EAST COAST RAILWAY

SAMBALPUR DIVISION

STATION WORKING RULES

OF

JUNAGARH (JNRD)STATION

EAST COAST RAILYWAY

SAMBALPUR DIVISION

INDEX OF CORRECTION SLIPS

S No.	Correction Slip No.	Date of issue	Rule No.	Page Nos.

INDEX

S No	DESCRIPTION		PAGE No
1.	Station Working Rules	----------	1 – 22
2.	Appendix-A	----------	23 – 48
3.	Appendix-B	----------	49 – 65
4.	Appendix-C	----------	66
5.	Appendix-D	----------	67 – 70
6.	Appendix-E	----------	71
7.	Appendix-F	----------	72
8.	Appendix-G	----------	73 – 85

EAST COAST RAILWAY
SAMBALPUR DIVISION

No.SWR/JNRD/62

STATION WORKING RULES OF JUNAGARH ROAD STATION (CODE: JNRD**)**

BG/MG/NG: Broad Gauge
Date of issue: 10.03.2025
Date brought into force: 10.03.25

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 DIAGRAM: -**

1.1 **STATION WORKING RULE DIAGRAM NO:-** S.I/WRD – 22104 ALT-'C'.

1.2 **SIGNAL INTERLOCKING PLAN NO**: - S.I – 22104 ALT-'C'.

The Station Working Rule diagram and Signal Interlocking Plan show the complete lay out of the yard, siding, normal position of points, the Signalling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This diagram must be displayed conspicuously in the SMR's Office. When reporting accidents reference should be made to the numbers, points, signals etc. as shown in the diagram.

2.0 **DESCRIPTION OF STATION**: **-**

JUNAGARH ROAD (Terminal Yard) is a four line station situated in LANJIGARH ROAD-JUNAGARH ROAD single line section at KM 54.30 OHE JNRD/1037-1039 from LANJIGARH ROAD JN of TIG-VZM (double line) section. It is Standard – II(R) interlocked Class 'B' station with central panel. The station is provided with Manually Operated Multiple Aspect Colour Light Signals (MACL) vide General Rule 3.07 (4), 3.08(4)(b), 3.27(a) and works under Absolute Block System in accordance with General Rules Chapter - VIII Rule No. 8.01(1)(a)(b)(c), 8.01(2)(b), 8.03(2) and Block Working Manual Chapter - V Part-II 5.30(i) of Single Line section.

2.1 **GENERAL LOCATION:-**

2.1.1	**NAME OF STATION**	:JUNAGARH ROAD (Terminal Yard)
2.1.2	**CLASSIFICATION OF STATION**	**:**'B' class
2.1.3	**NAME OF THE SECTION**	**:**LANJIGARH ROAD - JUNAGARH ROAD Single Line, RE, BG section
2.1.4	**ROUTE**	**:**'D'
2.1.5	**LOCATION**	**:** KM. 54.30 OHE JNRD/1037-1039 from LANJIGARH ROAD JN.

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

i)	LANJIGARH ROAD end	:BHAWANIPATNA (BWIP) inter distance KM 24.050.
ii)	Passenger halt	:KUTRUKHAMAR PH at KM 41.275 from LJR.
iii)	Flag station	:Nil.
iv)	Outlying siding	: Nil.
v)	D.K. station	: Nil.
vi)	IBH	:Nil.
vii)	IBS	:Nil.

S. SAINI
DSTE(SIG)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

2.3 **BLOCK SECTION LIMITS: -**

Sl. No	Between Stations	The point from which "Block Section" commences	The point at which "Block Section" ends
1.	JUNAGARH ROAD-BHAWANIPATNA	UP Advanced starter signal No. 19 of JUNAGARH ROAD	DN Advanced starter signal No.18 of BHAWANIPATNA.

No Block section at the other end of this terminal station.

2.3.1 **STATION SECTION:-**

The station section of this terminal station is between the UP Adv. Starter at BWIP end to DS point No.-21 on main line, Ds point No.23 on Line No-1 , DS No.-29 on Line No-3 and DS No.-33 on Line No-4at the other end.

2.3.2 **STATION LIMIT:-**

The portion of line from DN Distant signal to Dead end Shunting Neck CH 384.5 M from CSB is station limit of the station.

2.4: **GRADIENT: -**

(a) From the Centre of the station building towards BWIP.

Chainage in Metre		Inter-Distance	Gradient (Falling/Raising/Level)
From	To		
CSB	1575.0 M	1575.0 M	1 in 1200 R
1575.0 M	2015.0 M	440.0 M	1 in 200 R
2015.0 M	2675.0 M	660.0 M	Level
2675.0 M	3975.0 M	1300.0 M	1 in 150 R

(b) From the Centre of station building towards Dead end of TM siding at CH 486.70 M.

Chainage in Metre		Inter distance	Gradient (Falling/Raising/Level)
FromTo			
CSB	486.70M	486.70M	1 in 1200 F

2.5 **LAY OUT: -**

i) No. of running lines :4 (Four)

ii) No. of sidings : 4 (Four)
One Track machine siding (CSL 142m from SH to SB) taking off from ORL of Line No.3.
One saloon siding (CSL 99m from SH to SB) taking off from ORL of Line No.1,
One shunting Neck (CSL 121m from SH to SB) taking off from Main line isolated by DS No-21 and
One shunting Neck (CSL85 m from SH to SB) taking off from line no-4 isolated by DS No-33.

iii) No. of Platform : (i)**Passenger Platform**: 3(Three), One High level platform (580 x 7.50 M) beside Line No.-1 and another High level Island platform(600 X 10 M) between Line No.2 and Line No.3
(ii)**Goods Platform:**1(One),R.L. paved concrete Goods platform(650 X 20M).

iv) Other siding platforms :2(Two), One 6m wide TMC siding service platform (Rail Level) beside TM siding. One High level Saloon siding platform (100Mx7.50M) beside saloon siding.

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

Line No.	CSL	DIRECTION OF MOVEMENT	Isolation Provided	
			BWIP end	Other end of station
Line No. 1 (Loop line)	911.0 M (Starter to Stop signal)	Signaled for reception of DN Trains from BWIP and dispatch of UP trains to BWIP.	ORL	ORL
Line No. 2 (Main line)	916.0 M (Starter to Stop signal)	Signaled for reception of DN Trains from BWIP and dispatch of UP trains to BWIP.	-	DS point No.-21
Line No. 3 (Loop line)	811.0 M (Starter to Stop signal)	Signaled for reception of DN Trains from BWIP and dispatch of UP trains to BWIP.	ORL	ORL
Line No. 4 (Loop line)	775.0 M (Starter to Stop signal)	Signaled for reception of DN Trains from BWIP and dispatch of UP trains to BWIP.	DS point No.26	ORL of line no-3

(ii) **DIRECTIONS OF MOVEMENT: -**

Trains arriving from BHAWANIPATNA end are DN trains.
Trains going to BHAWANIPATNA are UP trains.

2.5.2 **NON RUNNING LINES AND THEIR CPACITY IN CSL:**

Sl. No	Description	CSL	Takes off	Exit	Operation
1.	Track machine siding line.	142M (SH to SB)	From ORL of line No-3 at terminating end.	One way	Operating the DS point No-29 from SM panel.
2.	Saloon siding line.	99M (SH to SB)	From ORL of line No-1 at terminating end.	One way	Operating the DS point No-23 from SM panel.
3.	Shunting Neck.	121M (SH to SB)	From Main line with DS point No.-21 isolating the shunting neck.	One way	Operating the DS point No-21 from SM panel.
4.	Shunting Neck.	85M (SH to SB)	From Line No.4 with DS point No.-33 reverse.	One way	Operating the DS point No-33 from SM panel.

(Detailed working of the sidings is given in the Appendix 'B' of this S.W.R.)

2.5.3 **ANY SPECIAL FEATURE IN THE LAY OUT: - NIL**

2.6 **i) LEVEL CROSSINGS: (STATION SECTION):- NIL**

ii) LEVEL CROSSING: (IN BLOCK SECTION):-

Sl. No	Location Between	K.M.& No.	OHE K.M	Normal Position	Class	Type	Operation	Communication
1.	JNRD - BWIP	52.097 (LJ-28)	51/10-11	Closed to road traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Voice logger Telephone connection With SM/JNRD
2.	JNRD - BWIP	45.323 (LJ-26)	45/6-7	Closed to road traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Voice logger Telephone connection with SM/JNRD
3.	JNRD - BWIP	44.893 (LJ-25)	44/17-18	Closed to road traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Voice logger Telephone connection with SM/JNRD

4.	JNRD - BWIP	41.515 (LJ-24)	41/8-9	Closed to road traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Voice logger Telephone connection with SM/ BWIP
5.	JNRD - BWIP	34.683 (LJ-22)	34/11-12	Closed to road traffic	'C'	Non-Interlocked	Winch operated lifting barrier	Voice logger Telephone connection with SM/BWIP

3.0 **SYSTEM AND MEANS OF WORKING**:-

(Rule No. Chapter XIV of GR & SR, Absolute Block System No.8.01 (1) (a & c) 8.01(2)(b) 8.03 (2)., Chapter III & Chapter V Part-II of BWM)

i) **System of working** : Absolute block System of working on single line.

ii) **Type of block instruments** :Token less Block Instrument for Block Section JNRD-BWIP

iii) **Instruments** :Co-operative.

iv) **Block Telephone** **:** Provided with block instrument of section JNRD-BWIP

v)**Staff responsible for their operation** : SM on duty.

vi) **Custodian of keys** :SM on duty.

4.0 <u>SYSTEM OF SIGNALLING AND INTERLOCKING</u> :-

4.1 STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING:-

4.1.1 **INTERLOCKING**:-

The station is provided with Standard II (R) interlocking, central panel with Multiple Aspect Colour Light signaling. All the points are centrally operated from central panel by on duty Station Master. The Home signal and Advanced Starter signal are interlocked with respective single line tokenless block instrument. Authority to proceed to enter into block section for the Loco Pilot is taking off of Last stop signal. GR 3.08(4) (b) governs the aspect and indications of the signals. The station has no end cabins.

MINIMUM EQUIPMENT OF SIGNALS: -

Distant, Home, Calling on, Starter and Advanced starter signals.

4.1.2 **AXLE COUNTER**: -.

JNRD-BWIP block section is monitored by axle counter system. A pair of digital axle counter has been provided between JNRD and BWIP, one beyond UP advanced starter of JNRD and another just beyond DN advanced starter of BWIP station for counting the axles 'IN' and for counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

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

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

[Details of resetting operation is given in Appendix-'B']

4.1.3 **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, SM on duty shall inform concerned S&T staff for resealing of the concerned button.

4.1.4 **TRACK CIRCUIT**: -

All the lines including point zones between DN home signal (5 Rail length in rear of Home signal) to Shunt signal in sidings at the other end is track circuited. Normally the panel is dark except for point and block section indication. The position of the running lines is indicated in the illuminated diagram at the Station Master's office. It shows 'RED' when the line is occupied and 'WHITE' when the route is set and signal is taken OFF. The position of points at either end is also indicated in the illuminated panel diagram. Whenever a signal is taken OFF, the route set indication i.e. "WHITE" appears for the particular route set. As the Train occupies the track circuit the "WHITE" indication disappears and "RED" indication appears. (Detail track circuits mentioned in appendix-B).

4.1.5 **STATION MASTER'S CONTROL**:-

A push button type electric control apparatus is provided in the Station Master's office to operate electrically the signals and points. The control apparatus is provided with a lock up key, which shall always remain in the personal custody of the Station Master on duty in terms of Subsidiary Rule 3.36.03(a). The position of all points and signals and running lines are available in the Station Master's illuminated panel diagram. Reminder block collars are provided for use on push buttons which will be placed on point button to prevent operation of the button in case the concerned line is blocked.

4.1.6 **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.

4.1.7 **ROTARY KEY TRANSMITTER (RKT)**:-

RKTs with crank handle keys are provided at both end locations for the operation of points in case of failure of motors. The keys for the crank handlesare transmitted electrically to the crank handle locations for operating the points by crank handles.

4.1.8 **IBS** **: -NIL**

4.1.9 POINT AND TRAP INDICATOR **: - NIL**

4.1.10 **REPEATING SIGNAL (BANNER TYPE)** **:- NIL**

4.1.11 **EMERGENCY CROSS OVER** **:-** NIL

4.1.12 **L.C. GATE OPERATION** **: -** {Appendix-A}

4.1.13 **CALLING ON SIGNALS** :-

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

4.1.14 **SHUNT SIGNALS: -**

Position light shunt signals have been provided at top point (BWIP end) and other end of the yard below stop signals, in Saloon siding, in Track machine siding, in both shunting neck for shunting in the yard. Forward shunting movement shall be carried out with starter signals at BWIP end and Shunt signals below stop signals at the other end in addition to traffic signals.

4.1.15 **ANTI COLLISION DEVICE: NIL**

4.1.16 **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. 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 the CH locations can be released from the RKT. The SM has to press concerned crank handle button and Trans button. This will enable SM/TPM/TP to extract crank handle key CH-1/CH-2/CH3/CH4/CH5/CH6 from RKT at CH locations. SS/SM/TPM on duty after extracting the crank handle key from RKT, 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 to desired position (Normal/Reverse). After completion of point work the crank handle key is to be inserted in the RKT and transmitted to station. Station Master on getting ' Key IN ' flashing indication on the panel, shall press relevant CH button & Group Release button to get the steady key "IN" indication. 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. SM on duty as per OM 2.09 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 2.09.

4.1.17 **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 zone track circuit and SM's emergency point key is 'IN' and turned shall press emergency point operation button by breaking the seal along with relevant point button simultaneously. Then retaining the point button in pressed condition, 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 and the counter number will increase by next number. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose.

4.1.18 **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.

4.1.19 **EMERGENCY ROUTE RELEASE INDICATION (WHITE) EMERGENCY ROUTE RELEASE 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 at 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, concerned counter register and in the train signal register.

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

Custody of Relay Room key and procedure for its handover and taking over between SM & S&T, the staff has to follow the procedure as per Para No.13.16 of Operating Manual (2015), JPO/02/2012, dated 29.08.2012, RB JPO issued vide No.2021/Sig/21/Safety Performance, dated.10.06.2023.

The provision of double locks in relay room includes all relay rooms, relay huts, goomties, LC Gate relay huts/goomties within station limits and cabins provided as an extension of station relay room for housing signaling gears in station yard.

The Relay room & extended relay rooms within the station limits 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.

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: -**

i) CLS power panel with rotary change over switch is provided in the SM's office with the three power supplies viz AT, local power supply and DG for changing the switch to the required supply position. Luminous indicator's are provided above the circuit breaker for each supply to indicate the availability of the supplies.

ii) Normally the rotary switch will be kept towards auto position. Whenever the power block is to be given, the on duty SM must ascertain that other two sources i.e local and DG supply must be available i.e local supply must be available and DG set is in working condition.

iii) During the non-availability of AT supply SM on duty shall keep the rotary change over switch towards the local supply to feed available local supply to the Installation.

iv) In case of failure of AT supply without any power block, on duty SM has to check whether the circuit breaker has tripped. (Three circuit breakers are provided in the changeover switch board, one for each supply and their

normal position is UP and when tripped, it goes DN). In case of failure of AT supply, the local supply/DG supply shall be utilized by operating the switch. If the circuit breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEEE/GEN and CTFO/PSI/TRD/GEN for prompt rectification.

v) For IPS system that provides to PI, auto-change over has been provided.

vi) There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

[B] **REMOTE MONITORING ASM BOX:**

Remote monitoring ASM box gives alarm to the ASM for the following fault conditions:-

a) 50% DOD (Depth of Discharge) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged with audio cut off.
b) 60% DOD (Depth of Discharge), which warns for emergency. The Alarm for this condition is same as for condition 1.
c) 70% DOD (epth of Discharge), which signals system, shut down. In this condition Signal feed cut off and all DC-DC converters continue working. Audio alarm will continue till power supply restored.
d) Any of the Module fails, which calls for “Call S&T”.
e) Whenever there is a failure of AT supply, the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of AT supply and make an entry in station diary duly initiating action for rectification of failure, if any.

5.0 **TELECOMMUNICATION FACILITIES: -**

The following communications are provided at this station:

(i) Telephone attached with single line Token Less Block Instrument for Block Section JNRD-BWIP.
(ii) Station to Station fixed telephone (Hot line) has been provided
(iii) Station has been provided with auto telephone connected with Railway Exchange
(iv) BSNL telephone has been provided
(v) The station is connected to BLGR-SPRD control circuit by a control telephone
(vi) Station to station 25 Watt VHF communication has been provided
(vii) Telephone connection has been provided between Station and both end crank handle locations.
(viii) Telephone connection has been provided between Station and Engineering L.C. Gate No.LJ-22 at KM.34/11-12, LJ-24 at KM. 41/8-9, LJ-25 at KM. 44/17-18, LJ-26 at KM. 45/6-7, LJ-28 at KM. 51/10-11 in JNRD-BWIP section.
(ix) Telephone has been provided between SM & TPC.

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 Loco Pilots, Guards or any other staff.

5.1 **FAILURE OF COMMUNICATION: -**

The on duty SM shall use the above electrical communication instruments stated in Para-5.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication

between the adjacent block stations the SM on duty shall work vide SR 6.02.06. In the event of total failure of communications SR 6.02.04 shall be observed for working the train. During failures of signal, inter-locking, points, block instrument telephone etc. the S&T staff should be informed for rectification.

(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 control failure, the Station Master on duty will work independently and will be responsible for Judicious movement of train services in consultation with adjoining Stations and ensure that there is no undue delay to train operation in general.

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

The staff will work according to the rosters issued from time to time by DPO/SBP, Rosters are required to be exhibited in conspicuous place in the Station Office. When rosters are suspended in emergency a remark detailing the circumstances is to be kept in the O.T Register and the over time earned by an employee must be recorded and dealt with as per extant instructions.

Note: - Duties of staff are detailed in Appendix 'D' of the Station Working Rules.

6.1.1 **TRAIN WORKING STAFF IN EACH SHIFT: -**

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

SL No.	Designation	No. of staff in each shift	Hrs. of Duty
1.	SS/SM	1	12 hrs.
2.	TPM-B/ TPM-A	1	12 hrs.

The above staff shall work as per the rosters issued by DPO/SBP from time to time.

6.1.2 **RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINES AND ZONES OF RESPONSIBILITY:-**

The on duty SM/ASM at the Central Panel is responsible for ascertaining the clearance of the nominated line for admission of a train by observing the Track indication provided at the station panel by provision of track indication lamp. In case of failure of track circuit/Axle Counter the responsibility for ascertaining clearance of lines devolve upon on duty SM at the station. In such case clearance of lines shall be confirmed by SM/.ASM on duty after physical verification. The SM on duty is responsible to ascertain the clearance of the nominated line as per GR 14.10.

6.1.3 **ASSURANCE OF STAFF IN ASSURANCE REGISTER: -**

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

No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The SMR 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 SS/SM is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance of staff shall 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 Manager.

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.

(iii) When anyone joined in the station as a new staff.

6.2 **CONDITIONS FOR GRANTING LINE CLEAR: -**

The conditions laid down in GR 8.01 (1) (a) & (c), 8.01 (2) (b), 8.03 (2) (a)(b)(c)(II), BWM 2.07 (3) & (4) shall be complied with by the Station Master on duty before granting line clear. He shall ensure that :

(A) For granting line clear in Single Line Section:

i) The whole of last preceding train has arrived complete.
ii) All 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 station to which such line clear is being given.
iv) The line is clear upto Advanced Starter at that end of station nearest to the expected train i.e. UP advanced starter signal No.19 for trains coming from BWIP.

(B) For granting line clear in Double Line Section: Not Applicable.

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.

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

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

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

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

Safety Point Alarm Unit (SPAU):

A safety Point Alarm is provided on the VDU table with different indications:

1. On complete arrival of a train at the station, the SM has to set the Points immediately against the occupied line.

2. In case the SM forgets to alter the points, after a time lag of 02 minutes, an audible buzzer will be heard from this instrument along with the 'RED' indication of the line on which the train has arrived.
3. The SM shall then press 'ACK' button to mute the buzzer, and immediately set the required points against the line on which the train has arrived.
4. On setting the points against the occupied line, the RED indication will disappear.
5. In case SM fails to set the required points against the occupied line a fault message will be triggered SMS will be sent to concerned station mobile and all concerned staff to take necessary action.

If all the lines of a station happen to be blocked, when line clear has been granted to a train, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chance of causalities are minimized [Refer SR.3.51.06 (b)]. In case of all the lines are occupied by Coaching train, points should be set for a loop line to negotiate with the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities.

The above precautions shall be taken in addition to the observation of other precautions. [Refer SR 5.04.01 & SR 5.23.01].

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

Whenever trains are to be admitted on an obstructed line, it can be done by taking off calling on signal. During failure of calling on signal the SM on duty shall authorize the on duty Loco Pilot of the train 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 Loco pilot as to where the train shall be brought to a stand.

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

6.2.1.4 **DESPATCH OF TRAINS FROM NON-SIGNALLED LINE**: - Not Applicable.

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

6.2.1.6 **ANY OTHER SPECIAL CONDITIONS:**

(A) <u>SPECIAL RESTRICTIONS</u>: -

i) If a point zone Track circuit shows occupied and a train is intended to be received on calling on signal, the on-duty SM must physically verify that the point zone showing occupied is free from any obstruction upto fauling mark.

6.3 CONDITIONS FOR TAKING 'OFF' APPROACH SIGNALS: -

A. Reception of trains is governed by General Rules 3.36, 3.38, 3.40, 4.17, Subsidiary Rule 3.42.02 (a)(iv), 3.42.03, 3.36.02, 3.36.04 and other relevant provisions of General and Subsidiary Rules, Block Working Manual and Station Working Rules of the station.

B. Adequate distance shall be kept clear vide General Rule 3.40. (1) (b).

LINE NO.	CLEARANCE OF ADEQUATE DISTANCE			
	DN TRAINS		UP TRAINS	
	FROM	TO	FROM	TO
L-1 Loop line	DN Stop signal No. 10	End of Over run line	---	----
L-2 Main Line	DN Stop signal No. 16	Up to DS point No.-21 in normal condition.	-----	-----
L-3 Loop Line	DN Stop signal No. 12	End of Over run line	-----	-----
L-4 Loop Line	DN Stop signal No. 14	End of Over run line of line No-3	-----	----

Before admitting a train on any line, it must be ensured that the route indication for the respective line shows 'WHITE' indication in the illuminated panel diagram. To receive a train, for which line clear has been given, the Station Master on duty shall nominate a clear line in consultation with the Section Controller on duty. He shall personally satisfy himself that the nominated line is clear and free from all obstructions by seeing the track circuit indication 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.

Unless the track circuit indication for the concerned line is 'Clear' even with other conditions satisfied, the operation of panel control button by the station Master on duty will not permit the concerned home signal to be taken off.

However, reception of trains will be possible in such case with "Calling on signal" provided below home signal unless the first track circuit in advance of home signal does not show 'RED' indication.

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

Miniature colour light calling on signal is provided below the DN Home 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 of a train when the Home signal above cannot be taken 'OFF' due to failure or any other reason or for admission of a train on blocked line.

C. **TAKING OFF CALLING ON SIGNAL**: -

To take off calling on signal, the train must come to a stop at the foot of the DN Home signal, occupying track circuit in rear of the Home signal. When a train occupies the track circuit, a 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 button or by setting route by pressing route button & signal button or by crank handling in the event of failure of operation of points through panel. After the route is set, the calling-on signal button 'C2A/B/C/D' (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 60 seconds, the calling-on signal clears and a white light indication appears on the panel for the concerned calling-on signal.

NOTE:

i) Before taking "OFF" Calling-on signal during failure of track circuit, the clearance of track over which the train is intended to be received must be verified physically.
ii) SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal.

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

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

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

Existing signal & interlocking of the station do not permit any simultaneous reception and dispatch of trains.

6.4.1 Rules laid down in SR 3.47.1 (C), SR 3.47.02 shall be followed.

6.5 **COMPLETE ARRIVAL OF TRAIN: -**

(Rule No. GR 4.16 & SR 4.17.01, GR4.17.02, GR 14.10)

a) **STAFF RESPONSIBLE TO VERIFY COMPLETE ARRIVAL: -** SM on duty.

b) **MODE OF VERIFICATION**: Through AXLE COUNTER and physical verification, when axle counter fails.

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

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

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

(The SM on duty shall comply with the instructions laid down in GR 5.09 and SRs thereto.)

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 Loco pilot as to where the train shall be brought to a stand.

6.6 **DESPATCH OF TRAINS: -**

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

To despatch a train, the Station Master on duty, having obtained line clear for that train, shall set the route for the outgoing train correctly and satisfy himself by observing the visual indication on the panel board. He shall then suspend all non-isolated shunting, ensure closure of L.C.Gatesin JUNAGARH ROAD-Bhawanipatna block section. Then he shall then take off the concerned route starter and advanced starter signals. After observing the 'OFF' aspect of the route starter and advanced starter, 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.
When a train is worked without a Guard or Brake Van, the instructions laid down in Subsidiary Rules 4.23.02 and 4.25.02 shall be followed

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

6.7 **TRAINS RUNNING THROUGH**: -Not Applicable.

6.8 **WORKING IN CASE OF FAILURE: -**
In case of failure of S&T equipments, on duty Station Master shall work in accordance to GR 3.68, 3.69 and 3.70 and SRs thereto.

6.8.1 **PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF A SIGNAL & INTERLOCKING INSTALLATION: -**
Whenever there is a failure of points, signals, track circuits or any other interlocking gear at the station 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. The responsibility of correct setting of points, clamping and padlocking of the facing and trailing points for reception and Dispatch of trains rests with SM on duty himself.

6.8.2 **TRACK CIRCUIT:-**
In the event of failure of track circuit in the yard trains shall be admitted in to yard after piloting 'IN' before piloting a train in to the yard the clearance of the track must be ensured by physical verification

6.8.3 **AXLE COUNTER:-**
In the event of failure of axle counter, Block Instrument of concerned block section will be suspended and all trains will be worked on PLCT till rectification.

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 and 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] In case of failure of colour light signal, SM shall take the action vide SR 3.68.05.

6.8.5 **BLOCK INSTRUMENT:-**

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

In the event of partial / total failure of Block instrument, trains shall be worked as per GR 14.01, 14.08 & SRs thereto and SR 6.02.06 and BWM Chapter III & V, Part-II 5.3(i).

6.8.6 **DEFFECTIVE INTERLOCKING:-**

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

6.8.7 **DEFFECTIVE/DAMAGED POINTS:-**

When the points, crossings or guard rails are defective/damaged, the Station Master will take action immediately vide GR 3.77, SR 3.77.01 & 3.39.01 (c).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.

6.8.8 **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]

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

6.9 **PROVISIONS FOR WORKING OF TROLLEYS /MOTOR TROLLEYS/MATERIAL LORRIES : -**

(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 or a motor trolley.

7.0 **BLOCKING OF LINES: -**

Whenever a running line is blocked either by loose vehicles or by a stabling train, the points at either end should immediately be set against the blocked line except during shunting movement and reminder collars shall be placed on the concerned point push button and route button(s) for the blocked lines. A clear remark in 'RED' ink shall be made immediately in the train signal register. The stable load or loose vehicles are to be secured as per General Rules 5.23 and Subsidiary Rules 5.23.01 & safety circulars issued to prevent rolling down of vehicles. A record thereof shall be made in the Station Diary vide SR 5.23.01 (a) (c) & (d).

7.1 **USE OF REMINDER COLLARS**: -

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

7.2 **SECURING OF VEHICLES: -**

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

NOTE: Stationary vehicles standing in sidings and on running line must be secured by means of skids, wedges and chains as detailed in SR 5.23.01 (a) & (b).

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

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 or immediately after arrival of a train at the station etc. the points at either end should immediately be set against the blocked line except when shunting or another movement is required to be performed in that direction on the same line.

b) If all the lines at a station happens to be blocked when line clear has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order so that in a case of mishap, the chances of casualties are minimized.

c) In case all the lines are occupied by passenger carrying trains, points should be set for a loop line, to negotiate which the speed of the incoming train would be reduced, which in turn would minimize the consequences of casualties. While doing so, points shall be set for a loop, occupied by a train, if any, whose engine is facing the direction of approach of the incoming train rather than a loop line, occupied by a train whose passenger coach will, in case of collision, receive the impact.

7.4 **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 SR5.19.01.

At stations where loading and unloading of goods is permitted whether full rake or part there of, the station master shall ensure that no goods are left fouling any line before and after clearance of the rake from the line. The railway servant supervising loading and unloading shall also ensure that consignment does not foul any line vide SR 5.19.01 (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.

8.0.1 **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, 8.14, 8.15 and Subsidiary Rules thereto. The Guard/Asst. Guard/SS/SM/ASM/TPM on duty is authorized to supervise shunting operation. The staff supervising shunting shall ensure correct setting of points, clamping and pad locking of points both in facing and trailing direction for non signal movement.

Normally, shunting operations will be conducted by means of hand signals, Shunt Signal and starter where Advanced starter is provided vide General Rule 3.46(2). Shunting authority should be either fixed signals or a written authority in form T/806 vide SR 5.13.02.

NOTE :
For any non signaled movement physical verification of the clearance of the crossover points, clamping & padlocking of both facing and trailing points shall be ensured by the Guard/SM/TPM on duty for supervising shunting operations.

8.2 **SHUNTING IN FACE OF AN APPROACHING TRAIN**:

Shunting in the face of an approach train is strictly prohibited vide General Rule No. 8.5(2) and 8.09.

8.3 **PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY**:

(i) Hand shunting is prohibited at both ends of the yard vide GR 5.20.
(ii) Fly/loose shunting is prohibited at both ends of the yard vide SR 5.21.01 (c).
(iii) SR 4.48.01 is applicable at BWIP end of the yard.

8.4 **SHUNTING ON SINGLE LINE:**

(i) Shunting within Station Section i.e. upto Up Adv.Starter No.-19 of JUNAGARH ROAD is permitted provided no line clear is given for a Down train to Bhawanipatna.
(ii) The line outside the station section and upto the Home Signal shall not be obstructed unless a Railway Servant specially appointed on his behalf by the Station Master on duty who is the in-charge of the operations, and unless the block section into which the shunting is to take place is clear of approaching train and all relevant & necessary signals are kept at ''ON'' position (GR 8.12).
(iii) In case the section between JUNAGARH ROAD-BHAWANIPATNA is clear, shunting can be performed beyond Up Adv.Starter after blocking forward the section under exchange of private number.
(iv) The line outside the first stop signal shall not be obstructed unless line has been blocked back under exchange of private number.

8.5 **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 G&SR.

8.6 SHUNTING IN THE SIDING TAKING OFF STATION YARD: -

When shunting in the sidings shunt signals shall be used. During non signal movement, proper shunting authority on T/806 to be issued to the train staff with clear instructions

and limit up to which shunting is to be performed. The staff supervising shunting shall ensure correct setting of points, clamping and pad locking of points both in facing and trailing direction. While performing shunting, relevant provisions of GR 5.14 and SRs thereto are to be followed.

9.0 **ABNORMAL CONDITIONS**:-

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

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

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

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

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

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

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

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

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

[V] **FAILURE OF LVCD AXLE COUNTER: -** Refer in Appendix-B**.**

[VI] FAILURE OF MTRC - NIL

(B) **PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE: -** Details of the operation are given in Appendix ‘B’ of SWR.

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

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

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

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

9.1 TOTAL FAILURE OF COMMUNICATION: -

In the event of total interruption of all communications occurring between JUNAGARH ROAD-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 action shall be taken as per SR 6.02.04. The train which is to be despatched to the affected section will be stopped and the Loco Pilot and Guard of the train shall be informed about the fact.

Before dispatching the light engine /main engine/motor trolley /Tower wagon/Trolley /Cycle trolley/Moped trolley/Diesel car/rail motor car/EMU rake, the SM on duty shall hand over a Authority for opening of communication during total failure interruption of communication on Single Line Section in the prescribed form **(T/B 602).**to the Loco Pilot /motorman/Guard/SM who is being sent to open communication, which includes.

(i) An authority to proceed without "Line Clear*).*
(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) Authority 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 Station Master on duty who shall prepare a conditional line clear ticket for engine to return either light or with train attached and conditional line clear reply message for the enquiry message giving line clear for the train waiting at other station shall be handed over to the Loco Pilot of light engine. On return trip the Loco Pilot will come on booked speed subject to speed and other restrictions in force.

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

If the Station Master at one end has more than one train to despatch in the same direction he may ask line clear not only for one train but also for the following trains. It must be stated that these later trains will be despatched after the first train at an interval of 30 minutes.

When despatching the second and subsequent train particulars of last preceding train along with its departure time will be endorsed and a caution order restricting the speed to 25 Kmph. over straight when view ahead is clear and 10 Kmph. when the view ahead is not clear is to be issued. While adopting this procedure the Guard and Loco Pilot should be instructed to keep a 'Sharp' lookout and be prepared to stop short of any obstruction. Trains must continue to work on this system until any one of the means of communication is restored.

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

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

9.3 **DESPATCHING OF TRAINS UNDER AUTHORITY PROCEED WITHOUT LINE CLEAR OR TO ASSIST THE CRIPPLED TRAIN: -** The Station Master will take action as per SR 6.02.04 for despatch of trains under 'Authority to Proceed without Line Clear'. Actions shall be taken to assist the crippled train as per SR 6.02.05.

10. **VISIBILITY TEST OBJECT**: -

i) V.T.O. post / Authorised substitutes earmarked to work as V.T.O. Post. – The lights of UP starter signal No.11 and DN Stop signal No.10 of 1st loop during day and light are earmarked to serve as VISIBILITY TEST OBJECT vide GR 3.61 (2) (b) (ii).

ii) Distance between CSB and V. T. O. post: - 180 Mts.

iii) Station Master on duty will test the visibility during thick and foggy weather and if visibility is impaired, he will work as per GR 3.61 and SRs thereto.

11. **ESSENTIAL EQUIPMENTS AT THE STATION**: - This is mentioned in the Appendix 'E' of the SWR. Essential equipments 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 SS/SM on duty shall arrange for fog signaling 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 Signaling 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.

As soon as a person is posted for duty at the station as a Fog Signalman, the Station Master must satisfy himself that the person is fully aquainted with and understands rules regarding the placement of the detonators (Fog-Signals) at the station during thick or foggy weather. As an assurance of this, the Station Master shall take the thumb impression or signature of such persons in the appointed column of Part -I of the Fog Signal Register.

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.

(d) Use of Detonator in case Home Signal is defective in 'OFF' Position:-

(e) If Home Signal cannot be kept in the 'ON' position, a competent Rly. servant in uniform shall be deputed to exhibit a stop hand Signal at the foot of the defective Signal post and to place a detonator 90 mtrs. outside it. The Rly servant shall replace the detonator every time it is passed over by a train. He shall not leave his post until being relieved by a competent Rly servant.

LIST OF APPENDICES:

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

APPENDIX 'A'

DETAILS OF LEVEL CROSSING GATES TOGETHER WITH INSTRUCTIONS TO THE OPERATING STAFF (INCLUDING LEVEL CROSSING GATE MEN) ABOUT THEIR NORMAL WORKING, THEIR MAINTENANCE AND THEIR WORKING INCASE OF FAILURES EMERGENCIES WITH SPECIAL PROVISIONS, IF ANY.

1.0 GATE WORKING INSTRUCTIONS OF "C" CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE NO. LJ-28 AT KM 51/10-11 IN BETWEEN JNRD – BWIP STATIONS

1.1 GENERAL INSTRUCTIONS:

1.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1.	Number of level crossing gate	:	LJ-28
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	KM 51/10-11
5.	At station	:	----
6.	In between station	:	JNRD-BWIP
7.	BG/MG/NG	:	BG
8.	Single line/Doubling 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	:	Nil
13.	Signaling arrangement	:	Nil
14.	Means of communications /Telephone with or without Voice logger	:	Voice logger telephone from gate goomty with SM Office /JNRD
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others
17.	Name of Road	:	Manikpadar to NH-26
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.50 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	----
22.	Road Gradient (if any)	:	(a) North/East side - Level
		:	(b) South/West side – Level
23.	Road alignment (straight/curve)	:	(a) North/East side – Straight
			(b) South/West side - Straight
24.	Provision of height gauge	:	Provided
25.	Type of Barrier	:	Winch Operated Lifting barrier
26.	Length of check Rail	:	9.5 MTRS.
27.	Road surface in between LC gates.	:	C.C BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	5336 on 10/2024
32.	Census next due on	:	10/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift)

35.	Nearest Railway Medical Assistance	:	TIG
36.	Nearest Private Medical Assistance available (if any)	:	JUNAGARH ROAD
37.	List of equipment available Yes / No.	:	YES

1.2. **EQUIPMENT**:

	ITEMS	QUANTITY/NUMBERS
1.	LED based flashing tri colour hand signal lamp	3
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (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.	Water pot/Bucket	1
16.	Canister for Muster Roll	1
17.	Set of spare spectacles of Gatekeeper wearing glasses.	1
18.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate	1
19.	Basket	1
20.	Whistle	1
21.	Wall clock	1
22.	Small size chains with padlocks to be used in case of failure of boom lock.	2

1.3 **LIST OF REGISTERS PROVIDED AT THE LC GATE LODGE: -**

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

1.4 **DUTIES OF GATEKEEPER**:

1. ALERTNESS:

The Gate Keeper 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, Gate Keeper will stand in the manner indicated below:

(i) Gate Keeper will stand attentively in front of the gate – lodge facing the approaching train.
(ii) In daytime, Gate Keeper shall hold red and green flags furled up on separate sticks in right and left hands respectively.
(iii) In nighttime, Gate Keeper 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 GATE KEEPER:

i) Gatekeeper shall ensure that red banner flag by day and red light by night is placed across the track in case of emergency and obstruction on the track.
ii) Gatekeeper shall ensure that all gate light and hand signal lights are lighted and kept burning continuously from sunset to sunrise.
iii) Gatekeeper 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) Gatekeeper 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) Gatekeeper shall also be prepared to repeat any signal which TMR may give to Loco Pilot.
vii) If lifting barriers get damaged or becomes out of order, the Gatekeeper shall use the spare chain with disc and padlocks for securing the gate against road traffic.
viii) Gatekeeper shall report to the nearest Station Master, Gang mate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
ix) Gatekeeper shall wear badge and prescribed uniform while on duty at level crossing gate.
x) Gatekeeper shall ensure that he is having competency certificate in his possession while on duty.
xi) Gatekeeper shall work the gate as per gate working instructions and remain well conversant with these instructions.
xii) Gatekeeper shall ensure that equipments supplied at the gate is in good order and ready for immediate use.
xiii) Gatekeeper shall see that the channel for the flange of the wheel is kept clear.
xiv) Gatekeeper must keep the road surface well-watered and rammed in case of non-metaled roads.
xv) Gatekeeper must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
xvi) Gatekeeper shall prevent tress passing by persons or cattle to the maximum extent.

xvii) Gatekeeper 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.

xviii) Before opening the gate, he shall ensure that the train has passed complete over the level crossing by observing the last vehicle indicator of the train.

4. ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN:

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

i) He shall take prompt action to warn the Loco Pilot/TMR 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/TMR by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.

iii) If Loco Pilot/TMR fails to take notice, Gate Keeper shall immediately inform the station Master/JNRD to take appropriate action, under exchange of private number.

iv) In case of train parting, Gate Keeper 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/TMR 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, Gate Keeper shall immediately inform the Station Master/JNRD to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LC GATE:

i) Place banner flag/red light lamp on the stave on track at 5M away from the check rail end.

ii) Thereafter, if he is unable to remove the obstruction, Gate Keeper shall immediately inform the Station Master on duty by telephone, regarding the defects/obstructions at the gate, under exchange of private number.

iii) If there is no response from the Station Master after two or three attempts he shall first protect the gate and then inform on phone.

<u>THE GATE KEEPER SHALL PROTECT THE LINE AS UNDER: -</u>

(A) ON ELECTRIFIED SECTION:

i) On noticing that, the whole or part of the OHE or a feeder or a cable falling down, the gate keeper shall ensure that, as far as possible, human beings, animals or vehicles etc. are kept away in order to avoid any contact with the live equipment.

ii) As soon as it is noticed that, Pantograph of an electric rolling stock getting damaged and/or entanglement of the same with the OHE, he shall make every possible effort to stop the train and immediately inform SM on duty.

iii) Any damage to the track or structures of the OHE comes to the notice of on duty GK, he shall immediately inform SM on duty and take all necessary measure for protection of the line as under,

(B) PROTECTION ON SINGLE LINE SECTION:

i) If the line is obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night 5 meters away from the direction on which train is expected to arrives first.

ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.

iii) Gatekeeper shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.

iv) Gatekeeper 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 and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed on the other side, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

vii) In case the gatekeeper observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(C) OTHER ACTIONS TO BE TAKEN BY GATEKEEPER:

i) At night, Gatekeeper 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 Gatekeeper shall take immediate action.

iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the SM and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.5 **ENGINEERING ITEMS:**

i) **Visibility :**-

Direction	Side	Visibility Distance
UP	Right	300 m.
	Left	300 m.
DN	Right	300 m.
	Left	300 m.

ii) Speed Breaker: - Speed Breakers of approved design are provided on either side of the Level Crossing gate.

iii) Periodical Census of traffic has been taken and the latest TVU is **5336 on 10/2024**

1.6 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:**

This is a Manned & Non-interlocked 'C'-Class Engineering L.C.Gate situated at Km KM. 51/10-11 in between JUNAGARH ROAD-BHWANIPATNA Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the gatekeeper manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of

JUNAGARH ROAD station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/ JUNAGARH ROAD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gatekeeper supported by exchange of private number. When the gatekeeper desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the Station Master/ JUNAGARH ROAD 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 gatekeeper has exchanged private number with the SM/ JUNAGARH ROAD. 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 / JNRD before permitting each train to enter into the block section, shall ask Gatekeeper on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gatekeeper only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master /JNRD in assurance of gate being closed and locked against road traffic.

(iii) The Station Master / JNRD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the Gatekeeper supported by exchange of private number.

(iv) When the Gatekeeper 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 / JNRD as per (ii) above.

(2) If he has exchanged private number with the SM/JNRD, the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / JNRD has not exchanged PN 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 Gatekeeper 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/ JNRD 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 Gatekeeper 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.

1.7 FAILURE OF TELEPHONIC COMMUNICATION:

When telephonic communication fails or he does not get any response from gatekeeper despite two or three attempts, the following procedure should be adopted:

i) Station Master/JNRD shall issue caution order to the Loco Pilot of the departing train.
ii) In the caution order, it shall advice the Loco Pilot to whistle continuously and approach the gate cautiously.
iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gatekeeper. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If gate is closed, ALP will give all right signal and if gate is not closed, the ALP must close the gate and then give all right signal. In the absence of the ALP, the LP may take the assistance of TMR.
iv) In case of an approaching train, the SM shall advise the SM at the dispatching end, under exchange of private number that the telephone at the gate has failed.
v) The SM at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.
vi) The SM shall advise the GK through gang man/patrol man or the LP of the first train that the telephone has become defective.
vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

1.8 FAILURE OF LIFTING BARRIERS:-

i) When the gate cannot be closed due to failure of lifting barriers, the Gate Keeper will immediately inform, the Station Master on duty/JNRD under exchange private number, and ensure the lifting barriers of gate do not foul the track.
ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
iii) Gate Keeper shall secure the gate against road traffic by means of safety chains and padlocks.
iv) After securing the gate against road traffic, Gate Keeper shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching train.
v) Station Master on duty/JNRD shall issue a caution order to the Loco Pilot of a departing train.
vi) He 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 a train into the block section from his end.
vii) Station Master/JNRD 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.

1.9 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 gatekeeper 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 gatekeeper shall advise the Station Master/JNRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.
iii) Station Master/JNRD 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/JNRD after two or three attempts, he shall first protect the gate and then inform on phone.
v) Gatekeeper 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 gatekeeper 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/JNRD who shall not start the trains unless he has been assured by the gatekeeper that the road vehicle or the lifting barriers are not fouling the track.
viii) The Station Master/JNRD shall also inform the Station Master/BWIP at the dispatching end, under exchange of private number, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.
ix) After the track has been cleared of all obstructions the gatekeeper shall inform the Station Master/JNRD accordingly, under exchange of private number.
x) Gatekeeper 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/JNRD 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.

1.10 <u>OBSTRUCTION AT THE GATE:-</u>

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 gatekeeper 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 gatekeeper shall advise the Station Master/JNRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.
iii) Station Master/JNRD 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/JNRD after two or three attempts, he shall first protect the gate and then inform on phone.
v) Gatekeeper 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 gatekeeper 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/JNRD who shall not start the trains unless he has been assured by the gatekeeper that the road vehicle or the lifting barriers are not fouling the track.
viii) The Station Master/ JNRD shall also inform the Station Master/BWIP at the dispatching end, under exchange of private number, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.
ix) After the track has been cleared of all obstructions the gatekeeper shall inform the Station Master/JNRD accordingly, under exchange of private number.

x) Gatekeeper 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/JNRD 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.

1.11 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 gatekeeper, the gatekeeper and Station Master/KBJwill adopt the procedure given under item No. 1.9 above. If the obstruction fouls the level Crossing Gate, gatekeeper must keep the gates closed against road traffic till the track is cleared of the obstruction.

1.12 ACCIDENTAL ROLLING DOWN OF TRAIN:

When the Gate Keeper observes that a train is rolling down or immediately after receipt of the information about accidental rolling down of the train the gatekeeper shall:

i) First close the gate against the road traffic.
ii) Then immediately inform the SM on Duty.
iii) He shall not open the gate till he ensured that the train has completely stopped.

CERTIFICATE: -

NOTHING IN THESE RULES SHALL BE READ AS CANCELLING, AMENDING AND MODIFYING ANY OF THE RULES IN GENERAL RULES, SUBSIDIARY RULES, BLOCK WORKING MANNUAL AND OPERATING MANNUAL

2.0 GATE WORKING INSTRUCTIONS OF "C" CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE NO-LJ-26 AT KM 45/6-7 IN BETWEEN JNRD – BWIP STATIONS

2.1 GENERAL INSTRUCTIONS:

2.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1.	Number of level crossing gate	:	LJ-26
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	45/6-7
5.	At station	:	----
6.	In between station	:	JNRD-BWIP
7.	BG/MG/NG	:	BG
8.	Single line/Doubling 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	:	NIL
13.	Signaling arrangement	:	NIL
14.	Means of communications /Telephone with or without Voice logger	:	Voice Logger telephone from gate to Goomty from the SM /JNRD
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others
17.	Name of Road	:	Brundabahal to NH-26
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.50 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	-----
22.	Road Gradient (if any)	:	(a) North/East side - Level
		:	(b) South West side -Level
23.	Road alignment (straight/curve)	:	(a) North/East side – Straight
			(b) South/West side - Straight
24.	Provision of height gauge	:	Provided
25.	Type of Barrier	:	Winch Operated Lifting barrier
26.	Length of check Rail	:	7.5 MTRS.
27.	Road surface in between LC gates.	:	C.C Block
28.	Length of Rumble strip/speed breakers.	:	5.5 MTR
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	1232 on 10/2024
32.	Census next due on	:	10/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift)
35.	Nearest Railway Medical Assistance	:	TIG
36.	Nearest Private Medical Assistance available (if any)	:	JUNAGARH ROAD
37.	List of equipment available Yes / No.	:	YES

2.2 EQUIPMENTS:

	ITEMS	QUANTITY/NUMBERS
1.	LED based flashing tri colour hand signal lamp	3
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (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.	Water pot/Bucket	1
16.	Canister for Muster Roll	1
17.	Set of spare spectacles of Gatekeeper wearing glasses.	1
18.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate	1
19.	Basket	1
20.	Whistle	1
21.	Wall clock	1
22.	Small size chains with padlocks to be used in case of failure of boom lock.	2

2.3 LIST OF REGISTERS PROVIDED AT THE LC GATE LODGE:

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

2.4 DUTIES OF GATEKEEPER:

1. ALERTNESS:

The Gate Keeper 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, Gate Keeper will stand in the manner indicated below:

i) Gate Keeper will stand attentively in front of the gate lodge facing the approaching train.
ii) In daytime, Gate Keeper shall hold red and green flags furled up on separate sticks in right and left hands respectively.
iii) In nighttime, Gate Keeper 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.

2. ROUTINE DUTIES OF GATE KEEPER:

i) Gatekeeper shall ensure that red banner flag by day and red light by night is placed across the track in case of emergency and obstruction on the track.
ii) Gatekeeper shall ensure that all gate light and hand signal lights are lighted and kept burning continuously from sunset to sunrise.
iii) Gatekeeper 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) Gatekeeper 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) Gatekeeper shall also be prepared to repeat any signal which TMR may give to Loco Pilot.
vii) If lifting barriers get damaged or becomes out of order, the Gatekeeper shall use the spare chain with disc and padlocks for securing the gate against road traffic.
viii) Gatekeeper shall report to the nearest Station Master, Gang mate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
ix) Gatekeeper shall wear badge and prescribed uniform while on duty at level crossing gate.
x) Gatekeeper shall ensure that he is having competency certificate in his possession while on duty.
xi) Gatekeeper shall work the gate as per gate working instructions and remain well conversant with these instructions.
xii) Gatekeeper shall ensure that equipments supplied at the gate is in good order and ready for immediate use.
xiii) Gatekeeper shall see that the channel for the flange of the wheel is kept clear.
xiv) Gatekeeper must keep the road surface well-watered and rammed in case of non-metaled roads.
xv) Gatekeeper must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
xvi) Gatekeeper shall prevent tress passing by persons or cattle to the maximum extent.
xvii) Gatekeeper 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.
xviii) Before opening the gate, he shall ensure that the train has passed complete over the level crossing by observing the last vehicle indicator of the train.

4. ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN:

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

i) He shall take prompt action to warn the Loco Pilot/TMR 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/TMR by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.
iii) If Loco Pilot/TMR fails to take notice, Gate Keeper shall immediately inform the station Master/JNRD to take appropriate action, under exchange of private number.
iv) In case of train parting, Gate Keeper 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/TMR 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, Gate Keeper shall immediately inform the Station Master/ JNRD to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LC GATE:

i) Place banner flag/red light lamp on the stave on track at 5M away from the check rail end.
ii) Thereafter, if he is unable to remove the obstruction, Gate Keeper shall immediately inform the Station Master on duty by telephone, regarding the defects/obstructions at the gate, under exchange of private number.
iii) If there is no response from the Station Master after two or three attempts he shall first protect the gate and then inform on phone.

THE GATE KEEPER SHALL PROTECT THE LINE AS UNDER: -

(A) ON ELECTRIFIED SECTION:

i) On noticing that, the whole or part of the OHE or a feeder or a cable falling down, the gate keeper shall ensure that, as far as possible, human beings, animals or vehicles etc. are kept away in order to avoid any contact with the live equipment.
ii) As soon as it is noticed that, Pantograph of an electric rolling stock getting damaged and/or entanglement of the same with the OHE, he shall make every possible effort to stop the train and immediately inform SM on duty.
iii) Any damage to the track or structures of the OHE comes to the notice of on duty GK, he shall immediately inform SM on duty and take all necessary measure for protection of the line as under,

(B) PROTECTION ON SINGLE LINE SECTION:

i) If the line is obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night 5 meters away from the direction on which train is expected to arrives first.
ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.
iii) Gatekeeper shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.
iv) Gatekeeper 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 and

place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed on the other side, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

vii) In case the gatekeeper observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(C) OTHER ACTIONS TO BE TAKEN BY GATEKEEPER:

i) At night, Gatekeeper 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 Gatekeeper shall take immediate action.

iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the SM and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

2.5 **ENGINEERING ITEMS:**

i) **Visibility :**-

Direction	Side	Visibility Distance
UP	Right	300 m.
	Left	300 m.
DN	Right	300 m.
	Left	300 m.

ii) Speed Breaker: - Speed Breakers of approved design are provided on either side of this Level Crossing gate.

iii) Periodical Census of traffic has been taken and the latest TVU is 1232 **on 10/2024**

2.6 SPECIAL INSTRUCTIONS:

1. MODE OF OPERATION:

This is a Manned & Non-interlocked 'C'-Class Engineering L.C.Gate situated at Km 45/6-7 in between JUNAGARH ROAD-BHWANIPATNA Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the Gatekeeper manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of JUNAGARH ROAD station. The level crossing gate is normally kept closed and locked against road traffic. The

Station Master/ JUNAGARH ROAD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the Gatekeeper supported by exchange of private number. When the Gatekeeper desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the Station Master/ JUNAGARH ROAD 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 Gatekeeper has exchanged private number with the SM/ JUNAGARH ROAD. 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 / JUNAGARH ROAD before permitting each train to enter into the block section, shall ask Gatekeeper on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gatekeeper only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master /JUNAGARH ROAD in assurance of gate being closed and locked against road traffic.

iii) The Station Master / JUNAGARH ROAD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the Gatekeeper supported by exchange of private number.

iv) When the Gatekeeper 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 / JUNAGARH ROAD as per above.

(2) If he has exchanged private number with the SM/JUNAGARH ROAD, the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / JUNAGARH ROAD has not exchanged PN 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 Gatekeeper is not responding on the telephone or in case the telephone becomes defective or private number is not received from the Gatekeeper, the Station Master/ JUNAGARH ROAD 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 Gatekeeper 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.

2.7. **FAILURE OF TELEPHONIC COMMUNICATION:**

When telephonic communication fails or he does not get any response from gatekeeper despite two or three attempts, the following procedure should be adopted:

i) Station Master/JNRD shall issue caution order to the Loco Pilot of the departing train.
ii) In the caution order, it shall advice the Loco Pilot to whistle continuously and approach the gate cautiously.
iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gatekeeper. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If gate is closed, ALP will give all right signal and if gate is not closed, the ALP must close the gate and then give all right signal. In the absence of the ALP, the LP may take the assistance of TMR.
iv) In case of an approaching train, the SM shall advise the SM at the dispatching end, under exchange of private number that the telephone at the gate has failed.
v) The SM at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.
vi) The SM shall advise the GK through gang man/patrol man or the LP of the first train that the telephone has become defective.
vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

2.8 FAILURE OF LIFTING BARRIERS:-

i) When the gate cannot be closed due to failure of lifting barriers, the Gate Keeper will immediately inform, the Station Master on duty/JNRD under exchange private number, and ensure the lifting barriers of gate do not foul the track.
ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
iii) Gate Keeper shall secure the gate against road traffic by means of safety chains and padlocks.
iv) After securing the gate against road traffic, Gate Keeper shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching train.
v) Station Master on duty/ JNRD shall issue a caution order to the Loco Pilot of a departing train.
vi) He 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 a train into the block section from his end.
vii) Station Master/ JNRD 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.

2.9 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 gatekeeper 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 gatekeeper shall advise the Station Master/JNRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.

iii) Station Master/ JNRD 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/ JNRD after two or three attempts, he shall first protect the gate and then inform on phone.
v) Gatekeeper 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 gatekeeper 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/ JNRD who shall not start the trains unless he has been assured by the gatekeeper that the road vehicle or the lifting barriers are not fouling the track.
viii) The Station Master/ JNRD shall also inform the Station Master/BWIP at the dispatching end, under exchange of private number, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.
ix) After the track has been cleared of all obstructions the gatekeeper shall inform the Station Master/ JNRD accordingly, under exchange of private number.
x) Gatekeeper 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/ JNRD 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.

2.10 <u>OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE</u>:

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 gatekeeper, the gatekeeper and Station Master/JNRD will adopt the procedure given under item No. 2.9 above. If the obstruction fouls the level Crossing Gate, gatekeeper must keep the gates closed against road traffic till the track is cleared of the obstruction.

2.11 <u>ACCIDENTAL ROLLING DOWN OF TRAIN</u>:

When the Gate Keeper observes that a train is rolling down or immediately after receipt of the information about accidental rolling down of the train the gatekeeper shall:

i) First close the gate against the road traffic.
ii) Then immediately inform the SM on Duty.
iii) He shall not open the gate till he ensured that the train has completely stopped.

<u>CERTIFICATE</u>: -

NOTHING IN THESE RULES SHALL BE READ AS CANCELLING, AMENDING AND MODIFYING ANY OF THE RULES IN GENERAL RULES, SUBSIDIARY RULES, BLOCK WORKING MANNUAL AND OPERATING MANNUAL

3.0 GATE WORKING INSTRUCTIONS OF "C" CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE NO-LJ-25 AT KM 44/17-18 IN BETWEEN JNRD – BWIP STATIONS

3.1 GENERAL INSTRUCTIONS:

3.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1.	Number of level crossing gate	:	LJ-25
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	KM 44/17-18
5.	At station	:	----
6.	In between station	:	JNRD-BWIP
7.	BG/MG/NG	:	BG
8.	Single line/Doubling 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	:	Nil
13.	Signaling arrangement	:	Nil
14.	Means of communications /Telephone with or without Voice logger	:	Voice Logger telephone from gate goomty with SM office /JNRD
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others
17.	Name of Road	:	Village Road
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.50 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	-------
22.	Road Gradient (if any)	:	(a) North/East side – Level
		:	(b) South/West side –Level
23.	Road alignment (straight/curve)	:	(a) North East side – Straight (b) South/West side - Straight
24.	Provision of height gauge	:	Provided
25.	Type of Barrier	:	Winch Operated Lifting barrier
26.	Length of check Rail	:	9.5 MTRS.
27.	Road surface in between LC gates.	:	C.C. BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	1584 on 10/2024
32.	Census next due on	:	10/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift)
35.	Nearest Railway Medical Assistance	:	TIG
36.	Nearest Private Medical Assistance available (if any)	:	JUNAGARH ROAD
37.	List of equipment available Yes / No.	:	YES

3.2. **EQUIPMENT**:

	ITEMS	QUANTITY/NUMBERS
1.	LED based flashing tri colour hand signal lamp	3
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (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.	Water pot/Bucket	1
16.	Canister for Muster Roll	1
17.	Set of spare spectacles of Gatekeeper wearing glasses.	1
18.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate	1
19.	Basket	1
20.	Whistle	1
21.	Wall clock	1
22.	Small size chains with padlocks to be used in case of failure of boom lock.	2

3.3 LIST OF REGISTERS PROVIDED AT THE LC GATE LODGE: -

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

3.4 **DUTIES OF GATEKEEPER**:

1. <u>ALERTNESS:</u>

The Gate Keeper 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, Gate Keeper will stand in the manner indicated below:

i) Gate Keeper will stand attentively in front of the gate – lodge facing the approaching train.
ii) In daytime, Gate Keeper shall hold red and green flags furled up on separate sticks in right and left hands respectively.
iii) In nighttime, Gate Keeper 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 GATE KEEPER:**

i) Gatekeeper shall ensure that red banner flag by day and red light by night is placed across the track in case of emergency and obstruction on the track.
ii) Gatekeeper shall ensure that all gate light and hand signal lights are lighted and kept burning continuously from sunset to sunrise.
iii) Gatekeeper 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) Gatekeeper 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) Gatekeeper shall also be prepared to repeat any signal which TMR may give to Loco Pilot.
vii) If lifting barriers get damaged or becomes out of order, the Gatekeeper shall use the spare chain with disc and padlocks for securing the gate against road traffic.
viii) Gatekeeper shall report to the nearest Station Master, Gang mate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
ix) Gatekeeper shall wear badge and prescribed uniform while on duty at level crossing gate.
x) Gatekeeper shall ensure that he is having competency certificate in his possession while on duty.
xi) Gatekeeper shall work the gate as per gate working instructions and remain well conversant with these instructions.
xii) Gatekeeper shall ensure that equipments supplied at the gate is in good order and ready for immediate use.
xiii) Gatekeeper shall see that the channel for the flange of the wheel is kept clear.
xiv) Gatekeeper must keep the road surface well-watered and rammed in case of non-metaled roads.
xv) Gatekeeper must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
xvi) Gatekeeper shall prevent tress passing by persons or cattle to the maximum extent.

xvii) Gatekeeper 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.

xviii) Before opening the gate, he shall ensure that the train has passed complete over the level crossing by observing the last vehicle indicator of the train.

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

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

i) He shall take prompt action to warn the Loco Pilot/TMR 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/TMR by whistling continuously, shouting, gesticulating, and throwing ballast on the brake van or by any other means.

iii) If Loco Pilot/TMR fails to take notice, Gate Keeper shall immediately inform the station Master/JNRD to take appropriate action, under exchange of private number.

iv) In case of train parting, Gate Keeper 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/TMR 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, Gate Keeper shall immediately inform the Station Master/JNRD to take appropriate action, under exchange of private number.

5. **ACTION IN AN EMERGENCY AT THE LC GATE:**

(i) Place banner flag/red light lamp on the stave on track at 5M away from the check rail end.

(ii) Thereafter, if he is unable to remove the obstruction, Gate Keeper shall immediately inform the Station Master on duty by telephone, regarding the defects/obstructions at the gate, under exchange of private number.

(iii) If there is no response from the Station Master after two or three attempts he shall first protect the gate and then inform on phone.

THE GATE KEEPER SHALL PROTECT THE LINE AS UNDER: -

(A) ON ELECTRIFIED SECTION:

i) On noticing that, the whole or part of the OHE or a feeder or a cable falling down, the gate keeper shall ensure that, as far as possible, human beings, animals or vehicles etc. are kept away in order to avoid any contact with the live equipment.

ii) As soon as it is noticed that, Pantograph of an electric rolling stock getting damaged and/or entanglement of the same with the OHE, he shall make every possible effort to stop the train and immediately inform SM on duty.

iii) Any damage to the track or structures of the OHE comes to the notice of on duty GK, he shall immediately inform SM on duty and take all necessary measure for protection of the line as under,

(B) PROTECTION ON SINGLE LINE SECTION:

i) If the line is obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night 5 meters away from the direction on which train is expected to arrives first.

ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.

iii) Gatekeeper shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.

iv) Gatekeeper 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 and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed on the other side, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

vii) In case the gatekeeper observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

viii) Thereafter, he shall warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(C) OTHER ACTIONS TO BE TAKEN BY GATEKEEPER:

i) At night, Gatekeeper 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 Gatekeeper shall take immediate action.

iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the SM and Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

3.5 **ENGINEERING ITEMS:**

i) **Visibility :**-

Direction	Side	Visibility Distance
UP	Right	300 m.
	Left	300 m.
DN	Right	300 m.
	Left	300 m.

ii) Speed Breaker: - Speed Breakers of approved design are provided on either side of this Level Crossing gate.

iii) Periodical Census of traffic has been taken and the latest TVU is 1584 **on 10/2024.**

3.6 **SPECIAL INSTRUCTIONS:**

1. **MODE OF OPERATION:**

This is a Manned & Non-interlocked 'C' Class Engineering L.C.Gate situated at Km 44/17-18 in between JUNAGARH ROAD-BHWANIPATNA Stations. This gate is provided with winch operated coupled lifting barriers and the gate is closed/opened by the Gatekeeper manually by winch operation. Telephone communication is provided between the L C. gate lodge with SM office of JUNAGARH ROAD station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/ JUNAGARH ROAD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the Gatekeeper supported by exchange of private number. When the Gatekeeper desires to open the gate for passage of road traffic he should ensure that no PN has been exchanged with the Station Master/ JUNAGARH ROAD 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 Gatekeeper has exchanged private number with the SM/ JUNAGARH ROAD. 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 / JUNAGARH ROAD before permitting each train to enter into the block section, shall ask Gatekeeper on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gatekeeper only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master /JUNAGARH ROAD in assurance of gate being closed and locked against road traffic.

iii) The Station Master / JUNAGARH ROAD shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the Gatekeeper supported by exchange of private number.

iv) When the Gatekeeper 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 / JUNAGARH ROAD as per (ii) above.

(2) If he has exchanged private number with the SM/JUNAGARH ROAD, the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / JUNAGARH ROAD has not exchanged PN 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 Gatekeeper 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/ JUNAGARH ROAD 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 Gatekeeper 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.

3.7 FAILURE OF TELEPHONIC COMMUNICATION:

When telephonic communication fails or he does not get any response from gatekeeper despite two or three attempts, the following procedure should be adopted:

i) Station Master/JNRD shall issue caution order to the Loco Pilot of the departing train.
ii) In the caution order, it shall advice the Loco Pilot to whistle continuously and approach the gate cautiously.
iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gatekeeper. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If gate is closed, ALP will give all right signal and if gate is not closed, the ALP must close the gate and then give all right signal. In the absence of the ALP, the LP may take the assistance of TMR.
iv) In case of an approaching train, the SM shall advise the SM at the dispatching end, under exchange of private number that the telephone at the gate has failed.
v) The SM at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.
vi) The SM shall advise the GK through gang man/patrol man or the LP of the first train that the telephone has become defective.
vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

3.8. FAILURE OF LIFTING BARRIERS:

i) When the gate cannot be closed due to failure of lifting barriers, the Gate Keeper will immediately inform, the Station Master on duty/JNRD under exchange private number, and ensure the lifting barriers of gate do not foul the track.
ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
iii) Gate Keeper shall secure the gate against road traffic by means of safety chains and padlocks.
iv) After securing the gate against road traffic, Gate Keeper shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching train.
v) Station Master on duty/ JNRD shall issue a caution order to the Loco Pilot of a departing train.

vi) He 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 a train into the block section from his end.
vii) Station Master/ JNRD 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 repairs the barrier and issue reconnection/fit memo for the same.

3.9 **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 gatekeeper 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 gatekeeper shall advise the Station Master/JNRD on duty, regarding the defects/obstruction at the gate, under exchange of private number.
iii) Station Master/ JNRD 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/ JNRD after two or three attempts, he shall first protect the gate and then inform on phone.
v) Gatekeeper 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 gatekeeper under item No.3.4(5).
vi) Thereafter he shall protect the gate from the other direction also.
vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and reply these details to the Station Master/ JNRD who shall not start the trains unless he has been assured by the gatekeeper that the road vehicle or the lifting barriers are not fouling the track.
viii) The Station Master/ JNRD shall also inform the Station Master/BWIP at the dispatching end, under exchange of private number, asking him not to dispatch any train into the block section from his end, until the track has been cleared of all obstructions.
ix) After the track has been cleared of all obstructions the gatekeeper shall inform the Station Master/ JNRD accordingly, under exchange of private number.
x) Gatekeeper 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/ JNRD 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.

3.10 **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 gatekeeper, the gatekeeper and Station Master/JNRD will adopt the procedure given under item No. 3.9 above. If the obstruction fouls the level Crossing Gate, gatekeeper must keep the gates closed against road traffic till the track is cleared of the obstruction.

3.11 ACCIDENTAL ROLLING DOWN OF TRAIN:

When the Gate Keeper observes that a train is rolling down or immediately after receipt of the information about accidental rolling down of the train the gatekeeper shall:

i) First close the gate against the road traffic.
ii) Then immediately inform the SM on Duty.
iii) He shall not open the gate till he ensured that the train has completely stopped.

CERTIFICATE: -

NOTHING IN THESE RULES SHALL BE READ AS CANCELLING, AMENDING AND MODIFYING ANY OF THE RULES IN GENERAL RULES, SUBSIDIARY RULES, BLOCK WORKING MANNUAL AND OPERATING MANNUAL

APPENDIX 'B'

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

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

1.1.1 **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.

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

SN	Point No.	Colour	Description
1	22	BLACK	Crossover point between Main line and 1st Loop line at BWIP end.
2	24	BLACK	Crossover point between Main line and 2ndLoop line at BWIP end.
3	25	BLACK	Crossover point between Main line and 1st Loop line at terminating end.
4	27	BLACK	Crossover point between Main line and 2nd Loop line at terminating end.
5	21	BLACK	DS point on Main line at terminating end isolating Shunting neck from Main line.
6	23	BLACK	DS point on ORL of Line No-1 at terminating end isolating saloon siding from Line No-1.
7	29	BLACK	DS point on ORL of Line No-3 at terminating end isolating Track machine siding from Line No-3.
8	31	BLACK	Crossover point between Line No-3 and Line no-4 at terminating end.
9	33	BLACK	DS point on Line No-4 at terminating end isolating shunting neck from Line No-4.
10	26	BLACK	Crossover point between Line No-4 and Line No-3 at terminating end.

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

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

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

Points are operated for NORMAL to REVERSE or vice versa by operating concerned point push button along with common point group button for normal or reverse operation. When the points 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 WHITE steady 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 REVERSE correctly, the normal and reverse steady indication will not be there but the WHITE indication will start flashing till such time the point is housed & locked properly in one of the positions. In such case points are to be set both ways by crank handle and clamped and padlocked. This WHITE indication will flash during operation of point also. After completion operation of point during crank handle operation, NORMAL or REVERSE indication appears on panel.

1.2.5 All points over running lines are operated by electric point machines.

1.2.6 **NON SETTING OF POINTS**: -

The cause for non-setting of the point in the desired position shall be checked up by the SM on duty according to SR 3.68.01 ©. 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 ©. 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	LOCATION
1	CH-1	BLUE	22A & B, 24 A & B.	DN location
2	CH-2	BLUE	21, 25 A & B, 27A & B	UP location
3.	CH-3	BLUE	29	UP location
4.	CH-4	BLUE	23	UP location
5.	CH-5	BLUE	26A & 26B	DN location
6.	CH-6	BLUE	31A & 31B, 33	UP location

Crank Handle buttons must be operated in conjunction with GROUP TRANS 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	S2	RED	Press to take 'off' DN Home Signal for Line Nos.1, 2 & 3 (BWIP end) along with respective route button.
02	C2	RED With white dot	Press to take 'off' DN Calling on Signal for Line Nos.1,2& 3 (BWIP end) along with respective route button.
03	S11	RED	Press to take 'off' UP Starter signal on Line No. 1(Loop Line No-1) along with respective route button.
04	S13	RED	Press to take 'off' UP Starter on Line No. 3(Loop Line No-3) along with respective route button.
05	S15	RED	Press to take 'off' UP Starter on Line No. 2 (Main Line) along with respective route button.
06	S19	RED	Press to take 'off' UP Advanced starter for dispatching a train towards BWIP along with respective route button.
07	SH 3	YELLOW	Press to take 'off' Shunt signal on Shunting neck for shunting towards line no. 1or 2 or 3 along with respective route button.
08	SH 4	YELLOW	Press to take 'off' Shunt signal on top point for shunting towards line no. 1 or 2 or 3(BWIP end) along with respective route button.
09	SH 5	YELLOW	Press to take 'off' Shunt signal in Saloon siding for shunting towards line no. 1 along with respective route button.
10	SH 7	YELLOW	Press to take 'off' Shunt signal in T.M.siding for shunting towards line no. 3 along with respective route button.
11	SH 10	YELLOW	Press to take 'off' Shunt signal below stop signal on line No-1 for forward shunting towards Saloon siding and Shunting neck along with respective route button.
12	SH 12	YELLOW	Press to take 'off' Shunt signal below stop signal on line No-3 for forward shunting towards T.M.siding and Shunting neck along with respective route button. .
13.	SH 16	YELLOW	Press to take 'off' Shunt signal below stop signal on line No-2 for forward shunting towards Shunting neck along with respective route button. .
14.	SH 9	YELLOW	Press to take 'off' Shunt signal in Shunting Neck for shunting towards line no. 4 along with respective route button.
15.	SH 14	YELLOW	Press to take 'off' Shunt signal below stop signal on line No-4 for forward shunting towards Shunting neck along with respective route button. .
16.	S17	RED	Press to take 'off' UP starter for dispatching a train towards BWIP along with respective route button.

1.3.2. **SIGNAL INDICATIONS**: -(S&T/SBP/DRG/SWR discrepancies dt:- 18.6.2020 as per IRSEM Part-II Para No.21.03.03(b).

(a) Indication that a stop signal is at 'ON' shall be given by a red light and a permissive signal Is at 'ON' shall be given by a yellow light on the corresponding signal symbols on the panel.

(b) Indication that stop/permissive signal is 'OFF' shall be given normally by a green, yellow or double yellow light as signal is seen in the field, on the corresponding signal symbol on the panel. However, in case of a domino panel where indication of all aspects is not provided, any 'OFF' aspect can be shown by green along with the following flashing indications for conditions as enumerated below:-

i) Failure of green; green flashes red* blank;
ii) Failure of yellow; green flashes, red lit;
iii) Failure of double yellow, both green and red * flash; &
iv) Failure of red*, green not lit (blank), red* flashing.

**** To be read as yellow for a permissive signal.***

2.0 **ROUTE BUTTONS**: -

Route buttons are provided separately on each running line on the panel for initiation of route (viz. L1UN, L2 UN, L3 UN, L4UN). Common route buttons are also provided for taking off starters (viz.: 19AUN). An individual route button is provided for taking off Advanced starter (Viz.:19UN). SDGUN, SNKUN, SNUN and TMUN have been provided for shunting in Saloon siding, Shunting Neck and Track machine siding respectively.

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 also.

2.1 **DESCRIPTION OF ROUTE BUTTONS**:-

SN	Button No.	Colour	Description
1	L1UN	WHITE	Route button for DN Home/Calling-on, SH4A, and SH3C & SH5 for Loop line No-1.
2	L2UN	WHITE	Route button for DN Home/Calling-on, SH4B &SH3B for Main line.
3	L3 UN	WHITE	Route button for DN Home/Calling, SH4C, SH3A & SH7 for loop Line No-3.
4	19AUN	WHITE	Common route button for UP starter signal No.11, 15 & 13.
5	19UN	WHITE	Route button for UP Adv. Starter No. 19 towards BWIP.
6	SDGUN	WHITE	Route button for shunting towards Saloon siding.
7	SNKUN	WHITE	Route button for shunting towards Shunting Neck.
8	TMUN	WHITE	Route button for shunting towards Track Machine siding.
9	L4 UN	WHITE	Route button for DN Home/Calling, SH4D, SH9 ,SH3D& SH7B for loop Line No-4.
10	SNUN	WHITE	Route button for shunting towards Shunting Neck.

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

SN	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.

S. SAINI
DSTE(SIG)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

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 counter		This registers to record the operation of Calling-on signal.

3.0 **TRAIN ARRIVAL INDICATION THROUGH AXLE COUNTER: -**

The system provides for automatic check for last vehicle arrival through provision of axle counter. Digital Axle counter has been provided in JNRD-BWIP section to check the complete arrival of trains. The system is interlocked with Block Instrument. When the Axle counter section indication provided on the reset box panel for section indicates 'RED' i.e. occupied even after the complete arrival of train, the Block instrument of the JNRD-BWIP section cannot be normalized. Hence, SM on duty has to ensure complete arrival of trains by means of physical verification of last vehicle of trains.

4.0**(A) POWER SUPPLY ARRANGEMENTS FOR THE SIGNALLING INSTALLATION**

Power signalling and interlocking installations and the ancillary field units are fed from the following sources of power supply.

i) Normally supply from AT connected to OHE Traction distribution [230 V 50 Hz].
ii) Stand by supply from Odisha StateEletricity Board (OSEB) [Single phase 230V-50Hz].
iii) Stand by supply from Diesel Generator set [Single phase 230V-50Hz].
iv) Normal power supply [Single phase 230V-50Hz] to the Signalling & Interlocking installation at the station is drawn from the traction power sources. Whenever traction power supply fails SS/SM on duty shall operate the rotary change over switch provided in the CLS power panel at SM's office connecting the power supply from the healthy sources to the installation.

The SS/SM on duty however maintain the record of AT power supply/ local supply/ DG power supply and he must promptly report the failure of AT supply immediately through the section controller and to the concerned Electrical Staff and S&T maintenance staff.

a) A change over switch is provided in the SM's office with the three power supplies viz AT supply, local power supply and DG supply for changing the switch to the required supply position. The availability of the supply is indicated by luminous indicator above the circuit breaker for each supply.

b) Normally the switch will be kept towards AUTO supply position. Whenever the power block is to be given on the line, on duty SS/SM must ascertain the power is available on the local supply and change over the switch to desired position e.g if power block is to be given, local supply and DG set working must be available.

c) In case of failure of AT supply without any power block, on duty SS/SM has to check whether the circuit breaker has tripped. (Three circuit breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes DN). In case of failure of AT supply without any power block, the local supplies shall be utilized by operating the change over switch. If the circuit breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEEE/GEN and CTFO/PSI/TRD/GEN for prompt rectification.

d) Whenever there is failure of AT supply, the on duty SS/SM shall take prompt action to inform to all concerned for the rectification, The on duty SS/SM himself, during his daily checks, shall test the availability of AT power supply and make entry in station dairy duly initiating action for rectification of failure, if any.

(B) <u>WORKING OF INTEGRATED POWER SUPPLY [IPS],INDICATIONS& ACTION TO BE TAKEN BY SS/SM ON DUTY</u>

i) Power supply to the signalling installation is fed through IPS installed in the S&T power supply room. The IPS is normally fed through AT traction power.Standby power supply are through local supply and DG supply. One change over switch is provided in the SM's room for selection of output of AT traction power supply or local power supply or DG supply. The available traction/local supply/DG supply is fed to the IPS through auto-change over switch provided in IPS.
ii) The IPS system is connected with Battery as a back-up power source for safe working during transition of power and in case no 230v AC supply is available due to any reason.
iii) In the event of failure of all the sources of 230V, 50 Hz AC supply, the signalling system shall be fed by power generated by back-up battery Bank connected to IPS for a limited power of 08 to 10 hours. The health of battery bank is monitored through one IPS

monitoring Panel provided in the SM's room which shall be display the voltage 110V DC [Battery bank provided as back-up source of power supply]. Depending upon the health of the Battery Bank and the system, the following indication/alarm will appear on the Remote Monitoring Panel, their implications and action to be taken by SS/SM on duty is tabulated below.

SN	Instruction	Healthy of Battery Bank /Equipment	Visual Indication	Audio Indication	Action to be taken by SS/SM on duty
A	-	50% DOD (Depth of Discharge)	Red	Alarm	Alarm shall be acknowledged by SS/ SM on duty.
B	-	60% DOD	Red	Alarm	-Do-
C	System Shutdown	70% DOD	Red	Alarm	Signal feed cut off and all DC-DC converters to work. Audio alarm will continue till power supply is restored.
D	Call S&T Staff.	Equipment fault	Red	Alarm	Failure of any module will give the alarm in SM's panel. Alarm shall be acknowledged by SS/SM on duty for audio cut-off.

On duty SS/SM in each shift shall check and record the readings, indications, etc in the station dairy duly initiating rectification of failures of IPS system, if any.
In the event of failure of remote monitoring ASM console due to any reason when traction power, local power and DG supply failed the SS/SM on duty shall inform concerned Electrical staff immediately. In case ' Call S&T staff' or 'system shut down' indication appear on the remote monitoring panel of IPS and/or mal-functioning of the remote monitoring panel SS/SM on duty shall inform the same to concerned S&T staff immediately.

NOTE: In case of failure of all AC supply sources IPS Battery Bank can provide power supply maximum up to 08 to 10 hours before system shut down indication of IPS.

5.0 **EMERGENCY ROUTE RELEASE COUNTER**: -
This counter is provided to register the number of operations made for emergency cancellation of route. The SM on duty must record the last number registered on the counter while taking over/ handing over duty.

6.0 **EMERGENCY ROUTE RELEASE INDICATION (WHITE) / EMERGENCY ROUTE RELEASE BUTTON (WHITE WITH RED DOT):-**
This 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. Then the emergency route release button (white with red dot) positioned on the top of panel to be pressed by breaking the seal and subsequently the concerned signal button pertaining to the route is to be pressed without releasing the

emergency route release button. The concerned S&T staff should be advised immediately to get the emergency route operation button resealed after rectification of fault, if any.

7.0 **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, turn it and shall push the emergency Point operation button by breaking the seal along with relevant point button simultaneously.

Then retaining the point button in pressed condition, 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 and the counter number will increase by next number. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose. The concerned S&T staff should be advised immediately to get the emergency point operation 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 normalized. 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 five rail length in rear of the DN Home signal to Ds points in the sidings at other end. Track circuits 2AT is calling-on track circuit. 22BT, 24BT, 22/24T, 23/25T, 21/25/27T,27/29T,31AT, 31BT and 26T are point track circuits. L1T1, L1T2, L1T3, L2T1, L2T2, L2T3 L3T1, L3T2, L3T3 ,L4T1, L4T2 and L4T3 are berthing track circuits. Other track circuits namely 2T, 19AT 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. 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 on duty is the only authorized person to operate the panel and the panels 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 locks 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:-**

The yard has been divided into four crank handle regions. CH 1 operates Point No. 22 & 24 and CH 2 operates point No. 21, 25 & 27. CH 3 operates Point No. 29 , CH4 operates Point No. 23 , CH5 operates Point No. 26A & 26B & CH6 operates Point No. 31A, 31B & 33. All the above crank handle key shall be operated by the procedure detailed in main SWR.

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.

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

Miniature colour light Calling on signal is provided below the Home 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 of a train when the Home signal above cannot be taken 'OFF' due to failure of track circuit or any other reason or for admission of train on blocked line and for shunting purpose. The Calling on signal cannot be taken if the track circuit just in advance of the Home signal is occupied i.e showing Red.

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 route by signal and route button pressing or by crank handling in the event of failure of operation of points through panel. After the route is set, the calling on signal button 'C2 (Red with white dot) (as the case may be), shall be pressed simultaneously along with the concerned route button for 2-3 seconds and released. After a lapse of 60 seconds, the calling on signal clears i.e., a yellow light glows at the concerned calling on signal on the panel.

NOTE

(i) Before taking "OFF" Calling-on signal during failure of track circuit, the clearance of track over which the train is intended to be received must be verified physically.

(ii) SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal

14.0 **SETTING OF ROUTE AND TAKING OFF DEPARTURE SIGNALS:-**

For setting a particular route for departure of a train, all the concerned points must be set by operation of point 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 signal, line clear must be obtained from BWIP station. Then the concerned Advanced starter signal button along with the Advanced starter route button to be pressed for two to three seconds and released. This will clear the Advanced starter signal.

14.1 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 **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.

14.3 **REPLACEMENT OF SIGNALS TO 'ON': -**

Signals are replaced to 'ON' automatically by the passage of a train past the signal. It will not be possible to re-clear the signal again unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the respective signal button and the signal cancellation button (RED) to be pressed simultaneously.

15.0 **INTERLOCKING OF SIGNALS/POINTS:-** All running line points are fitted with facing point locks in the point machine and are electrically detected by the relevant Home signal and starters.

15.1 Advanced starter is interlocked with Tokenless block instrument in sending position i.e. train going to position. The same cannot be taken off unless the concerned block instrument is in line clear position (TGT).

15.2 The Block instrument cannot be made normal unless the respective Home signal is put back to 'ON'. However, the Home signal can be taken off in case of failure of the block instrument.

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

15.4 When the block instrument or Advanced starter fails, trains will be worked on PLCT.

15.5 **PILOTING OF TRAINS:** - In the event of failure of Home signal and Calling ON signal simultaneously, it is inevitable to pilot the train 'IN'. For piloting the train, the setting of route must be ensured by SM on duty personally and for details refer SR 3.79.06 & 3.70.02.

15.6 **SHUNTING:** For shunting, OFF aspect of starter signals at BWIP end and shunt signals below stop signals at other end shall be used. For back shunting, shunt signal provided on top point at BWIP end of the yard shall be used. For shunting in the siding the shunt signals provided in the sidings shall be used.

16.0 **NON RUNNING LINES**

(i) TRACK MACHINE SIDING:-

The track machine siding (CSL-142, SH to SB) takes off from ORL of line No.-3 with one side entry. The entrance point of Siding is isolated by derailing switch No, 29 which is operated from SM Panel. Whenever shunting is to be performed in the siding, the concern shunt signals SH 12 B below stop signal No.12 shall be used. The reception signals 2C, C2C shunt signals SH-3A, SH4C, SH7,SH12A and starter signal 13 are locked in their normal position when SH12 is taken off for shunting in the siding. Whenever shunting is to be performed from siding to line No.-3, the concern shunt signal SH 7 in TM siding is to be taken off. Signals 2C, C2C, SH-3A, SH4C, SH7, SH12A/B and starter signal 13 will be locked in their normal position when shunt signal SH7 is taken off for shunting a train from the siding to line No-3. For any non signal movement in the siding, shunting authority in form T/806 is to be issued to train staff and all points in the route shall be set, clamped and padlocked.

(ii) **SALOON SIDING:-**

The Saloon siding(CSL-99, SH to SB) takes off from ORL of line No.-1 with one side entry. The entrance point of Siding is isolated by derailing switch No, 23 which is operated from SM Panel. Whenever shunting is to be performed in the siding, the concern shunt signal SH 10A bellow stop signal No.10 shall be taken off. The reception signals 2A, C2A shunt signals SH-3C, SH4A, SH5, SH10B and starter signal 11 will be locked in their normal position when SH10 is taken off for shunting in the siding. Whenever shunting is to be performed from siding to line No.-1, the concern shunt signal

SH5 in Saloon siding is to be taken off. Signals 2A, C2A, SH-3C, SH4A, SH10A/B and starter signal 11 will be locked in their normal position when shunt signal SH5 is taken off for shunt movement of a train from the saloon siding to line No-1. For any non signal movement in the siding, shunting authority in form T/806 is to be issued to train staff and all points in the route shall be set, clamped and padlocked.

(iii) **SHUNTING NECK:-**

The Shunting Neck (CSL-121SH to SB) takes off from Main line with one side entry. The entrance point of Siding is isolated by derailing switch No, 21 which is operated from SM Panel. Whenever shunting is to be performed in the shunting neck, the concern shunt signals SH 16 on main line or SH10B on loop line No-1 or SH12A on Loop line No-3 shall be taken off. The reception signals 2A/B/C, C2A/B/C shunt signals SH-3A/B/C, SH4A/B/C, SH5,SH10A,SH12A,SH16 and starter signal 11,13,15 will be locked in their normal position when SH10B on loop line -1 is taken off for shunting towards shunting neck. The reception signals 2A/B/C, C2A/B/C shunt signals SH-3A/B/C, SH4A/B/C, SH10B,SH12A and starter signal 11,13,15 will be locked in their normal position when SH16 on Main line is taken off for shunting towards shunting neck. The reception signals 2A/B/C, C2A/B/C shunt signals SH-3A/B/C, SH4A/B/C, SH7, SH10B,SH12B,SH16 and starter signal 11,13,15 will be locked in their normal position when SH12A on Loop line No-3 is taken off for shunting towards shunting neck. Shunt signal No.SH3A/B/C is to be taken off for shunting from shunting neck to line No.-1or 2or 3 as the case may be. Signals 2A/B/C, C2A/B/C, shunt signals SH-3B/C, SH4A/B/C, SH7, SH10B,SH12A/B,SH16 and starter signals 11,13,15 will be locked in their normal position when SH3A is taken off for shunting towards line No-3. Signals 2A/B/C, C2A/B/C, shunt signals SH-3A/C, SH4A/B/C, SH7, SH10B,SH12A,SH16 and starter signals 11,13,15 will be locked in their normal position when SH3B is taken off for shunting towards Main line. Signals 2A/B/C, C2A/B/C, shunt signals SH-3A/B, SH4A/B/C, SH5, SH10A/B,SH12A,SH16 and starter signals 11,13,15 will be locked in their normal position when SH3C is taken off for shunting towards loop line No-1. For any non signal movement in the shunting neck, shunting authority in form T/806 is to be issued to train staff and all points in the route shall be set, clamped and padlocked.

(iv) **SHUNTING NECK:-**

The Shunting Neck (CSL-85, SH to SB) takes off from L4 with one side entry. The entrance point of Siding is isolated by derailing switch No, 33 which is operated from SM Panel. Whenever shunting is to be performed in the shunting neck, the concern shunt signals SH 14A on L4 shall be taken off. The reception signals 2C/D, C2C/D shunt signals SH3D, SH4D will be locked in their normal position. For back shunting SH9 may be lowered. Signal 2C/D, C2C/D, SH3D, SH4D will be locked in normal condition.

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

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

18.0 **CRANK HANDLING EMERGENCY OPERATION OF POINTS: -**

Crank handle keys 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.

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 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 inpara 12.0.

19.0 **INSTRUCTIONS REGARDING STABLING OF TRAINS ON RUNNING LINES: -**

When a train is stabled on a running line for a long duration i.e. more than 10 Hours, the use of the said running line after clearance for passing the trains at the station shall be done with a lot of care and diligence. Station Master on duty shall carefully 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 the Station Master on duty is not satisfied with the proper functioning of the track circuits on which the train is/was stabled, the signals leading on the line shall be suspended and the S & T maintenance staff shall be informed for attending to this.

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

20.1 **EMERGENCY ROUTE CANCELLATION BUTTON AND VEEDER COUNTER:** -

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

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

20.2 **EMERGENCY OPERATIONS – CANCELLATION OF THE LOCKING OF POINTS NOT RELEASED AFTER THE PASSAGE OF THE TRAIN FOR WHATEVER REASON:**-
If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operations.

a) Firstly, it must be ensured that the Signal is in the normal position.

b) Operation as detailed in Para 4.12 of main SWR shall be followed.

In case route is not released even after emergency route cancellation, facility of crank handling of points shall be used. For releasing the crank handle key even when lock indication of crank handle key appears on the panel, press Group Trans button and crank handle button. After 120 seconds, key from RKT can be extracted. For further operation 12.0 of Appendix 'B' shall be followed.

21.0 **LOCKING OF RELAY ROOM**: -

The procedure as per JPO/02/2012 of 29.08.2012 shall be followed for locking of Relay room, etc. (follow para No.4.2 of main SWR.).

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

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

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

23.0 **PROCEDURE TO BE FOLLOWED IN CASE 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 SM on duty to the signal Maintainer, the JE/SE/SSE (SIG) of the Section and others through a memo as per SR 3.51.04 and 3.68.04 and the SM shall document all such transactions.

24.0 **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**-
However, before declaring a signal or any other S&T gear as defective, 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 SM on duty irrespective of the position of buttons and indications on the panel and will work vide GR 3.68.

25.0 **RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:** -
On receipt of information, the sectional Maintainer shall attend to the failure after giving a Disconnection Memo. After rectification of the fault, the Sectional Maintainer shall give a Reconnection Memo detailing the rectification. Thereafter, the SM on duty shall personally check the defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR 3.68.04 (c), (d), (e) & (f) and RB letter No. 2021/SIG/21/safety performance, dtd:10.06.2023 & amendment issued vide letter No: 2023/TT-IV/9/2, dtd:16.06.2023.

26.0 **TOKEN LESS BLOCK INSTRUMENT:-**Refer Part-II of BWM 2010.

27.0 **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 SM on duty in writing about this work in terms of SR 15.08.01.

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

S. SAINI
DSTE(SIG)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

29.0 **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.

29.1 In case of failure of a signal or a point and in case the point cannot be operated from the panel, emergency crank handle, which is interlocked with system is to be extracted and the following procedure is to be adopted.

29.2 Emergency crank handle is provided for all motor operated points. This is mechanically attached to the key on RKT and can be released by pressing Crank Handle control push button and Group Trans button simultaneously. All signals will be locked in normal position as soon as the key is released. SM on duty shall transmit the key to required end of the yard and operate the point manually.

29.3 When the crank handle key is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody rests with the Station Master on duty, till it is replaced back in RKT.

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

29.5 Whenever an Emergency Crank Handle is required to be used by a signal official for maintenance work or attending a failure, the signal official will give a disconnection memo to the SM on duty .The SM on duty will obtain the acknowledgement of the signal official in the Emergency Crank Handle Register and then hand over to him the Emergency Crank Handle.. The points will be treated as defective till the Emergency Crank Handle is returned back to the SM on duty.

29.6 Before parting with the Emergency Crank Handle either for attending failures or for maintenance work by Signal maintenance officials, the SM on duty will ensure that the reception and departure signals are put back to 'ON' position. The points for the affected lines should be treated as non-interlocked. The SM on duty is responsible for introduction of non-interlocked working and the trains will be piloted 'IN' and 'OUT' after duly clamping and padlocking both facing and trailing points over which the train is to pass, as per GR 3.69 and 3.70 with relevant SRs. The SM on duty will be personally responsible for correct setting, clamping and padlocking of points for reception or dispatch of all trains.

29.7 The Emergency Crank Handle Register is to be maintained vide OM 20.06 Note (d) by the SM on duty wherein the particulars of the usage of the Emergency Crank Handle must be recorded.

30.0 **SUSPENSION OF LAST STOP SIGNALS:** -
When the Block instrument is suspended with its handle in 'TRAIN ON LINE' position or "TRAIN GOING TO" position as the case may be for whatever reason, the concerned last stop signal controlled by the Block Instrument must be treated as suspended and trains shall be worked on PLCT.

30.1 The SM on duty shall not grant 'LINE CLEAR' unless he has ensured that the lamps of fixed signals, which apply, to the train are burning. If the signal lights cannot be kept burning, the SM on duty before giving 'LINE CLEAR' shall initiate action in accordance with the procedure prescribed in GR 3.68 to 3.72 .

31.0 **SIGNAL LIGHTS:** -
The SM on duty must also ensure from panel board that all the signal lights are burning properly and brightly. This fact must be recorded in the Diary under a separate entry and confirm to the Section Controller on duty. Care and lighting of signal lamps shall be done vide GR 3.49.

32.0 **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 SR 4.01.01 and 4.01.02.

33.0. **NORMAL POWER SUPPLY**: -
The Station works on 230 volts AC single-phase power supply. The normal power supply is drawn through AT and the standby sources are local supply & DG Set. All controls have been provided with Battery backup.

33.1 **POWER FAILURE AND REPORTING SUCH FAILURES:** -
Normal power supply to the Signalling and Interlocking installations at this station is drawn from AT and the standby sources are local supply & DG Set.

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

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

(a) Axle Counter as LVCD has been provided for the section JNRD-BWIP as last vehicle checking device. The axle counter will also have control over the UP last stop signal and block instrument of JNRD- BWIP section.

(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 JNRD cannot be taken OFF if axle counter of block section JNRD-BWIP fails. On the other hand, on arrival of a train at station if the axle counter continues to show occupied the block instrument of concerned block section cannot be turned to line closed position.

34.1 **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.

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

(i) Procedure laid down in GR 4.17 & relevant SRs thereto shall be followed for the purpose.

(ii) By checking the train register, the detail of the train passed through the block section and finding out from the station at other end of the concerned block section or from Controller that last train has passed and arrived complete. SM on duty shall exchange private number with the SM at other end of the concerned block section or with the Controller or from whom the complete arrival has been confirmed.

(iii) If the failure has occurred after arrival of a train, SM on duty shall also obtain intact position from the guard of stopping train or by exchanging all right signal with the guard of through train, so that he can ensure that the train has arrived completely before resorting to reset of LVCD axle counter.

(C) **RESETTING PROCEDURE:-**
After complete arrival of train, if the axle counter of the section does not clear or Axle counter section free indication (GREEN) does not appear in the axle counter 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, if arrived fully, shall 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 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 (miniature Green) glows on the panel.
f. The counter reading increases by one count after a gap of 5 seconds approximately.
g. The counter reading should be recorded.
h. First train is to be piloted out into the section to make the system normal.

The SM shall record in his Train Signal Register, Station Diary and register meant for it the details of resetting operation giving details of train number, time, Private Number exchanged with SM in rear and reasons for the resetting operation.

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

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

35.0 **TELECOMMUNICATIONS: -**

The following communications are provided at this station:

(i) Telephone attached with single line token less Block Instrument for Block Section JUNAGARH ROAD-BHAWANIPATNA.
(ii) Station to Station fixed telephone (Hot line) has been provided
(iii) Station has been provided with auto telephone connected with Railway Exchange
(iv) BSNL telephone has been provided
(v) The station is connected to BLGR-SPRD control circuit by a control telephone
(vi) Station to station 25 Watt VHF communication has been provided
(vii) Telephone connection has been provided between Station and both end crank handle locations.
(viii) Telephone connection has been provided between Station and Engineering L.C. Gate No.LJ-22 at KM.34/11-12, LJ-24 at KM. 41/8-9, LJ-25 at KM. 44/17-18, LJ-26 at KM. 45/6-7, LJ-28 at KM. 51/10-11 in JNRD-BWIP section.
(ix) Telephone connection has been provided between Station and TPC.

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 Loco Pilots, Guards or any other staff.
(iii) The on duty SM shall use the above electrical communication instruments stated in Para- 35.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication the SM on duty shall work vide SR.6.02.06.

36.0 **FAILURE OF COMMUNICATION / FAILURE OF BLOCK INSTRUMENTS:**

During failures of signal, inter-locking, points, block instrument telephone etc. the S&T staff should be informed for rectification.

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

37.0 WORKING OF AUTOMATIC FIRE DETECTION AND ALARM SYSTEM:

- In case of any alarm in any particular area due to fire or dust-Zone number on the LCD display can be seen, note down the zone No. displayed in control panel.
- The moment the smoke detector detects any smoke particles, the RED LED will blink along with the alarm.
- Once you find the zone number rush to that particular area where the detector gives alarm.
- Once you reach the area where the detector is giving the alarm, check whether the alarm is due to the fire or for any other reason.
- Then call immediately to the staff of concerned department.
- Call the fire station if required.
- Take action to extinguish the fire by the fire extinguishers available in the station.
- To alert the people in case of emergency press "*" sign of the fire which is present inside the key pad together for few seconds. This will enable you to hear the panel alarm.
- To reset the panel follow the instructions provided by S&T official in station master's room near the fire alarm panel.
- The control panel will get reset and siren muted.
- If the power fails on this will enable us to see the red indicator on the panel.
- In case of failure in power and if the battery is fully charged, the panel can function effectively as long as the charge in the battery is present.

APPENDIX 'C'

ANTI COLLISION DEVICE [RAKSHA KAVACH]:

-NIL-

APPENDIX 'D'

DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT

1.0 **STATION SUPERINTENDENT/STATION MASTER (IN-CHARGE)**:-

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

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

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

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

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

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

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

He is responsible for booking all staffs working under him for PME and Refresher Course / Safety camp in their due time. His Special attention is drawn out to chapter II of General and Subsidiary Rules and GR 5.01 to 5.08 with relevant Subsidiary Rules, Chapter –2 of Operating Manual.

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

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

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

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

His special attention is drawn to chapter No.II of G & SR (Amendment) 2012 and GR 5.01 to 5.08 with relevant SRs. He shall follow the instruction laid down in SR 3.68.01© & (d) and SR 14.07.01 and BWM 2.09 (e). He shall conduct surprise night inspection, safety meetings and fire drills. He shall maintain good public relation as well as look after passenger's amenities and be helpful to travelling public.

2. SS/SM

a) He shall work in shift duty for train passing and booking of traffic, returns and other statements shall be prepared and submitted by him in time under the direction of the Station Superintendent in charge.
b) He shall assist the Station Superintendent in charge for the up keep of the station in all aspects.
(c) To have a clear knowledge of all the General, Subsidiary Rules, Train Signaling Rules, Rules of Operating Manual, Accident Manual which are concerned to him and other instructions, issued from time to time and observe all Rules for safe running of trains.
(d) To observe station working rules and other instructions and circulars issued from time to time.
(e) For proper and correct operation of equipments, apparatus, and instruments including signaling and interlocking gears and fittings.
(f) To keep himself in close contact with section controller about the running of trains and for other safe working instructions for safe passage of trains without detention at station, outside signals and at outstation.
(g) To take proper and immediate action for quick movement for detaching and attaching of vehicles.
(h) For good maintenance and cleanliness of the Panel buiding.
(i) For proper and correct maintenance of all safe working and train passing records concerned to running of trains.
(j) To ensure correct operation of points, locks and signals by the staff working under him.
k) He shall be civil and helpful to all users of the Railway and to give prompt and correct information to the passengers.
l) 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.
m) He is responsible for train passing during his shift. He shall promptly bring to the notice of SS all irregularities and accidents in course of his shift duties. During the absence of SS the duties of Station Superintendent will devolve on him.
n) He shall follow GR 3.49, SR 3.68.01 (c) & (d), SR 14.07.01. His special attention is drawn to chapter II of G & SR (Amendment) 2000 and SR 5.01 to 5.08 with relevant SRs. He shall carry out the instructions given to him by the SS.

2.0 **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.

2.1 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 SMR 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 them fully about their duties and responsibilities.

2.2 The Station Manager is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance of staff 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 Manager.

2.3 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.
(iii) When anyone joined as a new staff in the station.

3.0 **USE OF PRIVATE NUMBER BOOKS & IDENTIFICATION NUMBER SHEET**: -
Sufficient Private Number books and I.D number sheets in sealed covers shall be kept always in the stock by Station Manager under lock and key. He shall maintain a register for this purpose.

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

5.0 **TESTING OF POINTS AND SIGNALS**: -
The Station Manager shall test the working of the reception signals daily during the day when there is no train due to arrive/leave the station. He shall also test the working of points, crossings etc. and record the result in the Station Master's diary.

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

7.0 **<u>TRAFFIC POINTSMAN:</u>**
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, line clear papers and caution order etc. to the train staff concerned correctly.
(ii) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation under the supervision of Station Master/Guard.
(iii) To couple and uncouple vehicles under the supervision of Station Master/Guard when shunting operation is in progress.
(iv) Piloting and hand signaling of trains when necessary.
(v) Knowledge of hand signals, detonators and their use.
(vi) Protection of line in emergency and fog signaling.

(vii) Exchange of signals with the Loco Pilot and Guard of passing trains as directed by the Station Master.
(viii) Cleaning, Oiling and lighting of lamps.
(ix) Loading/unloading of parcels, luggage, Guard boxes and packages to and from the train and watching the packages and other materials by properly stacking in the station premises.
(x) Dusting of station office, filling up the fire buckets with sand/water and getting train interact arrival register (T/1410) signed by the Guard as and when required.
(xi) Serving messages and any other duties entrusted to them by the SS/SM from time to time.
(xii) Uses of emergency crank handle for setting of points.
(xiii) To supervise shunting as per SR 5.13.03.
(xiv) 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 and their special attention is drawn to chapter No.II of G & SR (Amendment) 2000 also.

GENERAL

i) A set of flags and tri colour hand signal lamps will be part of the essential equipment of the staff while on duty. He shall not leave the station except when required by the SM on duty or with his permission and shall comply with subsidiary rules 4.42.02(b) (i) and (d).

ii) Staff working at the station must be able to distinguish Up and Down line clear tickets and educated in distinguishing other operational forms and documents, delivered to Loco pilots and Guards and must also know how and when to ring the station bell.

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APPENDIX 'E'

LIST OF ESSENTIAL EQUIPMENT PROVIDED AT THE STATION:

A list of essential equipment's is given below which shall be maintained in good Working order.

Srl No.	Description	Quantity
1.	Detonators	10 in tin case
2.	Battery operated LED based flashing Hand Signal lamps	04 Nos.
3.	Hand signal flags	04 sets.
4.	Safety chains with pad locks	10 Nos.
5.	Wedges	10 Nos.
6.	Skids	04 Nos.
7.	Fire buckets (with sand and water)	06Nos.
8.	Clamps with padlocks	08 Nos.
9.	Reminder collars	06Nos.
10.	"Motor Trolley on Line" board.	01 No.
11.	Block Suspension Board.	01 No
12.	First aid Box.	01 No.
13.	Stretcher.	01No.
14	Fire extinguisher.	02 No.
15	Blanket.	01 No.

APPENDIX 'F'

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

PASSENGERHALTS:-

There is one passenger halt in JUNAGARH ROAD-BWIP section named as KUTRUKHAMAR PH and it is located at KM 41.275 [OHE KM : 41/3-7] from Lanjigarh Road JN station. 58303 & 58304 Passenger trains have scheduled stoppages at this passenger Halt.

APPENDIX- 'G'

STATION WORKING RULES FOR 25KV AC ELECTRIC TRACTION

JUNAGARH ROAD STATION

1. GENERAL & SUBSIDIARY RULES:

a) The rules applicable to electrified section have been given in chapter-XVII of the General Rules and in the subsidiary Rules made here under for electric traction. The General principles governing operation and maintenance of Traction Overhead Equipment, Electric locomotives, Signal & Telecommunications installations have been given in the A.C. traction manual. These rule books and an extract of the relevant paras of A.C. traction manual, shall be kept with the concerned staff shall make themselves thoroughly familiar with the same (GR. 17.01).

b) Brief reference to important rules required to be followed by Station/ Yard staff in their day-to-day work has been given in this Appendix. These are, however, illustrative and not exhaustive.

2. GENERAL SAFETY PRECAUTIONS:

a) All staff are warned that contract with or very near (within 2 meters, unless protected by a screen as per rules) to live portion of the 25 KV Traction Overhead Equipment is dangerous and shall be strictly avoided.

b) No work on overhead lines or in the zones within 2 meters of any live equipment shall be carried out unless a regular 'PERMIT TO WORK' has been obtained from the authorized Traction staff and the line has been made dead and earthed as per rules (GR 17.04) and ACTM para No.20600 to 20619 Vol. II Part. I.

3. SECTIONING DIAGRAM (Station Working Rules Diagram for Electric Traction)

a) A sectioning diagram No. LJRE/OHE/RE/JNRD/2022/01 indicating schematically the lines, which have been equipped with, for electric traction is exhibited. The diagram also indicates different electrical sections (Elementary Sections) the Controlling Switches or interrupters), insulated overlaps and section insulators where the overhead equipment is electrically separated. The limits of an electrical section (Sub-Sector or Elementary section) are indicated by the relevant section. A copy of this diagram is also enclosed with these special working rules and will form part of the same.

b) For all-purpose connected with Train movements and Power Blocks, this diagram is the only authorized document to be referred to the normal position of various switches is indicating on the diagram.

4. UNWIRED TRACKS:

No electric locomotive with pantograph raised shall under any circumstances be taken to an unwired sections.

5. OPERATING OF SWITCHES:

a) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller except in respect of switching operations for local blocks, which may be carried out by authorized traction staff, after they have been granted local blocks by the Station Master in accordance with S.R. 17.04.09 and ACTM para No. 20600,20601 of Vol.II. Part.I.

b) "In case of emergency, authorized and trained station staff may open Isolator switches under specific instructions of the Traction Power Controller (G.R. 17.04.14-B) with exchanging of Private Nos. to perform the operations of the following isolator switches as well as any other isolators within the station limit. Hence every station master shall be

fully aware of the location of the isolator switches provided for the control of power supply of OHE at or near the station and shall be conversant with correct method of operating and closing the same (Competency certificate is provided after getting assurance)

Sl.No.	Isolator No.	Loc. No.	Sl.No.	Isolator No.	Loc. No.
1.	SM –507(N/O)	52/10	4	SS -606	JNRD/1006
2.	SM –508	52/18	5.	SS -607 (DPI)	JNRD/2008
3.	SS - 605	JNRD/1005	6.	SS-607A	JNRD/2034

6. POSITION OF SWITCH HANDLES (ISOLATORS):
When a switch is in the closed position, the operating handle of the switch is at the top.

7. LOCATION OF KEYS OF SWITCHES & OHE KEY REGISTER
The keys for the padlocks of various isolator Switches are kept in the ASM's Office in a box with a glass mounted cover (17.04.13). The Station Master shall daily check the keys of switches of the isolators and report any defects or deficiency to the Traction Power Controller. In the event of breaking of glass box the procedure stipulated in SR 17.04.13 (b) has to be strictly followed. If operation (open/close) of isolators is required for the purpose of loading/unloading, the opening time & closing time of isolators with its purpose is to be clearly mentioned in this register

8. PROCEDURE AND PRECAUTIONS FOR OPERATING ISOLATORS:
The procedure for operation of isolator switches have been given in G.R. 17.04.15 and S.R 17.04.14 (b) Isolator switches shall not be opened when carrying any load. Before opening/closing, on duty SM will get confirmation from TPC supported by Private number. The procedure stipulated in SR 17.04.15(c) must be followed.

9. POWER BLOCK:

a) The detailed procedure for obtaining power block has been given in G.R. 17.04.02, 17.03.03 & 17.04.04 and ACTM para 20603,20604,20611,20612 & 20613 which must be rigidly followed except in case of emergency.

b) The sequence of switching operations for granting and cancelling the Power Block for a particular section, are included in the Annexure. These shall be strictly followed by all staff. Failure to follow the sequence indicated is likely to lead to dangerous consequences. The protection of dead section is achieved by blocking the Concerned line in the VDU and placing red button collars on concerned buttons operating points and / or signals.

10. PROTECTION AT THE TIME OF POWER BLOCK:

a) All sections over which the Power Block has been granted shall be protected against entry of Electric Locomotive with pantograph raised from either end during the period of the Power Block (G.R. 17.04) and ACTM 20620, 20621 to 20627 of Vol.II, Part.I strict enforcement of longitudinal and transverse protection as per the Annexure attached shall be ensured before imposing power block. If there is/are locomotives on the section over which the power block to be given, the loco Pilot of such locomotives shall be given a memo by the Station Master on duty to lower the pantograph and not to raise it until further instructions and acknowledgement shall be obtained. The Loco Pilots shall not be given instructions to raise the pantograph till the power block is cancelled.

b) Station Master or station staff conducting shunting operation with electric locomotive shall ensure that under no circumstances, any electric locomotive approaches near the traction structure limiting elementary sections over which the power block has been granted. Limits of each electrical section at a station are shown in the Station Sectioning Diagram.

11. SECTION INSULATORS:
In order to isolate main and loop lines on different grids in the yard. Crossover/Turn-out connecting main and loop lines of different grids of the yard, are provided with section insulators, So that, when one line/or grid is made electrically dead and there be any fault

on the same, the other line/grid is not affected. The speed of the electric locomotives with pantograph raised over such section insulators shall not exceed 50 KMPH subject to other speed restriction which may be in force. When one of the two sections separated by a Section Insulator is dead, the pantograph of the electric locomotive on the live section shall not proceed closer than 30 Ft. (10 Meters) towards the section insulator marking the end of the dead section.

12. BREAKDOWN OF TRACTION OVERHEAD EQUIPMENT:
All breakdown or defects noted or reported on the Traction overhead equipment or any other traction equipment including bonding shall immediately be reported to the Traction Power Controller (G.R. 17.03.02) and ACTM Para 20605 of Vol II Part I. Necessary Caution Order should be issued to the Loco Pilot concerned as directed by the Traction Power Controller observing the existing rules regarding issue of caution orders.

13. REGISTER OF MESSAGES:
All message relating to faults on the traction Overhead equipment, operation of switches custody of keys of out-door switches and other important communication in connection with the operation and maintenance of Traction Overhead equipment shall be recorded serially in a register by both the sender and the receiver indicating the time at which the message are received or exchanged (G.R. 17.04.12) and ACTM Para 20610, Vol II Part I.

14. MOVEMENT OF DIESEL ENGINES OR TRAINS HAULED BY SUCH ENGINES:
Goods or passenger trains hauled by other than electric locomotives may be allowed to pass through the dead section subject to the following conditions:-

a) This has not been prohibited specifically in the power block message.
b) Other than Electric trains hauled by such engines shall be brought to a stand at the station preceding the station/section at which power block is granted and the Station Master of this station shall satisfy himself by personal inspection that there is no electric locomotive in the train.
c) He shall also given a Caution Order to the Loco pilot of such engine or train, warning him of the power block ahead and instructing him to watch for hand signals and observe them.
d) No Station Master shall give line clear or lower signals for a train to run over a section under power block unless he has received an assurance (supported by Private Number) from the Station Master of the preceding station that there is no electric locomotive or Inspection Car with pantograph raised in the train (ACTM 20627, Vol.II, Pt.I).
Note: For purposed of this Rule a Dead Engine dispatched as a vehicle shall not be considered as an Electric locomotives.

15. ELECTRIC LOCOMOTIVES:
Provisions included in A.C. traction Manual must be completed within case of double heading or banking by electric locomotive and precautions indicated therein must be complied with when dispatching locomotive (ACTM 30636, Vol III.).

16. ESM:
Any direct contact or close proximity to 25 KV line conductors is dangerous, the station ESM climbing up the Signal post for removing or fixing or cleaning the signal should not carry any long article which may accidentally touch or come in close proximity to live conductors. The ESM shall also be wanted against bringing any part or body near live conductors.

17. CRANES:
No crane shall be worked on or near Traction Overhead equipment, unless such equipment is first made dead and earthed and an authorized representative of the OHE section is present (S.R. 17.04.07 (a) & (b)).

18. WORK ON ROOF OF ROLLING STOCK:
No person shall climb on the top of the Engine or Tenders or on the roofs of carriages, or wagons, when those vehicles are located beneath Overhead equipment except, when a regular 'Permit to work' has been obtained from authorized Traction Staff and the overhead equipment has been made dead and earthed (GR 17.05(02)) and ACTM Para 10402 & 10403 of Vol.I.

19. BLOCK INSTRUMENT OR ANY OTHER ELECTRICAL SIGNALLING EQUIPMENT:
The Station Mast/Cabin master on duty must always watch for any unusual working in the Block instrument or any other signalling equipment, which may arise due to voltage, induced from traction system. The Block instrument or the signalling Equipment must be suspended whenever there is any signs of unusual working and the nearest signal and Telecom, maintenance Inspector may be contacted to inspect and certify the same. In the event of a break of the OHE, the Station Master must immediately check up whether all Block and signalling equipment are working normal before permitting any train movement.

20. TELECOMMUNICATION CIRCUITS:
Refer Para 5.0 of main body and Appendix "B" of this SWR.
The details of the Telecommunication facilities available on the electrified sections and the use of the same have been given at ACTM Para 10213, 10429 of Vol. I and Para 20703 of Vol. II part I.

21. ELECTRIC SHOCK:
The Station Master shall exhibit prominently the instructions issued regarding the treatment to persons suffering from electric shock in the Station/Yard Office and shall ensure that all Class-III staff are familiar with those instructions (shock treatment) chart provided in SM's office.

22. FIRE:
Regarding fire on or adjacent to any electrical equipment refer G R (6:10) and SR there to.
23. Nothing in these rules amends or supersedes any General or subsidiary rules or instructions included in AC Traction Manual. These working rules shall be read as supplement to the aforesaid Rules Books and also to the existing Station Working Rules of the Station.

24. AMENDMENTS OR SUPPLEMENTARY CORRECTION SLIPS:
Any amendment to these Working Rules or any of the Annexure will be notified by a correction slip to the Station Working Rules. The correction slips will be serially numbered and it is the responsibility of SM in charge of a station to bring the contents to the notice of all staff concerned and take their acknowledgement.

25. CONTINUOUS WATCH BY INSPECTING STAFF:
The Inspecting staff of Operating, telecommunication and Traction Departments shall make regular checks at all points to which these special working rules are supplied to ensure that the rules are corrected up-to-date and the staff concerned are fully conversant with the rules and abide by them.

NOTE: Whenever the codes 'GR' & 'SR' appear in these special working rules, please refer to the General and Subsidiary Rules for 25 KV AC Electric Traction, chapter-XVII.

TRACTION DISTRIBUTION

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SAFETY PRECAUTIONS AND ESSENTIAL INSTRUCTION FOR RUNNING AND OPERATING STAFF WORKING ON AC TRACTION AREA

DO(S) AND DON'T(s)

A. FOR ALL STAFF

a) DO(s)

1. In case of fire on Electric Traction Equipment of Wires.
   i. Inform traction Power Controller.
   ii. Extinguish fire by special extinguishers, if available.
   iii. Ensure no water jet is used under any circumstances.

2. Anything unusual on Traction Wire or Electric Locomotive inform traction Power Controller or nearest Station Master.

3. In emergency Traction Power Controller can be contacted on emergency telephone system. (Sockets for connecting emergency telephone are provided at intervals of approximately every kilometre and direction to nearest socket is indicated on OHE masts).

b) **DON'T(s)**

1. Do not approach within a range of 2 meters (approximately 7 ft.) of any traction wires or live equipment.
2. Do not work on or near traction wires or any live equipment unless they have been made dead, earthed and permit-to-work obtained from an authorized traction staff.
3. Do not permit unauthorized persons to operate any equipment even if it be for making it dead.
4. Do not disturb any Earthing, bonding or Traction Wires.
5. Do not enter any switching station or remote control centre unless specially permitted and accompanied by authorized traction staff.
6. Do not attempt to turn the person in contact with live traction wire either by touching him or with the help of wooden bamboo pole or by grabbing his clothing or with the help of rubber gloves or any other means. Under such conditions, contact the TPC, ensure switching off power supply and remove the person in contact with the live traction wire by using wooden bamboo pole or by grabbing his clothes or with rubber gloves if available only after ensuring from TPC that the power supply has been switched off.
7. Do not forget to give artificial respiration to the victim.

B. FOR RUNNING STAFF:

a) **DO(s)**

1. Avoid slipping of wheels.
2. Load coal or oil in loose outside the electrified area only.
3. Keep a safe distance of 2 meters (7 feet) from traction wires while working on the locomotives.

b) DON'T(s)

1. Do not lift or raise your tools towards traction wires (keep the tools in their respective position immediately after use).
2. Do not take electric locomotive with raised pantograph to any unwired line, beyond power block working limit board or near the section insulators at the end of section under power block.
3. Do not climb on the locomotive (of any type) on the engine tender for any purpose, while under traction wire unless power is cut-off and permit to work obtained(for watering, use the water column from the ground with the special device provided for this purpose and open tank over by the special device provided.

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DOM(G)/SBP

4. Do not allow long articles like fixing rod, shovel or any other thing to protrude above the engine while on electrified tracks.
5. Do not direct any jet or spray towards the traction wires (jets or water, if necessary, may be used horizontally outside the safety zone of 2 meters (7 feet).

C) FOR OPERATING STAFF

a) **DO(S)**

1. Ensure all staff is conversant with safety precautions.
2. Ensure that no electric loco is stabling with its panto-raised position in the power block section.
3. Report defects in traction wires of any electric locomotive or electric Multiple Unit Promptly to the traction Power controller.
4. Points and signals of the concerned line which give access to the sections under power Block is to be blocked by blocking the concerned line in VDU and placing red button collars on concerned buttons operating points and/or signals.
5. Observe procedures given in station working rules of 25 KV AC Electric Traction while operating isolator switches.
6. Ensure safe custody of isolator switch keys.
7. Ensure the section is protected by traction staff from all directions by banner flag during power block.
8. Suspend working of block and signals if single of unusual working are noticed. Always checkup block instruments at signalling equipment when any breakdown in traction wires occurs.
9. Instruct S & T staff to see that while he goes up the signal post he does not carry any long rod or articles likely to be brought within the danger zone of 2 Mtrs. (Approximately 7 feet) of the traction wires.

b) DON'T(s)

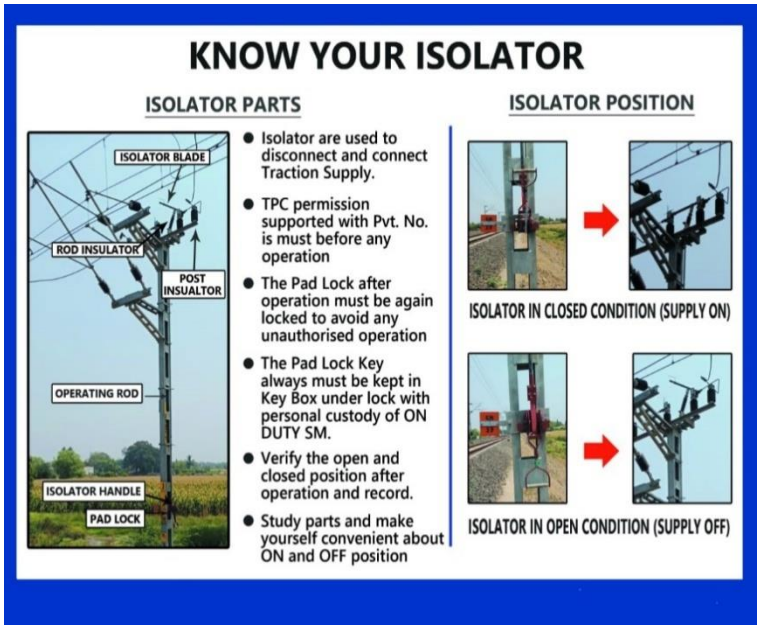
1. Do not permit an electric locomotive or multiple units with raised pantograph to approach any section under power block beyond Power Block working Limit Board or near section insulators.
2. Do not permit any crane to work adjacent to live traction wires.
3. Do not permit your staff to approach live traction wires within the danger zone of 2 meters (approximately 7 feet).
4. Do not permit electric locomotive with raised pantograph to enter any unwired section.
5. Do not take off signals for direct reception for any electric engine or train, if there is a power block within the adequate distance of the singal.

NOTE: This Appendix 'G' super seeds earlier Appendix 'G' to SWR.

PROCEDURES AND PRECAUTIONS FOR OPERATING ISOLATORS:

The procedure for operation of Isolator switches has been give in SR 17.02 (XVIII) which must be rigidly observed. Isolator switch may be opened only after ensuring

1. If the isolator switch is on the main line that the adjacent Interrupters at the feeding end / ends of the adjacent interrupters at the feeding end / ends of the isolator switch has / have been opened.
2. Always use hand gloves and shoes while operating switches.
3. The switch must be operated in a jerk to avoid the arc formation.



Scan QR For Video of Switch Operation

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EAST COAST RAILWAY

STATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR **JUNAGARH ROAD** STATION

1. These rules shall be read along with the main working rules and appendices.
2. These rules apply only to Electric Trains or Electric Engines considered as such & indicate the protection required to prevent them from entering a SECTOR, SUB-SECTOR OR ELEMENTARY SECTION over which a Power block exist.

Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
1	2	3	4	5	6
SECTOR:					
1	Sector between BWIP TSS to Dead end at JNRD on single line section between BWIP-JNRD	(i) Movement of Electric Trains/Locos shall not be permitted into the single line section between JNRD-BWIP: (ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP. (iii) All reception and dispatch signals (2A/B/C/D. C2A/B/C/D,15,13.11&17) and shunt signals shall be kept at 'ON'	NIL	Open BM-511 at BWIP/TSS	Close BM-511 at BWIP/TSS
SUB-SECTORS:					
1	Sub-Sector between BWIP/TSS to KTAK/SSP on single line section between BWIP-JNRD (All E/S beyond KTRK/SSP up to dead end of JNRD including JNRD Stn. Yard will get dead automatically)	(i) Movement of Electric Trains/Locos shall not be permitted into the single line section between JNRD-BWIP. (ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP (iii) All reception and dispatch signals (2A/B/C/D, C2A/B/C/D,15,13,11&17) shall be kept at ON	NIL	Ensure SM-506 at Loc No. 40/18 is inopen position i. Open BM-511 at BWIP/TSS ii. Open BM-513 at KTRK/SSP.	i. Close BM-513 KTRK/SSP ii. Close BM-511 BWIP/TSS

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Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
2	Sub-Sector between KTRK/SSP to INRD/SSP.on single line section between BWIP-JNRD	(i) Movement of Electric Trains/Locos shall not be permitted into the single line section between JNRD-BWIP. (ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP (iii) All reception and dispatch signals (2A/B/C/D, C2A/B/C/D,15,13,11&17) shall be kept at 'ON'	NIL	i. Ensure SM-506 at Loc No. 40/18 is in open position. ii. Ensure SM-507 at Loc No. 52/10 is in open position.	
				i. Open BM-513 at KTRK/SSP. ii. Open BM-515 at JNRD/SSP	i. Close BM-513 at KTRK/SSP ii. Close BM 515 at JNRD/SSP.
ELEMENTARY SECTIONS:					
1	E/S No. 50901 on single line. section between BWIP-JNRD from SM-503 at Loc No. 30/16 At BWIP to PTFE Loc No. 33/02.	i) Movement of Electric Trains/Locos shall not be permitted into the single line section between JNRD-BWIP. ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP. iii) All reception and dispatch signals (2A/B/C/D, C2A/B/C/D,15,13,11&17) and shunt signals shall be kept at ON	NIL	Open SM-503 at Loc No. 30/16.	Close SM-503 at LocNo. 30/16.
2	E/S No. 51101 on single line	i) Movement of Electric Trains/Locos shall not be permitted into the single line	NIL	Ensure SM-506 at Loc No. 40/18 is inopen position	

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Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
	section bet. BWIP-JNRD from PTFE Loc No 33/02 to KTRK/SSP. (All E/S beyond KTRK/SSP up to D/E of JNRD incl JNRD Yard will get dead automatically)	section between JNRD-BWIP. ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP iii) All reception and dispatch signals (2A/B/C/D, C2A/B/C/D,15,13,11&17) and shunt signals shall be kept at "ON		i) Open BM-511 at BWIP/TSS. ii) Open BM-513 at KTRK/SSP	i) Close BM-513 at KTRK/SSP. ii) Close BM-511 at BWIP/TSS.
3	E/S No. 51301, on single line section between BWIP-JNRD from KTRK/SSP to JNRD/SSP. (All E/S of JNRD Yard will get dead automatically)	i) Movement of Electric Trains/Locos shall not be permitted into the single line section between JNRD-BWIP. ii) Line clear shall not be granted to/obtained from BWIP for movement of Electric Trains/Locos on single line section between JNRD-BWIP. iii) All reception and dispatch signals (2A/B/C/D, C2A/B/C/D, 15, 13,11&17) and shunt signals shall be kept at 'ON'.	NIL	i) Ensure SM-506 at Loc No. 40/18 is in open position. ii) Ensure SM-507 at Loc No.52/10 is in open position. i) Open BM 513 at KTRK/SSP. ii) Open BM-515 at JNRD/SSP.	i) Close BM-515 at JNRD/SSP ii) Close BM-513 at KTRK/SSP
4	E/S No: 51501 On Main Line (L-2) From JNRD/SSP to SM-508 at Loc No. 52/18 (All E/S of JNRD Yard i.e. E/S 51502, X-605, X-606 & X-607 will get dead automatically)	i) Movement of Electric Train/Loco shall not be permitted in to all line i.e. Main Line (L-2), Loop Line (L-1,L-2,L-3,L-4) ii) No Electric Train/Loco shall be admitted in to/Dispatched from all line le Main Line (L-2), Loop Line (L-1,L-2,L-3, L-4) from/to BWIP. iii) Ensure that no Electric Train/Loco is standing with its panto raised condition on any line at JNRD. iv) All reception and dispatch signals including shunt signals for all i.e. Main Line (L-2), Loop Line (L-1, l-2, l-3, l-4) (2A/B/C/D,	Nil	Open BM- 515 at JNRD/SSP.	Close BM-515 at JNRD/SSP

Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
		C2A/B/C/D,15,13,11&17) and shunt signals shall be kept at 'ON'.			
5	E/S No. 51502 On Main Line (L-2) From SM-508 at Loc No. 52/18 to dead end of JNRD	i) Movement of Electric Trains/Locos shall not be permitted into Main Line (L-2). ii) Electric Train/Locos from BWIP can be admitted into Loop Line (L-1, l-3 & l-4) iii) Movement of Electric Trains /Locos from Loop Line (L-1), (L-3) and (L-4) shall be prohibited beyond shunt signal of respective lines towards dead end. So shunting between L-2 to L-1 & L-2 to L-3 and vice versa is prohibited at both end. iv) Ensure No electric Train/Loco is standing on Main Line (L-2) with its panto raised condition. v) Reception and dispatch signals including shunt signal for Main Line (L-2) (2B,C2B and 15) and SH-4(B) shall be kept at 'ON'.	Cross over Point No 25A/B and 27A/B shall be kept at normal position only.	Open SM- 508 at Loc No. 52/18.	Close SM-508 at Loc No.52/18

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Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
6.	E/S No.X-605 on Loop Line (L-1)	i) Movement of Electric Train/Loco shall not be permitted in to the Loop Line (L-1) ii) No Electric Train/Loco shall be admitted into /Dispatched from Loop Line (L-1) at both the directions iii) Ensure that no Electric Train/Loco is standing with its panto raised condition on Loop Line (L-1) iv) Reception and dispatch signals Including shunt signals for Loop Line (L-1) at both end (2A,C2A, 11,) and SH-2A shall be kept at 'ON'	Cross Over Point No. 24A/B at BWIP end and 25A/B at dead end shall be kept at normal position only.	Open SS-605 at Loc No JNRD/1005	Close SS-605 at loc No JNRD/1005
7	E/S No. X-606 on Loop Line (L-3) (E/S No. 607 on Loop Line 4 & shunting Neck, TM siding will get blocked automatically)	i) Movement of Electric Train/Loco shall not be permitted in to the Loop Line (L-3 & L-4) ii) No Electric Train/Loco shall be admitted into /Dispatched from Loop Line (L-3, L-4) at both the directions. iii) Ensure that no Electric Train Loco is standing with its panto raised condition on Loop Line (L-3, L-4) and TM Sdg iv) Reception and dispatch signals including shunt signals for Loop Line (L-3. L-4) at both end (2C/D, C2C/D 13 & 17) shall be kept at "ON".	Cross Over Point No. 22A/B at BWIP end and 27A/B at dead end shall be kept at normal position only	Open SS-606 at Loc No. JNRD/1006	Close SS-605 at Loc No. INRD/1006

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Sl. No.	Description of electrified section under Power Block	Steps and Precautions to be taken during power block in respect of electric loco hauling trains or running light or standing		Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
		Longitudinal Protection	Transverse Protection		
8	E/S No. X-607 on Loop Line (L-4)	i) Movement of Electric Train/Loco shall not be permitted in to the Loop Line (L-4). ii) No Electric Train/Loco shall be admitted into /Dispatched from Loop Line (L-4) at both the directions. iii) Ensure that no Electric Train/ Loco is standing with its panto raised condition on Loop Line (L-4) and shunting neck. iv) Reception and dispatch signals including shunt signals for Loop Line (L-4) at both end (2D, C2D&17) shall be kept at 'ON'	Cross Over Point No. 26A/B at BWIP end and 31A/B at dead end shall be kept at normal position only.	i) First open SS-607 at Loc No. JNRD/2008 ii) Then only Open SS-607A at Loc JNRD/2034	i) First Close SS-607A at Loc No. JNRD/2034 ii) Then Close SS-607 at Loc No. JNRD/2008

NOTE:

i) For any unusual movement of Electric Locos, the Station Master on duty must refer to the working rule diagram from 25 KV AC traction of his station and ensured that there is no chance of energizing the section where power block has been granted.
ii) Points leading to unwired tracks shall not be used for the movement of Electric Loco with pantograph raised.
iii) Refer drawing No. LJRE/OHE/RE/JNRD/2022/01

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