

Sl. No. SWR/RPRD/58

**EAST COAST RAILWAY
SAMBALPUR DIVISION**

STATION WORKING RULES OF RUPRA ROAD STATION (CODE: RPRD)

BG/MG/NG- BROAD GAUGE

Date of issue: 30.06.2012

Date brought into force:

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.** 22009, Alt-A.

1.2 **SIGNAL INTERLOCKING PLAN NO.:** - S.I – 22009, Alt-B.

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 numbers and signals when reporting accidents.

2. DESCRIPTION OF STATION: -

RUPRA ROAD is a four-line station situated in Theruvali -Titlagarh section at KM 231.814 from RAIPUR. It is Standard – II (R) interlocked, Class 'B' station with central panel and block proving axle counter provided at either end of the station.

2.1 GENERAL LOCATION: -

2.1.1 **NAME OF STATION:** - RUPRA ROAD (RPRD)

2.1.2 **CLASSIFICATION OF STATION:** - 'B' class

2.1.3 **NAME OF THE SECTION:** - Theruvali – Titlagarh, Double Line, Non-RE, BG section

2.1.4 **ROUTE:** - D Spl.

2.1.5 **LOCATION:** - 231.814 from RAIPUR.

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

- i) Raipur end - Kandel Road (Code: KDLR) inter distance 7.507 K.M.
- ii) Vizianagaram end - Norla Road (Code: NRLR) inter distance 6.693 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: -

Between Section	The Point from which Block section Commences.		The Point at which Block section Ends.
RPRD-KDLR	DN Line	DN Advanced starter signal No. 12 of RPRD Station.	Point No.-16 A on DN line at Kandel Road
	UP Line	BSLB of RPRD Station on UP line.	UP Advanced starter Signal No. 11 of KDLR
RPRD-NRLR	DN Line	BSLB on DN line of RPRD Station.	DN Advanced starter Signal No. 12 of NRLR
	UP Line	UP Advanced Starter Signal No. 11 of RPRD.	BSLB on UP line at NRLR end.

2.3.1 STATION SECTION:

- i) UP Line: Between BSLB and UP Advanced Starter Signal No. 11.
ii) DN line: Between BSLB and DN Advanced Starter Signal No. 12.

2.3.2 STATION LIMIT:

- i) UP line – The portion between UP Distant signal to UP Advanced starter signal No.11.
ii) DN line - The portion between DN Distant signal to DN Advanced starter signal No.12.

2.4: GRADIENT: -**(a) FROM THE CENTER OF STATION BUILDING TOWARDS KANDEL ROAD****UP Line-**

CHAINAGE IN METER		INTER DISTANCE	GRADIENT
FROM	TO		
0 m	826.80 m	826.80 m	LEVEL
826.80m	976.80 m	150.0 m	1 in 1006 R
976.80 m	1276.80 m	300.0 m	1 in 515 F
1276.80 m	1426.80 m	150.0 m	LEVEL
1426.80 m	2126.80 m	700.0 m	1 in 280 R
2126.80 m	To block section	---	1 in 170 F

DN Line-

CHAINAGE IN METER		INTER DISTANCE	GRADIENT
FROM	TO		
0 m	826.80 m	826.80 m	LEVEL
826.80 m	1026.80 m	200.0 m	1 in 1250 R
1026.80 m	1276.80 m	250.0 m	1 in 625 F
1276.80 m	1526.80 m	250.0 m	LEVEL
1526.80 m	1976.80 m	450.0 m	1 in 205 R
1976.80 m	2226.80 m	250.0 m	LEVEL
2226.80 m	To block section	----	1 in 155 F

(b) **FROM THE CENTER OF STATION BUILDING TOWARDS NORLA ROAD**
UP Line

CHAINAGE IN METER		INTER DISTANCE	GRADIENT
FROM	TO		
0 m	350.0 m	350 m	LEVEL
350.0 m	870.0 m	520.0 m	1 in 800 F
870.0 m	1000.0 m	130.0 m	1 in 224 F
1000.0 m	1350.0 m	350.0 m	LEVEL
1350.0 m	1950.0 m	600.0 m	1 in 478.83 R
1950.0 m	2150.0 m	200.0 m	LEVEL
2150.0 m	2400.0 m	250.0 m	1 in 1760 R
2400.0 m	2750.0 m	350.0 m	LEVEL
2750.0 m	To block section	---	1 in 282 R

DN Line

CHAINAGE IN METER		INTER DISTANCE	GRADIENT
FROM	TO		
0 m	350.0 m	350 m	LEVEL
350.0 m	870.0 m	520.0 m	1 in 800 F
870.0 m	1250.0 m	380.0 m	1 in 633 F
1250.0 m	1950.0 m	700.0 m	1 in 625.50 R
1950.0 m	2150.0 m	200.0 m	LEVEL
2150.0 m	2400.0 m	250.0 m	1 in 900 R
2400.0 m	2750.0 m	350.0 m	LEVEL
2750.0 m	To block section	---	1 in 280 R

2.5 LAY OUT: -

- i) No. of running lines :- 04 (Four)
ii) No. of sidings :- 01 (One) Goods siding, CAL – 245.6 Mtrs takes off from line no.1 at NRLR end with both side entry.
iii) No. of Passenger platform :- 03 (Three)
a) Low level passenger Platform on Line No.-1 (410 X7.5 m)
b) Low level Island Platform in between Line no.-3 & 4 (480X 10.7 m)
iv) No. of goods shed platform: - 01 (One).
v) FOB :- One, at CH 65.00 from CSB.

2.5.1 (I) RUNNING LINES, DIRECTION OF MOVEMENTS AND HOLDING CAPACITY IN CSL: -

DESCRIPTION	CSL	ISOLATION PROVIDED	
		Towards KDLR	Towards NRLR
Line No.1 (UP common Loop Line)	781 mtrs. (Str. To Str.)	Over run Line	Over run Line
Line No.2 (UP Main line)	802 mtrs. (Str. To SB)
Line No.3 (DN Main line)	762 mtrs. (SB to Str.)
Line No.4 (Common Loop Line)	734 mtrs (Str to Str)	Over run Line	Over run Line

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

- a. Trains arriving from KANDEL ROAD end are UP trains.
- b. Trains arriving from NORLA ROAD end are DN trains.

2.5.2 **NON-RUNNING LINES AND THEIR CAPACITY. -**

Sl. No	Description	CAL	Takes off Line no.	Exit	Operation
1.	Goods Siding	245.6 m (DS-DS)	Line No. 1	Both Way	Key Transmission

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

2.6 **LEVEL CROSSINGS: (STATION SECTION)**

SI No.	Location	K.M.	Normal position	Class	Type	Operation	Communication
1.	Between DN starter and DN Advanced starter signals.	231.381 (RV-189)	Open to road traffic	'C'	Interlocked	Electrical operated lifting barrier	Telephone connection with SM/RPRD
2.	Between UP starter and UP Advanced starter signals.	232.455 (RV-190)	Open to road traffic	'C'	Interlocked	Electrical operated lifting barrier	Telephone connection with SM/RPRD

2.7 **LEVEL CROSSINGS: (IN BLOCK SECTION)-**

SI No.	Location	K.M.	Normal position	Class	Type	Operation	Communication
1.	Between UP Distant & UP Home signal.	230.787	----	'C'	Un-manned	----	----
2.	Between DN Distant & DN Home signal.	233.280	----	'C'	Un-manned	----	----
3.	KDLR-RPRD	229/8-9	Open to Road Traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Telephone connection with SM/RPRD
4.	RPRD-NRLR	237/4-5	Open to Road Traffic	'Spl'	Interlocked	Winch operated lifting barrier	Telephone connection with SM/NRLR

Train Actuated Warning Device has not been provided at above Level Crossing Gates.
(Working of Level Crossing Gate is detailed in appendix 'A')

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3. SYSTEM AND MEANS OF WORKING:-

(Rule no.: - Chapter XIV of GR & SR, Chapter III A & V of BWM)

- i) **System of working** : - Absolute Block system on double line.
- ii) **Type of block instrument::** - Seimen's (SGE) type Double Line lock and Block Instrument with adjacent stations.
- iii) **Instrument** : - Non Co-operative type.
- iv) **Block Telephone** : Connected with Block instrument of adjacent stations KDLR and NRLR Station.
- v) **Staff responsible for their operations:** - SM. on duty.
- vi) **Custodian of keys** : - SM. on duty.

4. SYSTEM OF SIGNALLING AND INTERLOCKING: -

4.1.0 STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING: -

i) INTERLOCKING:

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

ii) MAXIMUM EQUIPMENT OF SIGNAL -

Distant, Home, Calling-on, Starter and Advanced starter in either direction.

iii) AXLE COUNTER:

- (a) Both UP and DN lines of RPRD-KDLR and RPRD- NRLR block sections are monitored by axle counter system. Electronic axle counters along with associated entrance and exit trolley suppression tracks are provided at both ends of the station just ahead of Advanced starters. Two pairs of electronic axle counter devices are provided on both UP and DN line between RUPRA ROAD and KANDEL ROAD. One pair beyond DN advanced starter signal of RPRD and DN home signal of KDLR station and one pair just ahead of UP Advanced starter signal of KDLR and beyond UP home signal of RPRD station. Similarly, two pairs of axle counter devices are provided on both UP and DN line between RPRD-NRLR, one pair just ahead of UP advanced starter signal of RPRD and UP Home signal of NRLR station & the other pair just ahead of DN Advanced starter signal of NRLR and DN Home signal of RPRD station for counting the axles 'IN' and axles 'OUT' to indicate whether the concerned block section is clear of trains as well as to verify the arrival of last vehicle of the incoming train.

The position of block section i.e. clear/occupied is reflected in the illuminated panel diagram provided in the Station Master's office which shows 'GREEN' when the block section is clear and 'RED' when the block section is occupied.

- (b) Block Instruments of both sections are interlocked with respective Axle Counters. Whenever a train enters into the block section, block section clear indication i.e 'GREEN' disappears and occupied indication i.e 'RED' appears on the panel. If after the complete arrival of the train, 'RED' indication does not change to 'GREEN', it should be assumed as block instrument failure and necessary action as per GR 14.13 to be followed. The axle counter is interlocked with the block instruments.
- (c) In case of failure of Axle Counter, Resetting operation shall be initiated by SM on duty, details of which are mentioned in Appendix B.

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iv) SEALING OF EMERGENCY OPERATION BUTTONS/KEYS:

All emergency buttons/ keys/counters are to be resealed by S&T staff immediately after its use.

v) TRACK CIRCUIT:

All the lines including point zone between Home and Advanced starter signals on either direction is track circuited. Normally the panel is dark except for point and block section indication. The position of the running lines is indicated in the illuminated diagram at the Station Master's office. It shows 'RED' when the line is occupied and 'WHITE' when the route is set and signal is taken 'OFF'. The position of point zones including cross over at either end are also indicated in the illuminated panel diagram. Whenever a signal is taken 'OFF', the route set indication 'WHITE' appears for the particular route set. As the train occupies the track circuit area, the "WHITE" indication disappears and "RED" indication appears. Calling-On Track circuits are provided 7RL beyond Home signal in either side of the station.

vi) STATION MASTER'S CONTROL:

A push button type electric control apparatus is provided in the Station Master's office to operate electrically the UP and DN points and signals. The control apparatus is provided with a lock up key, which shall always remain in the personal custody of the Station Master on duty in terms of BWM 6.14 (3) (d). The position of all points, running lines and signals are available in the Station Master's illuminated panel diagram. Reminder block collars are provided for use on push buttons which will be placed on point button, route button, signal button or any other button, to prevent operation of the button, in case, the concerned line is blocked.

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, SM on duty shall break open the seal of the concerned button to make the button operative. Immediately after the completion of the emergency operation, SM on duty shall inform the concerned S&T staff for resealing of the concerned button.

4.1.1 POSITION AND OPERATION OF POINTS: -

The normal position of all points is shown in Station Working Rule Diagram and also on operating panel. All points, except hand operated siding 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.

4.1.2 IBS: - NIL

4.1.3 POINT AND TRAP INDICATOR: - Nil.

4.1.4 REPEATER (BANNER TYPE): - Nil

4.1.5 ELECTRICAL KEY TRANSMITTER (EKT): -

EKT's with crank handle keys are provided at both end locations for the operation of points in case of failure of point motors and also for the LC gate Goomty at KM 231.381 & 232.455 for opening and closing of the gate. The keys for the crank handles are transmitted electrically to the crank handle locations for operating the points by crank handles. Details of the working of Crank handle keys are mentioned in Appendix 'B' and those L.C. gates are mentioned in Appendix 'A'.

4.1.6 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.

4.1.7 SHUNT SIGNALS:-

Independent shunt signals SH 13A/B/C/D & SH 14 A/B/C/D are provided on top points at either end for back shunting movement.

4.1.8 ANTI COLLOISION DEVICE: - NIL

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

As per JPO/02/2012 of 29.08.2012, the following procedure shall be adopted for opening of Relay Room:-

The Relay room of station shall have double locking system of operating and S&T Locks. One Godrej Lock shall be provided on the door of Relay Room by the Station Master. This lock is named as operating lock. The key shall be kept in the safe custody in the key- box with the SM on duty. Likewise, one Godrej lock shall be provided on the door of Relay Room by the Signal Maintainer/ Signal Supervisor of the Station /Section.

Names of the S&T staff authorized for opening of Relay Room is to be entered in the first page of Relay Room Key Register and jointly certified by SSE /Signal In-Charge and TI In- Charge of the Section. In emergency, if any S&T staff other than authorized wants to open Relay room, he must inform DSTE through Signal Fault Control. Signal Fault Control shall convey the permission of DSTE to SS/SM by giving Signal Fault Control order number.

Whenever relay room is to be opened either for scheduled maintenance or during failures or for other maintenance activities/construction works. The concerned Maintainer/Signal Supervisor will inform SM on duty for opening of Relay Room with reason.SM on duty will verify his identity from the list of authorized S & T Staff recorded in the first page of Relay Room Key register or as advised by Signal Fault Control in emergency. SM shall give the key of operating lock to S&T staff, after the entry is made in the Relay Room and also with Red Ink in TSR. Relay Room key shall not be handed over by SM on duty to any Group D staff of S&T department. On completion of work, the concerned Signal Maintainer/ Signal Supervisor shall properly close Relay Room door and lock it with both the locks and then return the key of operating lock to the SM on duty making the entry in the relay room register.

When the key of Operating Lock is returned by S& T staff to SM on duty, he shall first verify the Relay Room for proper locking and then keep the key in safe custody and acknowledge it on the Relay-Room key register. 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 out.

For attending Failures of S& T gears within relay Rooms, the following steps shall be taken :

Entry to be made in S& T failure register by SM on duty and failure Memo has to be issued to S& T staff. S& T staff shall not take the Relay Room Key for attending failures and open the Relay Room unless the failure is recorded in Signal failure register. If disconnection is required, Disconnection Memo has to be given by S& T staff to SM on duty. Failure Memo should be acknowledged and entry in relay room key register to be made by S& T staff before obtaining Station Master's key. Relay Room key for Schedule maintenance shall be taken once in a calendar Month during monthly inspection by Sectional Supervisor. Relay room can be opened by following above procedure for special maintenance activities like cable insulation testing, block/ disconnection memos, selection/ locking table testing, maintenance work inside relay room by Electrical and Engineering staff, during failures, data logger resetting and inspection by Divisional and Headquarter officials, Track Circuit adjustments & voltage monitoring during

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monsoon and whenever required during rains. Works required by S& T Construction & open line staff for preparatory works and during commissioning. In each such case, the Construction Staff Shall follow the detailed guidelines issued regarding working on signaling gears under the charge of open line.

In case of emergencies such as fire, flood, earthquake etc., Open Line Section Engineer (Signal) / Signal Maintainer & SS/SM shall jointly decide the need for opening the Relay Room. Section Engineer Signal HQ at Divisional Control Office and Section controller shall be advised respectively. In case of communication failure during such emergencies, Open Line Signal Maintainers/ Supervisors and SS/SM on duty shall jointly decide the need for opening the Relay Room and communicate later on to respective controls. In case key is lost /misplaced, it shall be reported to S&T control as well as section control for either lock. In normal course the spare key with respective custodians shall be used. In emergency situation, lock may be broken under advice to Section Control as well as S&T control. New lock shall be procured and provided.

In case SS/SM on duty comes to know of relay Room opening by unauthorized means or by unauthorized person or by any Group-D' Staff, the signaling system shall be suspended by him and matter immediately reported to Section Controller for necessary action. Senior section Engineer/ Signal & TI of the respective section will check the station records of relay room opening during their inspections and cross check it with data logger/counter reading if provided. Discrepancy, if any, shall be immediately inquired into and advised to Sr. DSTE & Sr. DOM by numbered control message from the station immediately for further action.

4.3 **POWER SUPPLY: -**

Normally for signaling and interlocking installation power supply is drawn from State Electricity Board (230V, 50Hz) but when this source fails D-G set for standby is installed at the station to feed the S&T equipment. The SM however maintains the records of the power failures and promptly report the failure immediately to the controller and to the concerned Electrical and S&T staff. In addition to this the station is provided with solar power System.

In SM's Office there is SM power panel, which represents the voltage of the integrated power supply system.

- (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.

The SM now has to start the diesel generator for standby (Auxiliary) power supply. After stable run of the Diesel generator, the SM/SS 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/SS 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'.

Inverters are provided to prevent possibility of blank signals in case of SEB power supply failure. Whenever SEB power supply fails inverter will immediately extend power supply to signals thereby preventing blank signals. 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. 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 call S&T staff for rectification.

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5.0 TELECOMMUNICATION FACILITIES: -

- Telephone with Double line Lock & Block Instruments for either side Block Section.
- Station to Station fixed telephone (hot line) is provided
- Station is provided with Auto telephone connected with Railway Exchange
- BSNL telephone is provided.
- The station is connected to BLGR-SPRD control circuit by a control telephone.
- Station to station 25 Watt VHF communication is provided.
- Telephone is provided between Station and both end crank handle locations.
- Magneto telephone connection is provided between station and LC gate at KM 231.381, KM 232.455 & 229/8-9.

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

NOTE: -

1. For obtaining Line Clear, VHF should be used as a last alternative and not as a sole means of communication.
2. VHF and Walkie-Talkie sets should not be used for unnecessary discussions with Loco Pilots, Guards or any other staff.
3. The on duty SM shall use the above electrical communication instruments stated in Para-5.0 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.

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.	Station Manager-I (In-charge)----- Dy. SS/SM/ASM-----	Continuous	01	-----09 hrs. -----08 hrs.
2	TP/Sr.TP/TPM-B/TPM-A	Continuous	01	08 hrs.
3	GK/ Sr. GK	E.I	01	12 hrs.
4	SCLM/LCS	E.I	01	12hrs (In broken roster).

The above staff shall work as per the rosters issued by DPO/SBP time to time and these rosters shall be displayed in the SM 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 SR.3.40.02 (b) 3rd Para.

6.1.3 ASSURANCE OF STAFF IN ASSURANCE REGISTER: -

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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. 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.
- (i) 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) CONDITIONS FOR GRANTING LINE CLEAR: -

The conditions laid down in GR 8.01 (1) (a), (b), 8.01(2) (b), 8.03 (1) (a), (b), (c) (ii) 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:

The line shall not be considered clear and 'Line Clear' shall not be given unless:

- (i) The whole of the last preceding train has arrived complete inside the BSLB.
- (ii) All necessary signals have been put back to 'ON' behind the said train.
- (iii) The line is clear up to the BSLB for DN train and BSLB for an UP train.

NOTE: if the light of the reception signal is fused/ not burning, 'Line Clear' shall not be granted for a train till such time it is ensured that the concerned Loco Pilot is notified of the fact in writing by the SM on duty of the station to which such line clear is granted.

(B) OUTLYING SIDING: - NIL

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

For receiving a train on loop lines Station Master on duty shall ensure that the ORL/Sand Hump is clear of all obstructions even when the ORL/Sand Hump falls in the trailing direction.

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED 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 rear 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 SR 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: - Not Applicable.

6.2.1.3 RECEPTION OF A TRAIN ON NON-SIGNALLED LINE: - Not Applicable.

6.2.1.4 DESPATCH OF TRAINS ON NON-SIGNALLED LINE: -

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In case of dispatch of a train from non-signal line, SM shall follow GR 5.11 and SRs thereto.

6.2.1.5 DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:- NA

6.2.1.6 SPECIAL RESTRICTIONS: -

- (i) The Overrun line shall not be obstructed for stabling vehicles or harboring engine. If it is obstructed through any accident or for any cause it ceases to be substitute for the adequate distance.
- (ii) Hand shunting and fly shunting is not permitted at both end of the yard.
- (ii) Shunting in the face of an approaching train is prohibited.
- (iii) Speed is raised to 30 KMPH on first loop lines on either side of main line and over its turnouts. However, no train shall be allowed to negotiate at a speed more than 15 KMPH if it involves negotiating more than one crossover at a time.

6.2.1.6 SPECIAL INSTRUCTIONS: -

- (i) After a non-signal movement has taken place over a point, SM on duty shall operate the point to normal and reverse position for ensuring the correct setting and indication on the panel. Then after, further signal movement may be permitted over the point.
- (ii) For receiving a train on loop lines, Station Master on duty shall ensure that the ORL/Sand Hump is clear of all obstructions even when the ORL/Sand Hump falls in the trailing direction.

6.3 CONDITIONS FOR TAKING 'OFF' APPROACH SIGNAL: -

Reception of trains is governed by General Rule 3.36,3.38,3.40 and SRs. 3.40(1), (a), (2)(a) and SR 3.40.01 and other relevant provisions of General and Subsidiary Rules, Block Working Manual and Station Working Rules of the station to be followed.
Adequate distances to be kept clear vide General Rule 3.40(3) (b) for reception of trains.

A. CLEARANCE OF ADEQUATE DISTANCE: -

To take off the home signal for admission of a train the adequate distance (signal overlap) as mentioned below shall be kept clear: -

LINE NO.	UP TRAIN			DN TRAIN	
		FROM	TO	FROM	TO
1.	Line No 1 (Common Loop)	Foot of the UP starter signal No.3	Up advanced starter No.11 Or Up to the end of ORL.	Foot of the Starter Signal No. 6	DN adv. starter signal No.12 Or Up to the end of over run line
2.	Line no. 2 (UP Main line)	Foot of the Starter Signal No. 7	UP advanced starter signal No.11	-----	-----
3.	Line No. 3 (DN Main line)	-----.	-----	Foot of the DN starter signal No.8	UP advanced starter signal No.12.
4.	Line No. 4 (Common Loop)	Foot of the Starter Signal No. 5	UP advanced starter signal No.11 Or Up to the end of Over run line	Foot of the DN starter signal No.4	DN advanced starter signal No.12 Or Up to the end of over run line

Before admitting a train on any line, it must be ensured that the track indication for the respective line indicates 'WHITE' indication in the illuminated panel diagram. To receive a train,

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for which line clear is granted, the SS/SM on duty shall nominate a clear line in consultation with the Section Controller on duty. SS/SM shall personally satisfy himself that the nominated line is clear and free from all obstruction by seeing the track circuit indication on panel or by physical verification of the nominated route in case of failure of track circuit. He shall suspend all non-isolated shunting and thereafter set the points of the nominated route by means of push button switch provided on the control panel. He shall then verify from the visual indication available in the panel that points are set to the desired route.

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 panel control buttons by the SS/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 (Home signal replacement track circuit) does not show 'RED' indication.

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 of track circuits or for admission of a train on blocked line.

B. TAKING OFF CALLING ON SIGNAL:

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 button & point group buttons or by setting route by pressing route button & signal button or by crank handling in the event of failure of operation of point through panel. After the route is set, the calling-on signal button C1/C2 (Red with white dot), as the case may be shall be pressed 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 yellow light indication appears on the panel for the concerned calling-on signal.

6.3.1 RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON': -

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(a), (b) (ii), a time delay of 2 minutes shall be observed before the points can be altered.

6.4 SIMULTANEOUS RECEPTION, DESPATCH, CROSSING & PRECEDENCE OF TRAINS: -

Rules laid down in GR3.47 shall be followed.

(i)	Reception of an UP train on Line No.1 set to overrun line.	Dispatch of UP train from Line No. 2 or 4.
(ii)	Reception of DN train on Line No.4 set to overrun line.	Dispatch of DN train from Line No. 1 or 3.
(iii)	Reception of an UP train on Line No.4 set to overrun line.	Dispatch of UP train from Line No. 1 or 2.
(v)	Reception of a DN train on Line No.1 set to overrun line.	Dispatch of a DN train from Line No. 3 or 4.

6.5 COMPLETE ARRIVAL OF TRAIN: (Rule no. GR 4.16 SR4.16.01, 4.16.02. 4.16.03, 4.16.04, 4.16.05 GR 4.17 & SR 4.17.01,SR 4.17.02, GR 14.10)

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- a) **STAFF RESPONSIBLE TO VERIFY COMPLETE ARRIVAL:** - SM on duty.
- b) **MODE OF VERIFICATION:** Through AXLE COUNTER or through physical verification when axle counter fails.

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 axle counter indication 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 and the SM on duty shall give train out of section report on seeing the section clear (GREEN) indication at the panel.

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 SR 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).

6.6 DESPATCHING 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)(c) to (e) and other provision 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 outgoing train correctly and satisfy himself by observing the visual indication on the panel board. He shall suspend all non-isolated shunting, close the interlocked gates and then shall take off the concerned route starter and advanced starter signal by operating concerned push button. After observing the 'OFF' aspect of the route starter and advanced starter signals the Loco Pilot shall start his train.

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. After the train passes the Advanced starter complete, 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 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: -

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The procedure detailed in Para 6.6 above and General Rules 4.17, 4.42 and Subsidiary Rules 3.36.04(b) (i) 3.42.02(a) (iv), shall be observed. When trains are to run through over the loop line the adv. starter & starter signal shall be taken off when the train actually enters the loop lines.

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. (b) until anything wrong is noticed on train. For this purpose the SM on duty shall stand in such a position that he sees a clear view of the passing train and that the Loco Pilot and Guard of the train can clearly see his hand signals. 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/Loco Pilot 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. 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:

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, 3.71, 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 admitted on calling-on signal. If calling-on signal fails then train shall be piloted 'IN'. Before piloting a train in to the yard the clearance of the track must be ensured by physical verification.

6.8.3 AXLE COUNTER:

In the event of failure of axle counter of concerned block section SM on duty shall initiate resetting of axle counter after ensuring the complete arrival of the train by SM of other end Station. After resetting the first train will be piloted 'OUT' to the concerned Block section for normalising the system of working. In case failure of Axle counter Block instrument of concerned block section shall be suspended. Details of operations involved in resetting of axle counter are given in Appendix-'B'.

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 interruption/ failure of block instrument the concerned block instrument shall be suspended till its rectification and trains shall work as per GR. [Refer GR 6.02.02, 6.02.03 and SR 6.02.06].

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). When the block instrument is suspended in 'Line clear' position, the concerned advanced Starter must also be treated as suspended.

During the failure of Block Instrument the authority will be T/369(3b) with identification number & Private Number issued from the station in advance written both in figure and words.

UP and DN Home signals are electrically interlocked with respective block instruments can be normalised 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 DEFFECTIVE 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 both facing and trailing points for admission of train.

6.8.7 DEFFECTIVE/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 Calling-on signal may be taken –off. If Calling-on signal failed then the SM on duty shall authorize the on duty TPM with form T/509 indicating the reason for such admission the line number & 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 Loco Pilot 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]

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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 Loco pilot & Guard in terms of GR 4.09 and SRs thereto.

6.9 WORKING OF MOTOR TROLLEY, 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

The following precautions must be taken:

- i) The section where axle counters are provided in lieu of track circuits, trolleys, motor trolleys, Lorries etc which are 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.

7.0 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 in rear should immediately be set against the blocked line except during shunting movement and reminder collars shall be placed on the concerned point push button and route button(s) for the blocked lines. 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 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, signal and route button(s) for the blocked lines on the operating panel by SM on duty.

7.2 SECURING OF VEHICLES: -

As far as practicable loose vehicles shall not be allowed to stand on the running lines. 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 fouling of line.

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 is to be maintained shift wise.

7.3 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 in rear 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.

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- 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.

7.4 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 thereof, 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.

8.0 SHUNTING: -

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, 8.14, 8.15 and Subsidiary Rules thereto. The Guard/Asst. Guard/SS/SM/TPM on duty is authorized to supervise shunting operation. 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. In case of nonsignal movement, 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.

8.1 SHUNTING IN FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approach train is strictly prohibited vide GR 8.09 and SR thereto.

8.2 PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY:

(i) Hand shunting is prohibited at both ends of the yard vide GR 5.20.

(ii) Fly shunting is prohibited at both ends of the yard vide SR 5.21.01 (c).

8.3 SHUNTING ON SINGLE LINE:

Not applicable.

8.4 SHUNTING ON DOUBLE LINE:

SHUNTING OUT SIDE THE HOME SIGNAL:

The procedure of block back/block forward given in BWM 5.15(1) (b) shall be followed. When line clear has been given, no shunting shall be permitted in the block section in rear. Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and blocked back vide GR 8.06.

Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and block forward vide GR 8.06(3).

8.5 SHUNTING IN THE SIDING TAKING OFF FROM STATION YARD: -

When shunting in the station siding proper shunting authority on T/806 is to be issued to the train staff with clear instruction and limit up to which shunting is to be performed. While performing shunting in the siding relevant GR 5.14 and SRs thereto to be followed. In case of failure of shunt signals all facing and trailing points of the route shall be clamped and padlocked. While performing shunting in the block section, relevant GR 8.15 and SRs thereto are to be followed.

9.0 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 Double line 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-V of Block Working Manual.

[II] **THE AUTHORITY TO PROCEED IN THE OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT ETC:** - 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 and 10 KMPH at night or whenever clear view of 800 Mtrs. is not available. On arrival at the station the block ticket shall be collected with necessary endorsement from Loco Pilot/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/Loco Pilot the SM on duty may resume normal working after exchanging proper messages supported by Private Number.

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

In case of train delayed in the block section the Station Master will take action as per GR 6.04 and SRs thereto.

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

[V] **FAILURE OF LV AXLE COUNTER BLOCK/BPAC:** -

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 : - To take 'OFF' a calling on signal during failure of track circuit on the route, the clearance of the track over which the train would pass must be physically checked by the SM on duty. After satisfying himself SS/SM on duty shall initiate the calling on signal operation. The procedure shall be strictly followed.

(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 SR 3.68.04 and document all such transactions.

9.1 TOTAL FAILURE OF COMMUNICATION: -

In the event of total failure of communications between RPRD-NRLR or RPRD-KDLR stations i.e. when line clear cannot be obtained by any one of the following means stated in order of preference viz.

- (a) Block Instruments, Track Circuits or Axle counters,
- (b) Telephone attached to the Block Instruments,
- (c) Station to station fixed telephone (hot line)
- (d) Fixed telephones such as Railway auto phones & BSNL phones,
- (e) Control telephone, and
- (f) VHF set.

The trains shall be worked in terms of GR.6.02.03, which is summarized in brief as follows:

- (i) Each train before being allowed to enter into the Block Section should be stopped and the Guard and Loco Pilot of the train apprised of the situation.
- (ii) The SM will hand over an authority for working of train during total interruption of communication to the Loco Pilot of each train which shall include-
 - a) Authority to proceed without 'Line Clear'. [T/C 602]
 - b) Authority to pass the Last Stop Signal at its "ON" position, i.e. T/369(3b).
 - c) A caution order restricting the speed to 25KMPH by day when view ahead is clear and 10KMPH by night or when view ahead is not clear.
- (iii) No train shall be allowed to enter the Block Section until there is a clear interval of 30minutes between the train about to leave and the train, which has immediately proceeded.
- (iv) Fixed signals except the last stop signal may be taken "OFF" for the dispatch of the train and for the reception of the train at the next block station, reception signals may be taken only after the train has been brought to a stand outside it.
- (v) No train shall be backed. In exceptional circumstances when it may be unavoidable, to back a train, the train shall be backed only after providing protection by placing one detonator at 250 meters and two detonators in 10 meters apart at 500 meters at rear of the point up to which the train shall be backed.
- (vi) On arrival at the next block station the Loco Pilot shall hand over the 'Authority to proceed without line clear' to the SM on duty who will preserve the same for further inspection.
- (vii) Before resuming normal working when any means of communication is established. SM of either end must satisfy that there is no train in the block section and block section clearance has been obtained from Loco Pilot/guard/PWI.. [Refer SR 6.02.03].

9.2 TEMPORARY SINGLE LINE WORKING ON A DOUBLE LINE SECTION: -

During temporary single line working on a clear line when other line is obstructed either between RPRD - KDLR or RPRD - NRLR stations, train shall be worked as per the detail procedure in SR 6.02.01, which is summarized as below:

9.2.1 Before introducing single line working SS/SM on duty must satisfy that the line on which single line will be introduced is clear and free from all obstructions.

9.2.2 Commutators of the Lock and Block Instrument of the concerned section shall be kept in "TRAIN ON LINE" position.

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- 9.2.3 SM on duty proposing single line working must issue a message containing the following information under exchange of private numbers to the SS/SM at the other end of the affected section: -
- a) Cause of introduction of single line working.
 - b) The line on which single line working is proposed.
 - c) Source of information that the said line is clear.
 - d) Place of obstruction.
 - e) Speed restriction if any.
 - f) Names of intermediate stations, if any, which would be out of use.
 - g) Assurance that trap points, if any, clamped and padlocked.
 - h) Assurance that if the train is running on the right line, the last stop signal shall be kept in the 'ON' position. In case the train is running on the wrong line, all fixed signals shall be kept at 'ON' position.
 - i) The number and timings of the last train, which arrived, or train left the block station issuing the message.
- 9.2.4 SM on duty at the other end of the block section shall acknowledge the message and confirm the same by a private number.
- 9.2.5 After obtaining line clear from other end of the block station the Loco Pilot must be given the following documents: -
- a) Paper Line Clear Ticket.
 - b) A caution order indicating the line on which single line working is introduced, the Kilometer of obstruction, any other speed restrictions if exist, endorsement to inform all Gangmen, Gatemen about the single line working (for first train only). The speed of the first train to be restricted to 25 KMPH subject to other speed restrictions.
 - c) A pilot memo T/369(3b) to pass last stop signal at 'ON'.
- 9.2.6 The approach stop signal at the other end station may be taken 'OFF' if the train is on the right track otherwise the train will be piloted 'IN'.
- 9.2.7 On being ensured that the obstructed line is clear of all obstructions the SS/SM on duty shall resume the normal working after exchanging messages with SS/SM on duty at the other end station concerned, supported by Private Number in consultation with the section controller on duty when there is no train in the block section.

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

The Station Master will take action as per SR 6.02.03 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 OBJECT: -

The lights of loop Line No.1 starters on both ends are nominated as visibility test object. SM/SS 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 relevant SRs. SM on duty shall check the VTO from a nominated place in front of the station.

11.0 ESSENTIAL EQUIPMENTS AT THE STATION: -

This is mentioned in the Appendix 'E' of the SWR. Essential equipment shall be kept ready on hand in good condition with necessary relief stock.

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

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In order to indicate to the Loco Pilots of approaching trains the location of signal during thick, foggy and 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

12.1 **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.

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

b. 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 THESE 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 RRUPRA ROAD STATION.

APPENDICES

- APPENDIX ‘A’ -- WORKING OF L.C. GATE.
- APPENDIX ‘B’ -- SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
- APPENDIX ‘C’ -- ANTI COLLOSION 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 THE OPERATING STAFF (INCLUDING LEVEL CROSSING GATE MEN) ABOUT THEIR NORMAL WORKING, THEIR MAINTENANCE AND THEIR WORKING INCASE OF FAILURES EMERGENCIES WITH SPECIAL PROVISIONS, IF ANY.

1.0 WORKING INSTRUCTIONS OF ‘C’ CLASS LEVEL CROSSING GATE AT KM 231.381 (No-RV-189) AT KDLR END OF THE YARD.

1.1 GENERAL INSTRUCTION:-

1.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE: -

1	No. of Level Crossing Gate	:	RV-189
2	Engineering or Traffic gate	:	Traffic
3	Under control of station master or PWI.	:	SM/ RPRD
4	Location at Km.	:	231.381 (231/6-7)
5	At station	:	RPRD
6	In between station	:	RPRD-KDLR
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to road traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	EKT
	Provision of gate single at Km.	:	UP Line-NIL
12			DN Line-NIL
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone Connection with SM/ RPRD
15	Width of the level crossing gate	:	5.50m.
16	Type of road	:	Others
17	Name of road	:	Village Road
18	Metalled /Non-Metalled	:	Non-Metalled
19	Approach road	:	Non-Metalled
20	Width of the road	:	5.5 Mtrs
21	Angle of road crossing (in case of the SKEW gates)	:	60 degree
22	Road gradients (if any)	:	[a]North/ East Side. --- Level [b] South /West Side. --- 1 in 100
23.	Road alignment (straight/Curve)	:	[a] North/ East Side - Straight [b] South/ West Side – Curve
24.	Provision of height gauges	:	Not Provided
25.	Type of barriers	:	Electrical operated Lifting barriers.
26.	Length of check rails	:	7.5 Mtrs.
27.	Road surface in between level crossing gates.	:	Hexagonal Blocks
28.	Length of rumble strip/ speed breakers.	:	7.5 Mtrs
29.	Road signs	:	Provided
30.	Speed breakers indication board	:	Provided
31.	TVU	:	12116 on 07/ 2013
32.	Census next due on	:	07/2016
33.	Demarcation for placement of detonators.	:	Available
34.	No. of gateman working	:	Two
35.	Nearest Railway Medical Assistance	:	Titlagarh
36.	Nearest Private Medical Assistance available (if any)	:	RPRD
37.	List of equipment available (Yes/No)	:	Yes

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1.2 A)EQUIPMENTS TO BE AVAILABLE AT THE GATE:

1	Tri Colour Torch	:	3
2	Hand Signal Flag Green	:	1 mounted on sticks
3	Hand Signal Flag Red	:	3
4	Banner Flag Red	:	3
5	Posts for exhibiting red banner flag	:	2
6	Spare Chains with Padlocks	:	2 with stop mark
7	Detonators	:	10 in tin case
8.	Gate lamps	:	2
9.	Tommy Bar	:	1
10	Mortar Pan	:	1
11	Spade/ Fowrah	:	1
12	Rammer	:	1
13	Pick Axe	:	1
14	Tin Case for Flags	:	1
15	Cane 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 of failure of Boom lock.	:	2

1.3 RECORDS TO BE KEPT AT GATE LODGE:-

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate working Instructions in Hindi / English.
2. Gate working instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language.
4. List for tools and books.
5. Duty Roster.
6. Certificate for working as Gateman
7. Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp, etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

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.

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- iii) In night time, 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 in case of emergency and obstruction on the track.
- 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.
- 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/RPRD, 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.

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- vi) In case the train does not stop, Gateman shall immediately inform the Station Master/RPRD, to take appropriate action, under exchange of private number.

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

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if an, in the 'ON' position.
- ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, 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: -

(A) ON DOUBLE LINE.

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG 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 on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(B) 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 and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.5 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:**

This interlocked L.C. Gate is situated at the KDLR end of the yard in between DN Starters and DN Adv. Starter signal at Km 231/6-7. Gatekeeper of Operating department under the control of SM/RPRD operates the L.C gate. The normal position of the gate is open to road traffic. This gate is interlocked with station stop signals. Telephone connection is provided between the L.C. gate lodge with SM office RPRD Station. The level crossing gate is of lifting barrier type and motor operated by means of HAND GENERATOR/MOTOR from the panel provided at the gate lodge.

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Before taking off reception/departure signals the SM on duty at RPRD Station shall inform the gate man about the train number & directions and advise him to close and lock the gate. The gate man shall after satisfying himself that the level crossing is clear of all obstructions shall sound the hooter and close the barriers of the LC gate. For closing the barriers together press the CLOSE push button (YELLOW) continuously provided on the panel till the barriers come down and get locked in the locking device. As soon as the barriers reach the close position AMBER LEDs glow (provided in panel) and on getting locked GREEN LEDs will glow indicating that boom has been locked. (In case GREEN LED for the connected barrier is not glowing after closing the gate, however, the AMBER LEDs are glowing then the emergency push button can be only pressed for locking the booms for taking of the signals. The emergency locking operation should be done only after physical verification of locking at both the lock posts. After the LC gate is closed and locked against road traffic Key 'Q' can be extracted from EKT-1. Key 'Q' thus extracted is inserted in EKT-2 and transmitted electrically to panel in conjunction with switch GS (gate slot) reversed. This releases concerned UP/Dn signals respectively.

After passage of train, on duty SM/ RPRD Station shall grant permission and transmit the Gate key to the gateman by pressing gate control 27 and group Trans button simultaneously. The green indication starts flashing at SM's control Panel and gate man will get yellow indication near the EKT which indicates that the key 'Q' can be extracted from EKT-2 after turning the GS switch to normal position. Then Key 'Q' is extracted from EKT-2 and inserted in EKT-1 and turned.

For opening the LC gate barriers press the OPEN push button (GREEN) continuously till both the barriers start opening and reach to the (fully opened) vertical position from horizontal position. Motors will cut off after the booms achieve the desired vertical angle.

In case of emergency Key 'K' (chained with Boom Crank Handle) is extracted from EKT-3, Electro-Mechanically free, provided at Gate Lodge (in a locked and sealed red box). The crank handle can be used for manual operation of individual lifting barriers by crank handling in case of emergency.

Extraction of Key 'K' shall put back all the relevant signals at 'ON'. Switch GS (Gate Slot) is provided in the gate lodge to put back the concerned UP & DN signals to 'ON' by the gateman in case of emergency.

The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic in consistence with safety as per subsidiary rule 16.03.01 (a).

OPERATION OF ELECTRIC LIFTING BARRIER DURING 24V DC POWER FAILURE

(Hand Generator Mode-During Power Failure)

In case of power failure (24 V DC), the barriers cannot be operated from the panel. But the barriers can be operated simultaneously by use of hand generator as mentioned below.

1. Put the Mode selector switch on the panel to MANUAL position.
2. To **close** the barriers rotate the lever on the main control panel in **clock-wise direction** till both the barriers reach the horizontal and locking takes place.
3. To **open** the barriers rotate the lever on the main control panel in **anti-clock-wise direction**. Both the Locks will open first and the barriers will start rising. Keep cranking till the required position is achieved.

OPERATION OF ELECTRIC LIFTING BARRIER WHEN 24 V DC POWER SUPPLY AS WELL AS HAND GENERATOR FAILS. (During Power Failure and failure of hand generator)

In case of failure of 24 V DC power supply as well as fault in the hand generator system a provision of hand cranking of each barrier has been provided.

1. Insert the crank handle, which can be obtained from the emergency key box RKT 'K', on the slot provided in with the barrier pedestal.
2. Now crank in the anticlockwise direction to open the barrier, first the lock will open and then the barrier will start rising.

3. Crank in the clockwise direction till the barriers are fully closed. Keep cranking till the locking takes place.

INDICATIONS PROVIDED ON CONTROL PANEL FOR OPERATION OF ELECTRICAL LIFTING BARRIER

1. RED colour emergency push button which is to be pushed in case any or both of the booms do not get locked (GREEN indicators do not light up). It will be used only after physical verification of locking at both the lock posts.
2. LED INDICATOR (AMBER) LAMP (At the Top) which glows when power supply is available. No GLOW will indicate that hand generator has to be used. It glows continuously.
3. SELECTOR SWITCH which allows you to choose operation on Manual or Auto mode.
4. LED INDICATOR (AMBER) LAMP (2 nos) - Glows when the plunger of the barriers has been detected. Meaning thereby that the barrier has reached its Horizontal position.
5. YELLOW COLOUR push button which has to be kept pressed till the barriers reach the horizontal position.
6. LED INDICATOR LAMP (GREEN) (2 nos) glows when the barrier has been securely LOCKED. The lamp will turn off as soon as the lock has been opened.
7. GREEN COLOUR push button which has to be kept pressed till the barriers reach the fully open position.
8. Mode Selector Switch provided in Operating panel to be kept either in Auto position or Manual position as per requirement. It is only to be kept in Manual position for using hand generator when power supply fails or else it is to be kept in AUTO position.
9. 'Power' indicator LED will glow continuously if power supply is available.
Gate is locked when a signal is taken off. Locking of the gate is released only when the train movement for which Signals are taken off is completed. For emergency opening of the LC Gate before completion of train movement or if the route given for a train has not been released, then emergency gate release operation has to be initiated in the following manner. Signal cancellation button and the concerned signal button has to be pressed. Then emergency gate release button along with control 27 button has to be pressed. A flashing Red indication will appear on the top of the emergency gate release button. When the Gate lock indication disappears (i.e. after 120 seconds) gate key can be transmitted by pressing gate key and group trans button simultaneously for opening the gate.

In the event of failure of reception and dispatch 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 Station Master/RPRD shall inform the gateman, the number, description, and direction of the train.
- ii) The gateman shall close the gate and transfer the key to the Station Master.
- iii) The reception/departure signals will then be taken 'OFF'
- iv) In order to ensure that road traffic is not held up for a long time, the Station Master/ RPRD 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 COMMUNICATION:**

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

- i) Station Master on duty/ RPRD shall send written advice to the gateman through the porter with full details of number, description and direction of the train.

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- ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master/ RPRD, which will enable him to take 'OFF' reception/Departure signals.
- iii) When sufficient time is not available because of greater frequency of train service, station Master/ RPRD will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- iv) In addition, Station Master/ RPRD 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 before 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.3.73.
- vi) In case of an approaching train, the Station Master/ RPRD shall advise the Station Master/KDLR, under exchange of private number, that the telephone at the gate has failed.
- vii) The station Master/ KDLR shall then issue a caution order to the Loco Pilot before dispatching a train into the block section from his end.
- viii) He should also advise S&T staff responsible for maintenance of the telephone 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:**

- i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform, the Station Master on duty/ RPRD, under exchange private number, and ensure the lifting barriers of gate 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) Station Master on duty/ RPRD shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/ KDLR at the dispatching 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) Station Master/ RPRD 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.

Note: Authority to pass signals in 'ON' position as per rules shall also be issued to the Loco Pilots of both departing and arriving trains.

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

- i) If the gate key cannot be extracted from the key transmitter, then gateman must immediately inform the Station Master / RPRD 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) Station Master on duty/ RPRD shall issue a caution order to the Loco Pilot of a departing train.
- iv) He shall also advise the station Master/ KDLR 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.
- v) Station Master/ RPRD will advise S&T staff responsible for maintenance of key transmitter to rectify the defect at the earliest.
- vi) Normal working will resumed only after S&T staff repairs the 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 key transmitter then gateman must immediately inform the Station Master on duty/RPRD 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) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.
- iv) Station Master on duty/ RPRD shall issue caution order to the Loco Pilot of a departing train.
- v) He shall also advise the station Master/ KDLR 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.
- vi) Station Master/ RPRD will advise S&T staff responsible for maintenance of key transmitter to rectify the defect at the earliest.
- vii) Normal working will resumed only after S&T staff repairs the 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 normalize GS switch to put back concerned signals and then 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/ RPRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Stationmaster/ RPRD on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master/RPRD 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.1.4. (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 reply these details to the station Master/RPRD 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 Station Master/ RPRD shall also inform the station Master/ KDLR 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 cleared of all obstructions.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master/ RPRD accordingly, under exchange of private number.
- x) Station Master/ RPRD shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master/ RPRD 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 Station Master/RPRD will adopt the procedure given under item No. 7 above. If the obstruction fouls the level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

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2.0 WORKING INSTRUCTIONS FOR 'C' CLASS TRAFFIC INTERLOCKED LEVEL CROSSING GATE AT KM 232.455 (No-RV-190) AT NRLR END OF THE YARD:-

2.1 GENERAL INSTRUCTIONS:-

2.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE: -

1	No. of Level Crossing Gate	:	RV-190
2	Engineering or Traffic gate	:	TRAFFIC
3	Under control of Station Master or permanent way inspector.	:	SM/ RPRD
4	Location at Km.	:	232.455 (232/7)
5	At station	:	RPRD
6	In between station	:	RPRD-NRLR
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to road traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	EKT
	Provision of gate signal at Km.	:	Up Line-NIL DN Line-NIL
12			
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone connection from gate Goomyty with SM/ RPRD
15	Width of the level crossing gate	:	5.5m.
16	Type of road (NH/SH/Others)	:	Others
17	Name of road	:	Village Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	5.50 Mtrs
21	Angle of road crossing (in case of the SKEW gates)	:	----
22	Road gradients (if any)	:	[a] North East Side – Level [b] South West Side - Level
23	Road alignment (straight/Curve)	:	[a] North East Side: Straight [b] South West Side: Straight
24.	Provision of height gauges	:	Not provided
	Type of barriers	:	Electrical operated lifting barriers
25.			
26.	Length of check rails	:	7.50 Mtrs.
27.	Road surface in between level crossing gates.	:	Hexagonal RCC Blocks
28.	Length of rumble strip/ speed breakers.	:	7.50 Mtrs
29.	Road signs	:	Provided
30.	Speed breakers indication board	:	Provided
31.	TVU	:	1873 on 07/ 2013
32.	Census next due on	:	07/ 2016
33.	Demarcation for placement of detonators.	:	Available
34.	No. of gateman working	:	02
35.	Nearest Railway Medical Assistance	:	Titlagarh
36.	Nearest Private Medical Assistance available (if any)	:	RPRD
37.	List of equipment available (Yes/No)	:	Yes

2.2 **EQUIPMETS:**

ITEMS	QUANTITY/NUMBERS
1. 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
19. Board demarcating protection of L.C. 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 Gate 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.

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.

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- ii) In daytime, Gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, 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 in case of emergency and obstruction on the track.
- 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.
- 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/RPRD, 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/RPRD, to take appropriate action, under exchange of private number.

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

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if an, in the 'ON' position.
- ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, 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: -

(A) On Double Line.

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG 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 on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall 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/RPRD and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

2.5 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:**

This is an interlocked traffic L.C.Gate situated at the NRLR end of the yard in between UP Starter signals and UP Adv. Starter signal at Km 232/7-8. Gatekeeper of Operating department under the control of SM/RPRD operates the L.C gate. The normal position of the gate is open to road traffic .This gate is interlocked with station stop signals. Telephone connection is provided between the L C. gate lodge with SM office RPRD Station. The level crossing gate is of lifting barrier type and motor operated by means of HAND GENERATOR/MOTOR from the panel provided at the gate lodge.

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Before taking off reception/departure signals the SM on duty at RPRD Station shall inform the gate man about the train number & directions and advise him to close and lock the gate. The gate man shall after satisfying himself that the level crossing is clear of all obstructions shall sound the hooter and close the barriers of the LC gate. For closing the barriers together press the CLOSE push button (YELLOW) continuously provided on the panel till the barriers come down and get locked in the locking device. As soon as the barriers reach the close position AMBER LEDs glow (provided in panel) and on getting locked GREEN LEDs will glow indicating that boom has been locked. (In case GREEN LED for the connected barrier is not glowing after closing the gate, however, the AMBER LEDs are glowing then the emergency push button can be only pressed for locking the booms for taking of the signals. The emergency locking operation should be done only after physical verification of locking at both the lock posts. After the LC gate is closed and locked against road traffic Key 'Y' can be extracted from EKT-1. Key 'Y' thus extracted is inserted in EKT-2 and transmitted electrically to panel in conjunction with switch GS (gate slot) reversed. This releases concerned UP/Dn signals respectively.

After passage of train, on duty SM/ RPRD Station shall grant permission and transmit the Gate key to the gateman by pressing gate control 26 and group Trans button simultaneously. The green indication starts flashing at SM's control Panel and gate man will get yellow indication near the EKT which indicates that the key 'Y' can be extracted from EKT-2 after turning the GS switch to normal position. Then Key 'Y' is extracted from EKT-2 and inserted in EKT-1 and turned.

For opening the LC gate barriers press the OPEN push button (GREEN) continuously till both the barriers start opening and reach to the (fully opened)vertical position from horizontal position. Motors will cut off after the booms achieve the desired vertical angle.

In case of emergency Key 'K' (chained with Boom Crank Handle) is extracted from EKT-3, Electro-Mechanically free, provided at Gate Lodge (in a locked and sealed red box). The crank handle can be used for manual operation of individual lifting barriers by crank handling in case of emergency.

Extraction of Key 'K' shall put back all the relevant signals at 'ON'. Switch GS (Gate Slot) is provided in the gate lodge to put back the concerned UP & DN signals to 'ON' by the gateman in case of emergency.

The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic in consistence with safety as per subsidiary rule 16.03.01 (a).

OPERATION OF ELECTRIC LIFTING BARRIER DURING 24V DC POWER FAILURE

(Hand Generator Mode-During Power Failure)

In case of power failure(24 V DC), the barriers cannot be operated from the panel. But the barriers can be operated simultaneously by use of hand generator as mentioned below.

1. Put the Mode selector switch on the panel to MANUAL position.
2. To **close** the barriers rotate the lever on the main control panel in **clock-wise direction** till both the barriers reach the horizontal and locking takes place.
3. To **open** the barriers rotate the lever on the main control panel in **anti-clock-wise direction**. Both the Locks will open first and the barriers will start rising. Keep cranking till the required position is achieved.

OPERATION OF ELECTRIC LIFTING BARRIER WHEN 24 V DC POWER SUPPLY AS WELL AS HAND GENERATOR FAILS. (During Power Failure and failure of hand generator)

In case of failure of 24 V DC power supply as well as fault in the hand generator system a provision of hand cranking of each barrier has been provided.

1. Insert the crank handle, which can be obtained from the emergency key box RKT 'K', on the slot provided in with the barrier pedestal.
2. Now crank in the anticlockwise direction to open the barrier, first the lock will open and then the barrier will start rising.
3. Crank in the clockwise direction till the barriers are fully closed. Keep cranking till the locking takes place.

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INDICATIONS PROVIDED ON CONTROL PANEL FOR OPERATION OF ELECTRICAL LIFTING BARRIER

1. RED colour emergency push button which is to be pushed in case any or both of the booms do not get locked (GREEN indicators do not light up).It will be used only after physical verification of locking at both the lock posts.
2. LED INDICATOR (AMBER) LAMP (At the Top) which glows when power supply is available. NO GLOW will indicate that hand generator has to be used. It glows continuously.
3. SELECTOR SWITCH which allows you to choose operation on Manual or Auto mode.
4. LED INDICATOR (AMBER) LAMP (2 nos) - Glows when the plunger of the barriers has been detected. Meaning thereby that the barrier has reached its Horizontal position.
5. YELLOW COLOUR push button which has to be kept pressed till the barriers reach the horizontal position.
6. LED INDICATOR LAMP (GREEN) (2 nos) glows when the barrier has been securely LOCKED. The lamp will turn off as soon as the lock has been opened.
7. GREEN COLOUR push button which has to be kept pressed till the barriers reach the fully open position.
8. Mode Selector Switch provided in Operating panel to be kept either in Auto position or Manual position as per requirement. It is only to be kept in Manual position for using hand generator when power supply fails or else it is to be kept in AUTO position.
9. 'Power' indicator LED will glow continuously if power supply is available.

Gate is locked when a signal is taken off. Locking of the gate is released only when the train movement for which Signals are taken off is completed. For emergency opening of the LC Gate before completion of train movement or if the route given for a train has not been released, then emergency gate release operation has to be initiated in the following manner. Signal cancellation button and the concerned signal button has to be pressed. Then emergency gate release button along with control 27 button has to be pressed. A flashing Red indication will appear on the top of the emergency gate release button. When the Gate lock indication disappears (i.e. after 120 seconds) gate key can be transmitted by pressing gate key and group trans button simultaneously for opening the gate.

In the event of failure of reception and 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 Station Master/RPRD shall inform the gateman, the number, description, and direction of the train.
- ii) The gateman shall close the gate and transfer the key to the Station Master.
- iii) The reception/departure signals will then be taken 'OFF'
- iv) In order to ensure that road traffic is not held up for a long time, the Station Master/ RPRD 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 COMMUNICATION:

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

- i) Station Master on duty/ RPRD shall send written advice to the gateman through the porter with full details of number, description and direction of the train.
- ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master/ RPRD, which will enable him to take 'OFF' reception/Departure signals.

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- iii) When sufficient time is not available because of greater frequency of train service, station Master/ RPRD will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- iv) In addition, Station Master/ RPRD 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 before 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.3.73.
- vi) In case of an approaching train, the Station Master/ RPRD shall advise the Station Master/NRLR, under exchange of private number, that the telephone at the gate has failed.
- vii) The station Master/ NRLR shall then issue a caution order to the Loco Pilot before dispatching a train into the block section from his end.
- viii) He should also advise S&T staff responsible for maintenance of the telephone 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:**

- i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform, the Station Master on duty/ RPRD, under exchange private number, and ensure the lifting barriers of gate 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 on duty/ RPRD shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/ NRLR 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) Station Master/ RPRD 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.

Note:

Authority to pass signals in 'ON' position as per rules shall also be issued to the Loco Pilots of both departing and arriving trains.

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

- i) If the gate key cannot be extracted from the key transmitter, then gateman must immediately inform the Station Master / RPRD 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) Station Master on duty/ RPRD shall issue a caution order to the Loco Pilot of a departing train.
- iv) He shall also advise the station Master/ NRLR 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.
- v) Station Master/ RPRD will advise S&T staff responsible for maintenance of key transmitter to rectify the defect at the earliest.
- vi) Normal working will resumed only after S&T staff repairs the key transmitter and issue reconnection/fit memo for the same.

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FAILURE OF THE GATE KEY WITH THE GATE IN OPEN CONDITION:

- i) If the gate key cannot be extracted from the key transmitter then gateman must immediately inform the Station Master on duty/RPRD 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) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.
- iv) Station Master on duty/ RPRD shall issue caution order to the Loco Pilot of a departing train.
- v) He shall also advise the station Master/NRLR 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.
- vi) Station Master/ RPRD will advise S&T staff responsible for maintenance of key transmitter to rectify the defect at the earliest.
- vii) Normal working will resumed only after S&T staff repairs the 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 normalize GS switch to put back concerned signals and then 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/ RPRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station master/ RPRD on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master / RPRD 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.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 reply these details to the station Master/RPRD 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 Station Master/ RPRD shall also inform the station Master/ NRLR at the dispatching end, under exchange of private number, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master/ RPRD accordingly, under exchange of private number.
- x) Station Master/ RPRD shall then issue a caution order to Loco Pilot of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master/ RPRD 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 Station Master/RPRD will adopt the procedure given under item No. 7 above. If the obstruction fouls the level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

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3.0 WORKING INSTRUCTIONS OF 'C' CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE (NO-RV-187) AT KM 229/8-9 BETWEEN RPRD & KDLR.

3.1 GENERAL INSTRUCTIONS: -

3.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

1. Number of Level Crossing Gate: -	RV-187
2. Engineering or Traffic Gate: -	Engineering.
3. Under control of Station Master/PWI:	PWI.
4. Location KM	229/8-9
5. At. Station: -	-----.
6. In between stations: -	RPRD- KDLR.
7. BG/MG/NG: -	BG.
8. Single line/Double line/Multiple line: -	Double Line.
9. Normal Position: -	Open 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. Signaling arrangement: -	NIL.
14. Means of Communication:	Magneto Telephone Communication from Gate Goomty with SM/RPRD.
15. Width of level crossing Gate: -	5.5 meters.
16. Type of road. (NH/SH/Others): -	Others
17. Name of Road: -	RPRD-Bhawanipatna Road
18. Metaled/Non:	Metaled
19. Approach Road: -	Metaled
20. Width of the road: -	5.5 m
21. Angle of road crossing (In case of the skew Gates)	(60 Degree).
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: -	Lifting Barriers
26. Length of check rails: -	7.5 Meters.
27. Road surface in between Level: -	CCB
28. Length of speed breakers: -	5.5 M
29. Road signs: -	Available
30. Speed breaker indication board: -	Provided
31. TVU: -	12079 on 07/2010
32. Census next due on: -	07/2013
33. Demarcation for placement of Detonators: -	Provided.
34. No. of Gateman working: -	02
35. Nearest Railway Medical Assistance: -	TIG
36. Nearest Private Medical Assistance available (if any)	RPRD.
37. List of equipment available Yes//No: -	Yes.

3.2. EQUIPMET:

ITEMS	QUANTITY/NUMBERS
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
20. Board demarcating protection of L.C. 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

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.

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 & 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 & 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.**

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P.Nagar.
Sr. DEN (Line-II)/SBP

D.Nayak.
DOM (G)/SBP

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/RPRD, 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, & by raising both hands vertically above, quickly parting them & bringing them together in repeated Up & Down motion as high & as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master/RPRD, 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 SM/RPRD on duty, regarding the defects/obstructions at the gate, under exchange of PN.
- iii) If there is no response from the Station Master/RPRD after three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under: -

(A) **ON DOUBLE LINE.**

- i) If both the lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away from the line on which train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG 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 on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall 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:**

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- 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/RPRD and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

3.5 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:**

This is a Non-interlocked 'C' Class Engineering L.C.Gate situated at Km 229/8-9 between RPRD-KDLR stations. This gate is provided with winch operated coupled lifting barriers. The gateman closes and opens the lifting barriers of gate manually by operating the winch. Telephone communication is provided between the L C. gate lodge and SM's office of RPRD station. The level crossing gate is normally kept open to road traffic and closed against road traffic for passage of trains. Station Master / RPRD authorizes the gateman to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gateman before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

2. **EXCHANGE OF PRIVATE NUMBERS :**

(a) When Gate is connected with the station at the dispatching end:

- i) Station Master / RPRD at the dispatching end shall advise the gateman the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before taking 'OFF' departure signal or giving an authority to proceed to the Loco pilot.
- iii) The gateman on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
- iv) Station Master / RPRD will take off the departure signals after getting the private number of the gateman.
- v) Gates cannot be opened unless authorized by the SM/RPRD, under exchange of PN.

(b) When Gate is connected with the station at the receiving end:

- i) Station Master /KDLR at the despatching end shall advise the Station Master / RPRD at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before obtaining line clear.
- iii) Station Master / RPRD at the receiving end shall in turn convey the same advice to the gateman, under exchange of private number.
- iv) Gateman shall close the gate and thereafter give his PN to the SM/RPRD.
- v) Only then shall the Station Master / RPRD at the receiving end grant line clear to the Station Master /KDLR at the despatching end.
- vi) Gates cannot be opened unless authorized by the SM/RPRD, under exchange of PN.

6. **FAILURE OF TELEPHONE COMMUNICATION:**

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

- i) The station Master/ RPRD at the dispatching end shall then issue a caution order to the Loco pilot before dispatching a train in the block section from his end.
- ii) The caution order should advise the Loco pilot to whistle continuously and approach the gate cautiously.
- iii) The Loco pilot should be instructed to pass the gate cautiously, on being hand signaled by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot will give the all right signal and if the gate is not closed the Assistant Loco pilot must close the gate and then give the all right signal. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of the Assistant Guard/Guard and shall stop clear of the level crossing to pick up the ALP who will reopen the gate for passage of the road traffic.
- iv) In case of an approaching train, the SM/ RPRD shall advise the SM/KDLR dispatching end, under exchange of private number that the telephone at the gate has failed.
- v) The Station Master at the despatching end shall then issue a caution order to the Loco pilot before despatching a train in the block section from his end.
- vi) Station Master/ RPRD shall also advice to the gateman through Gangman/Patrolman or Loco pilot of the first train that the telephone has become defective.
- vii) He should also advise S&T staff responsible for maintenance of the telephone rectify the defect at the earliest.
- viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection /fit memo for the same.

7. **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/ RPRD, under exchange of Private number, and ensure that lifting barriers of gate 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 & 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/ RPRD shall issue caution order to the Loco pilot of departing train.
- (vi) He shall also advise the Station master/KDLR at the despatching end, under exchange of private number, to similarly issue a caution order to the drive before despatching a train in the block section from his end.
- (vii) He 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.

8. **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/ RPRD, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Stationmaster on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master / RPRD 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 Instructions for duties of gateman under item No.3.4. (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 reply these details to the station Master/ RPRD 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 Station Master/ RPRD shall also inform the station Master/KDLR at the despatching end, under exchange of private number, asking him not to despatch any train in the block section from his end, until the track has been clear of all obstructions.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- x) Station Master/ RPRD shall then issue a caution order to Loco pilots of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master/ RPRD 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.

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

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

4.0 WORKING INSTRUCTIONS FOR 'SPL' CLASS ENGG. INTERLOCKED LEVEL CROSSING GATE AT KM 237/04 BETWEEN RPRD & NRLR STATIONS.

4.1 DESCRIPTION OF THE LEVEL CROSSING GATE: -

1	No. of Level Crossing Gate	:	RV-196
2	Engineering or Traffic gate	:	Engineering
3	Under control of Station Master or permanent way inspector.	:	PWI
4	Location at Km.	:	237/4
5	At station	:	-----
6	In between station	:	RPRD-NRLR
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to road traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Gate Signals
12	Provision of gate signal at Km.	:	UP gate signal at KM 237/1-2
13	Signaling arrangement	:	DN gate signal at KM 237/7-8
14	Means of communication Telephone.	:	Telephone connection from gate Goomty with SM office /NRLR
15	Width of the level crossing gate	:	7.5 m
16	Type of road (NH/SH/Others)	:	SH
17	Name of road	:	NRLR-Bhawanipatna Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	7.5 Mtrs
21	Angle of road crossing (in case of the SKEW gates)	:	90 Degree.
22	Road gradients (if any)	:	[a] North East Side. --- [b] South West Side. ---1 in 150
23	Road alignment (straight/Curve)	:	[a] North East Side: - Straight [b] South West Side ---Straight
24	Provision of height gauges	:	Not Provided
25	Type of barriers	:	Lifting barriers
26.	Length of check rails	:	9.5Mtrs.
27.	Road surface in between level crossing gates.	:	Concrete Blocks
28.	Length of rumble strip/ speed breakers.	:	9.5 Mtrs.
29.	Road signs	:	Provided
30.	Speed breakers indication board	:	Provided
31.	TUV	:	70338 on 07/2010
32.	Census next due on	:	07/2013
33.	Demarcation for placement of detonators.	:	Available
34.	No. of gateman working	:	03
35.	Nearest Railway Medical Assistance	:	Titlagarh
36.	Nearest Private Medical Assistance available (if any)	:	Norla Road
37.	List of equipment available (Yes/No)	:	Yes

4.2 EQUIPMETS:

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DOM (G)/SBP

ITEMS	QUANTITY/NUMBERS
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. 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 Gate boom lock.	2

4.3 **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.

4.4 **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 night time, 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 in case of emergency and obstruction on the track.
- 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.
- 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.**

R.Das
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Sr. DEN (Line-II)/SBP

D.Nayak.
DOM (G)/SBP

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 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 to take appropriate action, under exchange of private number.

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

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if an, in the 'ON' position.
- ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, 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: -

(A) On Double Line.

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG 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 on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonators 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:

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DOM (G)/SBP

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.
- ii) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barriers/leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the Gateman shall take immediate action.
- 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/NRLR and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

4.5 SPECIAL RESTRICTIONS:

1. MODE OF OPERATION:

This is a Manned, interlocked L.C. Gate situated in between UP Home signal and UP Inner Distant Signal of NRLR station at Km 237/4. This gate is interlocked with Gate stop signals. The DN gate Distant signal is combined with DN Advanced Starter signal of NRLR. Telephone communication is provided between the L C. gate lodge with SM on duty of NRLR 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 Four-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 taking OFF signals or for train passing or 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 'M' is to be extracted from the winch, which will be inserted in the lever of GF-2. When GF-2 is reversed it locks the booms of the gate and releases GF-3 & GF-4. Then after, the gateman can reverse the GF-3 or GF-4 for taking OFF concerned UP or DN Gate Stop signals. GF-3 or GF-4 can be used to put back the concerned Gate Stop signal in case of emergency. Lever No. GF-1 is spare lever.

After passage of the Train or completion of shunting, the SM on duty shall inform the gateman, the gate man shall normalize the concerned GF-3 or GF-4 then GF-2 which will unlock the gate boom and releases Key 'M'. The gate man shall extract the control key 'M' from the GF-2 and he will open the gate by inserting the Key 'M' into the winch for normal passage of road traffic. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a).

Once the LC Gate is closed, the same should not be opened till the train for which gate was closed has the passed the LC Gate completely, unless the gateman is permitted by SM/NRLR supported by private number. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a).

2. INTIMATION TO GATEMAN. :

- (i) Immediately after departure of the train, Station Master/NRLR shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.
- (ii) This advice shall be given by the Station Master/ NRLR to the gateman as soon as he receives train entering section advice from the dispatching station SM/RPRD.
- (iii) If the actual running time of the train from either end of the section is less than 10 minutes, Station Master/ NRLR will convey this advice to the gateman before obtaining/granting line clear.
- (iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

3. FAILURE OF TELEPHONIC COMMUNICATION:

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

- (i) If the telephone fails at the gate connected with the station at the dispatching end, Station Master/ NRLR shall issue a caution order to the Loco Pilot of the departing train.
- (ii) Station Master NRLR shall advise the Loco Pilot to whistle continuously and proceed cautiously while approaching the gate.
- (iii) In case the gate signal is 'ON' he should stop at the gate signal and follow the procedure laid down under GR 3.73.
- (iv) In case of an approaching train, the Station Master/ NRLR shall advise the SM/RPRD, under exchange of private number that the telephone at the gate has failed.
- (v) The Station Master/ RPRD at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train into the block section from his end.
- (vi) Station Master/ NRLR will also advise the gateman through Gangman/Patrolman/Loco Pilot of the first train that the telephone has become defective.
- (vii) Station Master/ NRLR should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

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

When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master on duty/ NRLR under exchange of private number and ensure that lifting barriers do not foul the track.

- (i) He shall immediately fix red banner flag by day and red light by night on the post that end first from which the train is approaching and then at the other end.
- (ii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iii) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the Loco Pilot of the approaching train.
- (iv) Station Master on duty/ NRLR shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master/RPRD, under exchange of private number; to similarly issue a caution order to the Loco Pilot before dispatching a train into the block section.
- (vi) Station Master/ NRLR shall advise maintenance staff responsible for maintaining the lifting barriers to rectify the same at the earliest.
- (vii) Normal working will be resumed only after maintenance staff repair the lifting barriers 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 signal lever or key transmitter then gateman must immediately inform the Station Master/ NRLR on duty on telephone, under exchange of private number.
- (ii) Thereafter, the gate must be treated as non interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gate should be adopted.
- (iii) SM on duty/NRLR shall issue caution order to the Loco Pilot of a departing train.

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- (iv) He shall also advise the Station Master/RPRD at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train into the block section his end.
- (v) Station Master/ NRLR shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- (vi) Normal working will be resumed only after S&T staff repair the 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 signal lever or key transmitter then gateman must immediately inform the Station Master/ NRLR on duty on telephone, under exchange of private number.
- (ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gate should be adopted.
- (iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.
- (iv) Station Master on duty/ NRLR shall issue a caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master/RPRD under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) Station Master/ NRLR shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- (vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection/fit memo for the same.

7. **DEFECTIVE GATE SIGNAL :**

- (i) The gateman shall treat the gate signal as defective and must not lower them under following circumstances:
 - (a) If gate signals can be taken 'OFF' without closing the gate, or
 - (b) The key can be extracted from the operating winch when the gate is in open condition, or
 - (c) The key can be extracted from the gate lever when the gate is in open condition.
- (ii) If the Gate or the Gate Signal or Distant Signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position even by cutting signal wire/power, if necessary.
- (iii) The gateman will immediately advise the Station Master on duty/ NRLR, under exchange of private number, regarding defective gate signals.
- (iv) Thereafter, the gate must be treated as non – interlocked and procedure for reception/dispatch as prescribed for non interlocked gates should be adopted.
- (v) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- (vi) SM on duty/ NRLR will issue a caution order to the Loco Pilot of departing train.
- (vii) He shall also advise the Station Master/RPRD under exchanged private number, to similarly issue a caution order to the Loco Pilot before despatching train into the block section from his end.
- (viii) Station Master/ NRLR shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.

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- (ix) Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection/fit memo for the same.

8. **OBSTRUCTION AT THE GATE:**

- i) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position.
- ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate.
- iii) Immediately after this, the gateman shall advise the station Master/ NRLR on duty regarding the defects /obstructions at the gate, under exchange of private number.
- iv) If there is no response from the Station Master / NRLR 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.4.4 (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 reply these details to the station Master/ NRLR who shall not start the trains unless he has been assured by the gateman that the road vehicle or the lifting barriers/leaf gate are not fouling the track.
- viii) The Station Master/ NRLR shall also inform the station Master/RPRD under exchange of private number, asking him not to despatch any train in 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 Station Master/ NRLR accordingly, under exchange of private number.
- x) Station Master/ NRLR shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master/ NRLR shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xiii) Normally working will be resumed only after maintenance staffs rectify the defective lifting barriers/leaf gates and issue reconnection/fit memo for the same.

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

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No, 8 above, If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

APPENDIX – 'B'

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

(i) **BRIEF DESCRIPTION OF THE SIGNALLING & INTERLOCKING INSTALLATIONS:**

This is a 'B' Class Station with Standard II (R) Interlocking (with isolations). The points and Signals are power operated from composite miniature central panel installed in the Station Master's Office. The Station is equipped with manually operated Multi Aspect Colour Light Signalling.

(ii) **DESCRIPTION OF PANEL:**

The yard layout is depicted on the panel and the panel is fixed parallel to the track so that when SM on duty faces the panel, the yard drawing of the panel corresponds to the actual layout.

1.1.1 **DESCRIPTION OF POINT PUSH BUTTON (RUNNING LINE POINT) :-**

SL.NO.	POINT NO.	COLOUR OF BUTTON	DESCRIPTION
1	17	BLACK	Cross-over point between UP and DN main line at KDLR end for dispatching DN trains from Line-1.
2	18	BLACK	Cross-over point between UP and DN main line at NRLR end for dispatching UP trains from Line-4.
3	19	BLACK	Cross-over point between UP and DN main line at KDLR end for receiving UP trains on Line-4.
4	20	BLACK	Cross-over point between UP and DN main line at NRLR end for receiving DN trains on Line-1.
5	21	BLACK	Cross-over point between DN main and Common loop line no.-4 at KDLR end.
6	22	BLACK	Cross-over point between UP main and Common loop line no.-1 at NRLR end.
7	23	BLACK	Cross over point between UP main and Common loop line No. 1 at KDLR end.
8	24	BLACK	Cross over point between DN main line and Common loop line No. 4 at NRLR end.

1.1.2 **DESCRIPTION OF POINT GROUP BUTTON: -**

There are two buttons at the top of panel one for Normal and one for Reverse operation of points. These are coloured Black with red dot. The button is operated in conjunction with point button to operate the concerned point to the required setting.

1.1.3 **OPERATION OF POINTS BY POINT PUSH BUTTONS: -**

Points are operated for NORMAL to REVERSE or vice versa by operating concerned point push button along with common point group button for normal or reverse operation. When the points

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are required to set from normal to reverse, the concerned point push button along with common point group button for reverse operation are to be pressed simultaneously. As soon as the operation is initiated the WHITE indication will start flashing till the point is correctly set to reverse at site and steady WHITE indication glows. Similar operation shall be done when the points are required to set from reverse to normal. Only one point can be operated individually at a time.

1.2.0 **POINT INDICATIONS:** -

Points are normally operated automatically along with route setting operation. However, required points can also be operated individually. For this, POINT BUTTONS, which are BLACK in colour, are fitted over the point layout on the panel board. The individual operation of the electric point machine is controlled by these point push buttons in conjunction with the POINT GROUP BUTTON (which are BLACK with red dot on it) 'N' or 'R' as per requirement fitted on the top of panel board. The indication for points are as follows; -

- 1.2.1. When a point is set and locked in Normal position, a horizontal 'WHITE' indication appears suggesting that the point is set in NORMAL position.
- 1.2.2 When a point is set and locked in REVERSE position, a diagonal 'WHITE' indication appears suggesting that the point is set in REVERSE position.
- 1.2.3 When the points of any route have been correctly set and relevant signal taken 'OFF', RED indication near the point on the panel appears indicating that the concerned points are locked either in NORMAL or REVERSE position as the case may be.
- 1.2.4 When the points are not set or locked either in NORMAL or in REVERSE correctly, the normal and reverse steady indication will not be there but the WHITE indication will start flashing till such time the point is housed & locked properly in one of the positions. In such case points are to be set both ways by crank handle and clamped and padlocked. This WHITE indication will flash during operation of point also. After completion operation of point during crank handle operation, NORMAL or REVERSE indication appears on panel.
- 1.2.5 All points over running lines are operated by electric point machines

1.2.6 **NON SETTING OF POINTS:** -

The cause for non-setting of the point in the desired position shall be checked up by the SM on duty according to GR 3.68 & SR 3.68.01 (C). If there is a defect other than any obstruction, then the point shall be considered defective and action shall be taken for clamping and padlocking of these points in the desired position by Station Master on duty himself for all trains according to SR 3.69.03(C). In such case both ends of the points shall be clamped and padlocked.

1.2.7 **DESCRIPTION OF CRANK HANDLE BUTTONS:** -

All motor operated points in the yard have been grouped into four crank handle zones for emergency / manual operation of points by crank handles as follows:

SL NO.	CRANK HANDLE	COLOUR OF BUTTON	CONTROL POINTS
1	CH1	BLUE	17 & 19
2	CH2	BLUE	21 & 24
3	CH3	BLUE	22 & 23
4	CH4	BLUE	18 & 20

Crank Handle buttons must be operated in conjunction with GROUP TRANS or GROUP RELEASE button to transmit or receive the crank handle.

1.3.0 **SIGNAL PUSH BUTTON:**

Push buttons for operation of signals are provided near the signals on the panel. These are operated in conjunction with Route button (white coloured) to operate the signals.

1.3.1 DESCRIPTION OF SIGNAL BUTTONS:

SL.NO.	BUTTON NO.	COLOUR	DESCRIPTION
01	S1	RED	UP Home Signal for Line No. 1, 2 & 4
02	C1	RED with WHITE DOT	UP calling on Signal for line No. 1, 2 & 4
03	S2	RED	DN Home Signal for Line No.1, 3 & 4
04	C2	RED with WHITE DOT	DN calling on Signal for line No.1, 3 & 4
05	S3	RED	UP starter from line No. 1
06	S4	RED	DN starter from line No.4
07	S5	RED	UP starter from line No.4
08	S6	RED	DN Starter on line No. 1
09	S7	RED	UP main line starter from line No.2
10	S8	RED	DN main line starter from line No.3
11	SH 13	YELLOW	UP back shunt signal for shunting from top point at KDLR end to UP starter signal on line no.1, 2, 4 or up to Stop Board on line no. 3.
12	SH 14	YELLOW	DN back shunt signal for shunting from top point at NRLR end to DN starter signal on line no.1,3 or 4 or up to Stop Board on line no.2.
13	S 11	RED	UP Advanced starter signal towards NRLR.
14	S 12	RED	DN Advanced starter signal towards KDLR.

1.3.2. SIGNAL INDICATIONS: -

All signals in the yard are depicted on the panel alongside the track as per their respective position in the yard. The aspects of all signals in the yard, at any time, are shown on the signal indications depicted on panel.

1.4 ROUTE BUTTONS:

Route buttons are provided separately on each running line on the panel for initiation of route (viz. L1 UN, L1 UN1, L2 UN, L3 UN, L4 UN, and L4 UN1). Common route buttons are also provided for taking off starters (viz.: 13AT UN, 14 AT UN). An individual route button is provided for taking off Advance starter (Viz.: 13 UN, 14 UN). For clearing the signals it is necessary to operate the signal buttons and the concerned route button concurrently. In the panel, the routes are set automatically by operation of entry and exit button.

1.4.1 DESCRIPTION OF ROUTE BUTTONS

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SL.NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	L1 UN	WHITE	DOWN and UP common route button for Home/Calling on (S1/C1) for UP main Line No. 2 setting overlap for S1/C1 up to UP Advance starter toward NRLR direction.
2	L1 UN1	WHITE	DOWN and UP common route button for Home/Calling on (S1/C1) or back shunt (SH 14) for UP loop Line No. 1 setting overlap for S1/C1 up to end of the Over run line of toward NRLR direction.
3	L2 UN	WHITE	UP main line common route button for Home/Calling on (S1/C1) or back shunt (SH 14) for UP Main line. Setting overlap for S1/C1 up to UP Advance starter toward NRLR.
4	L3 UN	WHITE	DN main line common route button for Home/Calling on (S2/C2) or back shunt (SH 14) for DN Main line. Setting overlap for S2/C2 up to DN Advance starter toward KDLR.
5	L4 UN	WHITE	DOWN and UP common route button for Home/Calling on (S1/C1 and S2/C2) for common loop Line No. 4 setting overlap for S1/C1 or S2/C2 up to Advance starter of respective direction.
6	L4 UN1	WHITE	DN and UP common route button for Home/Calling on (S1/C1, S2/C2) or back shunt (SH 14) for UP loop Line No. 4 setting overlap for (S1/C1, S2/C2) upto end of overrun line.
7	11 AT UN	WHITE	Common route button for UP starter No. S3, S5 and S7.
8	12AT UN	WHITE	Common route button for DN starter No. S4 and S8.
9	11 UN	WHITE	Route button for UP Advanced starter No. 11
10	12 UN	WHITE	Route button for DN advanced starter No. 12

2.0 TRAIN ARRIVAL INDICATION THROUGH AXLE COUNTER:

The system provides for automatic check for last vehicle arrival through provision of axle counter. Axle counters are provided in RPRD-KDLR and RPRD- NRLR UP and DN sections to check the complete arrival of trains. The system is interlocked with respective Block Instrument. When the Axle counter section indication provided for each direction on the panel individually for sections indicates 'RED' i.e. occupied even after the complete arrival of trains, the Block instrument of the respective section can be normalized after ensuring complete arrival of trains by means of physical verification of last vehicle for stopping as well as run through trains (Refer resetting procedure of Axle counter).

4.0 POWER FAILURE:

Normal power supply to the signalling and interlocking installations at this station is drawn from SEB power supply source (AC 230 Volt / 50 Hz). In SM's Office there is SM power panel which represents the voltage of the Integrated power supply system.

- (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.

The SM now has to start the diesel engine for standby (Auxiliary) power supply. After stable run of the Diesel engine, the SM on duty has to operate the change over switch for connecting the

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Auxiliary supply to the signalling installation. On resumption of power supply, the Diesel engine shall be stopped by SM on duty after isolating Diesel engine 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'.

- 4.1 Inverters are provided to prevent possibility of blank signals in case of SEB power supply failure. Whenever SEB power supply fails inverter will immediately extend power supply to signals thereby preventing blank signals.
- 4.2 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.
- 4.3 Solar Power supply is provided in the station as standby, power supply.
- 4.4 If there is any indication on SM's power panel regarding deviation in IPS system, S&T staff .

5.0 **LEVEL CROSSING GATE CONTROL BUTTON ('C' CLASS AT KM: 231.381) :-**

A CHOCOLATE colour button with two indications, one RED and one GREEN, provided for L.C.Gate control no. 27 which controls L.C.Gates at KM. 231.381 towards Kandel Road end. Steady GREEN indication indicates that the gate is closed and the RED indication indicates that the gate is locked. When the gate is open there shall not be any indication. To open the gate SM has to transmit the gate control key to gate lodge by pressing control button no. 27 (CHOCOLATE) along with Group Trans button on the panel. A flashing GREEN indication will appear on the panel indicating that the control key has been transmitted. When the control key is required to be withdrawn the gateman has to transmit the control key to panel after closing gate. A flashing GREEN indication will appear on the panel on seeing which SS/SM on duty shall receive the control key by pressing gate control button and Group RELEASE button on the panel. A steady GREEN indication will appear on the panel indicating that the gate is closed.

5.1 **LEVEL CROSSING GATE CONTROL BUTTON ('C' CLASS AT KM: 232.455) :-**

A CHOCOLATE colour button with two indications, one RED and one GREEN, provided for L.C.Gate control no. 26 which controls L.C.Gates at KM. 232.455 toward Norla Road end. Steady GREEN indication indicates that the gate is closed and the RED indication indicates that the gate is locked. When the gate is open there shall not be any indication. To open the gate SS/SM has to transmit the gate control key to gate lodge by pressing control button no. 26 (CHOCOLATE) along with Group Trans button on the panel. A flashing GREEN indication will appear on the panel indicating that the control key has been transmitted. When the control key is required to be withdrawn the gateman has to transmit the control key to panel after closing gate. A flashing GREEN indication will appear on the panel on seeing which SS/SM on duty shall receive the control key by pressing gate control button and Group RELEASE button on the panel. A steady GREEN indication will appear on the panel indicating that the gate is closed.

5.2 **EMERGENCY GATE RELEASE OPERATION:**

Emergency gate release operation facility is provided in the panel when the route gets locked out of some failure. A button coloured CHOCOLATE WITH RED DOT HAS BEEN provided for emergency release of gate. Whenever emergency gate release operation is required SM on duty shall press emergency gate release button and concerned gate control button no.26 or 27 simultaneously. A flashing light will appear on top of the emergency gate release button. After a lapse of 120 seconds, a steady indication will glow over the emergency gate release button indicating that the operation is matured. The SM on duty shall then operate concerned push button for gate and group Trans button to release the key from RKT at gate lodge. All such emergency operations shall be recorded in the station diary & in the register meant for it.

6.0 SIGNAL LAMP FAILURE/POINT FAILURE INDICATION (RED) AND MUTTING BUTTON (RED COLOUR WITH WHITE DOT):

An 'AUDIO VISUAL' indication is provided on the panel to indicate that a signal lamp is fused. Whenever such failures occur, flashing red indication appears on the panel with an audible alarm. When the mutting button is pressed for 2 to 3 seconds and released, the alarm stops but the flashing red indication continues to glow till the particular signal lamp is replaced or the aspect of the signal is changed or point is rectified. The concerned signal on the panel/the red light on point nameplate will start flashing in order to indicate the failure. In case of failure of main filament of signal lamp, Aux. Filament lights the aspect. Following indications are provided on each side of the panel which indicate the affected signal:

- i) Distant at either end.
- ii) Home/Advanced Starter at either end.
- iii) Starters at either end.

7.0 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.

8.0 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 pressing the Signal cancellation button and the concerned signal button. Then the emergency route release button (white with red dot) positioned in the top of panel to be pressed by breaking the seal and subsequently the concerned signal button pertaining to the route is 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 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. In such case the emergency cancellation of route has to be resorted to. The concerned S&T staff should be advised immediately to get the emergency route release button resealed 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.

9.0 EMERGENCY POINT OPERATION (BLACK WITH RED DOT) :

Emergency point operation facility is provided to operate point in the event of failure of point controlling track circuit. A push button (BLACK WITH RED DOT) is provided on the top of panel. If such operation is necessary, the SM/SS on duty, after ensuring that no vehicle is standing on the concerned point track circuit, shall insert SM's emergency point operation key in and shall push the emergency Point operation button by breaking the seal. Then retaining point button in pressed condition he shall operate the point group button (Normal or Reverse). All such operations will be registered in the emergency point operation counter. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose. Before initiating emergency point operation when the concerned point zone track circuit is showing occupied SM on duty must carry out physical verification at site to ascertain that the said track circuit is clear of vehicles. The concerned S&T staff should be advised immediately to get the emergency point button resealed after rectification of fault, if any.

10.0 BUTTON HELD ACKNOWLEDGEMENT BUTTON (WHITE WITH RED DOT) :

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All push button are self-restoring type. A button held acknowledgement push button (white with red dot) along with a white strip 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 or otherwise inform the maintenance staff to rectify.

11.0 **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

12.0 **TRACK CIRCUITS: -**

The station yard is fully track circuited from Home signal to Home signal and also for 5 rail lengths in rear of the Home signals on either side. Track circuits 1AT and 2AT are calling-on track circuits. 17AT, 17 BT, 18AT, 18BT, 19AT, 19BT, 20 AT, 20BT, 21 AT, 21 BT, 22 AT & 22 BT are point zone track circuits. L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L4T1, L4T2 and L4T3 are berthing track circuits. Other track circuits namely 1T, 1T1, 11T, 11AT, 12AT, 12T, 2T and 2T1 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.

13.0 **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 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 button and Signal cancel button without releasing the panel lock also. However, the provisions of SR 3.36.02 shall be followed while replacing the signals to 'ON'.

14.0 **CRANK HANDLE CONTROL KEY AND OPERATION: -**

When any point fails to operate normally by the route setting operation or through the concerned Point button through panel, it is inevitable to operate the points through crank handle. SM on duty shall personally ensure clamping and padlocking of all facing and trailing points enroute. Crank handle keys are interlocked with signals and interlocking system. Normally the crank handle is kept in custody of SS/SM on duty. These crank handles are for all motor operated points at the station. The Crank Handle push button No.CH1, CH2, CH3 and CH4 (BLUE) and Group Trans/Release button (WHITE WITH BLACK DOT) is provided at the top of the panel board. The CH button has two indications, viz. WHITE, and RED. The WHITE indication suggests that the crank handle key is in its interlocked position of the panel. This is called Crank Handle Key 'IN' indication. The Red indication suggests that the crank handle key is locked and not free for extraction form RKT. This is called 'Crank handle key LOCKED' indication. When there is no light or blank, it suggests that the KEY is OUT of RKT. The crank handle key in RKT in the end locations can be released from the RKT. The SM has to press concerned crank handle button and Trans button. This will enable SM to extract key from CHs at the end location for release of crank handle key. After completion of point work the crank handle key to be inserted in the end location RKT and transmitted to station. SM will get 'Key IN' indication on panel on pressing relevant CH button & Group Release button.

SM/TPM on duty after extracting the crank handle key from RKT 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. ON pressing the release button on the group along with crank handle button, WHITE light glows 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.

15.0 SETTING OF ROUTE AND TAKING OFF RECEPTION SIGNALS: -

For setting a route all the concerned points must be set by operation of relevant point button and group button one at a time in the desired position or by operating signal button and route Button. As soon as the points on route, overlap and isolation are set to the required position, the concerned signal for 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 of the panel provided other conditions for taking 'OFF' reception signals are satisfied.

15.1 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 button and point group button one at a time in the desired position or by operating signal button and route button. To take off Advanced starter, line clear must be obtained from the concerned block station in advance. Then the concerned Advanced starter signal button shall be pressed along with 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 up to the foot of the Advanced starter signal.

15.1.1 To take off the starter signal the concerned signal button to be pressed 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 Advance starter signal.

15.2.0 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.

15.2.1 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 push button & group button individually or by route by signal and route button pressing or by crank handling in the event of failure of operation of points through panel. After the route is set, the calling on signal switch 'C1'/'C2' (RED WITH WHITE DOT as the case may be), shall be pressed simultaneously along with the concerned route button for 2-3 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. For loop lines, route button UN or UN1 shall be pressed for respective setting of the overlap points. 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.

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15.3.1 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 suggesting that the route is released.

15.4 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 button and the signal cancellation button (RED) to be pressed simultaneously.

15.5.0 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 signal and starters.

15.5.1 Advanced starter is interlocked with respective block instrument in sending position i.e., train going to position and by axle counter for last vehicle check.

15.5.2 The block instrument cannot be made normal unless the respective Home signal is put back to 'ON'.

15.5.3 Signals once taken 'OFF' can be put back to danger in case of emergency by pressing concerned signal button and signal cancellation button even when the panel is locked up with Station Master's key.

15.6 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.

15.7 SHUNTING:

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

16.0 NON RUNNING LINE:

Goods Siding (CAL – 245.6 Mtrs.), Takes off from line no.1 at NRLR end. with both side entry.

16.1 SHUNTING IN THE SUDING TAKING OFF FROM STATION YARD/GOODS SHED:-

A goods siding at Norla Road end of the yard is taking off from common loop Line No. 1 with both the side entry and exit facility. The entrance point and the corresponding derail switches are coupled and operated by arc lever at site. For performing shunting in/out of the siding the SM on duty shall transmit siding control key, by operating Group Trans and Siding control push button (BLACK) simultaneously, which will be extracted from the RKT provided in SM's room. The hand plunger lock provided on the siding point shall be unlocked by the control key at the entrance/exit end of the siding and after setting the point by the arc lever, and clamping and padlocking the concerned point, shunting can be performed. After completing the shunting the control key for the Siding shall be restored to the RKT provided in the SM's room and the SM on duty shall receive the control key by pressing siding control button along with the Group release

button. A steady KEY "IN" indication GREEN shall appear on the panel. Signalling movement on Line No. 1 shall not be possible unless the siding control key is restored in its RKT and KEY IN indication is available on the panel. A RED indication is provided above the Siding control button that indicates that the siding points are locked whenever route has been set for signalled movement on this line.

17.0 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 passages 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.

18.0 CRANK HANDLING EMERGENCY OPERATION OF POINTS:-

Crank handle keys are interlocked with the signalling and interlocking system at this station. Normally, the crank handle is in custody of SM on duty. Crank handle keys can be taken out only when all the signals are in the 'normal' position and the route is not locked for whatever reasons. Crank handle key can be released by operating common 'TRANS' push button and control push button of concerned crank handle simultaneously. When this key is taken out, no signal can be take off pertaining to that route. This key can be electrically transmitted to both ends of the yard.

When a route is not released after passage of a train or the Crank handle 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 button and group trans button are 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 push button switch provided inside the CH location box. The procedure for receiving the CH key is same like the normal operation of Crank handle. He shall then follow the procedure detailed in para 14.0.

On account of the doubtful operation of any track circuit by a light vehicle including self-propelled vehicle such as motor trolley or light steam/Diesel shunting engine or tower wagon, indicating the occupancy of track, it is necessary that the SM on duty satisfies himself that the said vehicle has cleared the point zone track circuits by observing the track indications of the track on either side of the crossovers by positively checking the "entrance" and "exit" track circuits are showing occupancy and clearance in accordance with the train movement.

19.0 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 & 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 & the S&T maintenance staff should be informed for attending to this.

20.0 EMERGENCY OPERATIONS: The following are the instructions for emergency operations.

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20.1 CANCELLATION BUTTON AND VEEDER COUNTER: -

For the purpose of emergency operations there is an emergency 'Route cancellation'. There is a 'VEEDER COUNTER' for counting emergency operations involving operation of the emergency route cancellation button (provided at the top of the panel). The SM on duty must press the emergency route cancellation button and the signal button conforming to the section for which emergency route release is desired. A flashing indication will appear indicating that the cancellation operation has been initiated and after lapse of 120 seconds, the desired route will release provided all other conditions are favorable for route release.

The Veeder counter registers the number of such emergency cancellation operations. SM on duty should specify the cause for its usage giving the particulars of causes and the time of operation as related to a particular train etc. in the train signal register as well as in a separate register meant for this purpose. The detailed operational instructions are as follows:

20.2 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 8.0 to be followed.
- c) 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, press Group Trans button and crank handle button. After two minutes key from RKT 1 can be extracted. For further operation 14.0 of Appendix 'B' shall be followed.

21.0 LOCKING OF RELAY ROOM: -

As per Para 1.14(b) of Operating manual the relay room should be kept locked with two separate locks, the arrangement should such that one key is kept with the on duty SM in his custody and the other key with the signal maintainer. Whenever required, the Station Master shall hand over the key to the maintainer with proper arrangement with proper acknowledgement in the basement/Relay room key register. The maintainer on receipt of the key from the station master may use the same and the key in his custody to open the relay room by inserting the keys one after another separately into the earmarked locks.

After completion of work, the relay room is to be locked using both the keys separately and designated key should be handed over to the SS/SM on duty. The details of the transaction should be properly recorded in the relevant register at the Station duly signed by SS/SM on duty and the signal staff concerned. 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.

22.0 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, SS/SM on duty shall co-operate with S&T staff for safe and satisfactory maintenance.

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- 22.1 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.
- 22.2 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 and indications on the panel and will work vide GR 3,68.
- 22.3 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).
- 22.4 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.
- 22.5 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 SS/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 GR 3.77.
- 23 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 SS/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 pressing Crank Handle control push button CH1/CH2/CH3/CH4 and Group Trans button simultaneously. All signals will be locked in normal position as soon as the key is released. 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 SS/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 SS/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 3.72 & 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 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 Diary under a separate entry and confirm to the Section Controller on duty.

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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.
- 27.0. **NORMAL POWER SUPPLY: -**
The Station works on 230 volts AC single phase power supply. The normal power supply is from the OSEB. Stand-by power is supplied by the diesel generators two in number.
- 27.1 **POWER FAILURE AND REPORTING SUCH FAILURES: -**
Normal power supply to the Signalling and Interlocking installations at this station is drawn from the OSEB Power supply source (at 230 V, 50 Hz). Whenever OSEB (Main) power supply fails, a buzzer on the panel will buzz on. SM on duty has to press the power acknowledgement button (RED coloured) positioned on the top of panel. The SM on duty shall start the Diesel generator for stand by (Auxiliary) power supply. After run of the Diesel generator and on resumption of power supply, SM shall acknowledge the same by pressing the power acknowledgement button. This will make the panel operative again.
- 27.2 The SM on duty must maintain record of power failure 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) Axle Counter as LVCD has been provided for the section RPRD-NRLR for UP line and NRLR-RPRD for DN line. Axle Counter has also been provided for the section RPRD-KDLR for UP line and KDLR-RPRD for DN line 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 RPRD 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 RPRD cannot be taken OFF if axle counter of UP block section RPRD-NRLR fails. Similarly DN last stop signal of RPRD cannot be taken OFF if axle counter of DN block section RPRD-KDLR 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
- 28.1 **NORMALISATION OF AXLE COUNTER & 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 the reset of LVCD axle counter.

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(C) RESETTING PROCEDURE:-

After verification of block section clear of vehicles, the procedure given below shall be followed.

ACTION TO BE TAKEN BY SS/SM ON DUTY AT RECEIVING END	ACTION TO BE TAKEN BY SS/SM ON DUTY AT DESPATCHING END
1. Shall call the attention of the SS/SM on duty at the despatching end and shall communicate through any of the station to station communication system stating the necessity of resetting of Axle Counter system.	1. Shall acknowledge and communicate.
2. Shall inform the sending station as to whether the last train entered in to the Block Section has arrived completely or not. And if arrived fully shall so intimate verified by exchanging of Private Number with the sending station and ask for granting permission for resetting the Axle Counter.	2. After granting intimation from the receiving station for granting reset permission, SM on duty at sending end shall unseal the permission granting push button and press for some time. An indication lamp provided on the panel for granting permission shall lit up. Simultaneously the concerned veeder counter shall register next higher number indicating that the resetting operation has been initiated.
3. An indication lamp provided on the panel indicating Reset Permission Received shall lit up indicating that reset permission has been granted. On seeing the indication appeared on the panel SM on duty shall unseal Acknowledgement button and press the same simultaneously with Reset button. Every such operation shall be recorded by a veeder counter by registering next higher number.	
4. If the Axle Counter functioning properly now then block section clear indication GREEN will exhibit on the panel and concerned block instrument can be normalised.	2. The next train shall be piloted out and shall issue a caution order for the train to stop short of any obstruction.
5. Shall make entries in the Resetting Register as detailed in GR 13.4.	3. Shall make entries in the Resetting Register as detailed in GR 13.4.
6. Shall record in the Train Register the resetting operation giving details of train number, time, Private Number exchanged with the receiving station for the operation, counter number of the veeder counter and reasons for resetting of Axle Counter.	4. Shall record in the Train Register the resetting operation giving details of train number, time, Private Number exchanged with the receiving station for the operation, counter number of the veeder counter and reasons for resetting of Axle Counter.
7. LINE CLEAR shall be given through Lock and Block instrument for the next train after resetting of Axle Counter.	
8. If the Axle Counter section section does not appear GREEN and continue to show RED indication, the concerned Block Section shall remain suspended and failure intimation shall be given to sectional maintainer/JE/SE/SSE(SIG) for early rectification	

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- 2.82 In the event of failure of the axle counter, after resorting to resetting operation first train shall be piloted out and SM on duty shall issue a caution order to the Loco Pilot for sharp look out and to stop short of any obstruction.
- 2.83 The resetting button shall be kept sealed by the Sectional Signal Maintainer. After every operation SM on duty shall inform the Sectional Signal Maintainer for resealing the same and shall record giving details of the date of use, train number, time and number registered on the counter and reasons for resetting and initial each entries.

29. TELECOMMUNICATION FACILITIES: -

- Telephone with Double line Lock and Block Instrument for either side Block Section.
- Station to Station fixed telephone (hot line) is provided
- Station is provided with Auto telephone connected with Railway Exchange
- BSNL telephone is provided.
- The station is connected to BLGR-SPRD control circuit by a control telephone.
- Station to station 25 Watt VHF communication is provided.
- Telephone is provided between Station and both end crank handle locations.
- Magneto telephone connection is provided between station and LC gate Lodges at both ends of the Yard and Engineering LC gate at KM 229/8-9.

NOTE: -

1. For obtaining Line Clear, VHF should be used as a last alternative and not as a sole means of communication.
2. VHF and Walkie-Talkie sets should not be used for unnecessary discussions with Loco Pilots, Guards or any other staff.
3. The on duty SM shall use the above electrical communication instruments stated in Para-29.0 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.

30. 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 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 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 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 sets exchanging ID number supported by PN as per SR 6.02.06 (1) (d) Chapter-III Part-II of Block Working Manual.
- 5) In the event of total failure of all communications trains shall be worked vide SR 6.02.03.

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DSTE/SBP

P.Nagar.
Sr. DEN (Line-II)/SBP

D.Nayak.
DOM (G)/SBP

APPENDIX - 'C'

ANTI COLLISION DEVICE (RAKSHA KAVACH)

NIL

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, Panel Room, 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.

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D.Nayak.
DOM (G)/SBP

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.

2.0 **USE OF PRIVATE NUMBER BOOKS & 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 receives 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 as per SR 5.01.03.

5.0 **HANDING OVER AND TAKING OVER CHARGE:**

The Station Master 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 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.

6.0 **DY.SS/SM/ASM**

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

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.

He is responsible for train passing during his shift. He shall promptly bring to the notice of SS all irregularities and accidents in course of his shift duties. During the absence of SS the duties of Station Superintendent will devolve on him. He shall follow GR 3.49, SR 3.68.01 (c) & (d), SR 14.07.01. His special attention is drawn to chapter II of G & SR (Amendment) 2000 and SR 5.01 to 5.08 with relevant SRs. He shall carry out the instructions given to him by the SS.

7.0 TRAFFIC POINTSMAN:

He shall work under the instructions of the SM on duty and follow the GR 2.05 to 2.11 and other relevant rules laid down in GR & SR. He shall remain responsible for.

- (i) Delivery of authority to proceed and caution order etc. to the driver of train.
- (ii) Correct setting, locking and crank handling of points for reception / despatch and shunting operations under the supervision of Station Master.
- (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 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 intact arrival register (T-1410) signed by guard as and when required.
- (xi) Serving messages and other duties entrusted to them by the SMR//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) They 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.

8.0 DUTIES OF GATEMAN:-

Mentioned in Gate working instructions of concerned L.C.gates in Appendix-A. In addition to that he shall follow the GR 2.05 to 2.11 and other relevant rules laid down in GR & SR.

9.0 SAFAIWALA /LCS-He is responsible to attend the sanitation of Railway premises including SM's office Passengers awaiting room platform and platform latrines, cleaning of night soils and clearing of drainage. He shall remove night soil in staff quarters and dump in and also for clearing the drains attached to staff quarters. He shall do any other duties entrusted to him the SM in case of emergencies His special attention is drawn to Chapter II of G & SR (Amendment) 2000 also.

APPENDIX - 'E'

ESSENTIAL EQUIPMENT OF THE STATION

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

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

APPENDIX - 'F'

RULES FOR WORKING OF DK STATIONS, HALTS, IBH, IBS, AND OUTLYING SIDING

NIL

APPENDIX - 'G'

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTION

NIL