

Sl. No. SWR/LJR/36

EAST COAST RAILWAY
SAMBALPUR DIVISION

STATION WORKING RULES OF LANJIGARH ROAD STATION (CODE: LJR)

BG/MG/NG- BROAD GAUGE
Date of issue: 25.12.2010
Date brought into force: 02.01.2010

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

1. STATION WORKING RULE; -

1.1 **STATION WORKING RULE DIAGRAM NO.-** SI/WRD- 22081,Alt-B.

1.2 **SIGNAL INTERLOCKING PLAN NO.:** - S.I – 22081, 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 Signaling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This must be referred to for giving details of the points number and signals when reporting accidents.

2. DESCRIPTION OF STATION: -

LANJIGARH ROAD is a four-line junction station situated in Vizianagaram – Raipur section at KM 249.821 from Raipur. The Bhawanipatna BG single line is connected to this station at Raipur end. It is Standard – II (R) interlocked, Class ‘B’ station with central panel and block proving axle counters for sections LJR-NRLR, LJR-AMB and LJR-BWIP are provided at either end for last vehicle check.

2.1 GENERAL LOCATION: -

2.1.1 **NAME OF STATION:** - LANJIGARH ROAD

2.1.2 **CLASSIFICATION OF STATION:** - ‘B’ class

2.1.3 **NAME OF THE SECTION:** - Vizianagaram – TIG Double Line, Non-RE, BG section and LJR - Junagarh Single Line, Non-RE, BG section.

2.1.4 **ROUTE:** - D Spl..

2.1.5 **LOCATION:** - 249.821 from Raipur.

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

- i) Raipur end - NORLA ROAD (Code: NRLR) inter distance 11.367 K.M.
- ii) Vizianagaram end - AMBODALA (Code: AMB) inter distance 13.567 K.M.
- iii) Junagarh end- Bhawanipatna (Code-BWIP) interdistance 30.250 KM.
- iv) Passenger Halt: - (02) (i) Ramchandrapur at KM 9.040 from LJR.
(ii) Depur at KM 17.352 from LJR.
- v) Flag station: - NIL

- vi) Outlying siding: - NIL
- vii) D.K. station: - NIL
- viii) IBH: - NIL
- ix) IBS: - NIL

2.3 BLOCK SECTION LIMITS: -

Between stations	The point from which 'Block section' commences.		The point at which 'Block section' ends.
Between LJR-NRLR	DN Line	DN Advanced starter signal No. 12 of LJR Station	Outermost facing point Point No. 18A of NRLR station
	UP Line	BSLB of LJR station on UP line towards Raipur end	UP Advanced starter Signal No. 13 of NRLR
Between LJR-AMB	DN Line	Outermost facing point No. 18A of LJR Station	DN Advanced starter No-14 of AMB
	UP Line	UP Advanced Starter Signal No. 13 of LJR Station	Outermost facing point No.19A of AMB station on UP line towards LJR end
Between LJR-Bhawanipatna	Single Line	DN Advanced Starter Signal No. 14 of LJR Station	UP Advanced starter of Bhawanipatna.

2.3.1 STATION SECTION:

- i) UP Line:- Between BSLB to UP Advanced starter Signal No. 13
- ii) DN line:- Between Outermost facing point No. 18A to DN Advanced Starter Signal No. 12
- iii) LJR-Bhawanipatna Line- Between DN Advanced Starter Signal No. 14 to Outermost facing point No. 18A on DN line and UP Advanced starter Signal No. 13 on UP line.

2.3.2 STATION LIMIT:

- i) UP line – It starts from the UP Inner distant signal to UP Advanced starter signal No.13
- ii) DN line - It starts from the DN Inner distant signal to DN Advanced starter signal No.12
- iii) Bhawanipatna Line- It ends at UP Distant signal on Bhawanipatna line.

2.4: GRADIENT: -

(a) FROM THE CENTER OF STATION BUILDING TOWARDS NORLA ROAD

i)

CHAINAGE IN METER		INTER DISTANCE	GRADIENT	REMARKS
FROM	TO			
0	700.00m	700.00 m	1 in 400 F	UP & DN LINE.
700.00m	1662.60m	962.60m	1 in 100 F	DN LINE.
700.00m	1713.00m	1013.00m	1 in 150 F	UP LINE
1662.60m	2362.60m	700.00m	1 in 150 F	DN LINE
1713.00m	2536.00m	823.00m	1 in 125 F	UP LINE.
2362.60m	2762.60m	400.00m	1 in 125 F	DN LINE.
2536.00m	3691.00m	1155.00m	1in 140 F	UP LINE
2762.60m	Block Section	---	1 in 130 F	DN LINE
3691.00m	Block Section	---	1in 125 F	UP LINE

(b) FROM THE CENTER OF STATION BUILDING TOWARDS AMBODALA

CHAINAGE IN METER		INTER DISTANCE in (m)	GRADIENT	REMARKS
FROM in (m)	TO in (m)			
CSB	630.03m	630.03m	1 in 400 R	DN line.
CSB	671.59m	671.59m	1 in 400 R	UP LINE
630.03m	809.16m	179.13m	1in 125 R	DN LINE
671.59m	1806.00m	1134.41m	1in 121.56R	UP LINE.
809.16m	1896.00m	1086.84m	1in 137.5R	DN LINE
1896.00m	2450.00m	554.00m	1in 153R	DN LINE
2450.00m	2700.00m	250.00m	1in 215 R	DN LINE
1806.00m	2792.00m	986.00m	1 in 237 R	UP LINE
2700.00m	3000.00m	300.00m	1 in 142 R	DN LINE
2792.00m	10580.00m	7788	1 in 125 R	UP LINE
10580.00m	Block Section	----	Level	UP LINE

(C) FROM THE CENTER OF STATION BUILDING TOWARDS BHAWANIPATNA

CHAINAGE IN METER		INTER DISTANCE in (m)	GRADIENT
FROM in (m)	TO in (m)		
CSB	810 m	810m	1 in 400 F
810m	1013 m	203 m	1 in 170 F
1013 m	1713 m	700 m	1in 150F
1713 m	2163 m	450 m	1in 160F
2163m	3413 m	1250 m	1in 150F
3413 m	Block Section	-----	1in 160F

2.5 LAY OUT: -

- i) No. of running lines :- 04 (Four)
- ii) No. of sidings :- 02 (One), One goods siding (CAL-121.3M, BJ-BJ) takes off from line No.-1 & One Banker Engine siding (CAL-52.5M, SH-SB) takes off from ORL of line No-1 at NRLR end.
- iii) No. of Passenger platform :- 02 (Two)
- a) Low level Passenger Platform beside Line no.-1 (378mX10m)
- b) Low level Passenger Platform beside Line no.-4(450mX10.5m)
- iv) No. of goods shed platform :- 01 (One). (45mX8.5m) beside Goods siding.
- v) FOB :- 01, One FOB connecting PF-No-1 with PF No -2

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

DESCRIPTION	CSL	ISOLATION PROVIDED	
		TOWARDS NRLR	TOWARDS AMB
Line No.1 (Common Loop)	731.15 mtrs. (Str. To Str)	Overrun line	Over run line
Line No.2 (UP Main line)	783.8 mtrs. (Str. To SB)	...	...
Line No. 3 (DN Main line)	857.05 mtrs. (Str. To SB)	...	...
Line No.4 (DN Loop)	833.89 mtrs. (Str. to SB)	Over run line	Derailing Switch

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

- Trains arriving from NORLA ROAD end are UP trains.
- Trains arriving from AMBODALA end are DN trains.
- Trains arriving from BHWANIPATNA end are UP trains.

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

Sl. No.	Description	CAL	Takes off	Exit	Operation
1.	Goods Siding	121.3 m (BJ to BJ)	Line No. 1	Both way	EKT.
3	Banker Engine Siding	58.20m(SH to S.B)	ORL of Line no.1 (NRLR end)	One way	Operated from panel

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

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

Sl. No.	Location	K.m.	Normal position	Class	Type	Operation	Communication
1.	UP Advanced Starter and UP Starter Signals	250.374 (RV-206)	Open	'C'	Inter locked	Electrically operated Lifting barrier	Magneto telephone connection with SM/LJR
2.	DN Advanced Starter and DN Starter Signals	249/2 (RV205)	Open	'C'	Inter locked	Electrically operated Lifting barrier	Magneto telephone connection with SM/LJR

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

Sl. No.	Location	K.m.	Normal position	Class	Type	Operation	Communication
1.	Between LJR-BWIP	KM 11.048 (LJ-06)	Closed to road traffic	'C'	Non-Interlocked	Winch operated Lifting barrier	Magneto Telephone with SM/LJR
2.	Between LJR-BWIP	KM 19.089 (LJ-11)	Closed to road traffic	'C'	Non-Interlocked	Winch operated Lifting barrier	Magneto Telephone with SM/BWIP
3.	Between LJR-BWIP	KM 28.720 (LJ-19)	Open to road traffic	'C'	Interlocked	Winch operated Lifting barrier	Magneto Telephone with SM/BWIP

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

3. SYSTEM AND MEANS OF WORKING:-

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

- i) **System of working** : - Absolute Block system.
- ii) **Type of block instrument:** - SGE type Double Line lock and Block Instrument for LJR-NRLR & LJR-AMB sections and Token less Block Instrument (Podanur) for section LJR-Bhawanipatna.
- iii) **Instrument** : - Non Co-operative type for DLBI TLBI.
- iv) **Block Telephone** : Connected with Block Instrument of either sections.
- v) **Staff responsible for their operations:** - S.M. on duty.
- vi) **Custodian of keys** : - S.M. on duty.

4. SYSTEM OF SIGNALLING AND INTERLOCKING: -

4.1.1 STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING: -

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

Minimum equipment of signal – Distant, Inner distant, Home, Starter and Advanced starter for LJR-NRLR & LJR-AMB sections and Distant, Home, Starter and Advanced starter for LJR-Bhawanipatna direction.

4.1.2 STATION MASTER'S CONTROL PANEL: -

- (i) A push button type electrical control apparatus (operation cum indication panel) is provided in the Station Master's office to operate electrically UP and DN points and signals. The control apparatus is provided with a lock up key named (SM's Key) which shall always remain in the personal custody of the SS/Dy.SS/SM/ASM on duty in terms of GR 5.08. The position of all points, signals and running lines are available in the Station Master's illuminated panel diagram. Reminder collars are provided for use on push buttons, which will be placed on point button, route button, signal button or on any other button to prevent operation of the button in case of concerned line is blocked or to prevent inadvertent operation of a particular button as and when required.
- (ii) **SEALING OF EMERGENCY OPERATION BUTTONS/KEYS:-**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 completion of emergency operation SS/SM on duty shall inform concerned S&T staff for resealing of the concerned button.

4.1.3 TRACK CIRCUIT: -

All the lines including point zone between Home and Advanced starter signal on either direction is track circuited. The position of the running lines including point zones i.e. occupied/clear is indicated in the illuminated diagram at the Station Master's office. Normally there will be no indication of track circuits. It shows 'RED' when the line is occupied and 'WHITE' when the track is clear provided the route is set. Calling-On Track circuits are provided 7RL beyond Home signal in either side of the station.

[Details are given in Appendix-'B']

4.1.3.1 AXLE COUNTER

Block sections i.e. LJR-NRLR, LJR-AMB & LJR-BWIP are monitored by axle counter system. Digital axle counters are provided at both end of the station for Up and Down sections to check the complete arrival of trains. A pair of digital axle counter is provided between LJR and NRLR (For

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UP Line), another pair of digital axle counter is provided for DN line of LJR and NRLR for counting the axles 'IN' and for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

A pair of Digital axle counter is provided between LJR and AMB for UP Line and another pair of digital axle counter for DN Line of LJR and AMB block section for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

Similarly, A pair of Digital axle counter is provided between LJR and BWIP block section for counting the axles 'IN' and for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

This is also interlocked with Block Instruments of the stations at either side to prove the clearance and occupation of Block sections. Advanced starter signals cannot be taken off if axle counter, pertaining to that section fails. Block handle of the SGE Block instrument remains locked in case of failure of Axle Counter pertaining to that section.

[Details are given in Appendix-'B']

4.1.4 POSITION AND OPERATION OF POINTS: -

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

4.1.5 IBS: - NIL

4.1.6 POINT AND TRAP INDICATOR: - Provided on DS point of line no. 4 at AMB end

4.1.7 REPEATER (BANNER TYPE): - Nil

4.1.8. 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. EKTs are provided for the LC gate Goomty at KM 250.374 & 249/2 for opening and closing of the gate and at the station for goods siding operation. The keys for the crank handles are transmitted electrically to the crank handle locations for operating the points by crank handles.

4.1.9 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.

4.1.10 SHUNT SIGNALS:-

Independent shunt signals are provided on top point at either end & Banker engine siding for back shunting movement and dependant shunt signals below DN starter signals for forward shunting movement.

4.1.11 ANTI COLLOISION DEVICE: - NIL

4.1.12 EMERGENCY CROSSOVER:- NIL

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

4.12 CRANK HANDLE

When any point fails to operate normally by the route setting operation or individual 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 handle keys 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.

The crank handle key in RKT in the end goomties can be released from the RKT. The SM has to press concerned crank handle button and Trans button. This will enable SM/TP to extract crank handle key CH-1/CH-2/CH-3/CH-4 from RKT at end goomty. SS/SM/TPM on duty after extracting the crank handle key from RKT at end- goomty shall insert it in the space/groove provided in 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 to desired position. After completion of point work the crank handle key is to be inserted in the RKT at end goomty and transmitted to station. Station Master on getting 'Key IN' flashing indication that will appear on panel, shall press relevant CH button & Group Release button to get the steady key "IN" indication. SS/SM on duty shall personally ensure clamping and padlocking of all facing and trailing points en-route. The cases of failure of Motor operated points should be promptly reported to the concerned ESM/Signal Inspector for immediate rectification. SS/SM on duty as per OM 20.06 (d) shall maintain an emergency crank handle register. The procedure for use of crank handle for Motor operated points shall be followed in terms of operating Manual 20.06.

4.13 **EMERGENCY POINT OPERATION (BLACK WITH RED DOT):**

Emergency point operation facility is provided to operate the point from the panel in case of failure of point controlling track circuit. If such operation is necessary, the SM on duty, after ensuring that no vehicle is standing on the concerned point track circuit and SM's emergency point key is 'IN' shall press emergency point operation button by breaking the seal along with relevant point button simultaneously. Then retaining point button pressed, emergency point operation button to be released and the point group button normal / reverse button is to be pressed for operating the point to '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. S&T staff should be advised immediately to get the emergency point operation button resealed after rectification of fault, if any

4.14 **EMERGENCY ROUTE RELEASE INDICATION (WHITE) EMERGENCY ROUTE BUTTON (WHITE WITH RED DOT):**

The panel interlocking is based on the principle of 'DEAD APPROACH 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 simultaneously pressing the signal cancellation button and the concerned signal button. After this the emergency route release button (white with red dot) positioned in the top of panel to be pressed first by breaking the seal and subsequently the concerned signal button is to be pressed releasing the emergency route release button. A white flashing light will lit indicating that the timer is working. After 120 seconds, the white flashing light along with the white strip of light will disappear suggesting the route has been released.

In case the route illumination (white strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case 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.

4, 15 **EMERGENCY ROUTE RELEASE COUNTER:**

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

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 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.

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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 DG set for standby is installed at the station to feed the S&T equipment. In addition to this the station is provided with solar power System.

Whenever (Main) power supply fails, a buzzer on the panel will buzz on. SM on duty has to press the power acknowledgement button (RED colour) 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. As soon as local power supply resumes, the Diesel generator shall be stopped by SM on duty after isolating Diesel generator by change over switch. Each time the power supply goes OFF or ON, SM on duty shall acknowledge by pressing power supply acknowledgement button to make the panel operative.

IPS has been provided to prevent possibility of blank signals in case of SEB power supply failure. Whenever SEB power supply fails, it will immediately extend power supply to signals thereby preventing blank signals.

SM on duty shall immediately start Diesel Generator and operate the change over switch for connecting the Auxiliary power supply to the signaling installation in case of SEB power failure. All controls are provided with battery backup.

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

5.0 **TELECOMMUNICATION FACILITIES:** -

1. Telephone attached with Double line Lock & Block Instruments for LJR-NRLR & LJR-AMB Block Sections and Single line Tokenless Block Instrument for LJR-BWIP section.
2. Station to Station fixed telephone (Hot line) is provided
3. Station is provided with Auto telephone connected with Railway Exchange.

4. BSNL telephone is provided.
5. The station is connected to BLGR-SPRD control circuit by a control telephone.
6. Station to station VHF communication is provided.
7. Telephone is provided between Station and both end crank handle locations.
8. Magneto telephone connection is provided between station and LC gates at Km. KM 250.374, 249/2 & KM 11.048.

NOTE: -

- (i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.
- (ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.
- (iii) The on duty SM shall use the above electrical communication instruments stated in Para-5.0 from item No. (1) to (6) 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
(Details are mentioned in Appendix 'B' of the SWR.)

6.0 SYSTEM OF TRAIN WORKING: -

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

6.1 DUTIES OF TRAIN WORKING STAFF: -

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

6.1.1 TRAIN WORKING STAFF: -

The following are the complement of train working and operating staff provided at this station to work in each shift.

SL NO.	Designation	Roster	No. of staff in each shift	Hrs. of Duty
1.	Station Manager-II (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	Continuous	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 from time to time and these rosters shall be displayed in the SM office.

6.1.2 RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINE: -

The SS/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: -

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.
- (iii) 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 (I) **CONDITIONS FOR GRANTING LINE CLEAR: -**

The conditions laid down in GR:3.49(4), 8.01(1)(a),(b)(c), 8.01(2)(b), 8.03(2),(a),(b),(c)(ii), 8.03(1)(a),(b)(c)(ii) shall be complied before the line is considered clear and 'Line Clear' is granted for a train by on duty SM. Reception of train is governed by rules laid down in GR 3.36, 3.38, 3.40, 3.46 and 4.17 with relevant SRs. 3.36.01, 3.36.04(a) 3.40.01 to 3.40.03, 3.42.02(a)(iv), 4.42.03 and other relevant provisions General and Subsidiary Rules, Block Working Manual, Operating Manual & Station Working Rules.

[A] For double line Section- (LJR-NRLR & LJR-AMB)

Before granting line clear for a train, the SM on duty shall ensure that-

- i) The whole of the last preceding train has arrived complete inside the outermost point No18A in case of a DN train and BSLB in case of an UP train.
- ii) All necessary signals have been put back to 'ON' behind the said train.
- (iii) The line is clear up to the BSLB for UP trains & up to outer most point No18A for DN trains.

[B] For Single Line Section- (LJR-Bhawanipatna)

- i) The whole of the last proceeding train has arrived complete.
- ii) All the necessary signals are put back to 'ON' behind the said train.
- iii) Block section is clear of trains running in the direction towards the block section for which such line clear is being given.
- iv) The line is clear up to the advanced starter of station nearest to expected train I,e. DN Advanced starter No-14.

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 driver is notified of the fact in writing by the SS/SM on duty of the station to which such line clear is granted.

(II) **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 either end should immediately be set against the blocked line except when shunting or for any other movement towards the blocked line is required to be done vide 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: -

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

6.2.1.3 RECEPTION OF A TRAIN ON NON –SIGNAL LINE: -

In case of reception of train on non-signal line SM shall follow GR 5.10 and SR thereto.

6.2.1.4 DESPATCH OF TRAINS ON NON-SIGNALLED LINE: -

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 Over run 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) Shunting shall not be permitted at either end of the yard unless the engine is leading towards falling gradient.
- (iii) Shunting in the face of an approaching train is prohibited.
- (iv) SR 5.20.01(a) and SR 4.48.01 shall apply at the station
- (v) Hand shunting and fly shunting is not permitted at both ends of the yard.
- (vi) When a DN train is intended to pass through on common loop line the respective departure signal No.8 shall not be taken off in advance unless said train has arrived complete in to the yard.
- (vii) Speed is raised to 30 KMPH on first directional 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.

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) Ballast/Material train shall not be allowed to be pushed into the block section LJR-NRLR as per SR 4.62.06(f).
- (iii) Reception signal for a DN loaded goods train should be taken off well in advance.
- (iv) Calling on signals have been provided below starter signals No-6, 8 and 10 vide CRS, SE Circle's dispensation letter No.1309 of 10.01.2011.

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) (b), (2)(a) (b), (3) (b) 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.7	Up advanced starter No.13 Or Up to the end of overrun line	Foot of the Starter Signal No. 8	Up to the DS No. 25 on over run line
2.	Line no. 2 (UP Main line)	Foot of the Up main line starter No.11	UP Advanced starter signal No.13	....	....
3.	Line No. 3 (DN Main line)	....	....	Foot of the starter signal No.10A/B.	DN advanced starter signal No.12 DN or advanced starter signal No.14..
4.	Line No. 4 (DN Loop)	....	....	Foot of the Starter Signal No. 6	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, 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 signals are provided below the home signals in terms of GR 3.13(6) (b) and below starter signals 6,8 &10 in terms of GR 3.13 (2). 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/C9 (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. Calling on signals below DN starter signal No-5, 6 &10 have been provided for dispatch of trains in case failure of starter signals above it.

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: -

1.	While Receiving an Up train on line No.1 (common loop) set to overrun line.	Dispatching of an Up train from the line No.2 or Dispatch of a DN train from the line No.3 to NRLR or Bhawanipatna.
2.	While Receiving an Up train on line No.1 (common loop) set to overrun line from Bhawanipatna..	Dispatching of an UP train from the line No.2 to AMB or reception of DN train on line No-4.
3.	While Receiving a DN train on line No.1 (common loop) set to ORL	Dispatching of a DN train from the line No.3 or 4 towards NRLR or dispatching of a DN train from line No.3 to Bhawanipatna.
4.	While Receiving a DN train on line No.4 (DN loop) set to overrun line.	Reception of an Up train on line No.1 or 2 from Bhawanipatna or dispatch of a DN train from the line No.1 or 3 either to NRLR or Bhawanipatna.
5.	While Receiving an UP train on line No.1 or 2.	Reception of DN train on 3 or 4 or Dispatch of a DN train from line No.3 or 4 to NRLR or Dispatch of a DN train from line No.3 to Bhawanipatna.

Rules laid down in GR3.47 and GR 3.47.01(b), (c), (d) shall be followed.

6.5 COMPLETE ARRIVAL OF TRAIN: (Rule no. GR 4.16 SR4.16.01, 4.160.2.4.16.03, 4.16.04, 4.16.05 GR 4.17 & SR 4.17.01,SR4.17.02, GR 14.10)

a) STAFF RESPONSIBLE TO VERIFY COMPLETE ARRIVAL: -

SM on duty.

b) MODE OF VERIFICATION:

Through AXLE COUNTER for LJR-NRLR, LJR-AMB & LJR-BWIP block sections.

6.5.1 L.V. VERIFICATION THROUGH AXLE COUNTER: -

Entire block section LJR-NRLR, LJR-AMB & LJR-BWIP is monitored by axle counter system and the position of block section whether clear or occupied is indicated in the axle counter indication Reset Box. As soon as a train enters in to the block section, the 'RED' indication appears in the axle counter indication Reset Box. After the whole train clears the block section, 'GREEN' indication appears on the axle counter Reset Box. This confirms the complete arrival of train and the SS/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 & 14.08 Subsidiary Rule 3.36.04(b), 3.42.04 and Block Working Manual 2.07(5)(a)(c) to (e) and other provisions of General Rules, Subsidiary Rules, Block Working Manual and Station Working Rules of the station.

To despatch a train, the SM on duty, having obtained line clear for that train, shall set the route for the out going train correctly and satisfy himself by observing the visual indication on the panel board. He shall suspend all non-isolated shunting, ensure closure of traffic interlocked LC gate of concerned side & LC gates at KM 11.048, KM19.089, KM 28.720 for dispatching a train to LJR-BWIP section 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 Driver with a memo, taking his acknowledgement thereof.

6.7 TRAINS RUNNING THROUGH: -

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 advanced starter and starter signal shall be taken off when the train actually enters the loop lines.

The SS/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 Driver 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/driver of the train in case of observing any unsafe condition/abnormalities of the train. He shall also report to the SS/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 OF POINTS AND SIGNAL: -

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 IN CASE OF FAILURE OF A SIGNAL AND INTERLOCKING INSTALLATION:-

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

6.8.2 TRACK CIRCUIT:

In the event of failure of track circuit in the yard concerned signal shall be suspended and trains shall be admitted on calling-on signal. If calling-on signal fails then train shall be piloted 'IN'. If calling-on signal below DN starter signals fails then train shall be piloted 'OUT'. Before piloting a train in to/from 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, concerned Block instrument of monitored block section will be suspended and trains will be worked on PLCT.

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 .03, 6.02.04 and SR 6.02.06].

Both UP and DN advanced Starters 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.

At the time of failure of Tokenless Block Instrument between LJR-BWIP the authority will be Paper Line Clear Ticket (T/D 1425) with Identification number & Private Number issued from the Station in advance.

During the failure of Block Instrument between LJR-NRLR and LJR-AMB the authority will be T/369(3b) with identification number and 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 instrument 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 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 SM on duty shall authorize the on duty TPM with form T/509 indicating the reason for such admission the line number and the nature of obstruction on that line.

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

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

6.8.9 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

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

6.8.10 ISSUE OF CAUTION ORDER: - Whenever in consequence of the line being under repair or for any other reason special precautions are necessary, a caution order detailing the kilometers and speed at which a train shall travel and the reasons for taking such precautions shall be handed over to driver 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.
- (c) Rail Dolleys will work in accordance with Subsidiary Rules 15.27.10.

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

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

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at 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 SS/SM on duty.

7.2 **SECURING OF VEHICLES**: -

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

1	2	3		4	5	6	7
Date	Name of SM on duty	Duty Hours		Line on which stabled	Total no. of wagons	Time Line blocked	Time Line blocked
		From	To				

8(a)	8(b)	8(c)	8(d)
No. of Hand brakes pinned down	No. of wagons on which wooden wedges used	No. of safety chains with pad lock used	Clamps and pad locks used to set the line against blocked line

8(e)	8(f)		9	10	11	12
Switch nos. on which reminder collars applied	Time Line cleared		Signature of SM on duty	Signature of SM taken over	BPC particulars	Remarks
	Date	Time			BPC NO.	
					Date of issue	
					Issuing Stn.	

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.
- 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: -**

- 8.1 **GENERAL PRECAUTIONS: -** Shunting shall be performed in terms of General Rules 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.17, 5.19, 5.20 to 5.23, 8.09, 8.10, 8.12, 8.13, 8.14, 8.15 and Subsidiary Rules thereto. All shunting movements shall be supervised by Yard Master/Shunting Master/Points man /Station Master/Guard of the train as per SR 5.13.03. The staff supervising shunting shall ensure correct setting of non-interlocked points, clamping and pad locking of points, if necessary. Normally back shunt signals shall be used for shunting operation.

8.2 **SHUNTING IN THE FACE OF APPROACHING TRAIN**

Shunting in the face of approaching train is prohibited.

8.3 **PROHIBITION OF SHUNTING AND ANY SPECIAL FEATURE: -**

- a) Hand Fly & Loose shunting is not permitted at both end of the yard.
- b) SR 4.48.01 is applicable for this station.

8.4 (A)

SHUNTING ZONE	BLOCK SECTION IS CLEAR	BLOCK SECTION IS OCCUPIED
Shunting within Station section	Permitted.	Permitted provided the necessary signals are at on position vide 8.05 (2).
Shunting in Block section	Permitted provided it is blocked back vide 8.06 (2)&(3).	Not permitted

(B) DURING FAILURE OF BLOCK INSTRUMENT: - the SM on duty shall ensure that there is no train in the block section and the last train has arrived complete clearing the fouling mark while conducting shunting at that end of the block section of which block instrument has been suspended and all necessary precautions have been taken as per rules laid down in GR.

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

When shunting in the station yard and sidings, 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 **ABNORMAL CONDITIONS:**(a) **THE RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITION: -**[I] **PARTIAL FAILURE OF COMMUNICATION: -**

In the event of suspension of Block Instrument BWM Chapter III of part-I, V part-II & VI and during partial failure of other available means of communications, trains will be worked in terms of Subsidiary Rule 6.02.06 and Chapter-III of Block Working Manual.

[II] **DESPATCHING OF TRAINS ON AN AUTHORITY OF BLOCK TICKET: -**

In case, it is necessary to allow a train into an obstructed block section due to engine failure, obstruction or accident, a block ticket shall be issued in terms of SR 6.02.05 Absolute Block System on the affected block section shall be suspended and concurrence of the SS/SM at other end shall be obtained and recorded in caution order register and train signal register SM's diary.

On the block ticket (T/A 602) it shall be mentioned in detail the place of obstruction i.e. Engine at 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 and to obey the site officer instructions.

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

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

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

[III] TRAINS DELAYED IN BLOCK SECTION :-

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

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

[VI] PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE: -

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

[VII] 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 SS/SM on duty. After satisfying himself SS/SM on duty shall initiate the calling on signal operation. The procedure shall be strictly followed.

[VIII] 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 LJR – AMB or LJR-NRLR 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 telephones wherever available,
- (d) Fixed telephones such as Railway auto phones & BSNL phones,
- (e) Control telephone, and
- (f) VHF sets.

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 Driver 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 driver 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) On arrival at the next block station the driver shall hand over the authority to proceed without line clear to the SM on duty who will preserve the same for further inspection.
- (vi) 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. [Refer SR 6.02.03].

9.2 **TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:**

During temporary single line working, when one line is clear and the other line is obstructed between LJR – AMB or LJR -NRLR stations the trains shall be worked as per the procedure, which is summarized as follows:

- (a) Before introducing single line working the SM on duty must satisfy that the line on which single line working will be introduced is clear and free from all obstructions.
- (b) The Lock and Block instrument will be suspended. The Commutators of Lock & Block Instrument will be kept on “Train on line position”.
- (c) SM proposing single line working must issue a message with
 - (i) The cause of introduction of single line working,
 - (ii) Line on which the single line will be introduced,
 - (iii) Source of information about the clearance of the line on which single line will be introduced,
 - (iv) Place of obstruction,
 - (v) Restriction of speed, If any,
 - (vi) Assurance about keeping the last stop signal at ‘ON’ position if the train runs on right line and in case of wrong line all signals are to be kept at ‘ON’ position etc under the exchange of Private Number.
- (d) Dy.SS/SM on duty at the other end of the block section will acknowledge the message and confirm the same by a Private Number.
- (e) After obtaining line clear for the train from the advance station, the Driver must be given as-
 - (i) Authority for Temporary Single Line (TSL) working on double line (T-D/602) indicating there in
 - Caution order
 - The line on which single line working is introduced.
 - The chainage kilometer of obstruction.
 - Any other speed restriction, if any existing.
 - Endorsement to inform all Gang man and Gateman about the single line working (for the first train only).
 - The speed of the first train to be restricted to 25 KMPH subject to other speed restriction.
 - Authority to pass Signal in “ON” position
 - (ii) A pilot memo T/369(3b) to pass the last stop signal at its ‘ON’ position. The approach stop signals at the station in advance may be taken “OFF”. In case a train proceeding on wrong line, the train shall be piloted out and at the receiving station, the train shall be piloted ‘IN’, on the authority of T/369(3b).

On being ensured that the obstructed line is clear of all obstructions, the Dy.SS/SM will resume normal working after exchanging message with the SS/SM of the other concerned end supported by private number in consultation with the Section Controller on duty when there is no train in the block section.

A goods train or an engine may be allowed on wrong line by blocking back the section without introducing single line working. [Refer SR. 6.02.05(g)(i)]

Whenever total interruption of all communication occurs during single line working on double line, the procedure detailed in GR should be followed. [Refer SR 6.02.02]

9.3 TOTAL FAILURE OF COMMUNICATION (SINGLE LINE): -

In the event of total interruption of communication occurring between LJR Bhawanipatna Stations, i.e when line clear cannot be obtained by 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 telephones whenever available
- d. Fixed telephone such as Railway auto telephone &BSNL phone
- e. Control telephone
- f. VHF sets

and actions shall be taken as per SR 6.02.04. The train which is to be despatched to the affected section will be stopped and the Driver and Guard of the train shall be informed about the fact.

Before dispatching the light engine /main engine/motor trolley /Tower wagon/Trolley /Cycle trolley/Moped trolley/Diesel car/rail motor car/EMU rake, the SM on duty shall hand over a Authority for opening of communication during total failure interruption of communication on Single Line Section to the driver /motorman/Guard/SM who is being sent to open communication, which includes.

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

On arrival of the engine at the next station, the conditional “Line Clear” message and enquiry message shall be collected by the SM on duty who shall prepare conditional “Line Clear” ticket (T/G602 or T/H602) for engine to return either light or a train attached to it and conditional “Line Clear” reply message for the enquiry message, giving “Line Clear” for the train waiting at the other end shall be handed over to the Driver of the light engine. On return trip, the Driver will come on booked speed subject to any other speed restriction in force.

As soon as any one of the means of communication has been restored the conditional “Line Clear” working of train shall be cancelled when there is no train in the affected block section and messages shall be exchanged supported by Private Number. The section controller shall be informed.

9.4 THE AUTHORITY TO PROCEED IN OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION ON LINE OR ACCIDENT:

Rules and Regulations for working of trains on an obstructed line in case of obstruction or accident on the authority of Block Ticket (T/A-602) when communications are available shall be followed in accordance with the provisions which is summarized as follows [Refer SR 6.02.05]

After sending a train on block tickets, a following train shall not be dispatched in the same direction unless:

- a) The previous Block Ticket is collected and Cancelled or
- b) Necessary endorsement is given on the previous block ticket with the advise to wait at the site for a next train to follow or
- c) The previous train has met with an accident or has been disabled or
- d) The Block ticket has been cancelled from the driver of the previous train by the official –in-charge at the site and kept in the personal custody & shall be kept until the arrival of the next

train and such assurance is given over the telephone installed at the site quoting the serial number of the Block Ticket so collected.

- e) SM will suspend the Absolute Block System of Working and both SMs concerned should arrange for running of trains on the authority of Block Ticket
- f) SM at the dispatching end will hand over to the driver the block Ticket as the authority which shall include:
 - i. Caution Order: Existing Speed Restriction/s shall be indicated in the Caution Order portion. The Speed Restriction to 15 KMPH during clear visibility and 10 KMPH when visibility is obstructed shall be clearly indicated.
 - ii. An authority to pass the Stop Signal at “ON” position
- g) Before resumption of normal working a message between the SMs of the concerned stations shall be exchanged with private number.[Ref SR 6.02.05(d)(vi)]
The Block Ticket so issued must be collected by SM of either end with a certificate about the complete arrival of the train with its time and the section is clear of all obstructions from Driver/Guard of the train and cancelled.

9.5 **TRAINS DELAYED IN BLOCK SECTION**

If a train carrying passenger does not arrive within 10 minutes or if a goods train does not arrive within 20 minutes after allowing for its normal running time from the station in rear, the SM at the station in advance shall immediately advise the station in rear and the control this fact. There after SMs at either end of the Block section shall immediately stop all trains proceeding in to the block section on adjacent line in either direction and warn the Drivers and Guards of such trains by issue of suitable Caution Orders. [Refer GR 6.04 & SRs thereto]

10 **VISIBILITY TEST OBJECT: -**

The lights of loop Line No.1 starters No-7 & 8 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. **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. **FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG: -**

In order to indicate to the Drivers of approaching trains the location of signal during thick, foggy 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.

STATION DETONATOR REGISTER (OPT/124)

A Register regarding detonator is maintained at the station.

(a) **INSTRUCTIONS:**

This register contains the following parts.

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

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

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

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

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

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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 TRAFFIC INTERLOCKED LEVEL CROSSING GATE (NO.RV-205) AT KM 249/2 NRLR END OF THE YARD.

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE: -

1	No. of Level Crossing Gate	:	RV-205
2	Engineering or Traffic gate	:	Traffic
3	Under control of station master or permanent way inspector.	:	SM/ LJR
4	Location at Km.	:	249/2
5	At station	:	LJR
6	In between station	:	LJR-NRLR & BWIP
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Multiple line
9	Normal position	:	Open to road traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	EKT
12	Provision of gate single at Km.	:	NIL
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone with SM/ LJR
15	Width of the level crossing gate	:	7.50m.
16	Type of road(NH/SH/Others)	:	Others
17	Name of road	:	Village Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	KCH
20	Width of the road	:	5.5 Mtrs
21	Angle of road crossing (in case of the SKEW gates)	:	---
22	Road gradients (if any)	:	[a]North/ East Side. --- [b] South /West Side. ---
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	:	Electrically Operated Lifting barriers
26.	Length of check rails	:	9.5 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.	TUV	:	5004 on 07/2013
32.	(Correction Slip No. 03 Date of Issue: 11.04.2014.	:	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)	:	Lanjigarh road
37.	List of equipment available (Yes/No)	:	Yes

1.2 EQUIPMENTS TO BE AVAILABLE AT THE GATE:

SL.NO.	ITEMS	:	QUANTITY
1.	Hand signal lamp /Tri Colour Torch	:	03 (5 on Quadruple/Line or twin single line)
2.	Hand Signal Flag Green	:	01(Mounted on stick)
3.	Hand Signal Flag Red	:	03 (6 on Quadruple/line or Twin single line and 7 in case Hexable section mounted on sticks)
4.	Banner Flag Red	:	03 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	:	02 (4 on Q/Twin single line and 5 on Hexable section.
6.	Spare chains with padlocks	:	02(with stop mark)
7.	Detonators	:	In tin case 10
8.	Gate lamps	:	02
9.	Tommy bar	:	01
10.	Motor pan	:	01
11.	Spade/Fowrah	:	01
12.	Rammer	:	01(in case of asphalted road this may not be provided)
13.	Pick axe	:	01(in case of asphalted road this may not be provided)
14.	Tin case for flag	:	01
15.	Cane for oil	:	01
16.	Water pot/Bucket	:	01
17.	Canister for Muster Roll	:	01
18.	Set of spare spectacles of gateman wearing glasses	:	01
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on gate	:	01
20.	Basket	:	01
21.	Whistle	:	01
22.	Wall clock	:	01
23.	Small size chain with pad locks to be used in case failure of Boom lock.	:	02

1.3 The gateman shall be provided with following registers: -

- i) Gate working instructions in Hindi / English.
- ii) Gate working instructions in local vernacular language.
- iii) Gateman Rule Book in Local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.

- viii) Accident Register.
- ix) Records of last census of road traffic at level crossing gate.
- x) Public complaint Book.
- xi) Inspection Book.

1.4 **DUTIES OF GATE MAN:**

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 and blow the whistle to draw the attention of Driver & Guard of the passing train.

3. **ROUTINE DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the Gate is kept in open condition during emergencies or obstruction on track.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp like out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to driver 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) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the past the defective signal. In such case he should inform the driver to report the defect at the next station.
- x) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xi) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xii) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.

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

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

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

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

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

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

The gateman shall protect the line as under: -

(a) **ON DOUBLE LINE SECTION:**

- (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 on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- (ii) The 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, fusees 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 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 driver 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 light up and fix the fusee to warn the driver 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 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 is an interlocked L.C.Gate situated at the NRLR end of the yard in between DN Starter and UP Home signals of LJR station. Telephone connection is provided between the L C. gate Lodge and SM's office of LJR Station. The level crossing gate is of lifting barrier type and motor operated by means of hand generator/motor from panel provided at the gate lodge. The normal position of the gate is open to road traffic.

When it is necessary to close the gate, for taking of signals, SM on duty LJR shall inform the gate man to close and lock the gate. The gate man on duty shall operate the switch "S1" to reversed position in the hand generator cum panel and then close the barriers of the LC gate by pressing the RED push button provided on the panel. Gate man will keep the red push button pressed till gate is closed against road traffic and locked indication appears in the panel. Then key "Q" is to be extracted from the panel after gate closed and locked indication (Red) appears on the panel. The key "Q" thus extracted is transmitted electrically to SM in conjunction with switch "S" switch reversed thus releases concerned UP or DN signals. Switch 'S' is provided at the gate lodge to put back the concerned UP or DN signals to "ON" in case of emergency.

After passage of the Train, the SM on duty shall inform the gateman and press LC gate controlling button No.25 and Trans button and keep it pressed till such time the gate man extracts the control key 'Q' from the EKT . After getting the Key "Q" the gate man will insert the key in the panel and turn keeping the switch "S" in normal position. Then the gate man will get a gate free indication on the panel and subsequently the gate can be opened by pressing the GREEN push button till gate is fully opened and (Green) indication appears.

In case of emergency gate barriers is to be opened by crank handling for which the key has been provided in the gate lodge in a sealed BOX.

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). 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.

2. **INTIMATION TO GATEMAN-**

- i) Before taking off reception/departure signals, Station Master/LJR 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/ LJR
- 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/ LJR must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.
- v) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate

3. **FAILURE OF TELEPHONIC COMMUNICATIONS:**

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

- i) Station Master on duty / LJR 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/ LJR, 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/ LJR will issue written authority to the train driver to pass the signal at 'ON' position.
- iv) In addition Station Master/ LJR shall also issue a caution order advising the driver to whistle continuously and approach the gate cautiously.
- v) The train driver shall be instructed to pass the gate cautiously, on before signaled by the gateman. If hand signal is not seen, driver should be prepared to stop short of the gate and ensure that gate is closed following GR.3.73 (2)(b).
- vi) In case of an approaching train, the Station Master/ LJR 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 driver 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, under exchange private number, and ensure the lifting barriers of gates 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 driver of the approaching train.
- v) Station Master on duty/ LJR shall issue a caution order to the driver of a departing train.
- vi) He shall also advise the station Master /NRLR, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.
- vii) Station Master/ LJR will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

Note:

Automatically to pass signals 'ON' position as per rules shall also be issued to the drivers 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 gate panel or the key transmitter, then gateman must immediately inform the StationMaster / LJR on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non – interlocked and procedure for reception/ despatch of trains as prescribed for non – interlocked gates, should be adopted.
- iii) Station Master on duty / LJR shall issue a caution order to the driver 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 driver before despatching a train into the block section from his end.
- v) Station Master / LJR will advise S&T staff responsible for maintenance of winch/key transmitter to rectify the defect at the earliest.
- vi) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

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

- i) If the gate key cannot be extracted from the winch, gate lever or key transmitter then gateman must immediately inform the Station Master on duty/ LJR on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/despatch of trains as prescribed for non-interlocked gates should be adopted.
- iii) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.

- iv) Station Master on duty/ LJR shall issue caution order to the driver 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 driver before despatching a train into the block section from his end.
- vi) Station Master/ LJR will advise S&T staff responsible for maintenance of winch//key transmitter to rectify the defect at the earliest.
- vii) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

7. **OBSTRUCTION AT THE GATE:**

- i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- ii) Immediately after this, the gateman shall advise the Station Master/ LJR on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Stationmaster/ LJR 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 / LJR after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, fusee 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 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/ LJR shall also inform the station Master /NRLR 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 obstruction.
- 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/ LJR shall then issue a caution order to drivers 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/ LJR shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xii) 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
- Correction Slip No. 03
Date of Issue: 11.04.2014.
- gateman and SM/ LJR will adopt the procedure given under item
tion fouls the level Crossing Gate, gateman must keep the gates
ill the track is cleared of the obstruction.

2.0 WORKING INSTRUCTIONS OF 'C' CLASS TRAFFIC INTERLOCKED LEVEL CROSSING GATE AT KM 250.374 (NO-RV-206) AT AMB END OF THE YARD:-

2.1 DESCRIPTION OF THE LEVEL CROSSING GATE: -

1	No. of Level Crossing Gate	:	RV-206
2	Engineering or Traffic gate	:	Traffic
3	Under control of Station Master or permanent way inspector.	:	SM/ LJR
4	Location at Km.	:	250.374
5	At station	:	LJR
6	In between station	:	LJR-AMB
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
12	Provision of gate single at Km.	:	Nil
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Magneto Telephone from gate Goomty with SM/ LJR
15	Width of the level crossing gate	:	7.5 mtr.
16	Type of road (NH/SH/Others)	:	Others
17	Name of road	:	Village Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	KCH
20	Width of the road	:	5.5 Mtrs
21	Angle of road crossing (in case of the SKEW gates)	:	-----
22	Road gradients (if any)	:	[a] North East Side- [b] South West Side-
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	:	Electrically operated Lifting barriers
26.	Length of check rails	:	9.5 Mtrs.
27.	Road surface in between level crossing gates.	:	Hexagonal RCC Block
28.	Length of rumble strip/ speed breakers.	:	7.5 Mtrs
29.	Road signs	:	Available
30.	Speed breakers indication board	:	Provided
31.	TUV	:	11799 on 07/ 2013
32.	Census next due on	:	07/2016
33.	Demarcation for placement of detonators.	:	Provided
34.	No. of gateman working	:	Two
35.	Nearest Railway Medical Assistance	:	Titlagarh
36.	Nearest Private Medical Assistance available	:	Lanjigarh road
37.	Correction Slip No. 03 Date of Issue: 11.04.2014.	Yes (Yes/No)	Yes

2.2 EQUIPMENTS TO BE AVAILABLE AT THE GATE:

SL.NO	ITEMS	QUANTITY
1.	Hand signal lamp/ Tri Colour Torch	: 03 (5 on Quadruple/Line or twin single line)
2.	Hand Signal Flag Green	: 01(Mounted on stick)
3.	Hand Signal Flag Red	: 03 (6 on Quadruple/line or Twin single line and 7 in case Hexable section mounted on sticks)
4.	Banner Flag Red	: 03 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	: 02 (4 on Q/Twin single line and 5 on Hexable section.
6.	Spare chains with padlocks	: 02(with stop mark)
7.	Detonators	: 10 in tin case.
8.	Gate lamps	: 02
9.	Tommy bar	: 01
10.	Motor pan	: 01
11.	Spade/Fowrah	: 01
12.	Rammer	: 01(in case of asphalted road this may not be provided)
13.	Pick axe	: 01(in case of asphalted road this may not be provided)
14.	Tin case for flag	: 01
15.	Cane for oil	: 01
16.	Water pot/Bucket	: 01
17.	Canister for Muster Roll	: 01
18.	Set of spare spectacles of gateman wearing glasses	: 01
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on gate	: 01
20.	Basket	: 01
21.	Whistle	: 01
22.	Wall clock	: 01
23.	Small size chain with pad locks to be used in case failure of Boom lock.	: 02

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 GATE MAN:**

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 and blow the whistle to draw the attention of Driver & Guard of the passing train.

3. **ROUTINE DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the Gate is kept in open condition during emergencies or obstruction on track.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp like out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to driver 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) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the past the defective signal. In such case he should inform the driver to report the defect at the next station.
- x) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xi) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xii) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.
- xiii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiv) Gateman shall see that the channel for the flange of the wheel is kept clear.
- xv) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.
- xvi) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

- xvii) Gateman on electrified section shall watch that road vehicles/animals passing from gate are within the height-loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

6 ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN.

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

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

7 ACTION IN EMERGENCY AT THE LEVEL CROSSING:

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

The gateman shall protect the line as under: -

(a) ON DOUBLE LINE SECTION:

- (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 on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- (ii) The 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, fusees 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 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 driver 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 light up and fix the fusee to warn the driver 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 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 is an interlocked L.C.Gate situated at the AMB end of the yard in between UP Starter and DN Home signals of LJR station. Telephone connection is provided between the L C. gate Lodge and SM's office of LJR Station. The level crossing gate is of lifting barrier type and motor operated by means of hand generator/motor from panel provided at the gate lodge. The normal position of the gate is open to road traffic.

When it is necessary to close the gate, for taking of signals, SM on duty LJR shall inform the gate man to close and lock the gate. The gate man on duty shall operate the switch "S1" to reversed position in the hand generator cum panel and then close the barriers of the LC gate by pressing the RED push button provided on the panel. Gate man will keep the red push button pressed till gate is closed against road traffic and locked indication appears in the panel. Then key "Y" is to be extracted from the panel after gate closed and locked indication (Red) appears on the panel. The key "Y" thus extracted is transmitted electrically to SM in conjunction with switch "S" switch reversed thus releases concerned UP or DN signals. Switch 'S' is provided at the gate lodge to put back the concerned UP or DN signals to "ON" in case of emergency.

After passage of the Train, the SM on duty shall inform the gateman and press LC gate controlling button No.26 and Trans button and keep it pressed till such time the gate man extracts the control key 'Y' from the EKT . After getting the Key "Y" the gate man will insert the key in the panel and turn keeping the switch "S" in normal position. Then the gate man will get a gate free indication on the panel and subsequently the gate can be opened by pressing the GREEN push button till gate is fully opened and (Green) indication appears.

In case of emergency gate barriers is to be opened by crank handling for which the key has been provided in the gate lodge in a sealed BOX.

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). 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.

2. **INTIMATION TO GATEMAN-**

- i) Before taking off reception/departure signals, Station Master/LJR 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/ LJR
- 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/ LJR must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.
- v) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate

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

- i) Station Master on duty / LJR 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/ LJR, 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/ LJR will issue written authority to the train driver to pass the signal at 'ON' position.
- iv) In addition Station Master/ LJR shall also issue a caution order advising the driver to whistle continuously and approach the gate cautiously.
- v) The train driver shall be instructed to pass the gate cautiously, on before signaled by the gateman. If hand signal is not seen, driver should be prepared to stop short of the gate and ensure that gate is closed following GR.3.73 (2)(b).
- vi) In case of an approaching train, the Station Master/ LJR shall advise the Station Master /AMB, under exchange of private number that the telephone at the gate has failed.
- vii) The station Master/AMB shall then issue a caution order to the driver 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, under exchange private number, and ensure the lifting barriers of gates 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 driver of the approaching train.
- v) Station Master on duty/ LJR shall issue a caution order to the driver of a departing train.
- vi) He shall also advise the station Master /AMB, under exchange of private number, to similarly issue a caution order to the driver before despatching a train in the block section from his end.
- vii) Station Master/ LJR will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

Note:

Automatically to pass signals 'ON' position as per rules shall also be issued to the drivers 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 gate leaves or the key transmitter, then gateman must immediately inform the Station Master / LJR on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non – interlocked and procedure for reception/ despatch of trains as prescribed for non – interlocked gates, should be adopted.
- iii) Station Master on duty / LJR shall issue a caution order to the driver of a departing train.
- iv) He shall also advise the station Master/AMB at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.
- v) Station Master / LJR will advise S&T staff responsible for maintenance of winch/key transmitter to rectify the defect at the earliest.
- vi) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

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

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

7. OBSTRUCTION AT THE GATE:

- i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall Immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- ii) Immediately after this, the gateman shall advise the Station Master/ LJR on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Stationmaster/ LJR 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 / LJR after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, fusee 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/ LJR 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/ LJR shall also inform the station Master /AMB 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 obstruction.
- 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/ LJR shall then issue a caution order to drivers 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/ LJR shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers and issue reconnection/fit memo for the same.

- 8. OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:** If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the gateman, the gateman and SM/ LJR 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.

3.0 GATE WORKING INSTRUCTIONS OF “C” CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE (NO.LJ-6) AT KM 11.048 (11/0-1) IN BETWEEN LJR-BWIP STATIONS.

3.1 GENERAL INSTRUCTIONS:

3.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

1. Number of Level Crossing Gate: - LJ-6.
2. Engineering or Traffic Gate: - Engineering.
3. Under control of Station Master/PWI- PWI
4. Location KM 11.048 (11/0-1) from LJR.
5. At. Station: - ----.
6. In between stations: - LJR-BWIP.
7. BG/MG/NG: - BG.
8. Single line/Double line/Multiple line: - Single Line.
9. Normal Position: - Closed to road traffic.
10. Interlocked/Non Interlocked: - Non-interlocked.
11. Means of interlocking: - NIL.
12. Provision of Gate signal at Kms. i)UP line-NIL ii)DN line-NIL
13. Signalling arrangement: - NIL.
14. Means of Communication: Magneto Telephone Communication from Gate Goomty with SM office/Lanjigarh Road.
15. Width of level crossing Gate: - 7.5 M
16. Type of road. (NH/SH/Others): - SH
17. Name of Road: - -----.
18. Metaled/NonMetaled: Metaled
19. Approach Road: - Metaled.
20. Width of the road: - 5.5 m.
21. Angle of road crossing (In case of the skew Gates) -----.
22. Road gradient (If any) i) North/East side --. ii) South/West side -.
23. Road alignment (Straight/Curve): - i) North/East side---. ii) South/West side--
24. Provision of height gauges: - Not provided.
25. Type of Barriers: - Winch operated Lifting barriers.
26. Length of checkrails: - 12.0 Meter.
27. Road surface in between Level Xing's Gates C.C.Blocks.
28. Length of speed breakers: - 12.0 Meters.
29. Road signs: - Available
30. Speed breaker indication board: - Provided.
31. TVU: - 4600 on 03/2013
32. Census next due on: - 03/2016.
33. Demarcation for placement of Detonators: - provided.
34. No. of the Gateman working: - 02.
35. Nearest Railway Medical Assistance: - RGDA.
36. Nearest Private Medical Assistance available (if any) Lanjigarh.
37. List of equipment available Yes/No: - Yes.

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3.2 **EQUIPMENT:**

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 Hexable section mounte on sticks)
4. Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5. Posts for exhibiting red banner flag	2 (4 on Q/Twin single line & 5 on Hexable 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 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 pad locks to be used in case failure of gate 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.

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

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

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

3 **ROUTINE DUTIES OF GATEMAN:**

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

3 **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.

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- 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.

4

ACTION IN EMERGENCY AT THE LEVEL CROSSING:

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

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

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

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- 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 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 Manned & Non-interlocked Engineering L.C.Gate situated at Km 11/0-1 in between LJR-BWIP Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the gateman manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of LJR station. The level crossing gate is normally kept closed and locked against road traffic. The SM/ LJR shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number. When the gateman desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the SM/ LJR for the passage of train or the whole of the train with last vehicle indicator has passed over the level crossing gate for which the gateman has exchanged private number with the SM/ LJR. Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate.

2. **EXCHANGE OF PRIVATE NUMBERS:**

- (i) The normal position of level crossing gate being "Closed to Road Traffic" it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The Station Master / LJR before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the SM / LJR in assurance of gate being closed and locked against road traffic.
- (iii) The Station Master / LJR shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
- (1) He has not exchanged any private number with the SM / LJR as per (ii) above.
- (2) If he has exchanged private number with the Station Master / LJR, the whole of the train with last vehicle indicator has passed over the level crossing gate and SM / LJR has not exchanged private number with him for any other movement immediately in rear of the train. Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.
- (v) In case the Gateman is not responding on the telephone or in case the telephone becomes defective or private number is not received from the Gateman, the Station Master/ LJR shall adhere to the procedure prescribed in SR 16.03.04.
- (vi) In the event of failure of telephone, if the gate is required to be opened for the passage of road traffic, the gateman shall look out in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He will thereafter, open the gate for passing the road traffic keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.

3. FAILURE OF TELEPHONIC COMMUNICATION:

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

1. SM/ LJR shall serve a caution order to the Loco pilot and the Guard of every train proceeding into the affected section giving the number and kilometreage of the level crossing and directing the loco pilot:-
 - a) To whistle frequently to attract the attention of the gateman,
 - b) To proceed cautiously, and stop 30M. short of the level crossing and be guided by hand signal.
2. a) The Loco Pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the SM/ LJR as the case may be of the fact using the telephone provided at the gate. The SM/ LJR on receipt of such an advice from the Loco Pilot shall discontinue issue of caution order to the following trains provided the acknowledgement of the gateman is available over the telephone.
 - b) In the above circumstance, the Loco Pilot should not stop his train at the next station to advise the Station Master.
3. a) If the loco Pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his Assistant, the Loco Pilot shall seek assistance of the Assistant Guard or Guard of the train. The same should be informed to the Station Master/ LJR on gate telephone.
 - b) The Loco Pilot, after being hand signaled, shall pass the level crossing and stop clear of it by at least 2 bogie lengths to pick up the Assistant or Assistant Guard / Guard, as the case may be. The Railway servant deputed for closing the gate shall reopen it for road traffic after the passage of the last vehicle of the train.
 - c) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station/LJR from the gate, the Loco Pilot shall stop his train at the next station (even if it is through passing station) and give a memo to the Station Master/BWIP indicating the condition of the gateman, gate and telephone.
 - d) The SM/ LJR on receipt of the Loco Pilot's report regarding absence or unfitness of the gateman, shall advise the station Master/ BWIP, the Notice Station, the Section Controller, JE/ SE/SSE (P.Way) and AEN concerned & the Gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.
4. Before giving line clear to a train, the Station Master/ LJR shall advise the Station Master/BWIP of the facts by message supported by a Private Number, and obtain his acknowledgement with a Private Number. The latter shall issue a caution order to the Loco Pilot as detailed in Para (i).
5. Necessary entries shall be made in the Caution Order Register, Station Diary or Signal Failure Register as the case may be by Station Masters at either end of the affected station. The Section Controller shall also keep a note in his chart indicating the action taken by him.

4. FAILURE OF LIFTING BARRIERS:

- i) When the Gate cannot be closed due to failure of lifting barriers, The Gateman will immediately inform the Station Master on duty/ LJR, under exchange of Private number, and ensure that lifting barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.

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- iii) Gateman shall secure the Gate against road traffic by means of safety chains and padlocks.
- iv) After securing the Gate against road traffic, he shall show green hand signal flag by day and green light by night to the Loco Pilot of an approaching train.
- v) Station Master on duty/LJR shall issue caution order to the Loco Pilot of departing train.
- vi) SM/LJR shall also advise the Station Master/BWIP at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching an UP train in to the block section from his end.
- vii) SM/LJR should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection/fit memo for the same.

5. **OBSTRUCTION AT THE GATE:**

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

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

If there is a rail fracture 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/LJR will adopt the procedure given under item No.5 above. If the obstruction fouls the level Crossing Gate, Gateman must keep the Gates closed against road traffic till the track is cleared of obstructions.

APPENDIX – ‘B’**DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND EMERGENCIES ETC., INCLUDING THE POWER SUPPLY ARRANGEMENTS.****1.0 BRIEF DESCRIPTION OF THE SIGNALLING & INTERLOCKING INSTALLATIONS:**

This is a ‘B’ Class Junction 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.

1.1 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	Crossover Point between Junagarh line and Down Main line NRLR end.
2	18	BLACK	Cross-over point between UP and DN Main line at AMB end
3	19	BLACK	Cross-over point between DN and UP Main line at NRLR end.
4	20	BLACK	Cross-over point between DN Main line and line No.4 (DN loop) at AMB end
5	21	BLACK	Cross-over point between DN Main line and line No.4 (DN loop) at NRLR end
6	22	BLACK	Cross-over point between UP Main line and line No.1 (Common loop) at AMB end.
7	23	BLACK	Cross-over point between UP Main line and line No.1 (Common loop) at NRLR end.
8	25	BLACK	Banker Engine siding DS point on ORL of Line No-1 (Common loop line) at NRLR end.

1.1.2 DESCRIPTION OF POINT GROUP BUTTON: -

These 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 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 SS/SM on duty according to GR & 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	18 A and B
2	CH2	BLUE	17A and B, 19A and B.
3	CH3	BLUE	20A and 20B, 21A and 21B
4	CH4	BLUE	22A and 22B, 23A and 23B,25

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
02	C1	RED with WHITE DOT	UP calling on Signal for line No.1 & 2.
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	SH3	YELLOW	Shunting towards line no. 1, 2, 3 & 4.
06	SH4	YELLOW	Shunting towards line no. 1 & 2.
07	SH5	YELLOW	Shunting towards Line No.1 from Banker Engine siding
08	S6	RED	DN Starter on line No. 4
09	C6	RED with WHITE DOT	Down calling-on-signal on Line No.4 to dispatch on Down line
10	SH6	YELLOW	Shunting towards DN Line and Junagarh line.
11	S7	RED	UP starter on line No.1 towards AMB end
12	S8	RED	DN Starter on line No.1 for dispatch to Junagarh line.
13	C8	RED with WHITE DOT	Down calling-on-signal on Line No.1 for dispatch to Junagarh line.
14	S9	RED	Up Home Signal on Junagarh Line for Line No. 1 and 2
15	C9	RED with WHITE DOT	UP calling-on-Signal on Junagarh Line for Line No.1 and 2
16	S10	RED	Down starter Signal on Line No.3 for Down line towards NRLR and Junagarh line
17	C10	RED with WHITE DOT	Down calling-on-Signal on Line No.3 for Down line towards NRLR and Junagarh line
18	SH10	YELLOW	Shunting towards DN Line and Junagarh line.
19	SH8	YELLOW	Shunting towards DN Line & Junagarh line & Banker engine siding.
20	S11	RED	UP starter on line No.2
21	S10	RED	DN starter on line No. towards NRLR & Junagarh line .
22	S13	RED	UP Advanced starter signal towards AMB.
23	S12	RED	Down Advanced starter signal towards NRLR.
24	S14	RED	Down Advanced starter signal towards Bhawanipatna.
25.	SH15	YELLOW	Shunting towards Line No. 1, 2, 3 and 4 from Junagarh line.

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, 12 AT UN, 14 ATUN). An individual route button is provided for taking off Advance starter (Viz.: 13 UN, 12 UN, 14UN). 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.

1.4.2 **DESCRIPTION OF ROUTE BUTTONS**

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	L1 UN	WHITE	Common route button for UP and DN Home, for line No.1 (Common loop) setting overlap up to advanced starter.
2	L1 UN1	WHITE with BLACK dot	Common route button for UP and DN Home overlap setting to dead end of overrun line or UP/DN Calling-On or back shunts (SH-3 OR SH-4 or SH -15) for Line No.1 (Common loop).
3	L2 UN	WHITE	Common route button for UP Home/UP Calling-on or back shunt (SH3 or SH4 or SH-15) for line No.2 (UP Main line).
4	L3 UN	WHITE	Common route button for DN Home/DN Calling-on and back shunt (SH-3 or SH-15), for line No.3 (DN Main Line) setting overlap up to advanced starters.
5	L4 UN	WHITE	Common route button for DN Home signal on line No. 4 (DN loop) setting overlap up to advanced starter.
6	L4 UN1	WHITE with BLACK dot	Common route button for DN Home, setting overlaps up to end of sand hump or DN Calling on or back shunts (SH-3 or SH 15) for line No.4 (DN Loop).
7	13AT UN	WHITE	Common route button for UP starter signal No. 7 or 11.
8	13 UN	WHITE	Route button for UP advanced starter signal No. 13.
9	12AT UN	WHITE	Common Route button for DN starter signals No.6 or 8 or 10.
10	12 UN	WHITE	Route button for DN advanced starter signal No.12.
11	14 AT UN	WHITE	Common Route Button for Down Starter Signal No. 8 or 10 towards Junagarh line
12	14 UN	WHITE	Route Button for Down Advanced Starter Signal No. 14 towards Bhawanipatna.

2.0 **DESCRIPTION OF KEYS, COUNTERS , INDICATIONS AND OTHER BUTTONS.**

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	SM's Emergency Point Key		This key is required to be inserted and turned to right whenever the point is to be operated in track circuit failure condition. This key shall be in the personal custody of SM on duty.
2	SM's Panel operation Key		This key is required to be inserted and turned to right for any operation of Points, Signals etc. This key shall be in the personal custody of SM on duty.

3	Emergency Point operation push button	Black colour with Red dot	This is to be pressed for emergency operation of point in association with SM's emergency point key when concerned point zone track circuit has failed.
4	Emergency Point operation counters.		This registers the emergency operation of points.
5	Emergency route release counters.		This registers the emergency route release operation.
6	Emergency Route Release Button	White with Red dot	For Emergency Route Release
7	Group Trans Button	White colour button with Black dot	To be pressed for transferring the control to concerned Crank Handle along with concerned Button
8	Group Release Button	White colour button with Black dot	To be pressed for releasing the control from the concerned Crank Handle along with concerned Push Button
9	Point Normal push button	Black colour with Red dot	This is to be pressed to initiate Normal setting of points along with concerned button for individual operation of points
10	Point Reverse push button	Black colour with Red dot	This is to be pressed to initiate Reverse setting of points along with concerned button for individual operation of points
11	Signal Cancellation Push Button	Red colour button	For cancellation of a signal, which is already taken off.
12	Signal Lamp Failure /Point Failure Buzzer Muting Button	Red colour with White dot	To be pressed for acknowledging Signal Lamp Failure/Point Failure Buzzer.
13	Button held buzzer		This button comes to operation when any of push buttons is stuck up
14	Signal/Point failure buzzer		This button comes to operation when signal/Point failure occurs.
15	Button Held Buzzer ack. Button	White colour button with Black dot	For muting the button held buzzer, which starts buzzing when a button is held up.
16	Calling on counters		These are the counters to record the operation of UP & DN Calling- on signals.

3.0 **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 AMBODALA - LANJIGARH ROAD, LANJIGARH ROAD – NORLA ROAD UP and DN sections & LANJIGARH ROAD – BHAWANIPATNA single line section 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 OSEB 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.

1. In case voltage drops 105.9V an audible buzzer appears for starting Generator.
2. In case voltage drops 105.1V an audible buzzer appears for emergency start of Generator.
3. 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 on duty has to operate the change over switch for connecting the auxiliary supply to the signalling installation. On resumption of power supply, the Diesel generator shall be stopped by SM on duty after isolating Diesel generator by change over switch. Each time the power supply goes OFF or ON SM on duty shall acknowledge. In case of any audible buzzer in SM's power panel, SM on duty should acknowledge the buzzer by pressing 'buzzer' stop button.

Secondary cell back up through integrated power supply system are provided to prevent possibility of blank signals in case of OSEB power supply failure. Whenever OSEB power supply fails Secondary cell back up through integrated power supply system 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, S&T staff shall be called for rectification.

5.0 EMERGENCY ROUTE RELEASE COUNTER

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

6.0 EMERGENCY OPERATIONS:

The following are the instructions for emergency operations.

6.1 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 (RED) and the concerned signal button. Then the emergency route release button (WHITE WITH RED DOT) positioned in the top of panel to be pressed after 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 that the route has been released. In case the route illumination (a white strip of lights) does not disappear after passage of train, 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, in train signal register and in the register meant for it.

6.2 **EMERGENCY POINT OPERATION (BLACK WITH RED DOT):**

Emergency point operation facility is provided to operate point from the panel in the event of failure of track circuit controlling the point. A push button (BLACK WITH RED DOT) is provided on the top of panel. If such operation is necessary, the SM on duty, after ensuring that no vehicle is standing on the concerned point track circuit, shall insert SM's emergency point operation key in, turned and shall push the emergency Point operation button by breaking the seal and then operate the required point button. Retaining the point button pressed, SM shall release the emergency point operation button and press the point group button (N or R). After pressing the emergency point operation button and point button and indication will appear near emergency point operation button and a number will increase 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 operation button resealed after rectification of fault if any.

7.0 **EMERGENCY GATE RELEASE OPERATION:**

Emergency gate release operation facility is provided in the panel when the route gets locked out of some failure. For emergency release of gate, the SM on duty shall press emergency gate release button and gate button no.26 or 27 as case may be. After a lapse of 120 secs, a red light will glow over the emergency gate release button indicating that the operation is matured. The SM on duty shall then operate push button no.26 or 27 as case may be and group Trans button to release the key from RKT on gate. All such operation will be registered in the emergency gate operation counter. SS/SM shall record this and all such operations in the station diary & in the register meant for it. Normally the emergency gate release button is in sealed condition. The concerned S&T staff should be advised immediately to get the emergency gate release button resealed after rectification of fault if any.

8.0 **BUTTON HELD ACKNOWLEDGEMENT BUTTON (WHITE WITH RED DOT) :**

All push button are self-restoring type. A button held acknowledgement push button (WHITE WITH RED DOT) along with 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 normalization or otherwise inform the maintenance staff to rectify.

9.0 **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

10.0 **TRACK CIRCUITS:** -

The station yard is fully track circuited from Home signal to Home signal and also for 7 rail lengths in rear of the Home signals on either side. Track circuits 1AT, 2AT and 9 AT are calling-on track circuits. 17AT, 17BT, 18/20AT, 18BT, 19AT, 19BT, 21AT, 21BT, 22AT, 22BT, 23AT, 23BT 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, 9T, 12AT, 12T, 13AT, 13T, 14AT, 2T, 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.

11.0 STATION MASTER'S PANEL CONTROL KEY: -

The panel is fitted with Station Master's lock up key to prevent any unauthorized operation of the Panel. The SM/SS on duty is the only authorised person to operate the panel and the panel key must always remain in his personal custody vide SR 3.36.03 & GR 5.08. The key locks the panel board and no operations are possible. In case of emergency, signals can be put back to danger by operating concerned signal 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'.

12.0 CRANK HANDLE CONTROL KEY AND OPERATION: -

When any point fails to operate normally by the route setting operation or through the concerned Point button from control panel, it is inevitable to operate the points with crank handle. Crank handles are interlocked with signals and interlocking system. Crank handles are for all motor operated points at the station. The Crank Handle push buttons CH1, CH2, CH3, CH4 (BLUE) and Group Trans/Release button (WHITE WITH BLACK DOT) are 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 from 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/TP to extract crank handle key CH-1/CH-2/CH-3/CH-4 from RKT at end location. SS/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 completion of point work the crank handle key is to be inserted in the RKT at end location and transmitted to station. Station Master on getting 'Key IN' flashing indication that will appear on panel, shall press relevant CH button & Group Release button to get the steady key "IN" indication. SS/SM on duty shall personally ensure clamping and padlocking all facing and trailing points en-route. The cases of failure of Motor operated points should be promptly reported to the concerned ESM/Signal Inspector for immediate rectification. SS/SM on duty as per OM 20.06 (d) shall maintain an emergency crank handle register. The procedure for use of crank handle for Motor operated points shall be followed in terms of operating Manual 20.06.

13.0 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 on the panel provided other conditions for taking 'OFF' reception signals are satisfied.

14.1 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.

14.1.1 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 advanced starter signal.

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

Miniature Colour light Calling on signal is provided below the Home signals and Dn. Starter Signal 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/dispatch of a train when the Home signal and Dn. Starter Signals above it cannot be taken 'OFF' due to failure of Track circuit or any other reason for admission or dispatch of train on blocked line.

14.2.1 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 and group button individually or 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 switches 'C1'/'C2'/'C9'/'C6'/'C10'/'C8' (RED WITH WHITE DOT as the case may be), shall be pressed simultaneously along with the concerned route button for few seconds and released. After a lapse of 120 seconds, the calling on signal clears i.e., a yellow light glows at the concerned calling on signal on the panel. For loop lines, route button 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.

14.3.0 **RELEASE / CANCELLATION OF ROUTE:**

Normally when a train is received on any route and dispatched, the route illumination will disappear automatically after passage of the train suggesting that the route is released.

14.4 **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.

14.5 **INTERLOCKING BETWEEN SIGNALS AND BLOCK INSTRUMENTS:**

This station is equipped with the following types of Block Instruments to control movements of trains from and to adjacent Block Sections.

	Section	Type of Block Instrument
1.	LJR-NRLR	Double line SGE Block Instrument.
2.	LJR-AMB	Double line SGE Block Instrument.
3.	LJR-BWIP	Single line Tokenless Block Instrument. (Podanur)

INTERLOCKING BETWEEN SIGNAL AND BLOCK INSTRUMENTS:-

1) **LAST STOP SIGNAL CONTROL:-**

- a) The block working of the section LJR-NRLR & LJR-AMB are controlled by double line SGE Block Instrument (BWM Chapter-VI) and LJR-Bhawanipatna single line section is controlled by Tokenless Block Instrument (Chapter-V, part—II).
- b) The Advanced starter signals are interlocked with the respective Block Instrument in such a way that the Advanced starter signal cannot be taken off unless the Line Clear is obtained from the block station in advance and the handle of the Block Instrument is turned to "TGT" position.

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- c) The concerned Advanced starter signal aspect will be changed its “OFF” aspect to “ON” aspect as soon as the leading pair of the train wheels occupies the concerned Advanced starter signal replacement track circuit provided ahead of the respective signal.

2) BLOCK RELEASE:-

- [a] The Block Instruments are restored to normal (Line Closed condition) only after the complete arrival of the train past the block over lap ahead of the respective Home signal on either side of the Station yard.
- [b] All the power signaling installations in Station are centrally controlled from the Panel and it is explicit in this arrangement that the complete arrival of a train into the yard from the block section cannot be ensured by the operating personnel in the centrally located Panel hence, to ensure complete arrival of the incoming train, Axle Counters are provided between LJR-NRLR, LJR-AMB and LJR-BWIP sections.

In the event of failure of Axle Counter, block working of the section concerned is to be suspended. Line clear Station Master shall not normalize the commutator of the concerned Block Instrument of LJR-NRLR, LJR-AMB section to “Line Closed” position. He shall not dispatch “Train out of block section” report to the station in rear until he is satisfied by seeing the Last Vehicle Indicator on the last vehicle of the incoming train (after arrival) of which Axle Counters failed or obtaining the complete arrival certificate from the Guard of the train. Then SM shall resort to resetting procedure of the axle counter of concerned block section.

14.5.1 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.

- 14.5.2 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.

- 14.5.3. The block instrument cannot be made normal unless the respective Home signal is put back to ‘ON’. The Single line Tokenless Block instrument cannot be made normal unless the respective Home Signal and Advanced starter Signal put back to “ON”

- 14.5.4 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.

14.6 PILOTING OF TRAINS: -

In the event of failure of both Home signal and Calling-on signal or Starter Signal and Calling-on-Signal simultaneously, it is inevitable to pilot the train ‘IN’/OUT. 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 movements.

14.7 SHUNTING:

For shunting, OFF aspect of starter signals shall be used where Shunt Signal are not provided. For back shunting, shunt signals provided on each side of the yard shall be used. For back shunting the SS/SM on duty shall press the concerned shunt signal button (YELLOW) along with route button of the route to clear the shunt signal. For back shunting on the loop lines UN1 route buttons shall be used.

15 **NON RUNNING LINE: -**
(A) **GOODS SIDING: -**

The Goods siding (CAL of 121.3 Mts). takes off from Common Loop (Line No.1) at AMB end of the yard with both side entry. The entrance point and corresponding derailing switch are coupled and operated by an arc lever at site. Both the entrance points are fitted with hand plunger locks. These hand plunger locks are unlocked by Goods siding keys S1 (NRLR end) & S2 (AMB end), extracted from RKT at SM's office by pressing the button No.16 (BLACK) along with group trans button (WHITE WITH BLACK DOT) provided on the panel. Similar to that of crank handle button indication, control button 16 has key 'IN' and key 'LOCKED' indication, which glows white when key is in, red when route is set and no light when key is out of the RKT. Reception signals (i.e. 1A, C1A. in UP direction and 9C,C9C, 2C, C2C in DN direction) Starter signal Nos.7 & 8 and shunt signal SH4 B, SH 3A,SH 8, SH5 are electrically interlocked in such a way that these signals cannot be taken 'OFF' if the Goods siding key is taken 'OUT' from the RKT. Whenever shunting is to be done on the Goods siding SS/SM on duty shall press the control button 14 and group trans button to extract the siding keys. These siding keys will unlock the hand plunger lock fitted on the siding points to facilitate the setting of siding points to required position. After completion of work siding points shall be set and locked at normal setting at site and keys shall be inserted in the RKT and turned, a flashing white indication will appear on the panel SM on duty shall press the control button 16 and group release button to get the steady white indication.

(B) **BANKER ENGINE SIDING: -**

A Banker Engine siding of CAL 58.20 mtr. has been provided for keeping banker engine at Norla end of the yard and it takes off from overrun line of line no. 1. The DS point of siding is operated by button no. 25 provided on the panel. Whenever shunting is to be performed in banker siding, the concern shunt signal SH8 bellow starter signal no. 8 and SH5 in the siding shall be used. The reception signals (i.e. 1A, C1A. in UP direction and 9C,C9C, 2C, C2C in DN direction), shunt signals SH-3A and starter signal 8 are electrically interlocked in such a way that these signals cannot be taken 'OFF' while performing shunting in Banker siding.

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

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

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

Crank handles are interlocked with the signalling and interlocking system at this station. Crank handles which are normally locked inside the RKT instrument at the station, 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 can be released by operating common 'TRANS' push button and concerned crank handle button simultaneously. When this key is taken out, no signal of the concerned route can be taken off in the yard. This key can be electrically transmitted to both ends of the yard.

On account of failure of point zone track circuits or crank handle key "LOCK" indication or when route is not released, crank handle key cannot be transmitted by normal operation. Hence SM/SS on duty has to resort to emergency crank handling of points. He shall press the concerned CH button and trans button simultaneously after ensuring that no vehicle is on the

point. The RED and WHITE indication of the CH button will start flashing and after 120 sec the RED indication will disappear indicating that crank handle is free to be extracted by normal crank handle operation. He shall then follow the procedure detailed in para 12.0.

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 occupation of track, the SM on duty shall satisfy himself positively 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.

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

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

19.0 **LOCKING OF RELAY ROOM:** -

Refer para No.4.2 of main body of SWR.

20.0 **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.

21. **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.

21.1 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:-

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

21.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING: -

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

21.3 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK: -

Whenever any normal maintenance or special works for major renewals etc., are involved, the signal & Telecom should pre plan these works. Field staff and the JE/SE/SSE (SIG) should give 'Advance Intimation' to the SS/SM in writing about this work in terms of GR15.08 & SR 15.08.01.

21.4 EMERGENCIES: -

Notwithstanding anything contained in the aforesaid paras when equipment is found to be defective and unsafe for passage of trains, the Signal & telecom. Staff must at once suspend the working of the equipment and associated installations and issue 'Suspension Memo' explaining the seriousness of defect or damage to the interlocking installation to the 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 SS/SM on duty must act promptly on such messages and take adequate precaution treating the S&T installation as defective and pass trains over the affected interlocking equipment according to extant instructions as contained in G & SR 3.77. GR 3.68,GR 3.69,GR3.70, GR3.77and SRs thereto.

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

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

Crank handles are interlocked with the signalling and interlocking system at this station. Crank handles which are normally locked inside the RKT instrument at the station, 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 can be released by operating common 'TRANS' push button and concerned crank handle button simultaneously. When this key is taken out, no signal of the concerned route can be taken off in the yard. This key can be electrically transmitted at both ends of the yard.

On account of failure of point zone track circuits or crank handle key "LOCK" indication or when route is not released, crank handle key cannot be transmitted by normal operation. Hence SM/SS on duty has to resort to emergency crank handling of points. He shall press the concerned CH1/CH2/CH3/CH4 button and trans button simultaneously after ensuring that no vehicle is on the point. The RED and WHITE indication of the CH button will start flashing and after 120 sec the RED indication will disappear indicating that crank handle is free to be extracted by normal crank handle operation. He shall then follow the procedure detailed in para 12.0.

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 occupation of track, the SS/SM on duty shall satisfy himself positively 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.

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.

The case of failure of motor operated points should be promptly reported to the concerned Signal maintainer/JE/SE/SSE for rectification.

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 SS/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.

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 SS/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 SS/SM on duty will be personally responsible for setting and locking of points for reception or dispatch of all trains.

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.

23. **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'.

23.1 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 SS/SM on duty before giving 'LINE CLEAR' shall initiate action in accordance with the procedure prescribed in GR 3.61 to 3.71 & relevant SRs vide GR 3.49 (4).

23.2 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.

24. **SIGNAL LIGHTS:** -

The SS/SM on duty must also ensure from panel board that all the signal lights are burning properly and brightly. 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 driver is notified of the fact in writing by the SS/SM on duty of the station to which such line clear is granted.

25. **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.

26. **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. Solar power supply is also provided at this station

26.1 **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.

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.

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

- (a) Digital Axle Counter as LVCD has been provided for the sections LJR-NRLR, LJR-AMB & LJR-BWIP 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 LJR 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 LJR cannot be taken OFF if axle counter of block section LJR- AMB fails. Similarly DN last stop signal of LJR towards NRLR or BWIP cannot be taken OFF if axle counter of block section LJR- NRLR or LJR-BWIP 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

27.1 **NORMALISATION OF AXLE COUNTER AND BLOCK WORKING BY RESETTING OF AXLE COUNTER**

- (A) After the train has been received by the receiving station or after a block back operation or when no train has entered into the block section and the axle counter displays RED, then the following procedure shall be adopted to reset the axle counter. Resetting operation of the axle counter though Non co-operative, SM at the other end of the concerned block section shall extend co-operation to the SM on duty at the resetting end.

(B) **VERIFY THE BLOCK SECTION IS CLEAR OF ANY VEHICLES**

- (i) Procedure laid down in GR 4.17 & relevant SRs thereto shall be followed for the purpose.
- (ii) By checking the train register, the detail of the train passed through the block section and finding out from the station at other end of the concerned block section or from Controller that last train has passed and arrived complete. SM on duty shall exchange private number with the SM at other end of the concerned block section or with the Controller or from whom the complete arrival has been confirmed.
- (iii) If the failure has occurred after arrival of a train, SM on duty shall also obtain intact position from the guard of stopping train or by exchanging all right signal with the guard of through train,

so that he can ensure that the train has arrived completely before resorting to resetting of LVCD axle counter.

(C) RESETTING PROCEDURE:-

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

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

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

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

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

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

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

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

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

28. TELECOMMUNICATION FACILITIES: -

1. Telephone with Double line Lock & Block Instruments for LJR-NRLR & LJR-AMB Block Sections and Single line Tokenless Block Instrument for LJR-Bhawanipatna section.
2. Station to Station fixed telephone (hot line) is provided
3. Station is provided with Auto telephone connected with Railway Exchange
4. BSNL telephone is provided.
5. The station is connected to BLGR-SPRD control circuit by a control telephone.
6. Station to station 25 Watt VHF communication is provided.
7. Telephone is provided between Station and both end crank handle locations.
8. Magneto telephone connection is provided between station and LC gate at Km. 250.374 at AMB end, Km 249/2 at NRLR end of yard & KM 11.048 in LJR-BWIP section.

NOTE: -

- (i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.
- (ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.
- (iii) The on duty SM shall use the above electrical communication instruments stated in Para-5.0 from item No. (1) to (6) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication the SM on duty shall work vide SR 6.02.06

29. 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 GR 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 GR 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 GR 6.02.06(1) (c) and Chapter-III Part-II of Block Working Manual.
- 4) In the event of failure/suspension of block instrument, block telephone 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 provided that the instructions contained in SR 14.01.02 are followed vide GR 6.02.06 (1) (d) Chapter-III Part-I of Block Working Manual.
- 5) In the event of total failure of all communications trains shall be worked vide SR 6.02.03 on double line section and vide SR 6.02.04 in single line section..

APPENDIX - 'C'**ANTI COLLISION DEVICE (RAKSHA KAVACH)****NIL**

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

He is the in charge of the station. He performs 9 hrs. in day shift for train passing duties in turn with his Assistants. He is responsible for the efficient discharge of duties devolving upon all the staff employed at the station whether permanently or temporarily according to rules, safe working instructions and Station Working Rules. He shall see that all signals, points, level crossings, sidings and the whole machinery at the station are in perfect working order. He shall report all defects to the concerned officials. It is his personal responsibility to maintain the Station Working Rule, all rule books and Assurance Registers. He shall see that all operating and commercial records separately be maintained and due statements and returns are up to date. He shall submit the coaching return/statements in time with the help of his assistant. 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. He shall also ensure that the safety equipments at the station/cabin as mentioned in Station Working Rules are supplied in full and they are in good working order.

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 will promptly attend to accidents and report them. In addition to his normal day shift duty. He will supervise the work of staff and conduct night inspections and report lapses of staff under him.

1.1.0 ASSURANCE REGISTER:

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

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

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

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

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

2. USE OF PRIVATE NUMBER BLOCKS IDENTIFICATION NUMBER SHEET :-

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

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3. **ACCIDENTS:**

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

4. **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 StationMaster's diary.

5. **DySS/STATION MASTER/ASSISTANT STATION MASTER:**

He shall work in 8 hrs. shift for train passing and booking of traffic, coaching returns and other statements shall be prepared and submitted by him in time under the direction of the Dy. 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 working beyond this period when called upon to do so in the exigencies of services. He will follow SR 3.68.01© & (d), SR 14.07.01. Their special attention is drawn to Chapter II of G & SR (Amendment) 2000 and GR 5.01 to 5.08 with relevant SRs. As an Assistant to the SS, he shall follow the instructions given to him by the Station Superintendent.

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

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

7. **TRAFFIC POINTSMAN:**

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

- (i) Delivery of authority to proceed and caution order etc. to the driver of train.
- (ii) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation under the supervision of Station Master.
- (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 Station Master.
- (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 arrival register (T/1410) signed by the Guard as and when required.
- (xi) Serving messages and any other duties entrusted to them by the SMR/SM from time to time.

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- (xii) Uses of emergency crank handle for setting of points.
- (xiii) To supervise shunting as per SR 5.13.03.

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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. **DUTIES OF TRAFFIC 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. **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, lighting of lamps and clearing of drainage. He shall remove night soil in staff quarters and dump in and also for clearing of the drains attached to staff quarters. He shall do any other duties entrusted to him by the SM in case of emergencies.

10. **GENERAL**

- i. A set of Red and Green flags and Tricolor hand signal lamps will be part of the essential equipments of staff while on duty. They shall not leave the station except when required by the SM on duty or with his permission. They shall comply with SR 4.42.02 (b) & (c).
- ii. Staff working at the Station must be able to distinguish between Up and Down Line Clear Tickets and also to recognize other Operational forms and documents delivered to Guard and Drivers. They must also know how and when to ring the Station Bell and to call out the Station's name on arrival of Passenger carrying train.

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.

SI No.	Description	Quantity
1.	Detonators	20 in tin case
2.	Hand signal lamps/Tri colour torch	04 Nos.
3.	Hand signal flags	04 sets.
4.	Safety chains with pad locks	06 Nos.
5.	Wedges/Sprags	08 Nos.
6.	Fire buckets (with sand and water)	05 Nos.
7.	Clamps with padlocks	12 Nos.
8.	Reminder collars	06 Nos.
9.	"Motor Trolley on Line" boards	03 Nos.
10.	Block suspension Board	03 Nos
11.	First aid Box	01 No.
12.	Stretcher	01 No.
13.	Blanket	01No.
14.	Fire extinguisher	01 No.

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

HALTS:-

There are two passenger halts in LJR-BWIP section. One located at KM 9.040 from LJR named as Ramchandrapur PH and the second located at KM 17.352 from LJR named as Depur PH. Passenger trains, both UP & DN have scheduled stoppages at these two passenger Halts.

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

NIL.