN Starter Signals	183/15-184/1 RV-138	Open to road traffic	C	Interlocked	Winch Operated Lifting barrier	Telephone connection with SM/MRBL

(ii) Level crossing: - (in block section):

Sl.No	Location Between	Km.	Normal position	Class	Type	Operation	Communication
1	DN Home and UP advanced Starter signal	185.224 RV-139	Unmanned	-	-	-	-
2.	MRBL-KBJ	183/ 5-6 RV-137	Closed to road traffic	C	Non-interlocked	Winch Operated Lifting barrier	Telephone connection with SM/MRBL
3.	MRBL-KBJ	171/1-2 RV-124	Open to road traffic	Spl	Interlocked	Winch Operated Lifting barrier	Telephone connection with SM/KBJ.
4	MRBL-KBJ	175.462 RV-129	Closed to road traffic	C	Non-interlocked	Winch Operated Lifting barrier	Telephone connection with SM/KBJ.
5	MRBL-RNBT	186/11-12 RV-141	Closed to road traffic	C	Non-interlocked	Winch Operated Lifting barrier	Telephone connection with SM/MRBL.

(Train Actuated Warning Device has not been provided at above Level Crossing Gates.)

**(Working of level crossing Gate is detailed in Appendix-‘A’.)**

### 3. **SYSTEM AND MEANS OF WORKING :-**

(Rule no.: - Chapter XIV of G&SR, Chapter III & IV of BWM)

- i) **System of working:** Absolute Block system on single line.
- ii) **Type of block instrument:** Token Less Block Instrument with adjacent stations. (PTJ Type)
- iii) **Instrument:** Non Co-operative type.
- iv) **Block Telephone:** Attached with Blok instruments of section MRBL-KBJ & MRBL-RNBT stations.
- v) **Staff responsible for their operations:** S.M. on duty.
- vi) **Custodian of keys :** S.M. on duty.

Block instrument is provided with double locking. One key will be with SM & other key will be with S&T maintainer. SM on duty is responsible for operation of Block instruments and the keys of the instruments must be under personal custody of the SM on duty vide GR 5.01(4), 14.12(1) 9A) (1) and GR 5.08.

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**4. SYSTEM OF SIGNALLING AND INTERLOCKING:**  
**4.1 STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING:**

**4.1.1 INTERLOCKING: -**

The station is provided with Standard II (R) interlocking, central panel (Non-route setting type) with Multiple Aspect Colour Light Signalling and block proving Axle Counters. All the points are centrally operated from central panel by on duty Station Master. The Home signals and Advanced Starter signals are interlocked with respective single line tokenless block instruments. GR 3.08(4) (b) governs the aspect and indications of the signals respectively. The station has no end cabins.

**4.1.2 STATION MASTER'S CONTROL PANEL: -**

4.1.3 A push button cum switch type electrical control apparatus (operation cum indication panel) is provided in the Station Master's office to operate electrically the UP and DOWN points and signals. The control apparatus is provided with a lock up key named (SM's Key) which shall always remain in the personal custody of the SS/Dy.SS/SM/ASM on duty in terms of GR 5.08. The position of all points, signals and running lines are available in the Station Master's illuminated panel diagram. Reminder collars are provided for use on push buttons, which will be placed on point switch, route button, signal switch or on any other button to prevent operation of the button in case of concerned line is blocked; or to prevent inadvertent operation of a particular button as and when required.

4.1.4 All 'emergency operation buttons' on the Station Master's control panel shall be kept sealed in normal condition by S&T staff. Whenever any emergency operation is initiated. SS/SM on duty shall break open the seal of the concerned button to make the button operative. Immediately after completion of emergency operation SS/SM on duty shall inform concerned S&T staff for sealing of the concerned button.

4.1.5 The panel board, provided in the SM's office is directly operated by SM on duty. This panel is provided with locking arrangement so that the same can be locked either in normal or operated position by the removal of lock up key. In case of emergency the signal taken off for a train can be put back to danger position by the SM on duty by operating the concern signal switch to normal position even if the panel board is in locked condition.

**(II) MAXIMUM EQUIPMENT OF SIGNAL:-**

Maximum equipment of signals – Distant, Home, Starter and Advanced starter in either direction.

**(III) AXLE COUNTERS:**

A set of digital axle counter has been provided between MRBL and KBJ for last vehicle verification. One field equipment has been placed beyond DN advanced starter signal of MRBL and another just before UP advanced starter signal of KBJ station for counting the axles 'IN' and for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

Similarly, another set of digital axle counter has been provided between MRBL and RNBT for last vehicle verification. One field equipment has been placed beyond UP advanced starter signal of MRBL and another just before DN advanced starter signal of TRKR station for counting the axles 'IN' and for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

Whenever a train enters into the block section, block section clear indication 'GREEN' disappears and occupied indication 'RED' appears. If after the complete arrival of the train, 'RED' indication does not change to 'GREEN', it should be assumed as failure of LVCD and failure of block instrument. Necessary action as per GR 14.13 is to be taken.

A reset BOX consisting of a counter and one resetting key with a push switch and three indications i.e. 'RED' and 'GREEN' and 'YELLOW' with locking arrangement is kept at the station masters office for resetting in case of failure of axle counter.

(Detail resetting procedure is given in Para-28.1 of Appendix-B)

#### IV) TRACK CIRCUIT:

All the lines including point zone between Up Home and Dn Home signals is track circuited. Track circuits are also provided from FM to FM on main line i.e. L2T1 & L2T2 and on loop line i.e. L1T1 & L1T2 to prove occupation/clearance of berthing track. The different track circuited section shown on the panel are namely: 2AT & 1AT are calling on tracks, 18T, 17AT & 17BT are point zone track circuits. 12AT, 1T, 2T & 11AT are other track circuits. Home, Starter and Advanced starter in either direction are replaced to 'ON' automatically as soon as a train occupies the track circuits provided in advance of the signals. The portion of the running lines including point zones i.e. occupied/clear is indicated on the control cum indication panel placed at the Station Master's office. Normally there will be no indication of track circuits. It shows 'RED' when the line is occupied and 'WHITE' when the line is clear provided the route is set.

##### 4.1.6 POSITION AND OPERATION OF POINTS:

The positions of all points are shown in station Working Rule Diagram and also on operating panel. All points are power operated through Station Master's control panel apparatus. All cross over points on running line are independently worked by electric point machine and have built in locking and detection arrangement.

##### 4.1.7 ROTARY KEY TRANSMITTER (RKT):

RKT with crank handle key is provided in SM's office for the operation of points in case of failure of motors. The crank handle key is mechanically riveted to the keys of RKT. The SS/SM on duty in case of point motor failure shall operate the control switch No. CH1 or CH2 which will release CH Key from RKT kept at the CH location of respective end and it is carried to the points for operating the points to desired position by crank handling operation.

4.1.8 IBS :- NIL

4.1.9 POINT AND TRAP INDICATOR :- NIL

4.1.10 REPEATER (ELECTRIC/BANNER TYPE) :-NIL

##### 4.1.11 CALLING ON SIGNALS:-

'Calling on' signals have been provided below UP and DN home signals. It shows no light when 'ON' and 'YELLOW' light when taken off.

##### 4.1.12 SHUNT SIGNALS:-

Independent shunt signals are provided on top point at either end for back shunting movement.

4.1.13 ANTI COLLISION DEVICE :- NIL

4.1.14 EMERGENCY CROSSOVER:- NIL

4.1.15 LC GATE OPERATION:- Given in Appendix 'A'

#### 4.1.16 **CRANK HANDLE**

When any point fails to operate normally through the concerned Point switch from control panel, it is inevitable to operate the points with crank handle. SS/SM on duty shall personally ensure clamping and padlocking all facing and trailing points on route. Crank handle keys are interlocked with signals and interlocking system. Crank handles are for all motor operated points at the station. The Crank Handle Switch no. CH1 and CH2 and Group Trans/Release button (WHITE WITH BLACK DOT) is provided on the panel board. The CH switches are two position switches. It is provided with three indications for IN, OUT and LOCKED, viz. WHITE, WHITE and RED. The WHITE indication for 'IN' position suggests that the crank handle key is in its interlocked position of the panel. The Red indication suggests that the crank handle key is locked and not free for extraction from RKT. This is called 'Crank handle key LOCKED' indication. When the CH key is extracted from the RKT OUT indication will glow.

The crank handle key in RKT in the end locations can be released from the RKT. The SM has to turn concerned crank handle switch CH-1 or CH-2 as per requirement and press the common CH/LC Trans/release button. This will enable SM to extract key from CH-1 or CH-2 from the RKT kept at the end location. SS/SM/TPM on duty after extracting the crank handle key from RKT by pressing the economizer switch at end-location, insert it in the space provided for it on the point machine and turn it to open up the slot for crank handle in the point machine. After inserting the crank handle in the point machine he shall operate it to set the point in desired position. After the work is over the SS/SM/TPM shall transmit the key back to station through RKT. The crank handle key to be inserted in the end location RKT and transmitted to station. Station Master on getting 'Key IN' flashing indication, which will appear on panel, shall turn the relevant CH switch to key IN position & press the common CH/LC trans/release button. On pressing the release button along with turning the concerned CH switch "IN", WHITE light will glow indicating 'key in'. The cases of failure of Motor operated points should be promptly reported to the concerned ESM/Signal Inspector for immediate rectification. SM on duty as per OM 20.06 (d) shall maintain an emergency crank handle register. The procedure for use of crank handle for Motor operated points shall be followed in terms of operating Manual 20.06.

The cases of failure of motor point should be promptly reported to the concerned signal maintainer/signal inspector for immediate rectification.

#### 4.1.17 **EMERGENCY ROUTE RELEASE OPERATION-**

This panel interlocking is based on the principle of 'DEAD APPROCH LOCKING'. As such when a route is set and signal is taken off on the route, the route gets locked. Normally, the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken off vide SR 3.36.02 (a), the concerned signal must be put back to danger by putting the signal switch to its normal position. Then the emergency route release button (white with red dot) positioned at the top of panel to be pressed. A white light will flash (Up or Down) indicating that the timer is working. After 120 seconds, the white light along with the white strip of light (on the route) will disappear suggesting the route has been released. In case the route illumination (a white strip of lights) does not disappear, it suggests that the route is not released / cancelled and S&T staff should be advised to rectify the same. The concerned S&T staff should be advised immediately to get the emergency route release button re-sealed after rectification of fault, if any. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary, train signal register and veeder counter register.

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#### 4.2 **CUSTODY OF RELAY ROOM KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T MAINTENANCE STAFF:** -

The relay room should be kept locked with two separate locks, the arrangement should be such that one key is kept with the SM on duty and the other with the signal maintainer of the station. Whenever required, the key in the custody of Station Master shall be given to the signal staff with proper acknowledgement in the relay room key register. After completion of work, the signal staff shall return the key to SM on duty. The details of the transaction should be properly recorded in the relevant register at the Station duly signed by SM on duty and the signal staffs concerned vide Operating Manual 1.14 and G & SR 3.51.05. If the relay room key is handed over to the Signal staff regarding the interference in safety gears, the train shall be piloted in and piloted out.

NOTE: Details of signalling and interlocking are given in Appendix 'B' of the SWR.

#### 4.3 **POWER SUPPLY:** -

Normal power supply to the signalling and interlocking installations at this station is drawn from SEB power supply source (AC 230 Volt / 50 Hz).

Secondary cell back up through integrated power supply system are provided to prevent possibility of blanking of signals in case of SEB power supply failure and supply to other signaling installations. Whenever SEB power supply fails Secondary cell back up through integrated power supply system will immediately extend power supply to signals thereby preventing blank signals. In SM's Office there is ASM power panel, which represents the voltage of the integrated power supply system as follows:

- (I) In case voltage drops 105.9V an audible buzzer appears for starting Generator.
- (II) In case voltage drops 105.1V an audible buzzer appears for emergency start of Generator.
- (III) In case voltage drops 104.3V an audible buzzer appears for system shut down.

Based on the indication shown in the SM's Power Panel SM on duty should start DG for avoiding any case of shut down of power sub system of integrated Power Supply system.

The SM now has to start the diesel generator for standby (Auxiliary) power supply. After stable run of the Diesel generator, the SM on duty has to operate the change over switch for connecting the auxiliary supply to the signalling installation. On resumption of power supply, the Diesel generator shall be stopped by SM on duty after isolating Diesel generator by change over switch. Each time the power supply goes OFF or ON SM/SS on duty shall acknowledge. In case of any audible buzzer in SM's power panel, SM on duty should acknowledge the buzzer by pressing 'buzzer' stop button.

Solar Power supply is provided in the station as standby power supply.

If there is any indication on SM's power panel regarding deviation in IPS system, S&T staff shall be called for rectification.

#### 5.0 **TELECOMMUNICATION FACILITIES:** -

- (i) Telephones attached with single line Token less Block Instruments for either side Block Section.
- (ii) Station to Station fixed telephone (hot line) is provided
- (iii) Station is provided with auto telephone connected with Railway Exchange.
- (iv) BSNL telephone is provided.
- (v) The station is connected to Raipur-Titlagarh control circuit by a control telephone.
- (vi) Station to station 25 watt VHF communication is provided.
- (vii) Magneto Telephone connection is provided with Station & LC Gates at KM 183/5-6, KM186/11-12 & KM184/1 to 183/15.

- Note:**
- (i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.
  - (ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.

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5.1 **FAILURE OF COMMUNICATION: -**

The on duty SM shall use the above electrical communication instruments stated in Para-5.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication between the adjacent block stations the SM on duty shall work vide SR 6.02.06. In the event of total failure of communications between MRBL-KBJ & MRBL-RNBT, SR 6.02.04 shall be observed for working the train.

(Details are mentioned in Appendix 'B' of the SWR.)

6.0 **SYSTEM OF TRAIN WORKING: -**

The movement of trains is controlled by Section Controller on duty whose orders shall be complied with, provided they do not contravene any General Rules, Subsidiary Rules, Station Working Rules, Block Working Manual and other safe working instructions issued from time to time. In the event of suspension of control working, the Station Master on duty shall work independently in conjunction with the Station Master of adjoining block station and shall be responsible to ensure that there is no undue delay to train operation in general.

6.1 **DUTIES OF TRAIN WORKING STAFF: -**

Details of duties of operating staff are mentioned in Appendix 'D' of the SWR.

6.1.1 **TRAIN WORKING STAFF: -** The following are the complement of train working and operating staff provided at this station to work in each shift.

SL. No.	Designation	Roster	No. of staff in each shift	Hrs. of Duty
1	SS (Incharge)----- Dy. SS/SM/ASM—	Continuous	01	---09 hrs ---08 hrs.
2	Sr. TP/TPM-A/TPM-B	Continuous	01	8 hrs.
3.	Sr.GK/GK	E.I	01	12 hrs

The above staff shall work as per the rosters issued by DPO/SBP from time to time and these rosters shall be displayed in the SM's office.

6.1.2 **RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINE: -** The SM on duty is responsible to ascertain the clearance of the nominated line between outer most facing points of concerned line as per GR 14.10.

6.1.3 **ASSURANCE OF STAFF IN ASSURANCE REGISTER: -** All staff before taking up independent charge of their duties at this station shall make a written declaration in the assurance register that they have read and thoroughly understood the system in force and must sign such declaration.

No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The SS is responsible to see that all the staff are conversant with the Station Working Rules and their signature obtained in the Assurance register after he is satisfied that they have thoroughly understood the working rules of the station. In case of Group 'D' staff, their signature/thumb impression must be obtained after explaining fully about their duties and responsibilities.

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The station superintendent is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance Register must be maintained in two parts, one for Group 'C' and the other for Group 'D' staff. A duplicate copy of the Assurance Register must be maintained and kept in personal custody of the Station Superintendent.

The declaration shall be renewed in the following cases: -

- (i) Whenever there is a change in the Station Working Rules.
- (ii) For any staff who have not worked at the station or were away from the station for a period of 15 days or more.

6.2 (A) **CONDITION FOR GRANTING LINE CLEAR: -**

The conditions laid down in GR 8.01 (1) (a), (c), 8.01(2) (b), 8.03 (2) (a), (b), (c) (ii) and BWM 2.07(3) & (4) shall be complied with before the line is considered clear and 'Line Clear' is granted for a train by on duty SM. The line shall not be considered clear and 'Line Clear' shall not be given unless:

- (i) The whole of the last proceeding train has arrived complete.
- (ii) All the necessary signals are put back to 'ON' behind the said train.
- (ii) Block section is clear of trains running in the direction towards the block station to which such line clear is being given.
- (iii) The line is clear up to the advanced starter at the end of the station nearest to expected train. (Up advanced starter signal No. 11 for a DN train and DN advanced starter signal No. 12 for an UP train)

(B) **OUTLYING SIDING: - NIL.**

6.2.1 **ANY SPECIAL CONDITION TO BE OBSERVED WHILE RECEIVING OR DESPATCHING A TRAIN: - NIL**

6.2.1.1 **SETTING OF POINTS AGAINST BLOCK LINE: -**

All Points shall normally be set for the straight except when otherwise authorised by special instruction. When a running line is blocked by stable load, wagon, vehicle or by train which is to cross or give precedence to another train or immediately after arrival of a train at the station, the points at either end should immediately be set against the blocked line except when shunting or for any other movement towards the blocked line is required to be done vide 3.51.06(a). If all the lines at the station happen to be blocked then SR. 3.51.06 (b) will be followed.

6.2.1.2 **RECEPTION OF TRAIN ON BLOCKED LINE: -**

In case reception of a train on a obstructed line to the SM on duty shall follow GR 5.09 & SR 5.09.01.

6.2.1.3 **RECEPTION OF TRAIN ON NON-SIGNAL LINE: - Not Applicable..**

6.2.1.4 **DESPATCH OF TRAINS ON NON-SIGNAL LINE: - Not Applicable.**

6.2.1.5 **DESPATCH OF TRAINS FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:-**  
Not Applicable

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### 6.2.1.6 **SPECIAL RESTRICTIONS -**

- (i) Shunting in face of an approaching train is prohibited.
- (ii) Hand/Fly shunting is not permitted.
- (iii) Shunting shall not be permitted at both ends of the yard unless the engine is leading towards the falling gradient.
- (iv) While performing shunting towards KBJ & RNBT ends, GR 5.20 is to be followed.
- (v) The sand hump shall not be obstructed for stabling vehicles or harboring an engine. If it is obstructed through any accident or for any cause it ceases to be a substitute for the adequate distance.
- (vi) During crossing of train, first train to be brought to a stand at Home signal and subsequent train shall be admitted directly fulfilling all relevant conditions.

### 6.2.1.7 **SPECIAL INSTRUCTIONS:-**

Before allowing a non-signal movement over motor operated points both facing and trailing end shall be clamped and padlocked.

### 6.3 **CONDITIONS FOR TAKING 'OFF' APPROACH SIGNAL: -**

(Rule No. GR 3.40, GR 3.41, SRs 3.41.01, SR 3.38.01, 3.38.03 to be followed). At this station approach signals cannot be taken 'OFF' unless: -

- i) The nominated line is clear of all obstructions for an adequate distance beyond Starter up to the end of sand hump/Adv. Starter as the case may be.
- ii) To take off the Home signal for admission of a train the adequate distance (Signal overlap) as mentioned below shall be kept clear :-CRS dispensation obtained in terms of GR 3.40 (1) (b) vide letter Nno-1314, Dtd 30.01.2012.

Sl. No.	Line No.	UP Train		DN Train	
		From	To	From	To
1.	Main line	UP Starter No.7	UP Adv. Starter No.11	DN Starter No.8	DN Adv. Starter No.12
2.	Loop line	UP Starter No.9	UP Adv. Starter No.11	DN Starter No.6	Upto Sand Hump or DN Adv. Starter No.12

- iii) **Reception of Trains-** For receiving a train, the SM on duty shall take the following actions serially – He shall :
  - a) Set the concerned points both facing and trailing to the desired position and observe as per strip indication that the points are set correctly.
  - b) Press the relevant route push button L1 UN/L2 UN and turn the relevant Home signal thumb switch S1 or S2 to the direction of the movement of the Train.
  - c) Before operating the thumb switches for the Home signals the SM on duty should verify from the panel that the concerned line is clear as per the indications in the panel.
  - d) As soon as the signals are taken off white strip light will appear over the route. As the train occupies the track these strips will turn to red. After the passage of the train, as the track is cleared, then red light will turn to white again. When the signal switch is put back to normal position these lights will get extinguished.
  - e) Before operating the thumb switches to take off Home signal for the reception of trains, the SM on duty should ensure that the level crossing Gate is in closed condition.
  - f) In case any of the track circuit on the concerned route shows occupied by RED indication even though the other conditions are satisfied, the operation of signal switch by the SM on duty will not permit the concerned signal to be taken off. However, reception of train will be possible in such cases with the “ Calling On” signal fixed below Home signal at either end provided the first track circuit in advance of home signal is not occupied i.e. does not show

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'RED' indication.

## **B. TAKING OFF CALLING ON SIGNAL**

Miniature colour light calling on signal is provided below the home signals in terms of GR 3.13(6)(b). A calling-on signal shows no light in the 'ON' position. The calling on signal is taken off for reception of a train when the home signal above it cannot be taken off due to failure or any other reason or for admission of a train on blocked line.

To take off calling on signal, the train must come to a stop at the foot of the Home signal, occupying track circuit in rear of the signal. When train occupies the track circuit, RED light strip will appear on the panel. The particular route on which the train is intended to be received shall be set by individual point operation by operating point switch & point group buttons or by crank handling in the event of failure of operation of point through panel. After the route is set, the calling-on signal switch C1 / C2 , as the case may be shall be turned simultaneously along with concerned route button for 2-3 seconds and released. After a lapse of 120 sec, the calling-on signal clears and a white light indication appears on the panel for the concerned calling-on signal.

### **6.3.1 PUTTING BACK OF HOME SIGNALS: -**

If for any reason after taking off signals, it is required to put back the signal and alter the route, in terms of Subsidiary Rules 3.36.02(b)(ii), a time delay of 2 minutes shall be observed before the points can be altered.

### **6.3.2 RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON':**

For replacing signals to ON, the SM on duty shall follow Rule No. SR 3.36.02.

## **6.4 SIMULTANEOUS RECEPTION, DESPATCH, CROSSING & PRECEDENCE OF TRAINS:**

- i) Existing interlocking of the station only permits simultaneous reception of a DN train on Line No-1 & despatch of a DN Train from main line. (GR 3.47).
- (i) Setting of points during crossing of trains shall be done as per relevant provisions in SR 3.47.01 and rules laid down in SR 3.47.02 shall be followed for berthing and crossing of passenger and goods trains.

## **6.5 COMPLETE ARRIVAL OF TRAIN:-**

(Rule No. GR4.16 & SR 4.17.01, GR4.17.02, GR14.10)

- a) **STAFF RESPONSIBLE TO VERIFY COMPLETE ARRIVAL:** - SM on duty through AXLE COUNTER or through physical verification when Axle counter fails.
- b) For through passing trains both SM & TP on duty shall ascertain the complete arrival of the trains.
- c) In case of trains arriving with last vehicle number the last vehicle number shall be repeated vide BWM 2.07(6).

### **6.5.1 L.V. VERIFICATION THROUGH AXLE COUNTER: -**

Entire block section at both sides of the station is monitored by axle counter system and the position of block section whether clear or occupied is indicated in the panel. As soon as a train enters in to the block section, the 'RED' indication appears in the axle counter indication panel. After the whole train clears the block section, 'GREEN' indication appears on the axle counter indication panel. This confirms the complete arrival of train & the SM on duty shall give train out of section report on seeing the section clear (GREEN) indication at the panel.

(ii) **MODE OF VERIFICATION:**

When the train has arrived intact and completely within the station yard clearing the fouling marks and the ENTRANCE/EXIT tracks at each end of the cross-overs at the reception end, the SM on duty must ensure complete arrival of a stopping train by sending the Train intact arrival Register to the Guard of stopping train, who will certify this fact, with his clear signature in the Register. As soon as the Guard of the Train certifies that the Train has arrived intact and the train is berthed in the station yard clearing the fouling mark at both ends the SM on duty shall close the Block section in terms of SR 4.17.01. (e) (iii) & BWM 2.07 (6).

6.5.2 **L.V. VERIFICATION WHEN AXLE COUNTER FAILS:-**

In case of failure of axle counter, the Station Master on duty shall obtain complete arrival certificate from the Guard of the train in the complete arrival register (T/1410) maintained at the station for stopping train. For through passing train the station master on duty shall satisfy himself about complete arrival of train by verification of the last vehicle indicator vide Subsidiary Rule 4.16.05 that the train is complete. In case a train arrives/passes incomplete, action shall be taken as per Subsidiary Rules 4.17.02. 'The train out of block section signal' shall be withheld to the station in rear until complete arrival certificate is received from the station in advance supported by a Private Number.

6.5.3 **L.V. VERIFICATION WHEN MOTOR TROLLEY FOLLOWING:-**

On occasions when motor trolley follows a train, the points shall not be altered until the following motor trolley is admitted on the same line. In the event of motor trolley is delayed in the section the Station Master on duty shall take action in terms of Subsidiary Rule 15.25.03 (b)(vi).

6.5.4 **RECEPTION OF TRAIN ON BLOCK LINE: -**

For admission of a train on a blocked line the SM on duty shall comply with the instruction laid down in GR 5.09 and SRs thereto.

6.6 **DESPATCH OF TRAINS: -**

Despatch of trains are governed by General Rules 3.36, 3.38, 3.39, 3.42, 5.11 & 8.01 Subsidiary Rule 3.36.04(b), 3.42.04 and Block Working Manual 2.07(5)(a)(b) and other provisions of General Rules, Subsidiary Rules, Block Working Manual and Station Working Rules of the station.

To despatch a train, the SM on duty, having obtained line clear for that train, shall set the route for the out going train correctly and satisfy himself by observing the visual indication on the panel board. He shall suspend all non-isolated shunting, ensure closure of L.C gates and then shall take off the concerned route starter and advanced starter signal by operating concerned signal switch. After observing the 'OFF' aspect of the route starter and advanced starter signals the Loco Pilot shall start his train.

Once the route is set and the signals are taken off and subsequently required to be cancelled / route to be altered, the concerned signals shall be normalised first by turning back the concerned signal thumb switches. There after the SM on duty shall wait for two minutes before altering the route.

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. When the train passes the Advanced starter completely, he shall send the train entering block section signal to the station in advance.

If a train worked without Guard or Brake Van the instruction laid down in Subsidiary Rules

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4.23.02 and 4.25.02 shall be followed.

6.6.1 **PUTTING BACK SIGNALS TO 'ON' IN CASE OF EMERGENCY: -**

If a signal once taken 'Off' for reception/despatch of a train has to be, in an emergency, put back to 'ON', the procedure laid down in General Rules 3.36.02 shall be followed. In case of reception of train, route shall not be altered until the train has come to a stand outside Home signal. In case of departure signal before changing route, the line clear authority is to be withdrawn from the Loco Pilot with a memo, taking his acknowledgement thereof.

6.7 **TRAINS RUNNING THROUGH: -**

The procedure detailed in Para 6.06, 6.7 above and General Rules 4.17, 4.42 and Subsidiary Rules 3.36.04(b)(i) 3.42.02(a)(iv), shall be observed.

The SM is responsible to observe/watch the condition of the vehicles on a train and shall wave green hand signal horizontally as per Subsidiary Rule 4.42.02 until anything wrong is noticed on train. For this purpose the SM on duty shall stand in such a position that a clear view of the passing train is seen by him and that his hand signals can clearly be seen by the Driver and Guard of the train. He shall depute his points man with hand signal to the other side of the passing train who shall exhibit hand danger signal to draw the attention of the guard/driver of the train in case of observing any unsafe condition/abnormalities of the train. He shall also report to the SM on duty for taking further suitable action in terms of SR 4.42.02(d).

The Station Master on duty is responsible to see that a train passes complete with its last vehicle indicator vide GR 4.17 and SR4.17.01. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General Rules 4.17 and Subsidiary Rules 4.17.02.

6.8 **WORKING IN CASE OF FAILURE: -**

In case of failure of S&T equipments, on duty Station Master shall work in accordance to GR 3.68, 3.69 and 3.70 and SRs thereto.

6.8.1 **PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF A SIGNAL & INTERLOCKING INSTALLATION: -**

Whenever there is a failure of points, signals, track circuits or any other interlocking gear at the station that includes level crossing gate (s). if any etc. the SM on duty shall follow the procedure detailed in GR 3.68, 3.72, 3.74 and SR thereto. In case of defective approach signals, the trains will be piloted in vide SR 3.69.02, 3.69.03 & 3.69.05. In case of defective departure signals, trains will be piloted out vide GR 3.70 & SR 3.70.01. & 3.70.02.

6.8.2 **TRACK CIRCUIT**

In the event of failure of track circuit in the yard concerned signal shall be suspended and trains shall be piloting 'IN' or 'OUT'. Before piloting a train in to the yard the clearance of the track must be ensured by physical verification.

6.8.3 **AXLE COUNTER**

A pair of Block proving electronic axle counter has been provided between MRBL-KBJ and MRBL-RNBT. Whenever a train enters into the block section, block section clear indication 'GREEN' disappears and occupied indication 'RED' appears. If after the complete arrival of the train, 'RED' indication does not change to 'GREEN', it should be assumed as failure of LVCD and failure of block instrument. Necessary action as per GR 14.13 is to be taken. A reset BOX consisting of a counter and one resetting key with a push switch and three indications i.e. 'RED' and 'GREEN' and 'YELLOW' with locking arrangement is kept at the station masters office for resetting in case of failure of axle counter.

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**6.8.4 DEFECTIVE SIGNALS:**

When signals become defective, the procedure laid down in GR & SR shall be followed. A signal in the OFF position is the final indication that the points are correctly set for the route, for which it applies. If, it is found impossible to take OFF a signal the setting of points on the route to which it applies shall be inspected by the Station Master on duty before the signal is declared as defective irrespective of what is indicated by the position of the route. [Refer GR 3.68 to 3.46, 3.52 to 3.56, 3.71, 3.80 and SR 3.68.01 (c)].

In case of disconnection of signal and interlocking for repairs and maintenance, procedure laid down in GR and relevant SRs shall be followed.

In the event of signal showing no lights, Station Master on duty shall before giving line clear, initiate action in accordance with the procedure prescribed in GR and the relevant SRs. [Refer GR 3.51, 3.69, 3.49 (4), 3.68 to 3.77].

**6.8.5 BLOCK INSTRUMENT**

In the event of partial / total failure of token less Block instrument the concerned block instrument shall be suspended till its rectification, trains shall be worked as per GR 14.01, 14.08 & SRs there to and SR 6.02.06 & BMW Rule No. 4.04, 4.02 & 4.43.

Both UP and DN advanced starter signals are electrically interlocked with respective Tokenless block instruments so that the same cannot be taken off unless the concerned block instrument is in line clear position (TGT). When the block instrument is suspended in 'Line Clear' position, the concerned advanced starter must also be treated as suspended. When the block instrument is under suspension, the authority to proceed will be paper line clear ticket.

UP and DN Home signals are electrically interlocked with respective block instruments. Block instrument can be normalized from 'TRAIN ON LINE' to LINE CLOSED' position, when the corresponding home signals are in the ON position. However, the Home signals can be taken off in case of failure of the block instruments.

**6.8.6 DEFECTIVE INTERLOCKING**

In the event of interlocking becoming defective, the points will be treated as defective. The SM on duty on receipt of this information will immediately introduce non-interlocking system of working at the station. Trains will be Piloted In or Out as the case may be. The SM on duty shall be responsible for correct setting, clamping and padlocking of points for admission of train.

**6.8.7 DEFECTIVE/DAMAGED POINTS**

When any point fails to operate normally by the route setting operation through panel it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual para-20.06.

The responsibility of correct setting of points, clamping and padlocking the points for reception and despatch of trains at the station, rests with SM on duty himself.

**6.8.8 RECEPTION OF A TRAIN ON BLOCKED LINE**

Whenever trains are to be admitted on an obstructed line the SM on duty shall authorize the on duty TPM with form T/509 indicating the reason for such admission the line number and the nature of obstruction on that line.

Before handing over the authority the SM on duty shall ensure the correct setting clamping and padlocking of both facing and trailing end of the concerned route vide SR 3.69.03.

A stop hand signal shall be exhibited by the SM on duty at a distance of not less 45mts. from the point of obstruction to indicate to the Driver as to where the train shall be brought to a stand.

**6.8.9 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Superintendent/Station Master irrespective of the position of the switches point laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]. Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49(4) and 3.68, 3.77]

**6.8.10. ISSUE OF CAUTION ORDER: -**

Whenever in consequence of the line being under repair or for any other reason special precautions are necessary, a caution order detailing the kilometers and speed at which a train shall travel and the reasons for taking such precautions shall be handed over to the driver in terms of GR 4.09 and SR thereto.

**6.9 WORKING OF TROLLEYS /MOTOR TROLLEYS, MATERIAL LORRIES ETC: -**

(a) Motor Trolleys are run in accordance with Subsidiary Rules 15.25.03 to 15.25.07.

(b) Material Trolleys will work in accordance with Subsidiary Rules 15.27.05 to 15.27.08.

(c) Rail Dolleys will work in accordance with Subsidiary Rules 15.27.10.

The following precaution must be taken:

- i) The section where axle counters are provided in lieu of track circuits, trolleys, motor trolleys, Lorries etc which are not insulated, shall not be allowed to run except on line clear.
- ii) Motor trolleys / tower wagons / material Lorries are not likely to actuate the axle counter correctly. When they are to run over the sections split by axle counters, the whole section to be treated as one and next train to be started after the first train has arrived complete.
- iii) In all other respects, the working of a light Motor trolley shall conform to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley or a motor trolley.

**7. BLOCKING OF LINES : -**

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement and reminder collars shall be placed on the concerned point push switch and route button(s) for the blocked lines vide SR 3.36.03(b). A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured as per General Rules 5.23 and Subsidiary Rules 5.23.01 to prevent rolling down of vehicles.

**7.1 STABLING OF VEHICLES ON RUNNING LINES :-**

- a) Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. Whenever a running line is blocked a clear mark in 'RED' ink shall be made immediately in Train Signal register.
- b) Register indicating time and number of running line on which vehicles are stabled. A record thereof shall be made in the Station Diary vide SR 5.23.01 (a) (c) & (d).

**7.2 USE OF REMINDER COLLARS :-**

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train even for a short while or during shunting operations the reminder collars must be placed on concerned point push button/switches, signal switches and route button(s) for the blocked lines on the operating panel by SM on duty.

**7.3 SECURING OF VEHICLES :-**

As far as practicable loose vehicles shall not be allowed to stand on the running line. However, under unavoidable circumstances, if it is necessary to detach vehicles from a train or to stable a train and leave them standing on running line, SM on duty shall be responsible to secure vehicles/stable loads in accordance with GR 5.23 and SR 5.23.01 to prevent rolling down of vehicles and arrest obstruction of fouling.

**NOTE:** Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding or on running lines A stabled load register to be maintained shift wise as per FORMAT given in Operating Manual.

**7.4.1 ALTERING OF POINTS TO A CLEAR LINE WHEN RUNNING LINE IS BLOCKED:-**

- a) When a running line is blocked by stable load e.g., wagons, vehicles or by a train which is to cross or give precedence to another train or immediately after arrival of a train at the station etc. the points at either end should immediately be set against the blocked line except when shunting or another movement is required to be performed in that direction on the same line.
- b) If all the lines at a station happens to be blocked when line clear has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order so that in a case of mishap, the chances of casualties are minimized.
- c) In case all the lines are occupied by passenger carrying trains points should be set for a loop line, to negotiate which the speed of the incoming train would be reduced, which in turn would minimize the consequences of casualties. While doing so, points shall be set for a loop, occupied by a train if any, whose engine is facing the direction of approach of the incoming train rather than a loop line, occupied by a train whose passenger coach will, in case of collision, receive the impact.

**7.5 LOADING AND UNLOADING OF VEHICLES ON RUNNING LINE:-**

Loading and unloading from vehicles on running line is prohibited unless permitted by Sr. DOM / SBP vide SR 5.19.01.

At stations where loading and unloading of goods is permitted whether full rake or part there of, the station master shall ensure that no goods are left fouling any line before and after clearance of the rake from the line. The railway servant supervising loading and unloading shall also ensure that consignment does not foul any line vide SR 5.19.001: (a). If the stations are on gradients, the rake should be properly secured as detailed in SR 5.23.01. During the time of loading / unloading, the station master shall ensure isolation of the lines(s) as detailed in SR 3.51.06.

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8.0 **SHUNTING:** -

8.1 Shunting shall be performed in terms of General Rules 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.17, 5.19, 5.20 to 5.23, 8.09, 8.10, 8.12, 8.13, 8.14, 8.15 and Subsidiary Rules thereto. The Guard/Asst. Guard/SS/SM/TPM on duty is authorized to supervise shunting operation. The authority for shunting is a shunting order (T-806) to be issued by the SM on duty, which shall be withdrawn after completion of shunting, or in need when train movement is involved to receive/despatch trains on the adjacent line. The same shall be cancelled and pasted to its record foil. The staff supervising shunting shall ensure correct setting of points, clamping and pad locking of points, if necessary. Normally back shunt signals shall be used for shunting operation.

8.2 **PROHIBITION OF SHUNTING, SPECIAL FEATURES IF ANY: -**

- (i) Hand Fly & Loose shunting is not permitted at both end of the yard.
- (ii) Shunting in the face of approaching train is prohibited.
- (iii) Shunting shall not be permitted at both end of the yard unless the engine is leading towards the falling gradient.

8.3

SHUNTING ZONE	BLOCK SECTION IS CLEAR	BLOCK SECTION IS OCCUPIED
Shunting within Station section	Permitted.	Not permitted
Between Last Stop Signal and opposite First Stop Signal	Permitted vide GR 8.11 (a).	Permitted provided the conditions of GR 8.09 are complied
Beyond opposite First Stop Signal	The concerned section shall be blocked back vide GR 8.13	Not permitted

8.4 **SHUNTING IN THE STATION YARD:** - When shunting in the station yard proper shunting authority on T/806 to be issued to the train staff with clear instruction and limit upto which shunting is to be performed. While performing shunting relevant GR 5.14 and SRs thereto to shall be followed.

9. **ABNORMAL CONDITIONS:** -

(A) **THE RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITION:** -

[I] **PARTIAL FAILURE OF COMMUNICATION:** - In the event of suspension of Block Instrument and during partial failure of other available means of communications, trains will be worked in terms of Subsidiary Rule 6.02.06 and Chapter-III Part-I of Block Working Manual.

[II] **DESPATCHING OF TRAINS ON THE AUTHORITY OF BLOCK TICKET:** - In case, it is necessary to allow a train into an obstructed block section due to engine failure, obstruction or accident, a block ticket shall be issued in terms of SR 6.02.05 Absolute Block System on the affected block section shall be suspended and concurrence of the SM at other end shall be obtained and recorded in caution order register and train signal register.

On the block ticket (T/A 602) it shall be mentioned in detail the place of obstruction i.e. Engineering Km., B/Van Km., whether the train is to return or to wait at the place of obstruction for the arrival of another following train(s) or to proceed to next station.

A caution order shall be issued restricting the speed to 15 KMPH. in day light hours when the visibility is good & 10 KMPH at night or whenever clear view of 800 Mtrs. is not available.

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On arrival at the station the block ticket shall be collected with necessary endorsement from Driver/Guard and cancelled and pasted to its record foil or shall be sent to the issuing station for cancellation.

In case of accident/engineering block assurance from SE/P.WAY concerned shall be obtained that the line is safe for movement of trains before resumption of normal working. When the obstruction is removed and assurance in writing is obtained from SE/P.WAY concerned or Guard/Driver the SS/SM on duty may resume normal working after exchanging proper messages supported by Private Number.

[III] **TRAINS DELAYED IN BLOCK SECTION: -**

If a train carrying passenger does not arrive within 10 minutes or if a goods train does not arrive within 20 minutes after allowing for its normal running time from the station in rear, the SM at the station in advance shall immediately advise the station in rear and the control of this fact. There after SMs at either end of the Block section shall send one Railway servant into block section to collect the whereabouts of train, condition of train and nature of assistance, if any, required. SM on duty shall collect the full particulars from railway servant so deputed and intimate the same to SM at other of block section and to the section control simultaneously for taking action according to circumstances of the case. [Refer GR 6.04 & SRs thereto]

[IV] **FAILURE/PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT ON:- NIL**

[V] **FAILURE OF AXLE COUNTER: -**

Details of the operation are given in Appendix 'B' of SWR.

(B) **PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE: -**

Details of the operation are given in Appendix 'B' of SWR.

(C) **CERTIFICATION OF CLEARANCE OF TRACK BEFORE CALLING-ON SIGNAL IS OPERATED :- NIL**

(D) **REPORTING FAILURE OF POINTS, TRACK CIRCUIT/AXLE COUNTER AND INTERLOCKING: -**

In case of failure of any interlocking gear at the station, the failure report should be communicated by the SS/SM on duty to the sectional Maintainer, the JE/SE/SSE (SIG) of the Section and others through a memo as per GR & SR 3.68.04 and document all such transactions.

**9.1 TOTAL FAILURE OF COMMUNICATION: -**

In the event of total interruption of all communications occurring between MRBL-RNBT or MRBL-KBJ stations, action to be taken as per Subsidiary Rule 6.02.04.i.e when line clear cannot be obtained by one of the following means stated order of preference viz.

- a. Block Instruments, Track Circuits or Axle Counters
- b. Telephone attached to the Block Instruments
- c. Station to Station fixed telephones whenever available
- d. Fixed telephone such as Railway auto telephone & BSNL phone
- e. Control telephone
- f. VHF sets

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and action shall be taken as per SR 6.02.04. The train which is to be despatched to the affected section will be stopped and the Loco Pilot and Guard of the train shall be informed about the fact. Before dispatching the light engine /main engine/motor trolley /Tower wagon/Trolley /Cycle trolley/Moped trolley/Diesel car/rail motor car/EMU rake, the SM on duty shall hand over a Authority for opening of communication during total failure interruption of communication on Single Line Section to the driver /motorman/Guard/SM who is being sent to open communication, which includes.

- (i) An authority to proceed without "Line Clear" in the prescribed form (T/B 602).
- (ii) A Caution Order restricting to speed of the train to 15Kmph by day when the view ahead is clear and 10 Kmph during night or when view ahead is obstructed in addition to other speed restrictions in force (T/B409).
- (iii) Paper Line Clear Ticket to pass the Last Stop Signal at 'ON' position.
- (iv) A "Line Clear" enquiry message (T/E602) asking "Line Clear" for the awaiting train.
- (v) A conditional "Line Clear" message for the light engine to return with or without a train attached, supported by a Private Number (T/F602).

On arrival of the engine at the next station the conditional line clear message and enquiry message shall be collected by the Station Master on duty who shall prepare a conditional line clear ticket for engine to return either light or with train attached and conditional line clear reply message for the enquiry message giving line clear for the train waiting at other station shall be handed over to the Loco Pilot of light engine. On return trip the Loco Pilot will come on booked speed subject to speed and other restrictions in force.

If there be an even flow of in both directions, Enquiry and Conditional line clear message for each succeeding train may be sent through the Guard of the preceding train.

If the Station Master at one end has more than one train to despatch in the same direction he may ask line clear not only for one train but also for the following trains. It must be stated that these later trains will be despatched after the first train at an interval of 30 minutes. When despatching the second and subsequent train particulars of last preceding train along with its departure time will be endorsed and a caution order restricting the speed to 25 Kmph. over straight when view ahead is clear and 10 Kmph. when the view ahead is not clear is to be issued. While adopting this procedure the Guard and Loco Pilot should be instructed to keep a 'Sharp' lookout and be prepared to stop short of any obstruction. Trains must continue to work on this system until any one of the means of communication is restored.

As soon as any one of the means of communication has been restored, the conditional line clear working of trains shall be cancelled when there is no train in the affected block section and message shall be exchanged supported by Private Number keeping Section Controller.

## 9.2 **TEMPORARY SINGLE LINE WORKING ON A DOUBLE LINE SECTION: - N.A.**

## 9.3 **DESPATCH OF TRAIN UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR OR TO ASSIST THE CRIPPLED TRAIN: -**

The Station Master will take action as per SR 6.02.04 for despatch of trains under Authority to proceed without line clear. Actions shall be taken to assist the crippled train as per SR 6.02.05.

**10.0 VISIBILITY TEST OBJECTS: -**

- i) V.T.O. post / authorised substitutes earmarked to work as V.T.O. Post. - The lights of UP loop Starter signal No.6 & DN loop Starter signal No.18 of line No.1 are earmarked to serve as VISIBILITY TEST OBJECT vide GR 3.61 (2) (b) (ii).
- ii) Distance between CSB and V. T. O. post: - 180 Mts.
- iii) Station Master on duty will test the visibility during thick and foggy weather and if visibility is impaired, he will work as per GR 3.61 and SRs thereto.

**11.0 ESSENTIAL EQUIPMENTS AT THE STATION: -**

Essential equipment shall be kept ready on hand in good condition with necessary relief stock.

*(This is mentioned in Appendix – “E”)*

**12.0 FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG: -**

In order to indicate to the Drivers of approaching trains the location of signal during thick, foggy & tempestuous weather or during dust storm, the SM on duty shall arrange for fog signalling in terms of General Rule 3.61 and Subsidiary Rules thereto. Assurance of the staff shall be taken in the Fog Signal Register in the month of October every year as token of their having knowledge of Fog Signalling Rules and their use.

Fog signalmen shall be detailed for duty at stations being recruited partly from the station traffic staff and partly from Engineering Gang man and must not be substitutes or casual labour, but regular employees of the railway.

**STATION DETONATOR REGISTER (OPT/124)**

A Register regarding detonator is maintained at the station.

**(a) INSTRUCTIONS:**

This register contains the following parts.

Part. - I: Particulars of fog signalmen posted at the station from time to time.

Part – II: Particulars of receipt and stock of detonating (fog) signals at the station to be filled in whenever detonators are used or received.

Part – III: Periods of fogs, fog signalmen on duty and details of detonators used.

Part – IV: Particulars of issue and testing of fog signals at the station.

- (b) In charge of the station shall ensure that the information maintained in the register is kept upto date and is accurate in all respects.

Transportation inspectors shall check the registers and also the stock of detonators on hand each time they visit the station and initial with date as an indication having done so.

**CERTIFICATE:-** NOTHING IN THIS RULES SHALL BE READ AS CANCELLING, AMENDING AND MODIFYING ANY OF THE GENERAL RULES, SUBSIDIARY RULES, BLOCK WORKING MANUAL AND OPERATING MANUAL. THESE RULES HENCEFORTH CANCEL ALL PREVIOUS STATION WORKING RULES OF MURIBAHAL STATION.

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**APPENDICES**

- APPENDIX 'A' -- WORKING OF L.C. GATE.
- APPENDIX 'B' -- SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
- APPENDIX 'C' -- ANTI COLLISION DEVICE (RAKSHA KAVACH).
- APPENDIX 'D' -- DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.
- APPENDIX 'E' -- ESSENTIAL EQUIPMENT OF STATION.
- APPENDIX 'F' -- RULES FOR WORKING OF DK STATIONS, HALTS, IBH, IBS AND OUTLYING SIDINGS.
- APPENDIX 'G' -- WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

## APPENDIX - 'A'

**DETAILS OF LEVEL CROSSING GATES TOGETHER WITH INSTRUCTIONS TO OPERATING STAFF INCLUDING LEVEL CROSSING GATEMAN ABOUT THEIR NORMAL WORKING, THEIR MAINTENANCE AND THEIR WORKING IN CASE OF FAILURE / EMERGENCIES WITH SPECIAL PROVISIONS IF ANY.**

**1.0 GATE WORKING RULE FOR “C” CLASS TRAFFIC INTERLOCKED LEVEL CROSSING GATE AT KM 183.970 (183/15-184/1) ( RV.No-138) SITUATED BETWEEN THE UP HOME SIGNAL AND OUTER MOST POINT OF MRBL STATION.**

**1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:-**

1.	Number of Level Crossing Gate: -	RV-138.
2.	Engineering or Traffic Gate: -	Traffic.
3.	Under control of Station Master/PWI:	SM/MRBL
4.	Location KM	183/15-184/1
5.	At. Station: -	MRBL.
6.	In between Stations: -	KBJ-MRBL.
7.	BG/MG/NG: -	BG.
8.	Single line/Double line/Multiple line: -	Single Line.
9.	Normal Position: -	Open to road traffic.
10.	Interlocked/Non Interlocked: -	Interlocked.
11.	Means of interlocking: -	Station signals
12.	Provision of Gate signal at Kms.	i) Up line – Nil ii) Dn line- Nil
13.	Signalling arrangement: -	MACLS.
14.	Means of Communication:	Telephone Connection with SM office/MRBL.
15.	Width of level crossing Gate: -	7.5 Meter
16.	Type of road. (NH/SH/Others): -	Others
17.	Name of Road: -	Muribahal town-Muribahal.
18.	Metaled/Non Metaled	Metaled
19.	Approach Road: -	Metaled
20.	Width of the road: -	5.5 Meter.
21.	Angle of road crossing (In case of the skew Gates)	Right Angle
22.	Road gradient (If any)	i) North/East side. ---- ii) South/West side ----
23.	Road alignment (Straight/Curve): -	i) North/East side- Straight ii) South/West side- Straight
24.	Provision of height gauges: -	Not Provided.
25.	Type of Barriers: -	Winch Operated Lifting barriers.
26.	Length of checkrails: -	9.5Meter.
27.	Road surface in between Level Xings Gates: -	C.C.Block.
28.	Length of speed breakers: -	7.5 Meters.
29.	Road signs: -	Provided.
30.	Speed breaker indication board: -	Provided.

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- |     |   |                  |
|-----|---|------------------|
| 31. | TVU: -  | 7448 on 03/2013. |
| 32. | Census next due on: -                                 | 03/2016.         |
| 33. | Demarcation for placement of Detonators: -            | Displayed.       |
| 34. | No of the Gateman working: -                          | 02               |
| 35. | Nearest Railway Medical Assistance: -                 | Kantabanji.      |
| 36. | Nearest Private Medical Assistance available (if any) | Muribahal town   |
| 37. | List of equipment available Yes//No: -                | Yes.             |

1.2. **EQUIPMENT:**

	<b>ITEMS</b>	<b>QUANTITY/NUMBERS</b>
1.	Hand signal Lamp /Tri Colour Torch	3(5 on Quadruple/Line or twin single line)
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 (6 on Quadruple/line or Twin single line & 7 in case Hexaple section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q/Twin single line and 5 on Hexaple section)
6.	Spares chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Motor Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (in case of asphalted road this may not be provided)
13.	Pick Axe	1 (in case of asphalted road this may not be provided)
14.	Tin case for flags	1
15.	Can for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of Gateman Wearing glasses.	1
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate .	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small size chains with padlocks to be used in case failure of gate boom lock.	2

1.3 **The gateman shall be provided with following registers: -**

- i) Gate working instructions in Hindi / English.
- ii) Gate working instructions in local vernacular language.
- iii) Gateman Rule Book in Local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
- viii) Accident Register.
- ix) Records of last census of road traffic at level crossing gate.
- x) Public complaint Book.
- xi) Inspection Book.

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#### 1.4 **DUTIES OF GATEMAN:**

##### 1. **ALERTNESS:**

The Gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the Gate shall be in his personal custody.

##### 2. **POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS:**

During passage of trains, Gateman will stand in the manner indicated below:

- i) Gateman will stand attentively in front of the Gate – lodge facing the approaching train.
- ii) In daytime, Gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In nighttime, Gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

##### 3. **ROUTINE DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the Gate is kept in open condition during emergencies or obstruction on track.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp like out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the past the defective signal. In such case he should inform the driver to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.



- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clear.
- xvi) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles/animals passing from gate are within the height-loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. **ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN.**

In case Gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the driver/guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot /guard by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.
- iii) If driver/guard fails to take notice, Gateman shall immediately inform the SM on duty to take appropriate action, under exchange of private number.
- iv) In case of train parting, Gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavor to attract the attention of the Loco Pilot /Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, Gateman shall immediately inform the SM to take appropriate action, under exchange of private number.

5. **ACTION IN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if at, in the 'ON' position.
- ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, regarding the defects/obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after or three attempts he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under: -

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a) **ON SINGLE LINE SECTION:**

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction, which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day, red hand signal lamp by night repeatedly.

(b) **Other actions to be taken by Gateman:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.
- ii) If the Gate is broken by a road vehicle, which is fouling the track or if lifting barriers or any other part of the Gate foul the track or if there is any other obstruction at the Gate, the Gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the SM/MRBL regarding the particulars and obstructions at the level crossing Gate, through messenger or other means available.

1.5 **ENGINEERING ITEMS:**

- i) Visibility: -

Direction	Side	Visibility Distance
UP	Right	1000 M
	Left	1000 M
DN	Right	1000 M
	Left	1000 M

- ii) Speed Breaker: - Speed Breakers of approved design are provided on either side of this Level Crossing gate.
- iii) Periodical Census of traffic has been taken and the latest TVU is 7448 on 03/2013.

1.6 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:** This is a Manned, interlocked traffic L.C. Gate situated in between UP Home signal and Outermost facing point at Km 183.970. This gate is interlocked with Station stop signals. Telephone communication is provided between the L C. gate lodge with SM on duty of MRBL Station. The level crossing gate is of lifting barrier type operated by means of winch provided at the gate lodge. The normal position of the gate is opened to road traffic. A two-lever ground frame is provided at the gate lodge. The key of the LC remains in the winch when the gate is opened condition. When it is necessary to close the gate, for lowering signals or for shunting operations, the SM on duty shall inform the gate man to close and lock the gate. The gate man on duty shall then close the barriers of the LC gate by operating winch. Then key 'P' is to be extracted from the winch, which will be inserted in the lever of 2-GF. When 2-GF is reversed it locks the booms of the gate and releases Key 'Q' and 1-GF. When this Key 'Q' will be inserted in the RKT and turned in conjunction with 1- GF reversed, L.C Gate closed indication will appear on the Panel and UP reception and DN dispatch signals automatically get released.

After passage of the Train or completion of shunting, the SM on duty shall inform the gateman and turn LC gate controlling switch to enable the gateman to extract the control key 'Q' from the RKT. After getting the Key 'Q' the gate man will open the L.C gate by normalising the levers. Lever No. 1-GF has been provided in the gate lodge to put back concern signals to 'ON' in case of emergency.

In the event of failure of UP reception or DN despatch signals or during Non Interlocking working the Traffic Gateman shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so.

2. **INTIMATION TO GATEMAN :-**

- i) Before taking off reception/departure signals SM/MRBL shall inform the Gateman, the number, description, and direction of the Train.
- ii) The Gateman shall close the Gate and transfer the key to the SM/MRBL.
- iii) The reception/departure signals will then be taken 'OFF'
- iv) In order to ensure that road traffic is not held up for a long time, the SM/MRBL must ensure that the Train is ready for departure in all respects before he advises the Gateman for closing the Gate.
- v) When a Train has to be piloted to and from the Station yard or any shunting movement is to be done, the staff deputed to pilot the Train to perform the shunting across the Gate shall be personally responsible to ensure that the Gate is closed against road traffic before allowing any movement across the Gate.

3. **FAILURE OF TELEPHONIC COMMUNICATIONS:**

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:

- i) SM/MRBL on duty shall send written advice to the Gateman through the porter with full details of number, description and direction of the Train.
- ii) Gateman on receipt of such advice shall close the Gate and transmit the key to the SM/MRBL, which will enable them to take 'OFF' reception/Departure signals.
- iii) When sufficient time is not available because of greater frequency of Train service, SM/MRBL will issue written authority to the Train Loco Pilot to pass the signal at 'ON' position.
- iv) In addition SM/MRBL shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the Gate cautiously.

- v) The Train Loco Pilot shall be instructed to pass the Gate cautiously, on signaled by the Gateman. If hand signal is not seen, Loco Pilot should be prepared stop short of the Gate and ensure that Gate is closed following GR.3.37 (2)(b).
- vi) In case of an UP Train, the SM/MRBL shall advise the SM/KBJ, under exchange of private number, that the telephone at the Gate has failed.
- vii) The SM/KBJ at the other end shall then issue a caution order to the Loco Pilot before dispatching a UP Train in to the block section from his end.
- viii) SM/MRBL should also advice S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection /fit memo for the same.

4. **FAILURE OF LIFTING BARRIERS OF THE GATE:**

- i) When the Gate cannot be closed due to failure of lifting barriers, the Gateman will immediately inform, the SM/MRBL on duty, under exchange private number, and ensure the lifting barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the Train is approaching and then at the other end.
- iii) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks.
- iv) After securing the Gate against road traffic, Gateman shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching Train.
- v) SM/MRBL on duty shall issue a caution order to the Loco Pilot of a departing Train.
- vi) He shall also advise the SM/KBJ at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a UP Train in to the block section from his end.
- vii) SM/MRBL will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- viii) Normal working will resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

5. **FAILURE OF THE GATE KEY WITH THE GATE IN CLOSED POSITION WHEN GATE KEY CANNOT BE EXTRACTED FOR OPENING THE GATE.**

- i) If the Gate key cannot be extracted from the winch, Gate lever or key transmitter, then Gateman must immediately inform the SM/MRBL on duty on telephone, under exchange of private number.
- ii) Thereafter, the Gate must be treated as non – interlocked and procedure for reception/ despatch of Trains as prescribed for non – interlocked Gate, should be adopted.
- iii) SM/MRBL on duty shall issue a caution order to the Loco Pilot of an DN Train.
- iv) He shall also advise the SM/KBJ at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a Train in to the block section from his end.
- v) SM/MRBL will advise S&T staff responsible for maintenance of winch/ key transmitter to rectify the defect at the earliest.
- vi) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

6. **FAILURE OF THE GATE KEY WITH THE GATE IN OPEN CONDITION:**

- i) If the Gate key cannot be extracted from the winch, Gate lever or key transmitter then Gateman must immediately inform the SM/MRBL on duty on telephone, under exchange of private number.
- ii) Thereafter, the Gate must be treated as non-interlocked and procedure for reception/despatch of Trains as prescribed for non-interlocked Gates should be adopted.
- iii) Gateman shall secure the Gate against road traffic by means of chains and padlocks and pass the Trains on hand signals.
- iv) SM/MRBL on duty shall issue caution order to the Loco Pilot of a departing Train.
- v) He shall also advise the SM/KBJ at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a UP Train in to the block section from his end.
- vi) SM/MRBL will advise S&T staff responsible for maintenance of winch/key transmitter to rectify the defect at the earliest.
- vii) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

7. **OBSTRUCTION AT THE GATE:**

- i) If the Gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the Gate foul the track, or if there is any other obstruction at the Gate, the Gateman shall Immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the Gate, for this purpose.
- ii) Immediately after this, the Gateman shall advise the SM/MRBL on duty, regarding the defects/obstruction at the Gate, under exchange of private number.
- iii) SM/MRBL on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a Train.
- iv) If there is no response from the SM/MRBL after two or three attempts, he shall first protect the Gate and then inform on phone.
- v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching Train and protect the Gate as stipulated in General Instruction for duties of Gateman under item No.1.5. (5).
- vi) Thereafter he shall protect the Gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the Driver, owner & reply these details to the SM/MRBL who shall not start the Trains unless he has been assured by the Gateman that the road vehicle or the lifting barriers are not fouling the track.
- viii) The SM/MRBL shall also inform the SM/KBJ at the despatching end, under exchange of private number, asking him not to despatch any Train into the block section from his end, until the track has been clear of all obstruction.
- ix) After the track has been cleared of all obstructions the Gateman shall inform the SM/MRBL accordingly, under exchange of private number.
- x) SM/MRBL & KBJ shall then issue a caution order to Loco Pilots of all Trains to proceed cautiously, and pass the Gate on green hand signal of the Gateman, if the Gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the Gate is not obstructed.
- xii) SM/MRBL shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers and issue reconnection/fit memo for the same.

8. **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:**

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the Gateman, the Gateman and SM/MRBL will adopt the procedure given under item No.7 above. If the obstruction fouls the L.C Gate, Gateman must keep the Gates closed against road traffic till the track is cleared of the obstructions.

2.0 **GATE WORKING RULES FOR “C” CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE AT KM 183/5-6 (No.RV-137) BETWEEN MRBL-KBJ STATIONS.**

2.1 **GENERAL INSTRUCTIONS: -**

2.1.1 **DESCRIPTION OF THE LEVEL CROSSING GATE:**

1. Number of Level Crossing Gate: -	RV-137.
2. Engineering or Traffic Gate: -	Engineering.
3. Under control of Station Master/PWI:	PWI.
4. Location KM	183/5-6
5. At. Station: -	---
6. In between stations: -	MRBL-KBJ.
7. BG/MG/NG: -	BG.
8. Single line/Double line/Multiple line: -	Single Line.
9. Normal Position: -	Closed to road traffic.
10. Interlocked/Non Interlocked: -	Non-interlocked.
11. Means of interlocking: -	NIL.
12. Provision of Gate signal at Kms.	(i) Up line NIL (ii) Dn line NIL
13. Signalling arrangement: -	NIL.
14. Means of Communication:-	Magneto Telephone Communication from Gate Goomty with SM/ MRBL.
15. Width of level crossing Gate: -	5.5 Meters.
16. Type of road. (NH/SH/Others): -	others (MDR.)
17. Name of Road: -	---
18. Metaled/Non Metaled:	Metaled
19. Approach Road: -	Metaled
20. Width of the road: -	5.5 m.
21. Angle of road crossing (In case of the skew Gates)	NIL.
22. Road gradient (If any)	(i) North/East side - Level. (ii) South/West side -Level.
23. Road alignment (Straight/Curve): -	(i) North/East side. Straight. (ii) South/West side. Straight.
24. Provision of height gauges: -	Not Provided
25. Type of Barriers: -	winch Operated Lifting barriers.
26. Length of check rails: -	7.5 Meter.
27. Road surface in between Level Xings Gates: -	CCB.
28. Length of speed breakers: -	5.5 Meters.
29. Road signs: -	Available
30. Speed breaker indication board: -	Provided
31. TVU: -	13566 on 03/2013.
32. Census next due on: -	03/2016.
33. Demarcation for placement of Detonators: -	Displayed.
34. No. of Gateman working: -	02.
35. Nearest Railway Medical Assistance: -	KBJ.
36. Nearest Private Medical Assistance available (if any)	MRBL.
37. List of equipment available Yes//No: -	Yes.

## 2.2. **EQUIPMENT:** **ITEMS**

	<b>QUANTITY/NUMBERS</b>
1. Hand signal Lamp /Tri Colour Torch	3(5 on Quadruple/Line or twin single line)
2. Hand signal Flag Green	1 mounted on sticks
3. Hand Signal Flag Red.	3 (6 on Quadruple/line or Twin single line and 7 in case Hexaple section mounted on sticks)
4. Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5. Posts for exhibiting red banner flag	2 (4 on Q/Twin single line and 5 on Hexaple section)
6. Spare chains with padlocks	2 with stop mark
7. Detonators	10 in tin case
8. Gate Lamps	2
9. Tommy Bar	1
10. Motor Pan	1
11. Spade/Fowrah	1
12. Rammer	1 (in case of asphalted road this may not be provided)
13. Pick Axe	1 (in case of asphalted road this may not be provided)
14. Tin case for flags	1
15. Can for oil	1
16. Water pot/Bucket	1
17. Canister for Muster Roll	1
18. Set of spare spectacles of Gateman wearing glasses.	1
20. Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate .	1
20. Basket	1
21. Whistle	1
22. Wall clock	1
23. Small size chains with padlocks to be used in case of failure of boom lock.	2

## 2.3 **THE GATEMAN SHALL BE PROVIDED WITH FOLLOWING REGISTERS: -**

- i) Gate working instructions in Hindi / English.
- ii) Gate working instructions in local vernacular language.
- iii) Gateman Rule Book in Local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio–Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
- viii) Accident Register.
- ix) Records of last census of road traffic at level crossing gate.
- x) Public complaint Book.
- xi) Inspection Book.

## 2.4 **DUTIES OF GATEMAN:**

### 1. **ALERTNESS:**

The gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the gate shall be in his personal custody.

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**2. POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS:**

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand attentively in front of the gate – lodge facing the approaching train.
- ii) In daytime, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In nighttime, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

**3. ROUTINE DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that all gate lamps and hand signal lamps are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless his reliever arrives and takes over charge from him. However, if it is necessary to leave the gate in an emergency, he must close and lock the gate against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xi) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiii) Gateman shall see that the channel for the flange of the wheel is kept clear.
- xiv) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.
- xv) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xvi) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

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**4. ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN.**

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot/guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot/guard by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the station Master/MRBL, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavor to attract the attention of the Loco Pilot/Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master/MRBL, to take appropriate action, under exchange of private number.

**5. ACTION IN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, he shall place banner flag/red light lamps on the stave on track at 5 m. away from the edge of the road at Level Crossing.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master/MRBL on duty, regarding the defects/obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master/MRBL after three attempts, he shall first protect the gate and then inform on phone.

**A) THE GATEMAN SHALL PROTECT THE LINE AS UNDER: -**

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction, which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back, which was placed at boom.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day, red hand signal lamp by night repeatedly.

**(B) OTHER ACTIONS TO BE TAKEN BY GATEMAN:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.
- ii) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the Station Master/MRBL and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

**2.5 ENGINEERING ITEMS :**

**Visibility :-**

Direction	Side	Visibility Distance
UP	Right	900 m.
	Left	560 m.
DN	Right	560m
	Left	890m

- i) Speed Breaker: - Speed Breakers of approved design are provided on either side of this Level Crossing gate.
- ii) Periodical Census of traffic has been taken and the latest TVU is 13566 on 03/2013.

**2.6. SPECIAL INSTRUCTIONS:**

**1. MODE OF OPERATION:**

This is a Manned & Non-interlocked Engineering L.C.Gate situated at Km 183/5-6 in between MRBL-KBJ Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the gateman manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of MRBL station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/ MRBL shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number. When the gateman desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the Station Master/ MRBL for the passage of train or the whole of the train with last vehicle indicator has passed over the level crossing gate for which the gateman has exchanged private number with the SM/ MRBL. Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate.

**2. EXCHANGE OF PRIVATE NUMBERS:**

- (i) The normal position of level crossing gate being "Closed to Road Traffic" it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The Station Master / MRBL before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master / MRBL in assurance of gate being closed and locked against road traffic.

- (iii) The Station Master / MRBL shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
  - (a) He has not exchanged any private number with the SM / MRBL as per (ii) above.
  - (b) If he has exchanged private number with the Station Master / MRBL, the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / MRBL has not exchanged private number with him for any other movement immediately in rear of the train.  
Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.
- (v) In case the Gateman is not responding on the telephone or in case the telephone becomes defective or private number is not received from the Gateman, the Station Master/ MRBL shall adhere to the procedure prescribed in SR 16.03.04.
- (vi) In the event of failure of telephone, if the gate is required to be opened for the passage of road traffic, the gateman shall look out in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He will thereafter, open the gate for passing the road traffic keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.

### 3. **FAILURE OF TELEPHONIC COMMUNICATION:**

When Telephonic Communication fails or SM/ MRBL does not get any response from the Gateman despite 2 or 3 attempts, the following procedure shall be adopted:

- i) SM/ MRBL shall serve a caution order to the Loco pilot and the Guard of every train proceeding into the affected section giving the number and kilometreage of the level crossing and directing the loco pilot:-
  - a) To whistle frequently to attract the attention of the gateman,
  - b) To proceed cautiously, and stop 30M short of the level crossing & be guided by hand signal.
- ii) (a) The Loco Pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the station master / MRBL as the case may be of the fact using the telephone provided at the gate. The Station Master/ MRBL on receipt of such an advice from the Loco Pilot shall discontinue issue of caution order to the following trains provided the acknowledgement of the gateman is available over the telephone.
- (b) In the above circumstance, the Loco Pilot should not stop his train at the next station to advise the SM.
- iii) (a) If the loco Pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his Assistant, the Loco Pilot shall seek assistance of the Assistant Guard or Guard of the train. The same should be informed to the Station Master/ MRBL on gate telephone.

- (b) The Loco Pilot, after being hand signaled, shall pass the level crossing and stop clear of it by at least 2 bogie lengths to pick up the Assistant or Assistant Guard / Guard, as the case may be. The Railway servant deputed for closing the gate shall reopen it for road traffic after the passage of the last vehicle of the train.
- (c) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station/ MRBL from the gate, the Loco Pilot shall stop his train at the next station (even if it is through passing station) and give a memo to the Station Master indicating the condition of the gateman, gate and telephone.
- (d) The Station Master/ MRBL on receipt of the Loco Pilot's report regarding absence or unfitness of the gateman, shall advise the station Master/ KBJ, the Notice Station, the Section Controller, JE/SE/SSE (P.Way) and AEN concerned and the Gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.
- iv) Before giving line clear to a train, the Station Master/ MRBL shall advise the Station Master/ KBJ of the facts by message supported by a Private Number, and obtain his acknowledgement with a Private Number. The latter shall issue a caution order to the Loco Pilot as detailed in Para (i).
- v) Necessary entries shall be made in the Caution Order Register, Station Diary or Signal Failure Register as the case may be by Station Masters at either end of the affected station. The Section Controller shall also keep a note in his chart indicating the action taken by him.

#### 4. **FAILURE OF LIFTING BARRIERS:**

- i) When the Gate cannot be closed due to failure of lifting barriers, The Gateman will immediately inform the Station Master on duty/ MRBL, under exchange of Private number, and ensure that lifting barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- iii) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks.
- iv) After securing the Gate against road traffic, he shall show green hand signal flag by day and green light by night to the Loco Pilot of an approaching train.
- v) SM on duty/MRBL shall issue caution order to the Loco Pilot of departing train.
- vi) SM/MRBL shall also advise the Station Master/KBJ at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching an UP train into the block section from his end.
- vii) SM/MRBL should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection/fit memo for the same.

5. **OBSTRUCTION AT THE GATE:**

- i) If the Gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the Gate foul the track, or if there is any other obstruction at the Gate, the Gateman shall Immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the Gate for this purpose.
- ii) Immediately after this, the Gateman shall advise the Station Master/MRBL on duty regarding the defects/obstruction at the Gate under exchange of private number.
- iii) Stationmaster at MRBL on duty shall be advised to put the departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master /MRBL after two or three attempts, he shall first protect the Gate and then inform him on phone.
- v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the Gate as stipulated in General Instruction for duties of Gateman under item No.2.4. (5).
- vi) Thereafter he shall protect the Gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master/MRBL who shall not allow the trains unless he has been assured by the Gateman that the road vehicle or the lifting barriers are not fouling the track.
- viii) The Station Master/MRBL shall also inform the station Master/KBJ, under exchange of private number, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the Gateman shall inform the Station Master/MRBL accordingly under exchange of private number.
- x) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the Gate is not obstructed.
- xi) Station Master/MRBL shall advise maintenance staff responsible for maintaining the lifting barriers Gates to repair the same at the earliest.
- xii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection/fit memo for the same.

6. **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:**

If there is a rail fracture of obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the Gateman, the Gateman and Station Master/MRBL will adopt the procedure given under item No.5 above. If the obstruction fouls the level Crossing Gate, Gateman must keep the Gates closed against road traffic till the track is cleared of obstructions.

**3.0 GATE WORKING INSTRUCTIONS OF "C" CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE AT KM 186/11-12 (No.RV-141) BETWEEN MRBL-RNBT STATIONS.**

**3.1 GENERAL INSTRUCTIONS: -**

**3.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:**

1.	Number of Level Crossing Gate: -	RV-141.
2.	Engineering or Traffic Gate: -	Engineering.
3.	Under control of Station Master/PWI:	PWI.
4.	Location KM	186/11-12
5.	At. Station: -	-----.
6.	In between stations: -	MRBL-RNBT.
7.	BG/MG/NG: -	BG.
8.	Single line/Double line/Multiple line: -	Single Line.
9.	Normal Position: -	Closed to road traffic.
10.	Interlocked/Non Interlocked: -	Non-interlocked.
11.	Means of interlocking: -	NIL.
12.	Provision of Gate signal at Kms.	(i) Up line NIL (ii) Dn line NIL
13.	Signalling arrangement: -	NIL.
14.	Means of Communication:-	Magneto Telephone Communication from Gate Goomty with SM office/MRBL.
15.	Width of level crossing Gate: -	5.5 Meters.
16.	Type of road. (NH/SH/Others): -	others (MDR.)
17.	Name of Road: -	---
18.	Metaled/Non Metaled:	Metaled
19.	Approach Road: -	Metaled
20.	Width of the road: -	5.5 m.
21.	Angle of road crossing (In case of the skew Gates)	NIL.
22.	Road gradient (If any)	(i) North/East side. 1 in 750 (ii) South/West side. 1 in 750.
23.	Road alignment (Straight/Curve): -	(i) North/East side. Straight. (ii) South/West side. Straight.
24.	Provision of height gauges: -	Not Provided
25.	Type of Barriers: -	Winch Operated Lifting barriers.
26.	Length of check rails: -	7.5 Meter.
27.	Road surface in between Level Xings Gates: -	CCB.
28.	Length of speed breakers: -	5.5 Meters .
29.	Road signs: -	Available
30.	Speed breaker indication board: -	Provided
31.	TVU: -	912 on 02/2013.
32.	Census next due on: -	02/2016.
33.	Demarcation for placement of Detonators: -	Displayed.
34.	No. of Gateman working: -	02.
35.	Nearest Railway Medical Assistance: -	KBJ.
36.	Nearest Private Medical Assistance available (if any):	MRBL.
37.	List of equipment available Yes//No: -	Yes.

**3.2. EQUIPMENT:**

<b>ITEMS</b>	<b>QUANTITY/NUMBERS</b>
1. Hand signal Lamp/ Tri Colour Torch	3 (5 on Quadruple/Line or twin single line)
2. Hand signal Flag Green	1 mounted on sticks
3. Hand Signal Flag Red.	3 (6 on Quadruple/line or Twin single line and 7 in case Hexaple section mounted on sticks)
4. Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5. Posts for exhibiting red banner flag	2 (4 on Q/Twin single line & 5 on Hexaple section)
6. Spare chains with padlocks	2 with stop mark
7. Detonators	10 in tin case
8. Gate Lamps	2
9. Tommy Bar	1
10. Motor Pan	1
11. Spade/Fowrah	1
12. Rammer	1 (in case of asphalted road this may not be provided)
13. Pick Axe	1 (in case of asphalted road this may not be provided)
14. Tin case for flags	1
15. Can for oil	1
16. Water pot/Bucket	1
17. Canister for Muster Roll	1
18. Set of spare spectacles of Gateman Wearing glasses.	1
21. Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate .	1
20. Basket	1
21. Whistle	1
22. Wall clock	1
23. Small size chains with padlocks to be used in case of failure of boom lock.	02

**3.3 THE GATEMAN SHALL BE PROVIDED WITH FOLLOWING REGISTERS: -**

- i) Gate working instructions in Hindi / English.
- ii) Gate working instructions in local vernacular language.
- iii) Gateman Rule Book in Local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
- viii) Accident Register.
- ix) Records of last census of road traffic at level crossing gate.
- x) Public complaint Book.
- xi) Inspection Book.

**3.4 DUTIES OF GATEMAN:****1. ALERTNESS:**

The gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the gate shall be in his personal custody.

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**2. POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS:**

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand attentively in front of the gate – lodge facing the approaching train.
- ii) In daytime, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In nighttime, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

**3. ROUTINE DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that all gate lamps and hand signal lamps are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless his reliever arrives and takes over charge from him. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xi) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiii) Gateman shall see that the channel for the flange of the wheel is kept clear.
- xiv) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.
- xv) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xvi) Gateman shall prevent tress passing by persons or cattle to the maximum extent.



**4. ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN.**

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot/guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot/guard by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the station Master/MRBL, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavor to attract the attention of the Loco Pilot/Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master/MRBL, to take appropriate action, under exchange of private number.

**5. ACTION IN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, he shall place banner flag/red light lamps on the stave on track at 5 m. away from the edge of the road at Level Crossing.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master/MRBL on duty, regarding the defects/obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master/MRBL after three attempts, he shall first protect the gate and then inform on phone.

**A) THE GATEMAN SHALL PROTECT THE LINE AS UNDER: -**

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction, which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back, which was placed at boom.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day, red hand signal lamp by night repeatedly.

**(B) OTHER ACTIONS TO BE TAKEN BY GATEMAN:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.
- ii) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the Station Master/MRBL and Permanent Way Inspector/MRBL regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

**3.5 ENGINEERING ITEMS :**

Visibility :-

Direction	Side	Visibility Distance
UP	Right	900 m.
	Left	560 m.
DN	Right	560m
	Left	890m

- i) Speed Breaker: - Speed Breakers of approved design are provided on either side of this Level Crossing gate.
- ii) Periodical Census of traffic has been taken and the latest TVU is 912 on 02/2013.

**3.6 SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:** This is a Manned & Non-interlocked Engineering L.C.Gate situated at Km 186/11-12 in between MRBL-RNBT Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the gateman manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of MRBL station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/ MRBL shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number. When the gateman desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the Station Master/ MRBL for the passage of train or the whole of the train with last vehicle indicator has passed over the level crossing gate for which the gateman has exchanged private number with the SM/ MRBL. Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate.

2. **EXCHANGE OF PRIVATE NUMBERS:**

- (i) The normal position of level crossing gate being "Closed to Road Traffic" it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The Station Master / MRBL before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master / MRBL in assurance of gate being closed and locked against road traffic.

- (iii) The Station Master / MRBL shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
  - (a) He has not exchanged any private number with the SM / MRBL as per (ii) above.
  - (b) If he has exchanged private number with the Station Master / MRBL, the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / MRBL has not exchanged private number with him for any other movement immediately in rear of the train.  
Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.
- (v) In case the Gateman is not responding on the telephone or in case the telephone becomes defective or private number is not received from the Gateman, the Station Master/ MRBL shall adhere to the procedure prescribed in SR 16.03.04.
- (vi) In the event of failure of telephone, if the gate is required to be opened for the passage of road traffic, the gateman shall look out in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He will thereafter, open the gate for passing the road traffic keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.

### **3. FAILURE OF TELEPHONIC COMMUNICATION:**

When Telephonic Communication fails or SM/ MRBL does not get any response from the Gateman despite 2 or 3 attempts, the following procedure shall be adopted:

- i) SM/ MRBL shall serve a caution order to the Loco pilot and the Guard of every train proceeding into the affected section giving the number and kilometrage of the level crossing and directing the loco pilot:-
  - a) To whistle frequently to attract the attention of the gateman,
  - b) To proceed cautiously, and stop 30M short of the level crossing & be guided by hand signal.
- ii) (a) The Loco Pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the station master / MRBL as the case may be of the fact using the telephone provided at the gate. The Station Master/ MRBL on receipt of such an advice from the Loco Pilot shall discontinue issue of caution order to the following trains provided the acknowledgement of the gateman is available over the telephone.
- (b) In the above circumstance, the Loco Pilot should not stop his train at the next station to advise the SM.
- iii) (a) If the loco Pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his Assistant, the Loco Pilot shall seek assistance of the Assistant Guard or Guard of the train. The same should be informed to the Station Master/ MRBL on gate telephone.

- (b) The Loco Pilot, after being hand signaled, shall pass the level crossing and stop clear of it by at least 2 bogie lengths to pick up the Assistant or Assistant Guard / Guard, as the case may be. The Railway servant deputed for closing the gate shall reopen it for road traffic after the passage of the last vehicle of the train.
- (c) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station/ MRBL from the gate, the Loco Pilot shall stop his train at the next station (even if it is through passing station) and give a memo to the Station Master indicating the condition of the gateman, gate and telephone.
- (d) The Station Master/ MRBL on receipt of the Loco Pilot's report regarding absence or unfitness of the gateman, shall advise the station Master/ RNBT, the Notice Station, the Section Controller, JE/SE/SSE (P.Way) and AEN concerned and the Gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.
- iv) Before giving line clear to a train, the Station Master/ MRBL shall advise the Station Master/ RNBT of the facts by message supported by a Private Number, and obtain his acknowledgement with a Private Number. The latter shall issue a caution order to the Loco Pilot as detailed in Para (i).
- v) Necessary entries shall be made in the Caution Order Register, Station Diary or Signal Failure Register as the case may be by Station Masters at either end of the affected station. The Section Controller shall also keep a note in his chart indicating the action taken by him.

#### 4 **FAILURE OF LIFTING BARRIERS:**

- i) When the Gate cannot be closed due to failure of lifting barriers, The Gateman will immediately inform the Station Master on duty/ MRBL, under exchange of Private number, and ensure that lifting barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- iii) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks.
- iv) After securing the Gate against road traffic, he shall show green hand signal flag by day and green light by night to the Loco Pilot of an approaching train.
- v) Station Master on duty/MRBL shall issue caution order to the Loco Pilot of departing train.
- vi) SM/MRBL shall also advise the Station Master/RNBT at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train into the block section from his end.
- vii) SM/MRBL should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection/fit memo for the same.

**5 OBSTRUCTION AT THE GATE:**

- i) If the Gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the Gate foul the track, or if there is any other obstruction at the Gate, the Gateman shall Immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the Gate for this purpose.
- ii) Immediately after this, the Gateman shall advise the Station Master/MRBL on duty regarding the defects/obstruction at the Gate under exchange of private number.
- iii) Stationmaster at MRBL on duty shall be advised to put the departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master /MRBL after two or three attempts, he shall first protect the Gate and then inform him on phone.
- v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the Gate as stipulated in General Instruction for duties of Gateman under item No.1.4. (5).
- vi) Thereafter he shall protect the Gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master/MRBL who shall not allow the trains unless he has been assured by the Gateman that the road vehicle or the lifting barriers are not fouling the track.
- viii) The Station Master/MRBL shall also inform the station Master/RNBT, under exchange of private number, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the Gateman shall inform the Station Master/MRBL accordingly under exchange of private number.
- x) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the Gate is not obstructed.
- xi) Station Master/MRBL shall advise maintenance staff responsible for maintaining the lifting barriers Gates to repair the same at the earliest.
- xii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection/fit memo for the same.

**6 OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:**

If there is a rail fracture of obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the Gateman, the Gateman and Station Master/MRBL will adopt the procedure given under item No.5 above. If the obstruction fouls the level Crossing Gate, Gateman must keep the Gate closed against road traffic till the track is cleared of obstructions.

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**APPENDIX - 'B'**

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**DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC. INCLUDING THE POWER SUPPLY ARRANGEMENT.**

**1.1 SYSTEM OF SIGNALLING AND INTERLOCKING CONTROL PANEL: -**

A panel board has been installed in the SM's Office. The panel depicts the station yard layout. This is a 'B' Class Station with Standard II (R) Interlocking (with isolations). The points and Signals are power operated from composite central panel installed in the Station Master's Office. The Station is equipped with Multi Aspect Colour Light Signalling. It is provided with point switches, point indications, signal switches etc., as detailed below:

**1.2 INDICATIONS:** Indications in the panel are provided by strip / dot lights.

**i) POINT INDICATIONS: -**

The setting of the point is indicated on the panel by the lighting up of strip light. Individual lights are provided for normal and reverse setting of the points. When the points are locked and cannot be operated two red LEDs appears near the point.

**ii) SIGNAL INDICATIONS: -**

After operation of signal switches, the SM on duty should physically verify the aspect of the concerned signal by the off aspect of signal indication on panel board.

**iii) TRACK INDICATIONS: -**

No indication is provided in normal condition of the track on panel. When the points are set and the concerned route button is operated white strip lights appear on the panel illuminating the route set. As the train occupies the route, red strip lights appear on the occupied route and turn to white once again as the track is cleared. The route lights extinguish only when the signal switch is normalized.

**IV) ASPECTS OF SIGNALS:-** **G:-**Green light indicates "PROCEED" aspect of the colour light signal and authorizes to proceed. **Y:** - Yellow light indicates the "CAUTION" aspect i.e. Proceed and be prepared to stop at the next stop signal. **YY:-**Double yellow light indicates "ATTENTION" aspect i.e. Proceed and be prepared to pass the next signal at restricted speed as may be prescribed by special instructions. **R:** - Red light indicates the "STOP" aspect i.e. Stop dead. The aspect of Distant signal is corrected vide amendment to GR-3.07 and CPTM/ECOR's letter No.ECOR/Optg/SC/55/X/SWR, dtd.05.02.2014. The revised indications are given as under.

Receiving On	Existing		Revised	
	Aspect of Distant	Aspect of Home	Aspect of Distant	Aspect of Home
To stop at home signal	Y	R	Y	R
i)To stop at loop line starter, ii) Through via loop.	YY	Y with lunar	YY	Y with lunar
To stop at main line starter	G	Y without lunar	YY	Y without lunar
Through via main line	G	G	G	G

**1.3 SM'S KEY: -**

It is provided on the control panel for locking up the panel in the last operated position. This is to prevent unauthorized operation of the panel. The key should be in the personal custody of the SM on duty. Provision however, exists for putting back a signal to danger, in case of emergency, even if the panel is locked.

**1.4 POINT SWITCHES & PUSH BUTTONS: -**

Common point group button and individual point switch/switches are provided for operation of any point. The concerned individual point switch is to be operated while pressing the common point group button to operate the point.

**Push buttons/Switches provided for point, Crank Handle & LC gate are –**

- (i) Common push button: 01 No. Marked as 'O', Black with red dot in color, for both normal & reverse operation of point.
- (ii) Individual point switch: 2 Nos. , No. 17 for operating point No. 17 at R end & No.18 for operating point No-18 at TIG end. The switches are two position switches, Normal and Reverse.
- (iii) The control switch No- CH1 & CH2 is provided on the panel for releasing crank handle from RKT for point No-17 & 18 respectively. The CH switches are two position switches, 'IN' and 'OUT'.

- (iv) The control switch No. 25 is provided for controlling the interlocked LC gate RV-138. The LC control switch is a two position switch i.e. 'IN' and 'OUT' position.
- (v) Common push button: 01 No. Marked as 'Z', White with Black dot in colour, for Trans/Restore operation of Crank handle and LC gate.
- (vi) Emergency gate release button: Chocolate colour with red dot, used for emergency gate release when the gate is in locked condition.

1.5 Signal switches & the operation of the signals are controlled by two position thumb switches. In order to take off any signal the concerned thumb switch shall be turned towards the direction of the movement of the trains and simultaneously the relevant route push button should be pressed.

No. of switches	Description of Signal
S-1	UP Home signal No. S-1
C-1	UP Calling-on signal No. C-1
SH-3	UP Shunt signal No. SH-3
S-7	UP Main Starter signal No. S-7
S-9	UP Loop Starter signal No. S-9
S-11	UP Advanced Starter signal No. S-11
S-2	DN Home signal No. S-2
C-2	DN Calling-on signal No. C-2
SH-4	DN Shunt signal No. SH-4
S-8	DN Main Starter signal No. S-8
S-6	DN Loop Starter signal No. S-6
S-12	DN Advanced Starter signal S-12

#### 1.6 ROUTE PUSH BUTTONS: -

Route buttons are provided separately on each running line on the panel for initiation of route (viz. L1 UN, L2 UN). Common route buttons are also provided for taking off starters (viz.: 11ATUN, 12 ATUN). Individual route buttons are provided for taking off Advanced starters (Viz.: 11 UN, 12UN). For clearing the signals it is necessary to operate the signal switches and the concerned route button concurrently.

#### 1.7 DESCRIPTION OF ROUTE BUTTONS

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	L1 UN	WHITE	Common route button for UP or DN Home, Calling-on or back shunt (SH3 or SH4) for line No.1.
2	L2 UN	WHITE	Common route button for UP or DN Home, Calling-on or back shunt (SH3 or SH4) for line No.2 (Main line)
6	11AT UN	WHITE	Common route button for UP starter signal No. 7 & 9.
7	11 UN	WHITE	Route button for UP Advanced starter signal No. 11.
8	12AT UN	WHITE	Common Route button for DOWN starter signal No.6 & 8.
9	12UN	WHITE	Route button for Up advanced starter signal No.12.

### 1.8 **ADDITIONAL BUTTONS AND SWITCHES:**

1. Up and Dn train arrival acknowledge button: 02 nos. Chocolate colour with white dot. Used for train arrival acknowledgement.
2. Signal/point failure acknowledge button: 1 no. Red coloured with white dot on it. Used for muting the buzzer and to acknowledge point/signal failure.
3. Button held acknowledge button: 1 no. white coloured with red dot on it. Used for muting the buzzer and to acknowledge button held up in pressed condition on the panel.
4. Emergency route release button: 1 no. white coloured with red dot on it. Used for emergency release of a route.
5. Emergency gate release button: 1 no. chocolate with red dot on it. Used for emergency gate release operation.

### 2.0 **EMERGENCY ROUTE RELEASE COUNTER**

This counter is provided to register the number of operations made for emergency cancellation of route. The SM on duty must record the last number registered on the counter while taking over/handing over duty.

### 3.0 **EMERGENCY ROUTE RELEASE INDICATION (WHITE) / EMERGENCY ROUTE RELEASE BUTTON (WHITE WITH RED DOT)**

This panel interlocking is based on the principle of 'DEAD APPROCH LOCKING'. As such when a route is set and signal is taken off on the route, the route gets locked. Normally, the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken off vide SR 3.36.02 (a), the concerned signal must be put back to danger by putting the signal switch to its normal position. Then the emergency route release button (white with red dot) positioned at the top of panel to be pressed. A white light will flash (Up or Down) indicating that the timer is working. After 120 seconds, the white light along with the white strip of light (on the route) will disappear suggesting the route has been released. In case the route illumination (a white strip of lights) does not disappear, it suggests that the route is not released / cancelled and S&T staff should be advised to rectify the same. The concerned S&T staff should be advised immediately to get the emergency route release button re-sealed after rectification of fault, if any. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary and in the train signal register.

### 3.1 **EMERGENCY GATE RELEASE OPERATION:**

Emergency gate release operation facility is provided in the panel when the route gets locked out of some failure. For emergency release of L.C gate, the SM on duty shall press emergency gate release button and turn the gate switch No-25 to OUT position. After a lapse of 120 secs, the lock indication provided near gate switch on the panel will disappear. The gateman will release the key from RKT in the gate Lodge for opening the gate. All such operations will be registered in the emergency gate operation counter. SM shall record this and all such operations in the station diary, TSR & in the veeder counter register meant for it.

### 4.0 **BUTTON HELD ACKNOWLEDGEMENT BUTTON (WHITE WITH RED DOT) :**

All push button are self-restoring type. A button held acknowledgement push button (white with red dot) along with an indication (no light in normal condition) is positioned at the top of the panel. When any button gets stuck in pressed condition, a buzzer will sound along with flashing white light Indication. The Station Master shall stop the buzzer by pressing the button held acknowledgement button (white with Red dot). The buzzer will stop but the flashing white light will continue to glow till the pressed button is normalised. SM on duty shall try to find out the pressed button for normalisation and if failed to detect shall inform the maintenance staff to rectify.

### 5.0 **OVERLAP TIME RELEASE INDICATION (WHITE LIGHT) :** -

These are two indications (white lights) for UP overlap time release and DN overlap time release to indicate the release of overlap. These indications will flash during releasing of overlap.

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### 6.0 **TRACK CIRCUITS: -**

The station yard is fully track circuited from Home signal to Home signal and also for 7 rail lengths in rear of the Home signals on either side. Track circuits 1AT and 2AT are calling-on track circuits, 18T; 17AT & 17BT are Point zone track circuits, L1T1, L1T2, L2T1, L2T2 are berthing track circuits. Other track circuits namely 1T, 12AT, 2T, 11AT are for signal replacement, route holding and trolley suppression. Indications for all track circuits are indicated on the panel. Normally these are not lit when the track circuits are clear and RED light appears when the track circuit is occupied/failed. White lights for the track indications appear when the relevant route is set. In case of failure of any track circuit, the controlled signals or points are to be treated as non-interlocked and trains shall be worked as per relevant rules.

### 7.0 **STATION MASTER's PANEL CONTROL KEY: -**

The panel is fitted with Station Master's lock up key to prevent any unauthorised operation of the Panel. The SM/SS on duty is the only authorised person to operate the panel and the panel Key must always remain in his personal custody vide SR 3.36.03 & GR 5.08. The key locks the panel board and no operations are possible. In case of emergency, signals can be put back to danger by operating concerned signal switch without releasing the panel lock also. However, the provisions of SR 3.36.02 shall be followed while replacing the signals to 'ON'.

### 8.0 **CRANK HANDLE CONTROL KEY AND OPERATION: -**

When any point fails to operate normally through the concerned Point switch from control panel, it is inevitable to operate the points with crank handle. SM on duty shall personally ensure clamping and padlocking all facing and trailing points on route. Crank handle keys are interlocked with signals and interlocking system. Crank handles are for all motor operated points at the station. The Crank Handle Switch no. CH1 and CH2 and Group Trans/Release button (WHITE WITH BLACK DOT) is provided on the panel board. The CH switches are two position switches. It is provided with three indications for IN, OUT and LOCKED, viz. WHITE, WHITE and RED. The WHITE indication for 'IN' position suggests that the crank handle key is in its interlocked position of the panel. The Red indication suggests that the crank handle key is locked and not free for extraction from RKT. This is called 'Crank handle key LOCKED' indication. When the CH key is extracted from the OUT indication will glow.

The crank handle key in RKT in the end locations can be released from the RKT. The SM has to turn concerned crank handle switch CH-1 or CH-2 as per requirement and press the common CH/LC Trans/release button. This will enable SM to extract key from CH-1 or CH-2 from the RKT kept at the end location. SS/SM/TPM on duty after extracting the crank handle key from RKT by pressing the economizer switch at end-location, insert it in the space provided for it on the point machine and turn it to open up the slot for crank handle in the point machine. After inserting the crank handle in the point machine he shall operate it to set the point in desired position. After the work is over the SS/SM/TPM shall transmit the key back to station through RKT. The crank handle key to be inserted in the end location RKT and transmitted to station. Station Master on getting 'Key IN' flashing indication, which will appear on panel, shall turn the relevant CH switch to key IN position & press the common CH/LC trans/release button. On pressing the release button along with turning the crank switch, WHITE light glow indicating 'key in'. The cases of failure of Motor operated points should be promptly reported to the concerned ESM/Signal Inspector for immediate rectification. SS/SM on duty as per OM 20.06 (d) shall maintain an emergency crank handle register. The procedure for use of crank handle for Motor operated points shall be followed in terms of operating Manual 20.06.

9.0 **SETTING OF ROUTE AND TAKING OFF RECEPTION SIGNALS: -**

For setting a route all the concerned points must be set by operation of relevant point switch and common point button one at a time in the desired position. As soon as the points on route, overlap and isolation are set to the required position, the concerned signal switch will be operated with route button pressed, then the route will clear and a white strip of light will appear on the entire route confirming that the Route is set & locked. The signal 'off' indication will appear on the panel provided other conditions for taking 'OFF' reception signals are satisfied.

10.0 **SETTING OF ROUTE AND TAKING OFF DEPARTURE SIGNALS:**

For setting a particular route for departure of a train, all the concerned points must be set by operation of point switch and point common button one at a time in the desired position. To take off Advanced starter, line clear must be obtained from the concerned block station in advance. Then the concerned Advanced starter signal switch shall be turned and the Advanced starter route button to be pressed for two to three seconds and released. This will clear the Advanced starter signal and a white strip of light will appear on the panel

To take off the starter signal the concerned signal switch to be operated and at the same time common Route button to be pressed for two to three seconds and released. This will clear starter signal and a white Strip of light will appear on the route from the concerned Starter to the Advanced starter signal.

11.0 **TAKING OFF CALLING-ON SIGNAL: -**

Miniature colour light Calling on signal is provided below the Home signals in terms of GR 3.13(6)(b). A Calling on signal shows no light in the 'ON' position. A calling on signal is taken 'OFF' for reception of a train when the Home signal above it cannot be taken 'OFF' due to failure or any other reason or for admission of train on blocked line.

To take off Calling-on signal the train must come to a stop at the foot of the home signal, occupying the track circuit in rear of the signal. When a train occupies the track circuit a RED light strip will appear on the panel. The particular route on which train is intended to be received shall be set by operating by point switch and group button individually or by crank handling in the event of failure of operation of points through panel. After the route is set, the calling-on signal switches 'C1'/'C2' ( as the case may be), shall be operated simultaneously along with the concerned route button for few seconds and released. After a lapse of 120 seconds, the calling on signal clears i.e., a white light glows at the concerned calling on signal on the panel. Each operation of Calling On signal shall be registered in respective Calling On signal counter (UP or DN) by registering next higher number. A separate register is to be maintained for this purpose.

12.0 **RELEASE / CANCELLATION OF ROUTE:**

Normally when a train is received on any route and dispatched, the route illumination will disappear automatically after passage of the train, when concerned signal switch is put back to normal, suggesting that the route is released.

13.0 **REPLACEMENT OF SIGNALS TO 'ON':**

Signals are replaced to 'ON' automatically by the passage of a train past the signal. It will not be possible to re-clear the signal again unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the respective signal switch to be operated.

**14.0 INTERLOCKING OF SIGNALS/POINTS:**

All running line points are fitted with facing point locks in the point machine and are electrically detected by the relevant Home and starter signals.

- 14.1 Advanced starter signals are interlocked with respective block instruments in sending position i.e., train going to position and by axle counter for last vehicle check.
- 14.2 The block instrument cannot be made normal unless the respective Home signal is put back to 'ON'.
- 14.3 Signals once taken 'OFF' can be put back to danger in case of emergency by operating concerned signal switch even when the panel is locked up with Station Master's key.

**14.5 INTERLOCKING WITH BLOCK INSTRUMENTS AND SIGNALS: -**

- (a) The Home and advanced Starter signals are interlocked with the respective block instruments as indicated below:
- b) UP and down signals are electrically interlocked with respective block instrument can be normalised from train online to line closed position, the corresponding Home signals must be in the 'ON position, and the corresponding Home signals thumb switch should be in 'normal' position. However, the Home signals can be taken off in case of failure of the block instruments.
- c) Both UP and DN advanced Starter signals are electrically interlocked with respective block instruments so that the same cannot be taken off unless the concerned block instrument is in line clear position (TGT).
- d) When the block instrument is suspended in line clear position, the concerned advanced Starter must also be treated as suspended and the train will be worked on PLCT.
- e) When the block instrument is under suspension, the authority to proceed will be paper line clear ticket.
- e) Signal once taken off may be put back to danger in case of emergency by turning the concerned signal switch to the center position but the route shall not be altered till the Loco Pilot is informed in writing and his acknowledgement is obtained.

**14.5 PILOTING OF TRAINS: -**

In the event of failure of both Home signal and Calling ON signal simultaneously, it is inevitable to pilot the train 'IN'. For piloting the train, the setting of route must be ensured by SM/SS on duty personally and the points en-route must be clamped & padlocked at both facing & trailing end by Operating staff. Same procedure shall be adopted when route illumination fail to disappear. Facing and trailing ends of the all motor operated points must be clamped and padlocked while piloting 'IN' or 'OUT' and during non-signalled move.

**14.6 SHUNTING:**

For shunting, OFF aspect of starter signals shall be used. For back shunting, shunt signals provided on each side of the yard shall be used.

**15.0 NON RUNNING LINE: - Nil**

16.0 **VERIFICATION OF LINE CLEARANCE BY STATION MASTER ON DUTY FOR RECEPTION OF TRAIN INTO STATION YARD: -**

In the Station yard, a route on the running line comprises of entrance, berthing and dispatch portion of the yard and this portion of the yard should be clear of any obstruction for the passage of any train or for any other movements. The clearance of the route including overlap must be ensured by the SM on duty personally through panel indications of track before any movement of trains are permitted on the concerned route subject to the other conditions such as locking of the point's etc.

17.0 **CRANK HANDLING EMERGENCY OPERATION OF POINTS:**

Crank handle operation is interlocked with the signalling and interlocking system. When a route is not released after passage of a train or the Crank handle key is in locked condition due to any failure, the "CH key" can also be extracted from the CH location box by applying emergency Crank Handle operation. The procedure is same for transmitting the CH key. In key "in" and lock condition, when the CH switch is turned and Common CH/LC trans/release button is pressed simultaneously, both the lock indication and key "in" indication start flashing. After 120 seconds the lock indication disappears and the key in indication continues to flash. At this position the key can be extracted from the RKT in the CH location box by pressing the economiser switch provided inside the CH location box, key out indication will appear in the panel. The procedure for receiving the CH key is same like the normal operation of Crank handle.

18.0 **INSTRUCTIONS REGARDING STABLING OF TRAINS ON RUNNING LINES:**

When a train is stabled on a running line for a duration exceeding ten hours, the use of the said running line for passing the trains 'IN', 'THROUGH' or 'OUT' at the station shall be done with a lot of care and diligence. SM on duty shall meticulously observe the proper functioning of the relevant track circuits (occupancy/clearance) while admitting a train. Such observance should continue for a minimum of four to five trains thereafter. If SM on duty is not satisfied with the proper functioning of the track circuits on which the train was earlier stabled, the signals leading on the line shall be suspended and the S & T maintenance staff be informed for attending to this.

19.0 **EMERGENCY OPERATIONS – CANCELLATION OF THE LOCKING OF POINTS NOT RELEASED AFTER THE PASSAGE OF THE TRAIN FOR WHATEVER REASON: -**

If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operations.

- a) Firstly, it must be ensured that the Signal is in the normal position.
- b) Operation as detailed in para 6.0 of Appendix-B to be followed.

In case route is not released even after emergency route cancellation, facility of crank handling of points shall be used. For releasing the crank handle even when lock indication of crank handle appears on the panel, the procedure laid down for 'Crank handling emergency operation' (para 17.0 of Appendix-B) to be followed to extract the CH from press Group Trans button and crank handle switch. After two minutes key from RKT can be extracted.

20.0 **LOCKING OF RELAY ROOM: -**

The relay room should be kept locked with two separate locks, the arrangement should be such that one key is kept with the SM on duty and the other with the signal maintainer of the station. Whenever required, the key in the custody of Station Master shall be given to the signal staff with proper acknowledgement in the relay room key register.

After completion of work, the signal staff shall return the key to SM on duty. The details of the transaction should be properly recorded in the relevant register at the Station duly signed by SM on duty and the signal staffs concerned vide Operating Manual 1.14 and G & SR 3.51.05. If the relay room key is handed over to the Signal staff regarding the interference in safety gears, the train shall be piloted in and piloted out.

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**21.0 MAINTENANCE OF S&T INSTALLATION & ADHERENCE TO MAINTENANCE SCHEDULES: -**

Regular maintenance of the S&T installations, adherence to schedules of maintenance, testing of points, track circuits, ground frames, level crossing gates, associated interlocking apparatus, cables and the interlocking functional tests is must for safe and satisfactory working of these installations at this station.

The tests, checks and replacements etc., including overhauling shall conform to the schedules of Maintenance as indicated in the Signal Engineering Manual as also as per the current and extant instructions/circulars on the subject. During checking/ testing or during day to day as well as regular maintenance of S&T gears, SM on duty shall co-operate with S&T staff for safe and satisfactory maintenance.

**22.0 PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF A SIGNAL INTERLOCKING INSTALLATION: -**

In case of failure of any interlocking gear at the station, the failure report should be communicated by the SS/SM on duty to the sectional Maintainer, the JE/SE/SSE (SIG) of the Section and others through a memo as per G & SR 3.51.04 and 3.68.04 and document all such transactions.

**22.1 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:-**

However, before declaring a signal or any other S&T gear as defective SS/SM on duty shall verify them and setting of points on the route and overlap for a signal to which it applies shall be inspected by the SS/SM on duty irrespective of the position of buttons /switches and indications on the panel and will work vide GR 3.68.

**22.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING: -**

After receipt of this information the sectional Maintainer shall attend to the failure after giving a Disconnection Memo. After rectification of the fault, the Sectional Maintainer shall give a Reconnection Memo detailing the rectification. Thereafter the SM on duty shall personally check the defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR 3.68.04 (c), (d) , (e) & (f).

**22.3 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK: -**

Whenever any normal maintenance or special works for major renewals etc., are involved, the signal & Telecom should pre plan these works. Field staff and the JE/SE/SSE(SIG) should give 'Advance Intimation' to the SS/SM in writing about this work in terms of GR & SR 15.08.01.

**22.4 EMERGENCIES: -**

Notwithstanding anything contained in the aforesaid paras when equipment is found to be defective and unsafe for passage of trains, the Signal & telecom. Staff must at once suspend the working of the equipment and associated installations and issue 'Suspension Memo' explaining the seriousness of defect or damage to the interlocking installation to the SM on duty and take the Station Master's acknowledgement. After this, the usual practice of exchange of disconnection memo and reconnection memo can follow. The SM on duty must act promptly on such messages and take adequate precaution treating the S&T installation as defective and pass trains over the affected interlocking equipment according to extant instructions as contained in G & SR 3.77.

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23.0 **PROCEDURE TO BE FOLLOWED IN THE CASE OF FAILURE OF SIGNALS AND POINTS AND USE OF EMERGENCY CRANK HANDLE: -**

Whenever a signal or a point becomes defective, any movement over the points on the running lines shall be made after clamping and padlocking of both facing and trailing points supervised by SM on duty personally for all trains at this station.

- 23.1 In case of failure of a signal or a point and in case the point cannot be operated from the panel, emergency crank handle, which is interlocked with system is to be extracted and the following procedure is to be adopted.
- 23.2 Emergency crank handle is provided for all motor operated points. This is mechanically attached to the key on RKT and can be released by turning Crank Handle control switch CH1/CH2 and pressing common CH/LC Trans/release button simultaneously. All signals will be locked in normal position as soon as the key is transmitted/extracted. SM on duty shall transmit the key to required end of the yard and operate the point manually.
- 23.3 When the crank handle key is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody vests with the Station Master on duty, till it is replaced back in RKT.
- 23.4 The case of failure of motor operated points should be promptly reported to the concerned Signal maintainer/JE/SE/SSE for rectification.
- 23.5 Whenever an Emergency Crank Handle is required to be used by a signal official for maintenance work or attending to failure, the signal official will give a disconnection memo to the SM on duty and after making necessary entries in the Emergency Crank Handle Register. The SM on duty will obtain the acknowledgement of the signal official in the Emergency Crank Handle Register and then hand over to him the Emergency Crank Handle. The points will be treated as defective till the Emergency Crank Handle is returned back to the SM on duty.
- 23.6 Before parting with the Emergency Crank Handle either for attending failures or for maintenance work by Signal maintenance officials, the SM on duty will ensure that the reception and departure signals are put back to 'ON' position. The points for the affected lines should be treated as non-interlocked. The SM on duty is responsible for introduction of non-interlocked working and the trains will be piloted 'IN' and 'OUT' duly clamping and padlocking both facing and trailing points over which the train is to pass, as per GR 3.69 and 3.70 with relevant SRs. The SM on duty will be personally responsible for setting and locking of points for reception or despatch of all trains.
- 23.7 The Emergency Crank Handle Register is to be maintained vide OM 20.06 note (d) by the SM on duty wherein the particulars of the usage of the Emergency Crank Handle must be recorded.

24.0 **SUSPENSION OF LAST STOP SIGNALS: -**

When the Block instrument is suspended with its handle in 'TRAIN ON LINE' position or "TRAIN GOING TO" position as the case may be for whatever reason, the concerned last stop signal controlled by the Block Instruments must be treated as suspended and trains shall be piloted 'OUT'.

- 24.1 The SM on duty shall not grant 'LINE CLEAR' unless he has ensured that the lamps of fixed signals, which apply, to the train are burning. If the signal lights cannot be kept burning, the SM on duty before giving 'LINE CLEAR' shall initiate action in accordance with the procedure prescribed in GR 3.61 to 3.71 & relevant SRs vide GR 3.49 (4).
- 24.2 The SM on duty shall not grant or ask 'LINE CLEAR', if the Axle Counter Section indicates

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section occupied and will treat the Block Instrument as suspended.

25. **SIGNAL LIGHTS:** -

The SM on duty must ensure from panel board that all the signal lights are burning properly and brightly. This fact must be recorded in the SM's Diary under a separate entry and confirm to the Section Controller on duty.

26. **CORRECTING TIME IN STATION CLOCK:** -

The SM shall set the time in his clock according to the time signal given by the Section Controller on duty at 16.00 hours every day according to G & SR 4.01.01 and 4.01.02.

27.1 **POWER FAILURE AND REPORTING SUCH FAILURES:** -

Normal power supply to the signalling and interlocking installations at this station is drawn from SEB power supply source (AC 230 Volt / 50 Hz).

Secondary cell back up through integrated power supply system are provided to prevent possibility of blanking of signals in case of SEB power supply failure and supply to other signaling installations. Whenever SEB power supply fails Secondary cell back up through integrated power supply system will immediately extend power supply to signals thereby preventing blank signals. In SM's Office there is ASM power panel, which represents the voltage of the integrated power supply system as follows:

- (I) In case voltage drops 105.9V an audible buzzer appears for starting Generator.
- (II) In case voltage drops 105.1V an audible buzzer appears for emergency start of Generator.
- (III) In case voltage drops 104.3V an audible buzzer appears for system shut down.

Based on the indication shown in the SM's Power Panel SM on duty should start DG for avoiding any case of shut down of power sub system of integrated Power Supply system.

The SM now has to start the diesel generator for standby (Auxiliary) power supply. After stable run of the Diesel generator, the SM on duty has to operate the change over switch for connecting the auxiliary supply to the signalling installation. On resumption of power supply, the Diesel generator shall be stopped by SM on duty after isolating Diesel generator by change over switch. Each time the power supply goes OFF or ON SM on duty shall acknowledge. In case of any audible buzzer in SM's power panel, SM on duty should acknowledge the buzzer by pressing 'buzzer' stop button.

Solar Power supply is provided in the station as standby power supply.

If there is any indication on SM's power panel regarding deviation in IPS system, S&T staff shall be called for rectification.

- 27.2 The SM on duty must maintain record of power failure and operation of DG sets and he must promptly report the failure to the section controller and the concerned electrical and S&T maintenance staff.

28.0 **AXLE COUNTER AS LAST VEHICLE CHECKING DEVICE (LVCD):-**

- (a) Digital Axle Counters as LVCD have been provided for the section MRBL-KBJ and MRBL-RNBT as last vehicle checking device. The axle counter will also have control over the UP/DN last stop signals and block instrument of respective direction of MRBL station.
- (b) The occupation and clearance of the axle counter section is indicated by RED and GREEN indication respectively provided on the panel.
- (c) UP last stop signal of MRBL cannot be taken OFF if axle counter of block section MRBL-RNBT fails. Similarly DN last stop signal of MRBL cannot be taken OFF if axle counter of block section MRBL-KBJ fails. On the other hand on arrival of a train at station if the axle counter continues to show occupied the block instruments of concerned block section cannot be turned to line closed position.

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## 28.1 **NORMALISATION OF AXLE COUNTER AND BLOCK WORKING BY RESETTING OF AXLE COUNTER**

- (A) After the train has been received by the receiving station or after a block back operation or when no train has entered into the block section and the axle counter displays RED, then the following procedure shall be adopted to reset the axle counter. Resetting operation of the axle counter is co-operative and SM at the other end of the concerned block section shall extend co-operation to the SM on duty at the resetting end.
- (B) **VERIFY THE BLOCK SECTION IS CLEAR OF ANY VEHICLES**
- (i) Procedure laid down in GR 4.17 & relevant SRs thereto shall be followed for the purpose.
  - (ii) By checking the train register, the detail of the train passed through the block section and finding out from the station at other end of the concerned block section or from Controller that last train has passed and arrived complete. SM on duty shall exchange private number with the SM at other end of the concerned block section or with the Controller or from whom the complete arrival has been confirmed.
  - (iii) If the failure has occurred after arrival of a train, SM on duty shall also obtain intact position from the guard of stopping train or by exchanging all right signal with the guard of through train, so that he can ensure that the train has arrived completely before resorting to reset of LVCD axle counter.
- (C) **RESETTING PROCEDURE:-**

After complete arrival of train, if the axle counter of the section does not clear or Axle counter section free indication (GREEN) does not appear in the panel, The receiving station SM shall call the attention of the station in rear through telephone for resetting and shall establish communication with the said station if resetting of equipment is considered necessary giving details of last train that has arrived complete at his station and the block section is clear.

The SM of receiving station shall inform the sending station as to whether the last train that entered into the section has arrived or not , if arrived fully he shall so intimate authenticated by exchanging Private number with the SM of sending station.

As digital Axle counters are provided as LVCD in Block section, resetting is to be done by both of sending end and receiving end individually.

The status of the section LVCD i.e. Clear (GREEN), occupied (RED), preparatory reset (Miniature GREEN) and power on indications (YELLOW) are provided in the reset box.

The procedure to be followed for re-setting by both of sending end and receiving end individually is as follows:-

- a. Insert SM's LV reset key, turn right and keep pressed.
- b. Press LV reset button provided on the resetting box.
- c. Release SM's LV reset key and reset button.
- d. Turn left the SM's LV reset key and remove it.
- e. The system obtains preparatory reset state and preparatory reset indication (Miniature GREEN) glows on the panel.
- f. The counter reading increases by one count after a gap of 5 seconds approximately.
- g. The counter reading should be recorded.
- h. One train is to be piloted to the section to make the system normal.

The SM shall record in his Train Register the resetting operation giving details of train number, time, Private Number exchanged with SM in rear, giving reasons for the resetting operation.

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If the axle counters functioning properly now, then Block Section cleared indication 'Green' will appear on the panel and the concerned Block working will be normalised.

If the axle counter section indication does not appear 'Green' and continues to show 'RED' indication, the concerned Block section shall remain suspended and failure intimation to be given to sectional signal Maintainer/JE/SE (Signal) for early rectification.

#### **29.0 TELECOMMUNICATIONS: -**

- (i) Telephones attached with single line Token less Block Instruments for either side Block Section.
- (ii) Station to Station fixed telephone (hot line) is provided
- (iii) Station is provided with auto telephone connected with Railway Exchange.
- (iv) BSNL telephone is provided.
- (v) The station is connected to Raipur-Titlagarh control circuit by a control telephone.
- (vi) Station to station 25 Watt VHF communication is provided.
- (vii) Magneto Telephone connection is provided with Station & LC Gates at KM 183/5-6, KM186/11-12 & KM184/1 to 183/15.

- Note:**
- (i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.
  - (i) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.
  - (ii) The on duty SM shall use the above electrical communication instruments stated in Para- 29.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication the SM on duty shall work vide SR 6.02.06.

#### **29.1 FAILURE OF COMMUNICATION / FAILURE OF BLOCK INSTRUMENTS:**

- 1) In the event of failure/suspension of block instrument, Track circuit & Axle Counter 'Line Clear' shall be obtained over telephone attached to the block instrument or station to station telephone by exchanging identification number and supported by private number as per SR 6.02.06 (a) and Chapter-III & Chapter-IV, Part-II of Block Working Manual.
- 2) In the event of failure/suspension of block instrument and block telephone attached to the block instrument, or the Station to station fix telephone 'Line Clear' shall be obtained on Railway auto phone or BSNL phone, by exchanging identification number supported by private number vide SR 6.02.06 (1)(b) and Chapter-III & Chapter-IV, Part-II of Block Working Manual.
- 3) In the event of failure/suspension of block instrument, block telephone and station to station fixed telephone or Railway auto phone or BSNL phone, Line Clear shall be obtained over the control phone exchanging identification number and supported by 'Private Number' vide SR 6.02.06(1) (c) and Chapter-III & Chapter-IV, Part-II of Block Working Manual.
- 4) In the event of failure / suspension of block instrument or block telephone attached to the block instrument, or station to station fixed telephone or Railway auto telephone or BSNL phone or control telephone line clear shall be obtained on the VHF set exchanging ID number supported by Private Number provided that the instructions contained in SR 14.01.02 are followed vide GR 6.02.06(i)(d), Chapter-III & Chapter-IV, Part-II of Block Working Manual.
- 5) In the event of total failure of all communications trains shall be worked vide SR 6.02.04.

### **APPENDIX - 'C'**

#### **ANTI COLLISION DEVICE (RAKSHA KAVACH)**

**NIL**

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**APPENDIX - 'D'****1.0 STATION SUPERINTENDENT (INCHARGE) :**

He is the over all In-charge of the station; He is responsible for the efficient discharge of duties devolving upon all the Staff employed at the station whether permanent or temporary according to Station Working Rules, Manuals & safe working Instructions. He shall get himself well conversant with the detailed working of Station and panel, points and signals etc.

He is responsible for maintaining the Assurance Register up-to-date. He shall conduct surprise night inspection and safety meetings/fire drills etc. as per instructions issued from time to time. He shall see that all the staff under his control working safely according to the rules in force.

He shall see that all signals, points, level crossing gates and the whole machinery at the station are in proper working order. He shall report all the defects to the concerned officials.

He shall satisfy himself that the staff employed under him are well conversant with Station Working Rules and perform their duties correctly. He is responsible for maintaining SWR, other Rule books and Assurance Register up to date.

He shall see that all safety records are maintained properly and all rules prescribed in G & SR, Block Working Manual, Operating Manual and other relevant directions issued from time to time by competent authorities are followed rigidly by all concerned and any irregularities if noticed are reported promptly to the authorities concerned.

He shall see that all accidents are promptly reported, attended to and GA-3 along with accident message is submitted to the concerned officers in time. He shall see that the staff is civil and helpful to all users of railway.

He shall frequently visit the platform, Station, LC gate etc. in order to maintain an effective supervision over the said staff and their working. He shall see that station premises are kept neat and clean.

He is responsible for booking all staffs working under him for PME and Refresher Course / Safety camp in their due time. His Special attention is drawn out to chapter II of General and Subsidiary Rules and GR 5.01 to 5.08 with relevant Subsidiary Rules, Chapter – XXII of Operating Manual.

He shall see that all equipment, apparatus and instruments including signal and interlocking gears are in proper working order and all failures are promptly reported to officials concerned for repairs/rectifications.

He shall pay special attention towards passenger amenities & coaching trains punctuality and yard feasibility. He shall endeavor for minimizing detention to freight trains by judicious planning of trains staff. He shall pay attention to smooth functioning of goods train to eliminate detentions. He shall attend to all compliance by traveling/trading public.

He shall see that the law and order in the station area is taken care of with the help of G.R.P. and R.P.F and civil authorities as per need.

He shall ensure compliances of all Operating, Safety and Commercial records maintained at the station. He is responsible for overall supervision of the station.

His special attention is drawn to chapter No.II of G & SR (Amendment) 2000 and GR 5.01 to 5.08 with relevant SRs. He shall follow the instruction laid down in SR 3.68.01© & (d) and SR 14.07.01 and BWM 2.09 (e). He shall conduct surprise night inspection, safety meetings and fire drills. He shall maintain good public relation as well as look after passenger's amenities and be helpful to travelling public.

**1.1.0 ASSURANCE REGISTER:**

All staff before taking up independent charge of their duties at this station, shall make a written declaration in the assurance register that they have read and thoroughly understood the system in force and must sign such declaration.

1.1.1 No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The SS is responsible to see that all the staff are conversant with the Station Working Rules and their signature obtained in the Assurance register after he is satisfied that they have thoroughly understood the working rules of the station. In case of Group 'D' staff, their signature/thumb impression must be obtained after explaining fully about their duties and responsibilities.

1.1.2 The station superintendent is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance Register must be maintained in two parts, one for Group 'C' and the other for Group 'D' staff. A duplicate copy of the Assurance Register must be maintained and kept in personal custody of the Station Superintendent.

1.1.3 The declaration shall be renewed in the following cases:-

(i) Whenever there is a change in the Station Working Rules.

(ii) For any staff who have not worked at the station or were away from the station for a period of 15 days or more.

**2.0 USE OF PRIVATE NUMBER BLOCKS IDENTIFICATION NUMBER SHEET :-**

Sufficient Private Number books and I.D number sheets in sealed covers shall be kept always in the stock by Station Superintendent under lock and key. He shall maintain a register for this purpose.

**3.0 ACCIDENTS:**

Accidents shall be reported and immediate action shall be taken by the Station Superintendent in charge in accordance with the instruction laid down in the Accident Manual. Whenever the Station Superintendent received report of an accident, he shall take all necessary precautionary measures to protect the traffic and shall arrange earliest possible assistance as required at the site of accident. He shall frame the accident message/reports and follow up all safety principles without delay.

**4.0 TESTING OF POINTS AND SIGNALS :**

The Station Superintendent shall test the working of the reception signals daily during the day when there is no train due to arrive/leave the station. He shall also test the working of points, crossings etc. and record the result in the Station Master's diary.

**5.0 Dy.SS/STATION MASTER/ASSISTANT STATION MASTER:**

He shall work in 8 hrs. shift for train passing and booking of traffic, coaching returns and other statements shall be prepared and submitted by him in time under the direction of the Station Manager. He shall assist the Station Manager for the up keep of the station in all aspects.

5.1 Station Master on duty who makes an entry in the train signal register must continue on duty till all the entries pertaining to the trains are completed vide Subsidiary Rule 14.07.01.

5.2 He is responsible for working beyond this period when called upon to do so in the exigencies of services. He will follow SR 3.68.01(c) & (d), SR 14.07.01. Their special attention is drawn to Chapter II of G & SR 1976 and GR 5.01 to 5.08 with relevant SRs. As an Assistant to the SS, he shall follow the instructions given to him by the Station Superintendent.

6. **HANDING OVER AND TAKING OVER CHARGE:**

he Station Superintendent in charge/ Dy.SS/Station Master/Assistant Station Master on duty shall record in the diary the condition of all the running lines, the caution orders in force at the time of handing over charge. These entries must be counter signed by Station Master/Assistant Station Master coming on duty while taking over charge. This will not, however, relieve any one of the SS/SM of his responsibility to ensure by physical check that the nominated line is clear of all obstructions before admission of any train on it.

7. **TRAFFIC POINTSMAN:**

He shall work under the instructions of SM on duty and follow the GR 02.05 to 2.11 and other relevant rules laid down in GR and SR. He shall remain responsible for:

- (i) Delivery of authority to proceed and caution order etc. to the driver of train.
- (ii) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation under the supervision of Station Master/Guard.
- (iii) To couple and uncouple vehicles under the supervision of Station Master/Guard when shunting operation is in progress.
- (iv) Piloting and hand signalling of trains when necessary.
- (v) Knowledge of hand signals, detonators and their use.
- (vi) Protection of line in emergency and fog signalling.
- (vii) Exchange of signals with the Driver and Guard of passing trains as directed by the SM.
- (viii) Cleaning, Oiling and lighting of lamps.
- (ix) Loading/unloading of parcels, luggage, Crew & Guard boxes and packages to and from the train and watching the packages and other materials by properly stacking in the station premises.
- (x) Dusting of station office, filling up the fire buckets with sand/water and getting train interact arrival register (T/1410) signed by the Guard as and when required.
- (xi) Serving messages and any other duties entrusted to them by the SS/SM from time to time.
- (xii) Uses of emergency crank handle for setting of points.
- (xiii) To supervise shunting as per SR 5.13.03.
- (xiv) He must be thoroughly conversant with the GR 3.38, 3.46, 3.77(I), 5.09, 3.52 to 3.60, 3.62, 5.13, 5.15, 5.16, 5.21, 5.23 & SRs there to and his special attention is drawn to chapter No.II of G & SR (Amendment) 2000 also.

**GENERAL**

- i) A set of flags and tri colour hand signal lamps/Torch will be part of the essential equipment of the staff while on duty. He shall not leave the station except when required by the SM on duty or with his permission and shall comply with subsidiary rules 4.42.02(b) (i) and (d).
- ii) Staff working at the station must be able to distinguish Up and Down line clear tickets and educated in distinguishing other operational forms and documents, delivered to Loco pilots & Guards and must also know how and when to ring the station bell.

**APPENDIX - 'E'****ESSENTIAL EQUIPMENTS OF THE STATION**

Below is the list of essential safety equipments, which shall be readily available in good working order with necessary relief stock.

<b>Srl. No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Detonators	10 in tin case
2.	Hand signal lamps/Tri colour torch	04 Nos.(2 spare)
3.	Hand signal flags	04 sets.(2spare)
4.	Safety chains with pad locks	06 Nos.
5.	Wedges/Sprags	08 Nos.
6.	Fire buckets (with sand and water)	05 Nos.
7.	Clamps with padlocks	04 Nos.
8.	Reminder collars	02 Nos.
9.	"Motor Trolley on Line" boards	02 Nos.
10.	First aid Box	01 No.
11.	Stretcher	01No.
12.	Fire extinguisher	02 No.
13.	Blanket	01 No
14.	Block Suspension Boards	02 Nos

**APPENDIX - 'F'****RULES FOR WORKING OF DK STATIONS , HALTS, IBH, IBS AND OUTLYING SIDING**

NIL.

**APPENDIX - 'G'****RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS**

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