



EAST COAST RAILWAY

STATION WORKING RULES OF

DEOBAHAL (DOBH) STATION

SAMBALPUR DIVISION



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SAMBALPUR DIVISION

INDEX OF CORRECTION SLIPS

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No.SWR/DOBH/23

EAST COAST RAILWAY
SAMBALPUR DIVISION

STATION WORKING RULES OF DEOBAHAL[DOBH] STATION

BG/MG/NG: Broad Gauge

Date of Issue: 06.12.2025

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NOTE: -The Station Working Rules must be read in conjunction with General&Subsidiary rules, Block Working Manual and Operating 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. SI/WRD – 22209

1.2 SIGNAL INTERLOCKING PLAN NO.: - S.I –.22209

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

2. DESCRIPTION OF STATION: -

DEOBAHAL is a four linestation situated in Sambalpur Jn.-Titlagarh Jn. section at KM 593.410 from HWH. It is Standard–III(R) interlocked ‘SPL’ Class station with Electronic Interlocking (EI) and Absolute Block System of Working. LVCD axle counters at either end are provided at the station for last vehicle check.

2.1 GENERAL (LOCATION):-

- | | | |
|--------------------------------|---|----------------------------|
| a) Name of the station | : | DEOBAHAL (DOBH). |
| b) Class of station | : | ‘SPL’ class |
| c) Section | : | Sambalpur Jn.- TitlagarhJn |
| d) Double line/Single line | : | BG, Double line |
| e) Electrified/Non Electrified | : | Electrified |
| f) Railway | : | East Coast Railway |
| g) Route | : | ‘D’ |
| h) Situated at | : | KM 593.410 from HWH. |
| i) Reckoned from | : | Howrah |
| j) Number of cabins | : | NIL |
| k) PI/EI | : | EI. |

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

- i) Sambalpur Jn. end : ATTABIRA (Code: ATS) inter distance 6.213K.M.
- ii) Titilagarh Jn. end : BARGARH ROAD (Code: BRGA) inter distance 11.967 K.M.
- iii) Passenger Halt : Nil
- iv) Flag station : Nil
- v) Outlying siding : Nil
- vi) D.K. station : Nil
- vii) IBH : NIL
- viii) IBS : NIL.

2.3 BLOCK SECTION LIMITS: -

Between stations	The point from which 'Block section' commences.	The point at which 'Block section' ends.
Between DOBH-ATS (DN Line)	DN Advanced starter signal No.28 of DOBH.	Outermost facing point No. 34A of ATS.
Between DOBH-ATS (UP Line)	UP Advanced starter signal No.27 of ATS	BSLB on UP line of DOBH Station.
Between DOBH-BRGA (DN Line)	DN Advanced starter signal No.48 of BRGA	Outermost facing point No. 32A of DOBH.
Between DOBH-BRGA (UP Line)	UP Advanced starter signal No.27 of DOBH	Outermost facing point No. 53A of BRGA.

2.3.1 STATION SECTION:

The portion in between Outermost facing point No. 32A of DOBH and DN Advanced starter signal No. 28 and further, the portion from BSLB on UP line of DOBH to UP Advanced starter signal No. 27 is the station section of DOBH station.

2.3.2 STATION LIMIT:

The portion between DN Inner Distant signal at BRGA end and DN Advanced starter signal No.28 at ATS end and Further, the portion between UP Gate Inner Distant signal at ATS end to UP Advanced starter signal No. 27 at BRGA end is station limit of the Station.

2.4: GRADIENTS, IF ANY: -

(a) FROM THE CENTER OF STATION BUILDING TOWARDS ATTABIRA (DN LINE)

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0	230.00	230.00	1 in 7760 F
230.000	680.00	450.00	1 in 581 R
680.00	966.4	286.4	1 in 160 R
966.4	1100.0	133.6	LEVEL
1100.00	1380.00	280.00	1 in 180 F
1380.000	2245.00	865	1 in 150 F
2245.00	2510.00	265.00	1 in 260 F
2510.00	2790.00	280.00	1 in 300 F
2790.00	2930.00	140.00	1 in 150 F

2930.00	3195.00	265.00	1 in 280 F
3195.00	Block section	---	1 in 160 F

- (b) **FROM THE CENTER OF STATION BUILDING TOWARDS ATTABIRA (UP LINE)**

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0	230.00	230.00	1 in 7760 F
230.000	690.00	460.00	1 in 575 R
690.00	990.00	300.00	1 in 174 R
990.00	1130.00	140.00	LEVEL
1130.00	1250.60	120.00	1 in 200 F
1250.00	1970.00	720.00	1 in 150 F
1970.00	2290.00	320.00	1 in 160 F
2290.00	2330.00	40.00	LEVEL
2330.00	2510.00	180.00	1 in 200 F
2510.00	2790.00	280.00	1 in 300 F
2790.00	2930.00	140.00	1 in 150 F
2930.00	3090.00	160.00	1 in 250 F
3090.00	Block section	---	1 in 300 F

- (c) **FROM THE CENTER OF STATION BUILDING TOWARDS BARGARH ROAD (DN LINE)**

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0	321.00	321.00	1 in 7760 R
321.00	1230.00	909.00	1 in 400 F
1230.00	1525.00	295.00	1 in 150 F
1525.00	2090.00	565.00	LEVEL
2090.00	2210.00	120.00	1 in 170 F
2210.00	3310.00	1100.00	1 in 131 F
3310.00	3830.00	520.00	1 in 140 F
3830.00	Block Section	---	1 in 720 F

- (d) **FROM THE CENTER OF STATION BUILDING TOWARDS BARGARH ROAD (UP LINE)**

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0	321.00	321.00	1 in 7760 R
321.00	630.00	309.00	1 in 400 F
630.00	1154.00	524.00	1 in 151 F
1154.00	2090.00	936.00	LEVEL
2090.00	2210.00	120.00	1 in 170 F
2210.00	2950.00	740.00	1 in 134 F
2950.00	3110.00	160.00	1 in 122 F
3110.00	3310.00	200.00	1 in 117 F
3310.00	3830.00	520.00	1 in 145 F
3830.00	Block Section	---	1 in 2638 F

2.5 LAY OUT: -

- i) No. of running lines : 04 (Four)
- ii) No. of sidings : One (TM siding of CSL-292M) take off from Line No.1 at ATS end.
- iii) No. of Passenger platform : 03 (Three),
 - (i) One High level Platform of dimension 580M X 7.0M beside Line No.-1.
 - (ii) One High level island platform of dimension 400M X 10.30M in between Line No.3 and Line No.4.
- iv) No. of goods shed platform : Nil

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

DESCRIPTION	CSL	Electrified/ Non- Electrified	ISOLATION PROVIDED	
			TOWARDS ATS	TOWARDS BRGA
Line No.1 (Common Loop)	749.0 mtrs. (STR. to STR)	Electrified	DS	ORL
Line No.2 (UP Main)	764.0 mtrs. (STR. to SS)	Electrified	---	---
Line No.3 (DN Main)	775.0 mtrs. (STR. No.16 to SS No.19)	Electrified	---	---
Line No.4 (DN Loop) (DN long haul loop)	750.0 mtrs. (STR. No.14 to SS No.21) 1465.0 mtrs. (STR. No.14 to SS No.13)	Electrified	ORL	DS

(II) DIRECTION OF MOVEMENTS: -

A) Trains arriving from ATTABIRA end are UP trains.

B) Trains arriving from BARGARH ROAD end are DN trains.

2.5.2 NON-RUNNING LINES AND CSL. –

DESCRIPTION	CSL	Electrified/ Non- Electrified	ISOLATION PROVIDED	
			TOWARDS ATS	TOWARDS BRGA
TRACK MACHINE SIDING	292mtrs. (SH. to SB)	Electrified	---	DS

2.5.2.1 WORKING OF LONG HAUL LOOP: -

- (1) The Railways shall use the long loop as a single loop and not as twin loop during normal train operation.
- (2) Railways shall avoid movement of normal length trains over 1st crossover of the long loop.
- (3) Stabling of long haul trains on the long haul loop is not permitted without 'live engine' attached to it.
- (4) Point No.36 A/B is not provided with emergency point operation facility.
- (5) No run-through over long loop is permitted and normal length train over long loop to be avoided.

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT: -

CSL of L/4 & L/3 are more than 800m. To avoid premature release of signal overlap it is to be ensured that, overlap initiation will take place when rear portion point zone track 32T is clear by the passage of the train and L4T3 is occupied for DN train of L/4 and L3T3 is occupied for DN train of L/3.

2.6 (I) LEVEL CROSSINGS: (STATION SECTION) –

Sl. No	Location	K.M.	Normal Position	Class	Type	Operation	Communication
1.	Between DOBH – BRGA	593/19-21 (UP) 593/20-22 (DN) (JT-40)	Open to Road Traffic	‘C’	Interlocked	Electrically operated lifting barrier	Magneto telephone with SM/DOBH

(II) LEVEL CROSSINGS: (IN BLOCK SECTION)

Sl. No	Location	K.M.	Normal Position	Class	Type	Operation	Communication
1.	Between ATS- DOBH	588/19-21(UP) 588/22-24(DN) (JT-37)	Closed to Road Traffic	‘B2’	Non-Interlocked	Winch operated Lifting barrier	Telephone connection with SM/ATS
2.	Between DOBH -ATS	592/3-5 (UP) 592/4-6 (DN) (JT-39)	Open to Road Traffic	‘SPL’	Interlocked	Electrically operated Lifting barrier	Magneto Telephone with SM/DOBH
3.	Between DOBH - BRGA	595/5-7 (UP) 595/6-8 (DN) (JT-41)	Closed to Road Traffic	‘B2’	Non-Interlocked	Winch operated Lifting barrier	Voice logger telephone with SM/DOBH
4.	Between DOBH - BRGA	596/25-27(UP) 596/26-28(DN) (JT-42)	Closed to Road Traffic	‘B2’	Non-Interlocked	Winch operated Lifting barrier	Voice logger telephone with SM/DOBH
5.	Between DOBH - BRGA	599/3-5 (UP) 599/4-6 (DN) (JT-43)	Open to Road Traffic	‘B1’	Non-Interlocked	Winch operated Lifting barrier	Voice logger telephone with SM/DOBH
6.	Between DOBH - BRGA	599/29-31 (UP) 599/30-32 (DN) (JT-44)	Closed to Road Traffic	‘C’	Non-Interlocked	Winch operated Lifting barrier	Voice logger telephone with SM/DOBH
7	Between DOBH - BRGA	601/3-5 (UP) & 601/4-6 (DN) (JT-45)	Open to Road Traffic	‘B2’	Non-Interlocked	Winch operated Lifting barrier	Voice logger telephone with SM/DOBH

(Train Actuated Warning Device has not been provided at above Level Crossing Gates except JT-39.) (Working of Level Crossing Gate is detailed in appendix ‘A’)

3. SYSTEM AND MEANS OF WORKING:-

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

- i) **System of working** : Absolute Block system
- ii) **Type of block instrument** : DLBI for DOBH-BRGA & DOBH-ATS section
- iii) **Instrument** : Non-Cooperative type
- iv) **Block Telephone** : Provided with respective block instruments of DOBH-BRGA & DOBH-ATS sections.
- v) **Staff responsible for their operations** : S.M. on duty.
- vi) **Custodian of keys** : S.M. on duty.

4. SYSTEM OF SIGNALLING AND INTERLOCKING: -**4.1.1 STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING: –**

The station is provided with Standard III (R) interlocking with Multiple Aspect Colour Light Signalling and Dual LVCD Axle Counters. All the points are operated from VDU by on duty Station Master. The Home signals and Advanced Starter signals are interlocked with respective block instruments. GR 3.08(4) (b) governs the aspect and indications of the signals respectively. The station has no end cabins.

Minimum equipment of signal – Distant, Inner Distant, Home, Starter and Advanced starter in either direction.

4.1.2 STATION MASTER'S OPERATING VDU : -

The Station is provided with central Electronic Interlocking (EI) system. All signals and points are electrically operated from the VDU provided at SM's Office. A stand by VDU is also provided to switch over the system in case of failure of working VDU. Calling-on signals are provided below Home signals (i.e. in both DN & UP directions). Central VDU is provided in the Station Master's office to electrically control all signals, points, Gate & siding key, etc.,

NOTE: All operations and Indications shall be carried out through VDU only .The details of operation from VDU is given under APPENDIX-'B'.

4.1.3 TRACK CIRCUIT: -

All the lines including point zone between Home and Advanced starter signal on either direction is track circuited. In addition, there are short length track circuits 120M in advance of advanced starter signals and (5RL) in rear of Home signals. The position of the running lines including point zones i.e. occupied/clear is indicated in the illuminated diagram at the Station Master's office. Normally there will be no indication of track circuits. It shows 'RED' when the line is occupied and 'WHITE' in VDU when the line is clear provided the route is set.

4.1.3.1 AXLE COUNTER:

Block Sections between DOBH-BRGA and DOBH-ATS are monitored by Dual Digital Axle Counter System. Dual Digital Axle Counters along with associated accessories are provided at either end of the block Section.

(i) DOBH-ATS DN LVV:

A pair of Dual Digital Axle Counter is provided, one beyond DN Advanced starter signal No.28 and 180M beyond the DN Home Signal of ATS for counting the axles

“IN” and axles “OUT” to indicate whether the Block section is clear of trains as well as to verify the last vehicle of the incoming train.

(ii) **DOBH-ATS UP LVV:**

A pair of Dual Digital Axle Counter is provided, one beyond the UP Advanced starter signal No.27 of ATS and another 180M beyond the UP Home Signal of DOBH for Counting the axles “IN” and axles “OUT” to indicate whether the Section is clear of trains as well as to verify the last vehicle and complete arrival of the incoming train.

(iii) **BRGA-DOBH DN LVV:**

A pair of Dual Digital Axle Counter is provided, one beyond DN Advanced starter signal No.48 of BRGA and another 180M beyond the DN Home Signal of DOBH Station for counting the axles “IN” and axles “OUT” to indicate whether the Block section is clear of trains as well as to verify the last vehicle of the incoming train.

(iv) **DOBH-BRGA UP LVV:**

A pair of Dual Digital Axle Counter is provided beyond UP Advanced starter signal No.27 of DOBH and another 180M beyond the UP Home Signal of BRGA Station for Counting the axles “IN” and axles “OUT” to indicate whether the Block Section is clear of trains as well as to verify the last vehicle and complete arrival of the incoming train.

The position of the Block section whether cleared or occupied are reflected in the VDU provided in the Station Master’s office which shows ‘GREEN’ when the Block Section is clear and ‘RED’ when occupied. Whenever a train enters in to the Block Section, “Block Section Clear” indication ‘GREEN’ for the particular block section disappears and ‘RED’ indication appears.

After complete arrival of the train the ‘RED’ indication will disappear and ‘GREEN’ indication will appear. If after the complete arrival of the train the ‘RED’ indication does not change to ‘GREEN’ it should be assumed as Block Instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, Advanced Starter Signal shall not come to ‘OFF’ and the concerned instrument shall remain locked in last operated position.

A resetting arrangement for resumption of the system in case of failure of axle counter has been provided in the SM office of the adjacent Block stations after being assured by both the SM that the last vehicle has arrived complete at the receiving station by exchanging Private Number then resetting to be complied with. (Details of resetting procedure are given in this SWR (Appendix-B).

NOTE:

Before taking off reception and dispatch signals for DN and UP directions, the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication. The indication of track circuit/ Axle counter will exhibit Red Light when track is occupied and White light when track is clear. There will be no track indication when any route is not set.

4.1.4 POSITION AND OPERATION OF POINTS: -

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

4.1.5 ELECTRICAL KEY TRANSMITTER (EKT):-

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

4.1.6. POINTS AND TRAP INDICATOR: NIL**4.1.7 REPEATER(BANNER TYPE): NIL****4.1.8 CALLING ON SIGNALS:-**

Calling-on signals are provided below Home signals (i.e in both UP & DN directions) and below starter signals as per GR 3.13(1) (b).(2) (3) (4) & (6) (b). Miniature color light Calling-on signal is provided below Home signal in terms of GR.3.13 (6) (B). A Calling-on signal shows on light in the 'ON' position and yellow light when taken "OFF". A calling-on signal, will be taken "OFF" for reception of a train when the Home signal above it cannot be taken "OFF" due to failure or any other reason or for admission of train on blocked line and for shunting purpose (Calling-on cannot be taken off when both 1st & 2nd track circuit in advance of Home signal are shown red simultaneously). Before taking "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 VDU. The particular route on which train is intended to be received shall be set by selecting the desired route and SM on duty shall left click on the same after a train occupies the approach track circuit in rear of the signal. The Calling-on signal below Home signal is cleared after lapse of 60 seconds i.e a yellow light glows at the concerned Calling-on signal on the VDU. In case of calling-on signal below starter signal ,SM on duty must ensure that the train has stooped. The calling-on signal below starter signals is cleared immediately and a yellow light glows at the concerned Calling-on signal on the VDU. For every such operation veered counter provided for the purpose counts next higher count. Each such operation shall be recorded by the SM on duty along with the reasons to do so. The Calling-on signal route cannot be released automatically after complete arrival of the train. To release the route after passage of train SM on duty has to cancel the Signal.

Note:

- i) SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal.
- ii) Before admitting a train on Calling on signal ,SM must satisfy himself that the route on which train to be received is free from all obstructions by physical verification untill and unless track circuit is occupied.

4.1.9 SHUNT SIGNALS:-

Shunt signals at top point viz., SH4 at BRGA end and SH3 at ATS end have been provided for back shunt movement & Shunt below Starter & Independent shunt also provided.

4.1.10 ANTI COLLOISION DEVICE: - NIL

4.1.11 EMERGENCY CROSSOVER:- NIL

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

4.1.13 CRANK HANDLE

When any point fails to operate normally by the Route Setting operation through VDU it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handle keys are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual para-2.19.

CRANK HANDLE		<u>CONTROL POINTS</u>
CH-1	-----	33A/B.
CH-2	-----	41A/B, 42A/B
CH-3	-----	32A/B. 35A/B,36A/B.
CH-4	-----	34A/B.
CH-5	-----	45.

These crank handle keys are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handle Locations. Crank handle keys can be taken out only when all signals are not taken 'OFF' and the route is not locked for whatever reasons. Crank Handle key can be released by SM by tracking the mouse pointer on to the concerned crank handle button icon. This will enable two options to be displayed on the menu i.e. Crank handle Transmit control and Crank Handle Release control. To release the crank handle key, SM should click the Crank handle 'TRANSMIT' control option. After transmission the KEY IN indication will start flashing, now the key can be extracted from the EKT. After extracting the key from the EKT, the KEY IN indication will disappear. When the keys are taken out no signal can be taken "OFF" over the particular route on the points nominated by that Crank Handle. This key can be electrically transmitted to both ends locations of the yard for manual operation of the defective points.

SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SM on duty at the station as per Para 2.19 of the Operating Manual. Correct setting, clamping and padlocking of the points devolve on the SM on duty. The cases of failure of motor point should be promptly reported to the concerned signal maintainer/SSE (Signal) for immediate rectification.

4.1.14 EMERGENCY POINT OPERATION

Emergency point operation facility is provided to operate the point from the VDU in case of failure of point controlling track circuit/Axle Counter. Before doing the emergency operation, the Emergency Point Operation Key is to be made "KEY IN" by clicking the KEY IN menu. The user name and password is be logged in. On clicking the concerned point icon, a pop-up menu is displayed carrying four options: 1) Normal 2) Reverse 3) Emergency Normal 4) Emergency Reverse. For emergency operation of concerned point, drag the pointer to either emergency normal or emergency reverse whichever is desired. A normal or reverse flashing indication will appear and the indication will be steady after the point is set to Normal or reverse, whichever is desired. After the completion of

Emergency point operation, the key is to be KEY OUT by clicking KEY OUT menu. The user name and password is to be given for KEY OUT also. This action will be recorded in a counter. Each operation of emergency point operation shall be recorded in the station diary and in the Register meant for this purpose.

4.1.15 **EMERGENCY ROUTE RELEASE INDICATION (WHITE)**

The Electronic 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), click on the concerned signal. After clicking by the left button on the mouse a pop-up menu will appear. Click on the cancellation menu (Main/Calling-on) of the concerned signal, the signal will immediately go to ON aspect. After doing so click on the route release menu, the route locked indication will start flashing for 120 seconds. After completion of 120 seconds, the White light along with the White strip of light will disappear suggesting the route has been released. This action will be recorded in a counter. The counter will register the next number for each and every such action. 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 release the route.

Each operation of emergency cancellation of route should be recorded in the emergency route release counter register by registering the next higher number. All such operations and the new number should be recorded in the station diary Veeder counter register and in the train signal register.

4.1.16 **EMERGENCY ROUTE RELEASE COUNTER:**

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

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

Custody of Relay Room key and procedure for its handover and taking over between SM & S&T 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, goomtias, LC Gate relay huts/goomtias 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 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: -**

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

- (i) Normal: - UP AT/DN AT connected to OHE Traction distribution (230V, 50 Hz)
- (ii) Stand by: - Stand by Supply from OSEB – Single Phase (230V, 50Hz).
- (iii) Normal Power Supply (Single Phase 230V, 50Hz) to the Signaling & 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 State Electricity Power Supply.

The SS/SM on duty however maintain the record of power failures either of the traction supply or local supply and he must promptly report the failure of any one or both the power sources 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. UP AT, DN AT and local power supply for changing the switch to the required supply position. The availability of supply is indicated by luminous indicator above the circuit breaker for each supply.
- b) Normally the switch will be kept towards AUTO position. Whenever the power block is to be given on the line, on duty SS/SM must ascertain the power is available on the other AT and change over the switch to desired position e.g. if power block is to be given on the UP line, DN AT must be available and vice versa.
- c) In case of failure of one of the 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 both AT supplies without any power block, the local supplies shall be utilized by operating the changeover 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 AEE/GEN and CTFO/PSI/TRD/GEN for prompt rectification.
- d) Whenever there is a failure of power supply in one AT, the on duty SS/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 power supply on both AT's and make an entry in station diary daily duly initiating action for rectification of failure, if any
- e) For IPS system that provides to EI, auto-change-over has been provided.
- f) There is a remote monitoring SM box provided at the station to monitor the health of IPS.

REMOTE MONITORING SM BOX:

Remote monitoring SM Box gives alarm to the SM for the following fault conditions:-

- (a) 50% depth of discharge (DOD) (105.9v) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.
- (b) 60% DOD(105.1v), which warns for emergency. The alarm for this condition is same as for condition 1.

- (c) 70% DOD(104.3v), which signals system, shut-down. In this condition signal feed is cut-off and all DC-DC converters continue working. Audio alarm continues till power supply is restored.
- (d) Any of the module fails, which calls for 'call S&T'.
- (e) Whenever there is a failure of Local power 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 Local power supply and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

5.0 **TELECOMMUNICATION: -**

- (i) Telephone attached with DLBI of DOBH-BRGA & DOBH-ATS Block Sections.
- (ii) Station to Station fixed telephone (Hot line) is provided
- (iii) Station is provided with Auto telephone connected with Railway Exchange.
- (iv) BSNL telephone is provided.
- (v) The station is connected to BALANGIR - JHARSUGUDA control circuit by a control telephone.
- (vi) Station to station 25 Watt VHF communication is provided.
- (vii) Telephone is provided between Station and both end crank handle locations.
- (viii) Telephone is provided between Station and L.C.Gates at KM. 592/3-5 (UP)& 592/4-6 (DN),(JT-39), 593/19-21(UP) & 593/20-22(DN)(JT-40), 595/5-7 (UP) & 595/6-8 (DN)(JT-41), 596/25-27(UP), 596/26-28(DN) (JT-42), 599/3-5 (UP) & 599/4-6 (DN) (JT-43), 599/29-31 (UP) & 599/30-32 (DN) (JT-44), 601/3-5 (UP) & 601/4-6 (DN) (JT-45)
- (ix) Telephone is 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, TMR 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 6.02.03 shall be observed for working the train between section DOBH-ATS & DOBH-BRGA. During failure of signal, inter-locking, points, block instrument telephone etc. the S&T staff should be informed for rectification.

6.0 **SYSTEM OF TRAIN WORKING: -**

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

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

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

6.1.1 TRAIN WORKING STAFF 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	ROSTER	NO. OF STAFF IN EACH SHIFT	HRS. OF DUTY
1.	SS (in-charge)	Continuous	01	09 hrs.
	SS/SM		01	08 hrs.
2.	TPM-B/ TPM-A	Continuous	01	08 hrs.
3.	GK./Sr. GK.	EI	01	12 hrs.

The above staff shall work as per the rosters issued by Sr.DPO/SBP from time to time and these rosters shall be displayed in the SS's office and in gate lodge for traffic gatekeeper.

6.1.2 RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINES AND ZONES OF RESPONSIBILITY

The SM on duty is responsible to ascertain the clearance of the nominated line (GR.14.10).

6.1.3 ASSURANCE OF STAFF IN THE ASSURANCE REGISTER: -

All staff before taking DN 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 in such declaration vide SR 5.01.02.

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

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

The declaration shall be renewed in the following cases: -

- i) Whenever there is a change in the Station Working Rules.
- 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 a staff joins as a new member in the station.

6.2 CONDITIONS FOR GRANTING LINE CLEAR: -

- a. The conditions laid in GR 8.01(1)(a),(b), 8.01(2)(b),8.03(1),(a),(b),(c) (ii) & 8.03(1)(a),(b)(c) (ii) shall be complied with the SM on duty line is considered clear and line clear is granted.
- b. Before granting a line clear for a train the SM on duty shall personally ensure that the reception signals pertaining to a train are in the 'ON' position and burning properly vide

GR 3.50(4). Line clear shall not be granted for train till such time it is ensured that concerned Loco Pilot is notified of the fact in writing by the SM of the station to which such line clear is to be granted.

(A) For double line Section-(DOBH-ATS) & (DOBH-BRGA)

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

- i) The whole of the last preceding train has arrived complete inside the outermost facing points or the BLSB of any.
- ii) All necessary signals have been put back to 'ON' behind the said train.
- iii) The line is clear up to the BSLB on UP line of DOBH station & facing Pt.No.32A on DN line.

(B) For single line section - Nil

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

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

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE: -

All Points shall normally be set for the straight except when authorized by special instruction. When a running line is blocked by stable load, wagon, vehicle or by train which is to cross or give precedence to another train or immediately after arrival of a train at the station, the points in rear should immediately be set against the blocked line except when shunting or for any other movement towards the blocked line is required to be done vide 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 casualties 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: -

(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 Calling-on Signal can be taken off. If Calling-on Signals fails, then 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.

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE

Before receiving a train on non-signalled line, the SM shall ensure that

- a. The train is brought to a stand at the first stop signal.
- b. The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
- c. All points over which the train has to pass are correctly set; the facing and trailing points are clamped and padlocked.

The Loco pilot is authorized to pass the approach stop signals at 'ON' through a written authority T/510 [Refer GR 5.10].

6.2.1.4 DESPATCH OF TRAINS FROM NON-SIGNALLED LINE

In case of dispatch of a train on non-signalled line the SM's shall follow GR 5.11 and SR thereto.

6.2.1.5 DESPATCH OF TRAINS FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:N/A

6.2.1.6 SPECIAL RESTRICTIONS:

- (1) Due to steep gradient (more than 1 in 400) beyond 50 Mtr. from last point zone towards Signal No. S-27 & S-28 , no Shunting shall be allowed at Titlagarh end unless sufficient number of brakes are put on and all precautions are taken to prevent vehicles getting out of control and a live locomotive is attached towards the falling side of the gradient as specified in para 5.20 of G&SR.
- (2) Stabling of vehicles on non-isolated line of the yard is not permitted without a live engine attached or proper securing of vehicles
- (3) Due to consecutive cross over(multiple reverse curves), no run through is permitted via Line No. 1 in DN directions .
- (4) No stabling of long Haul train shall be done without a live Locomotive.
- (5) No Run through over "Long Loop" is permitted.Railway shall Avoid Movement of Normal length trains over 1st crossover of the Long Loop.
- (6) Long haul loop shall be used as single loop not as twin loop during normal train operation.

6.2.1.7 SPECIAL INSTRUCTIONS:

During berthing of a long haul train on long haul loop, road traffic will be diverted through 'C' class LC gate No. JT-41.

6.3 CONDITIONS FOR TAKING ‘OFF’ APPROACH SIGNAL: -

Reception of trains is governed by General Rule 3.36, 3.38, 3.40, 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 to be followed.

Adequate distances to be kept clear vide General Rule 3.40(3) (b) for reception of trains.

A. CLEARANCE OF ADEQUATE DISTANCE: -

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

Sr. No.	Line No.	UP TRAIN		DN TRAIN	
		FROM	TO	FROM	TO
1	Line No. 1 (Common Loop)	UP starter signal No.15.	Up to the end of Overrun line or up to Advanced starter signal No.27	DN Starter Signal No. 20	Up to the end of Overrun line(DS No.45)
2	Line No. 2 (UP Main)	UP Starter Signal No. 17	Up to Advanced starter signal No.27	---	---
3	Line No. 3 (DN Main)	---	---	DN starter signal No.16.	Up to Advanced Starter Signal No.28
4	Line No. 4 (DN Loop)	---	---	DN starter signal No.14.	Up to the end of Overrun line. Or Upto the Advanced Starter signal No.28

Before admitting a train on any line, it must be ensured that the track indication for the respective line indicates ‘WHITE’ indication in the VDU. To receive a train, for which line clear is granted, the SM on duty shall nominate a clear line in consultation with the Section Controller on duty. SM shall personally satisfy himself that the nominated line is clear and free from all obstructions by seeing the track circuit indication on VDU 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 through VDU. He shall then verify from the visual indication available in the VDU that points are set to the desired route.

In case any of the track circuit on the concerned route shows occupied by RED indication even though the other conditions are satisfied, the operation through VDU by the SM on duty will not permit the concerned signal to be taken off. However, reception of train will be possible in such cases with the “Calling-On” signal fixed below Home signal at either end provided the first track circuit in advance of Home signal does not show ‘RED’ indication.

Miniature Colour light calling on signal is provided below the Home signals and below Starter signals in terms of GR 3.13(6) (b). A calling-on signal shows no light in the ‘ON’ position. The calling on signal is taken off for reception of a train when the Home

signal above it cannot be taken off due to failure of track circuit or any other reason or for admission of a train on blocked line and for shunting purpose.

B. TAKING OFF CALLING ON SIGNAL

To take “OFF” Calling-on signal the train must come to a stop at the foot of the Home signal/Starter 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 VDU. The particular route on which train is intended to be received shall be set by tracking the pointer in VDU on to the signal below which the calling on signal is provided. Various options in terms of the total routes over which the signal will lead to will appear on the menu. Then the SM must drag the pointer and click over the particular Calling on route amongst the various options displayed in the menu by the left button of the mouse as a result of which the Calling-on signal will blink for 60 seconds in case of calling ON signal below Home signal.

After a lapse of 60 seconds, the Calling-on signal below Home signal will clear. In case of calling ON signal below starter signal SM on duty should ascertain that the train has stopped, then only SM will take OFF calling ON signal below starter signal and without delay the Calling ON will clear i.e., a yellow light glows at the concerned calling-on signal on the VDU. Every such operation has to be recorded by the on duty SM along with the reasons to do so. The calling-on signal route can be released after complete arrival of the train or by emergency cancellation.

NOTE:

- i) SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal.
- ii) Before admitting a train on Calling on signal ,SM must satisfy himself that the route on which train to be received is free from all obstructions by physical verification if the track circuit is occupied.

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

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

According to the existing interlocking at this station, the simultaneous reception and dispatch of trains are permitted as stipulated below (GR 3.47).

(i)	While receiving an UP train on Line No.1	Dispatch of UP train from Line No. L2 Reception/Dispatch of DN train from Line No. L3/L4.
(ii)	While receiving an UP train on Line No.2	Reception/Dispatch of DN train from Line No. L3/L4.
(iii)	While receiving a DN train on Line No.1	Dispatch of DN train from Line No. L3/L4.
(iv)	While receiving a DN train on Line No.3	Reception/Dispatch of a UP train on Line No.L1/L2.
(v)	While receiving a DN train on Line No.4	Reception/Dispatch of a UP train on Line No.L1/L2 or Dispatch of DN train from Line No. L3.

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.

6.5.1 L.V. VERIFICATION THROUGH AXLE COUNTER: -

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

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

In case of failure of axle counter, the Station Master on duty shall obtain complete arrival certificate from the TMR of the train in the complete arrival register (T/1410) maintained at the station for stopping train. For through passing train the station master on duty shall satisfy himself about complete arrival of train by verification of the last vehicle indicator vide GR 4.16 that the train is complete. In case a train arrives/passes incomplete, action shall be taken as per Subsidiary Rules 4.17.02. 'The train out of block section signal' shall be withheld to the station in rear until complete arrival certificate is received from the station in advance supported by a Private Number.

Train passing on adjacent line shall be stopped and TMR and Loco pilot shall be issued with caution order to proceed cautiously and stop short of any obstruction as per SR. 4.17.03.

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

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

6.6 DISPATCHING OF TRAINS: -

Dispatch of trains are governed by General Rules 3.36, 3.38, 3.42, 5.11, 14.08 & 8.01 Subsidiary Rule 3.36.04(b), 3.42.04 and Block Working Manual 2.07(5)(a)(b) and other provisions of General Rules, Subsidiary Rules, Block Working Manual and Station Working Rules of the station.

To dispatch 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 him by observing the visual indication on the VDU. He shall suspend all non-isolated shunting and ensure Closure of L.C Gates in section and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the concerned starter and advanced starter is the authority to proceed into the block section.

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. After the train passes the advanced starter complete, he shall send the train entering block section signal to the station in advance. If a train worked without TMR or Brake Van the instruction laid down in Subsidiary Rule shall be followed. The Gatekeeper of interlocked level crossing gate at ATS end shall be advised before dispatch of a train.

If a train worked without TMR or Brake Van the instruction laid down in Subsidiary Rules 4.23.02 and 4.25.02 shall be followed.

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

If a signal once taken 'Off' for reception/dispatch of a train has to be, in an emergency, put back to 'ON', the procedure laid down in Subsidiary 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 SM shall take action as per SR 3.36.02(b) (i).

6.7 TRAINS RUNNING THROUGH: -

The provision of GR 3.4, 4.17, 4.42 with relevant SRs and SR 3.42.02 (a) (iv) and other relevant provision of BWM shall be observed.

- a) The sequence for taking 'OFF' signals for run through trains is governed by SR 3.42.02 (a) (iv)
- b) In every case in which trains are permitted to run through on a non isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule 5.23 may be kept standing on a connected line which is not isolated from through line vide SR 4.11 (2).
- c) The SM on duty is responsible to see that a train passes complete with its last vehicle indicator. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General and Subsidiary Rule. [Ref. GR 3.42, 4.17, 4.42 and SR 4.42.02 (b) (i),(ii).
- d) The SM is responsible to observe/watch the condition of the vehicles on a train and shall wave green hand signal horizontally as per Subsidiary Rule 4.42.02. (b) until anything wrong is noticed on train. For this purpose the SM on duty shall stand in such a position that a clear view of the passing train is seen by him and that his hand signals can clearly be seen by the Loco Pilot and TMR of the train. He shall depute his points man with hand signal to the other side of the passing train who shall exhibit hand danger signal to draw the attention of the guard/ Loco Pilot of the train in case of observing any unsafe condition/abnormalities of the train. He shall also report to the SM on duty for taking further suitable action in terms of SR 4.42.02(d).

6.8 WORKING IN CASE OF FAILURE: -

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

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

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

6.8.2 TRACK CIRCUIT

In case of failure of track circuits, the clearance of the concerned line should be ensured physically before a train is piloted.

6.8.3 AXLE COUNTER

If the axle counter fails for any block section, resetting procedure will be adopted as mentioned in Appendix-B. If the axle counter indication does not appear 'Green' & continues to show 'RED' condition after resetting, the concerned block instrument shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SSE (signal) for 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, 3.50 (4), 3.68 to 3.77.

6.8.5 BLOCK INSTRUMENT

In the event of partial/total failure of block instrument the concerned block instrument shall be suspended till its rectification and trains shall work as per GR. [Refer SR 6.02.03 & 6.02.06]

Both DN and UP advanced Starters are electrically interlocked with respective block instruments so that the same cannot be taken off unless the concerned block instrument is in line clear position. When the block instrument is suspended in 'Line clear' position, the concerned Advanced Starter must also be treated as suspended.

During the failure of Block Instrument of the section DOBH – BRGA and DOBH-ATS trains will be worked on T/369(3b).

6.8.6 DEFECTIVE INTERLOCKING

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

6.8.7 DEFECTIVE/DAMAGED POINTS

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

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

6.8.8 RECEPTION OF A TRAIN ON BLOCKED LINE

Whenever trains are to be admitted on an obstructed line the Calling-on signal may be taken –off. If calling-on signal failed then the SM on duty shall authorize the on duty TPM with form T/509 indicating the reason for such admission the line number 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.

6.8.9 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Superintendent/Station Master irrespective of the

position of the switches point laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]. Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.50(4) and 3.68, 3.77]

6.8.10. ISSUE OF CAUTION ORDER:-

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

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

- (a) Motor Trolleys are run in accordance with Subsidiary Rules 15.25.03 to 15.25.09.
- (b) Material Lorries will work in accordance with Subsidiary Rules 15.27.05 to 15.27.08
- (c) Rail Trolleys will work in accordance with Subsidiary Rules 15.27.10.

The following precautions must be taken during working of motor trolleys as per Para 838 of IRPWM.:

- i) A motor trolley shall be run only under block protection or following a train/motor trolley in accordance with special instructions.
- ii) When a motor trolley that is worked under block protection or following a train/motor trolley, breaks down (i.e. it cannot be propelled even by hand) in the block section, the official-in-charge should remove it clear off the track and send a written advice to the nearest Station Master/Block Hut-in-charge returning the 'Authority to proceed'/ Motor Trolley permit/ line clear ticket/ token/ tablet or advise the nearest Station Master/Control through the emergency telephone with exchange of Private Number about the same. He should not place again the motor trolley on the line without the written permission of either Station Master/ Block Hut-in-charge at the end of the block section concerned.
- iii) Following a Train/Motor Trolley - Motor trolley may follow a fully vacuum/air brake train or a light engine or another motor trolley in the same block section during daylight hours and in clear weather under special instructions issued by the Railway Administration.

7. **BLOCKING OF LINES: -**

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. 'Line Block' is to be activated on VDU by SM on duty following procedures as laid down in para no. 6.2.2. A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23, SR5.04.01 (a) and SR 5.23.01(a)]
Note: If any running line is blocked by a train ,the line must be isolated by setting the concerned points against that line.

7.1 **LINE BLOCK FEATURE IN VDU –**

Line block feature identical to conventional panel is incorporated in VDU panel of DOBH station for blocking of a running line which is blocked either by loose vehicles or by stabling of a train or by a train which is to cross or give precedence to another train. For blocking/unblocking of line, SM on duty has to click the mouse near the route button provided on running line and a popup menu Blocking & Unblocking will appear. By selecting the blocking option the said line is blocked and reception signal pertaining to that line cannot be taken off. For unblocking the line SM on duty has to select the unblocking option from popup menu. Similarly Blocking/Unblocking feature is provided near the advanced starter signals of both end of the station for Blocking/Unblocking the block section. By selecting the blocking option no train can be dispatched to the block section.

7.2 **SECURING OF VEHICLES:-**

No load shall be stabled in non isolated lines without a live Locomotive is attached. As far as practicable, loose vehicles shall not be allowed to stand on the running line. However, under unavoidable circumstances, if it is necessary to detach vehicles from a train or to stable a train and leave them standing on running line, SM on duty shall be responsible to secure vehicles/stable loads in accordance with GR 5.23 and SR 5.23.01 to prevent rolling down of vehicles and arrest obstruction & fouling of line.

NOTE: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding or on running lines.

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

- a) When a running line is blocked by stable load e.g, wagons, vehicles or by a train which is to cross or give precedence to another train or immediately after arrival of a train at the station etc. the points 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 SR 5.19.01.

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

During the time of loading / unloading, the station master shall ensure isolation of the lines(s) as detailed in SR 3.51.06.

8.0 SHUNTING: -

8.1 GENERAL PRECAUTIONS: -

- (i) The rules laid down in GR 3.46, 3.52 to 3.56, 5.13 to 5.23, 8.05(2) (3), 8.06 and 8.14, 8.15 (c) with relevant SRs and OM 7.01, 7.07 and 7.08 shall be observed. All shunt movement shall be supervised by Guard/SS/SM, point man on duty vide SR 5.13.03 as the case may be.

In the event of any non-signaled movement, the SM on duty shall ensure physical verification of the clearance of the crossover points, track including fouling.

The staff supervising shunting shall ensure correct setting of both facing and trailing points, clamping and pad locking of points, if necessary.

- (ii) No shunting shall be allowed at Titlagarh end unless sufficient number of brakes are put on and all precautions are taken to prevent vehicles getting out of control and a live locomotive is attached towards the falling side of gradient as specified in para 5.20 of G&SR.
- (iii) Shunting shall be supervised by persons as specified in para 5.20 of G&SR.
- (iv) While shunting it shall be ensured that visibility is clear and weather is fair.
- (v) Stabling of vehicles on Non-isolated line of the yard is not permitted without live engines attached or proper securing of vehicles.
- (vi) During attachment and detachment of locomotive, wagon of train shall be properly secured.
- (vii) If any running line is blocked by a train, the line must be isolated by setting the concerned point against that line.
- (viii) Hand and loose shunting is strictly prohibited

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

When line clear has been given, no obstruction shall be permitted outside the station section but shunting within the station section may go on continuously, provided the necessary signals are kept at "ON" vide GR 8.05 (2).

8.3 PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY:

Hand shunting /Fly shunting/ Loose shunting is prohibited at both ends of the yard.

8.4 SHUNTING ON SINGLE LINE – Not Applicable.

8.5 SHUNTING ON DOUBLE LINE:

- i) When the line clear has been given no shunting shall be permitted in the block section in rear Vide GR 8.06 (1).
- ii) Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and is blocked back Vide GR 8.06(2) and BWM 6.15.
- iii) Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and is blocked forward Vide GR 8.06(3) and BWM 6.15.

8.5.1 SHUNTING OUTSIDE STATION SECTION:-

- (i) Shunting shall not be permitted in block section (i.e., in the block section in rear) unless it is clear and blocked back.
- (ii) Shunting shall not be permitted in block section in advance unless it is clear and is block forward.
- (iii) When line clear is been given, no shunting shall be permitted in the block section in rear vide GR. 8.05[2] & GR 8.12.
- (iv) The line outside the station section and DN to the Home Signal shall not be obstructed unless a Railway servant specially appointed in his behalf by the SM who is in-charge of the operations, and unless –
The block section into which the shunting is to take place is clear of an approaching train and all relevant and necessary signals are kept “ON” position

(v) SHUNTING WITHIN STATION SECTION:

If the necessary signals are kept at “ON”, shunting may be carried on within the station section vide GR 8.05[2].

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

8.6 SHUNTING IN THE SIDING TAKING OFF FROM THE STATION YARD:

While performing shunting in the siding it should be authorized by taking off shunt signal. The relevant provisions of GR 5.14 and SR thereto shall be meticulously followed. During failure of shunt signal , T/806 shall be issued.

9.0 ABNORMAL CONDITIONS: -

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

[I] DURING PARTIAL INTERRUPTION/FAILURE OF ELECTRICAL COMMUNICATION INSTRUMENT: -

In the event of suspension of Lock and Block Instrument and during partial failure of other available means of communication, the procedures detailed below shall be followed for working of trains in different situations.(Refer BWM Chapter-III & 6.16 and SR 6.02.06)

[II] THE AUTHORITY TO PROCEED IN THE OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT: -

- 1 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 SM's diary.
- 2 On the block ticket (T/A 602) it shall be mentioned in detail the place of obstruction i.e. Engine at Km., B/Van Km., whether the train is to return or to wait at the place of obstruction for the arrival of another following train(s) or to proceed to next station and to obey the site officer instructions.
 - 3 A caution order shall be issued restricting the speed to 15 KMPH in day light hours when the visibility is clear and 10 KMPH at night or whenever clear view of 800 Mtrs. is not clear.
 - 4 On arrival at the station the block ticket shall be collected with necessary endorsement from Loco pilot/TMR and cancelled and pasted to its record foil shall be sent to the issuing station for cancellation.
 - 5 In case of accident/engineering block assurance from SSE/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 SSE/P.WAY
 - 6 concerned or Guard/Loco Pilot the SM on duty may resume normal working after exchanging proper messages supported by Private Number.

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

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

- a) The previous Block Ticket is collected and Cancelled or
- b) Necessary endorsement is given on the previous block ticket with the advise to wait at the site for a next train to follow or
- c) The previous train has met with an accident or has been disabled or
- d) The Block ticket has been cancelled from the Loco Pilot of the previous train by the official –in-charge at the site and kept in the personal custody & shall be kept until the arrival of the next train and such assurance is given over the telephone installed at the site quoting the serial number of the Block Ticket so collected.
- e) SM will suspend the Absolute Block System of Working and both SMs concerned should arrange for running of trains on the authority of Block Ticket.
- f) SM at the dispatching end will hand over to the driver the block Ticket as the authority which shall include:
 - i. Caution Order: Existing Speed Restriction/s shall be indicated in the Caution order portion. The Speed Restriction to 15 KMPH during clear visibility and 10 KMPH when visibility is obstructed shall be clearly indicated.
 - ii. An authority to pass the Stop Signal at “ON” position.
- g) Before resumption of normal working a message between the SMs of the concerned stations shall be exchanged with private number.[Ref SR 6.02.05(d)(vi)]

The Block Ticket so issued must be collected by SM of either end with a certificate about the complete arrival of the train with its time and the section is clear of all obstructions from Loco Pilot/TMR of the train and cancelled.

[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. SM shall stop the movement of trains on the adjacent line and issue caution order about the 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 LV AXLE COUNTER: -**

Detail operation is given in Appendix 'B' of SWR.

[VI] FAILURE OF MTRC:-N/A**(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 INITIATED. SR 3.68.01

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 failure report should be communicated by the SM on duty to the sectional Maintainer, the JE/SSE (SIG) of the Section and others through a memo as per SR 3.68.04 and document all such transactions.

9.1 TOTAL FAILURE OF COMMUNICATION:

(A) TOTAL FAILURE OF COMMUNICATION (SINGLE LINE): -Not Applicable

(B) TOTAL FAILURE OF COMMUNICATION (DOUBLELINE):

In the event of total failure of communications between DOBH-ATS and DOBH-BRGA i.e. when line clear cannot be obtained by any one of the following means stated in order of preference viz.

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

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

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

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

During temporary single line working, when one line is clear and the other line is obstructed between DOBH-ATS & DOBH-BRGA the trains shall be worked as per the procedure, which is summarized as follows:

- (a) Before introducing single line working the SM on duty must satisfy that the line on which single line working will be introduced is clear and free from all obstructions.
- (b) The Lock and Block instrument will be suspended. The Commutators of Lock & Block Instrument will be kept on "Train on line position".
- (c) SM proposing single line working must issue a message with
 - (i) The cause of introduction of single line working,
 - (ii) Line on which the single line will be introduced,
 - (iii) Source of information about the clearance of the line on which single line will be introduced,
 - (iv) Place of obstruction,
 - (v) Restriction of speed, If any,
 - (vi) Assurance about keeping the last stop signal at 'ON' position if the train runs on right line and in case of wrong line all signals are to be kept at 'ON' position etc under the exchange of Private Number.
- (d) SM on duty at the other end of the block section will acknowledge the message and confirm the same by a Private Number.
- (e) After obtaining line clear for the train from the advance station the Loco Pilot must be given as-
 - (i) Authority for Temporary Single Line (TSL) working on double line (T-D/602) indicating there in
 - Caution order
 - The line on which single line working is introduced.
 - The kilometer of obstruction.
 - Any other speed restriction, if any existing.
 - Endorsement to inform all Gang man and Gatekeeper about the single line working (for the first train only).

- The speed of the first train to be restricted to 25 KMPH subject to other speed restriction.
 - Authority to pass Signal in “ON” position
- (ii) A pilot memo T/369(3b) to pass the last stop signal at its ‘ON’ position. The approach stop signals at the station in advance may be taken “OFF”. In case a train proceeding on wrong line, the train shall be piloted out and at the receiving station, the train shall be piloted ‘IN’, on the authority of T/510.
- On being ensured that the obstructed line is clear and free from all obstructions, the SM will resume normal working after exchanging message with the SM of the other concerned end supported by private number in consultation with the Section Controller on duty when there is no train in the block section.

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

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

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

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

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

- a. The previous Block Ticket is collected and Cancelled or
- b. Necessary endorsement is given on the previous block ticket with the advise to wait at the site for a next train to follow or
- c. The previous train has met with an accident or has been disabled or
- d. The Block ticket has been cancelled from the Loco Pilot of the previous train by the official –in-charge at the site and kept in the personal custody & shall be kept until the arrival of the next train and such assurance is given over the telephone installed at the site quoting the serial number of the Block Ticket so collected.
- e. SM will suspend the Absolute Block System of Working and both SMs concerned should arrange for running of trains on the authority of Block Ticket.
- f. SM at the dispatching end will hand over to the driver the block Ticket as the authority which shall include:
 - i. Caution Order: Existing Speed Restriction/s shall be indicated in the Caution Order portion. The Speed Restriction to 15 KMPH during clear visibility and 10 KMPH when visibility is obstructed shall be clearly indicated.
 - ii. An authority to pass the Stop Signal at “ON” position.
- g. Before resumption of normal working a message between the SMs of the concerned stations shall be exchanged with private number.[Ref SR 6.02.05(d)(vi)]

The Block Ticket so issued must be collected by SM of either end with a certificate about the complete arrival of the train with its time and the section is clear of all obstructions from Loco Pilot/TMR of the train and cancelled.

10. **VISIBILITY TEST OBJECT: -**

- i) V.T.O. post/Authorised substitutes earmarked to work as V.T.O. Post.-The lights of Line No.1 starter signals on both ends are earmarked to serve as VISIBILITY TEST OBJECT vide GR 3.61(2) (b) (iii).
- ii) 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 equipment shall be kept ready on hand in good condition with necessary relief stock.

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

The station has been provided with double Distant signals which give adequate pre-warning to the loco Pilot. Hence, placing of detonators in case of fog shall be dispensed with vide SR 3.61.01. However, Fog Signal Register shall be maintained as per GR 3.61 and Subsidiary Rules thereto.

STATION DETONATOR REGISTER (OPT/124)

A Register regarding detonator is maintained at the station.

INSTRUCTIONS:

- (a) This register contains the following parts.
 - Part. - I: Particulars of fog signalmen posted at the station from time to time.
 - Part – II: Particulars of receipt and stock of detonating (fog) signals at the station to be filled in whenever detonators are used or received.
 - Part – III: Periods of fogs, fog signalmen on duty and details of detonators used.
 - Part – IV: Particulars of issue and testing of fog signals at the station.
- (b) In charge of the station shall ensure that the information maintained in the register is kept up to date and is accurate in all respects.
- (c) Transportation inspectors shall check the registers and also the stock of detonators on hand each time they visit the station and initial with date as an indication having done so.

CERTIFICATE:-

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

APPENDICES

- APPENDIX 'A' -- WORKING OF L.C. 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' -- ESSENTIAL EQUIPMENTS OF STATION.
- APPENDIX 'F' -- RULES FOR WORKING OF DK STATIONS, PASSENGER
HALTS, IBH, IBS AND OUTLYING SIDINGS.
- APPENDIX 'G' -- WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

APPENDIX ‘A’**WORKING OF LEVEL CROSSING GATES**

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 “SPL” CLASS ENGINEERING INTERLOCKED LEVEL CROSSING GATE NO. JT-39 AT KM 592/3-5 (UP) & 592/4-6 (DN) IN BETWEEN DOBH-ATS.

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	: JT-39
2.	Engineering or Traffic Gate	: Engineering
3.	Under control of Station Master or SSE(P.WAY)	: SSE(P.WAY)
4.	Location at KM	: 592/3-5(UP) & 592/4-6 (DN)
5.	At station	: ----
6.	In between station	: DOBH-ATS
7.	BG/MG/NG	: BG
8.	Single line/Doubling Line/Multiple Line	: Double line
9.	Normal position	: Open to road traffic
10.	Interlocked/Non-interlocked	: Interlocked
11.	Means of interlocking	: UP gate stop signal
12.	Provision of gate Signal at Kms	: (a) UP Gate Signal: 591/8-9 & RE post 591/33 (b)DN Adv Starter of DOBH:592/14-16
13.	Signaling arrangement	: Gate stop signal, Inner Distant & Distant Signal
14.	Means of communications /Telephone with or without Voice logger	: Telephone Connection from gate lodge with the SM Office/DOBH.
15.	Width of Level Crossing Gate	: 7.50 MTRS
16.	Type of Road (NH/SH/Others)	: Others(village)
17.	Name of Road	: Rengapali village Road
18.	Metaled/Non Metaled	: Metaled
19.	Approach Road	: Metaled
20.	Width of the Road	: 6.0 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	: ----
22.	Road Gradient (if any)	: (a) North/East side – 1 in 45 (b) South/West side – 1 in 58
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	: Electrically Operated lifting barrier
26.	Length of check Rail	: 9.5 MTRS.
27.	Road surface in between LC gates.	: CC Blocks
28.	Length of Rumble strip/speed breakers.	: 6.0 MTRS

**S.MISHRA
DSTE(TELE)/SBP**

**V. K. MALVIYA
DEN (Central)/SBP**

**LINGARAJ GARTIA
DOM(G)/SBP**

29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	80572 on 12/2024
32.	Census next due on	:	12/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	03 (08 Hours shift each)
35.	Nearest Railway Medical Assistance	:	Sambalpur
36.	Nearest Private Medical Assistance available (if any)	:	Attabira
37.	List of equipment available Yes / No.	:	YES

1.2 **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

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

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

- Gate working instructions in Hindi / English.
- Gate working instructions in local vernacular language.
- Gatekeeper Rule Book in Local vernacular language.
- List for tools and books.
- Duty Roster.
- 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.
- xii) S&T Register.

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-metalled 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.
- xix) In the event of gate signal becoming defective the gatekeeper shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

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 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 to take appropriate action, under exchange of private number.

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

- i) In case of an obstruction at the level crossing gate, gatekeeper shall maintain the gate signals, if any, in the 'ON' position by normalizing slot switch/signal knob.
- 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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	1000 M.
DOWN	Right	800 M.
	left	500 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 80572 as on 12/2024

1.6 SPECIAL INSTRUCTIONS:-

1. MODE OF OPERATION:

This is an interlocked L.C.Gate operated electrically situated at ATS end of the yard and the L.C.gate is interlocked with signals. Telephone connection is provided between the L C. gate lodge with SM on duty of DOBH Station. The level crossing gate is of lifting barrier type and motor operated by means of motor from panel provided at the gate lodge. The normal position of the gate is open to road traffic.

When it is necessary to close the gate, for taking off signals, the SM on duty shall inform the gatekeeper to close and lock the gate. Then he shall close the barriers of the LC gate by operating the RED push button provided on the panel. Gate keeper will keep the red push button till gate is closed & locked against road traffic and the red indication appears on the panel. After gate is closed & locked signal switches GS1 & 49 GS are to be reversed to take off Up gate stop and DN Advanced starter No.28 respectively. Dead approach locking with sixty seconds is provided. For

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DSTE(TELE)/SBP

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DEN (Central)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

opening of LC gate, after passage of train switch GS1 & 49 GS shall be put back to normal. Approach warning is provided only in UP direction.

After passage of UP train L.C.No.JT-39 shall be released automatically after sequential occupation & clearance of track circuit Nos G1T1 & G1T2. After passage of DN train LC No.JT-39 shall be released automatically after sequential occupation & clearance of track circuit Nos 28T1 & 28T2. The provision for actuation of AWS system with Track Circuit G1AT is provided at 02 (two) K.M distance.

In case of mid-section Interlocked gate failure gatekeeper will inform SM/DOBH with PN number exchanged ,then key-“H” (chained with crank handle) is extracted from the EKT (Electro mechanical free) , provided at gate lodge(in a locked and sealed red box with glass cover) for manual operation of lifting barrier by crank handling.

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

2. **WORKING OF SLIDING BOOM BARRIER:**

In case of failure of lifting barriers of level crossing gate due to failure/damage of gate boom etc., emergency sliding boom can be used as auxiliary gate without piloting IN and OUT of train. This emergency sliding boom cannot be used during normal working condition of main boom.

INSTRUCTIONS FOR OPERATION OF SLIDING BOOM:-

- a. Sliding boom provided at the far end of gate lodge has been padlocked with chain in open position and sliding boom at near end in open position has been locked by E-type lock.
- b. In case of breakage of normal boom or LC gate cannot be closed due to failure, the gatekeeper shall release electro-mechanically free Key ‘S’ from “ EKT- 5 ” provided in the gate lodge. Extraction of Key “S” from the EKT will put back the road signals to danger and the hooter will sound simultaneously.
- c. The gate keeper shall insert the Key “S” in E-type lock provided at near end sliding boom and unlock the emergency sliding boom. He will slide the boom against the road traffic and lock it in closed position by pushing the locking plunger. The locking plunger initially in locked condition can be released by unlocking the E-type lock with the key attached to the chain of the boom. This will also release key “SB-1” (Sliding Barrier-1) attached to the lock post. Key SB -1 when released locks the near end sliding boom.
- d. The far end sliding boom is normally in padlocked condition and the Key SB-1 is in the custody of gatekeeper. The gatekeeper shall unlock the sliding boom by this Key and slide it against the road traffic and lock it in closed position by pushing the locking plunger. The locking plunger is initially in locked condition. This can be freed by unlocking the E-type lock with the help of Key attached to the chain of the boom and “SB-1” concurrently. This will also release key “SB-2” (Sliding Barrier-2) attached to the far end lock post. Key SB-2 when extracted locks the far end sliding boom and Key “SB-1”. This key “SB-2” is to be transmitted to SM by inserting it in “EKT- 4” provided in the gate lodge in conjunction with the GS (Gate Slot) switch provided in the gate lodge to enable the SM on duty to take off concerned signals.
- e. In case of any damage to sliding boom when it is in closed condition to road traffic, leading to infringement or obstruction on track, the gate keeper shall normalize the switch GS to put back the concerned signals to danger.
- f. After passage of train, SM on duty shall transmit the gate Key. The gate keeper shall extract SB-2 Key from EKT- 4, normalize the switch GS, unlock the sliding boom and operate the gears in reverse sequence of operation to normalize the sliding boom.

In the event of failure of reception and dispatch signals or during Non-Interlocking working the Gatekeeper shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a).

OPERATION OF ELECTRIC LIFTING BARRIER DURING 110/24 V DC POWER FAILURE:-

(Hand Generator Mode-During Power Failure)

In case of power failure (110/24 V DC), the barriers cannot be operated from the panel. But the barriers can be operated simultaneously by use of hand generator as mentioned below.

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

OPERATION OF ELECTRIC LIFTING BARRIER WHEN 110/24 V DC POWER SUPPLY ASWELL AS HAND GENERATOR FAILS:-(During Power Failure and failure of hand generator)

In case of failure of 110/24 V DC power supply as well as fault in the hand generator system a provision of hand cranking of each barrier has been provided.

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

INDICATIONS PROVIDED ON CONTROL PANEL FOR OPERATION OF ELECTRICAL LIFTING BARRIER:-

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

9. 'Power' indicator LED will glow continuously if power supply is available.

Gate is locked when a signal is taken off. Locking of the gate is released only when the train movement for which Signals are taken off is completed. For emergency opening of the LC Gate before completion of train movement or if the route given for a train has not been released, then emergency gate release operation has to be initiated in the following manner. Signal cancellation button and the concerned signal button has to be pressed. Then emergency gate release button along with control 49 button has to be pressed. A flashing Red indication will appear on the top of the emergency gate release button. When the Gate lock indication disappears (i.e. after 120 seconds) gate key can be transmitted by pressing gate key and group trans button simultaneously for opening the gate.

In the event of failure of reception and dispatch signals or during Non-Interlocking working the Traffic Gatekeeper shall be informed and the train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic in consistence with safety as per subsidiary rule 16.03.01 (a).

3. INTIMATION TO GATE KEEPER :

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

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/DOBH 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 rectifies 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/ DOBH under exchange private number, and ensure the lifting barriers of gate do not foul the track. Then he shall resort to operate the sliding barrier to close against the road traffic. If both the lifting barrier and sliding barrier became defective, then he shall take the following action.
- 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/ DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/ATS 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/ DOBH will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

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

1.9. **FAILURE OF GATE KEY WITH THE GATE IN CLOSED POSITION, WHEN GATEKEY CANNOT BE EXTRACTED FOR OPENING THE GATE :**

- (i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gatekeeper must immediately inform the Station Master/DOBH on duty on telephone, under exchange of private number.
- (ii) For emergency opening of the gate, he will extract key-H from EKT kept in the red sealed glass box which is mechanically free & electrically proved. Concerned signals will be put back to "ON" position when emergency key is extracted. The date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons by the gatekeeper.
- (iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gates should be adopted.
- (iv) Station Master on duty/ DOBH shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master/ ATS at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train into the block section his end.
- (vi) Station Master/ DOBH shall advise S&T staff responsible for maintenance the key transmitter to repair the same at the earliest.
- (vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection/fit memo for the same.

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

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

- (iv) Station Master on duty/ DOBH shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master/ ATS at the despatching end under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) Station Master/DOBH shall advise S&T staff responsible for maintenance the gate/key transmitter to rectify the same at the earliest.
- (vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection/fit memo for the same.

1.11. DEFECTIVE GATE SIGNAL:

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

1.12. 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 normalize GS switch to put back concerned signals and then fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- ii) Immediately after this, the gatekeeper shall inform the Station Master / DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master / DOBH 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/ DOBH 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/ DOBH 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/DOBH shall also inform the station Master /ATS 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/ DOBH 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/ DOBH 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.
- xiii) Station Master/ DOBH shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the Gatekeeper, if the gate is broken, but is clear of any obstruction.

1.13. 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 will adopt the procedure given under item No. 1.12 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 obstructions.

1.14. ACCIDENTAL ROLLING DOWN OF TRAINS:-

When the gatekeeper seen 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. GATE WORKING INSTRUCTIONS OF ‘C’ CLASS TRAFFIC LEVEL CROSSING GATE NO. JT-40 AT KM:593/19-21 (UP) & 593/20-22(DN) IN BETWEEN UP STARTERS AND UP ADVANCED STARTER SIGNAL OF DOBH:-

2.1. GENERAL DESCRIPTION:-

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	:	JT-40
2	Engineering or Traffic Gate	:	Traffic
3	Under control of Station Master or SSE(P.WAY)	:	SM/DOBH
4	Location at KM	:	593/19-21(UP&593/20-22(DN)
5	At station	:	DEOBAHAL
6	In between station	:	DOBH-BRGA
7	BG/MG/NG	:	BG
8	Single line/Doubling Line/Multiple Line	:	Double line
9	Normal position	:	Open to road traffic
10	Interlocked/Non-interlocked	:	Interlocked
11	Means of interlocking	:	Interlocked with station stop signals
12	Provision of gate Signal at Kms	:	Nil
13	Signaling arrangement	:	MACLS
14	Means of communications /Telephone with or without Voice logger	:	Magneto Telephone Connection with SM office /DOBH
15	Width of Level Crossing Gate	:	7.5 MTRS
16	Type of Road (NH/SH/Others)	:	Others
17	Name of Road	:	Deobahal
18	Metaled/Non Metaled	:	Metaled
19	Approach Road	:	Metaled
20	Width of the Road	:	5.5 MTRS.
21	Angle of Road Crossing (in case of the SKEW gates)	:	Nil
22	Road Gradient (if any)	:	(a) North/East side – 1 in 30 (b) South/West side – 1 in 30
23	Road alignment (straight/curve)	:	(a) North/East side – curve (b) South/West side – Curve
24	Provision of height gauge	:	Provided
25	Type of Barrier	:	Electrically Operated Lifting barrier along with sliding boom
26	Length of check Rail	:	9.5 MTRS.
27	Road surface in between LC gates.	:	Leveled with hexagonal concrete Blocks
28	Length of Rumble strip/speed breakers.	:	5.5 m
29	Road Signs	:	Provided
30	Speed breakers indication board	:	Provided.
31	TVU	:	6702 on 12/2024
32	Census next due on	:	12/2027
33	Demarcation for placement of detonators.	:	Provided.

34	No. of Gatekeepers working	:	02 (12 Hours shift each)
35	Nearest Railway Medical Assistance	:	SBP
36	Nearest Private Medical Assistance available (if any)	:	BRGA
37	List of equipment available Yes / No.	:	YES

1.2 **EQUIPMENTS:**

Sl. No.	Description	Requirement	To be used as
1.	LED based Tri colour hand signal lamps	Two	One for use and another for spare.
2.	Green Hand Signal Flag	One flag mounted on sticks	To hold in furled condition while passing train.
3.	Red Hand Signal Flag	Two flags mounted on sticks.	One to hold in furled condition and another for spare.
4.	Red Banner Flag mounted with sticks.	Double line – 2	In case of obstruction, one flag each is to be displayed on either side of line.
5.	Spare chains with padlocks.	2 chains with 2 padlocks.	For securing gate against road traffic in case of gate boom cannot be closed.
6.	Stop Boards.	2 retro reflective stop boards with stands.	To display towards road traffic when gate is secured by gate chains due to failure of booms.
7.	Padlock	One	To lock the door of the gate lodge in case of necessity.
8.	Detonators.	Ten (10) in a tin case.	For use in case of obstruction of track.
9.	Tommy Bar	One	For leveling the soil surface or to clean the channels of rails.
10.	Bucket	One	To keep water.
11.	Whistle	One	For alerting road users on approach of train and LP/ Guard to call their attention.
12.	Wall Clock	One	To note down the timings in PN/Log book.
13.	A Small size chain for use in case of failure of gate boom/leaf lock.	Two	For securing boom in closed condition in case of failure of boom lock.

2.3 **RECORDS TO BE KEPT AT GATE LODGE:**

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

- i) Gate working instructions in Hindi / English.
- ii) Gate working instructions in local vernacular language.
- iii) Gateman Rule Book in Local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as Gate Keeper.

- vii) Bio–Data particulars of Gate Keeper, including date of passing vision test, initial/refresher course, safety camp etc.
- viii) Accident Register.
- ix) Records of last census of road traffic at level crossing gate.
- x) Public complaint Book.
- xi) Inspection Book

2.4 DUTIES OF 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-metalead 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.
- xix) In the event of gate signal becoming defective the gatekeeper shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

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 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 to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LC GATE:

- i) In case of an obstruction at the level crossing gate, gatekeeper shall maintain the gate signals, if any, in the 'ON' position by normalizing slot switch/signal knob.
- 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.

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- 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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	1000 M.
	Left	1000 M.
DOWN	Right	600 M.
	left	1000 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 6702 as on 12/2024

2.6 SPECIAL INSTRUCTIONS

1. MODE OF OPERATION:

This is an interlocked L.C. Gate situated at (BRGA end) of the yard in between UP Starter and UP Advanced starter signal of DEOBAHAL Station. Telephone communication is provided between the L C. gate lodge and SM office of DOBH Station. The level crossing gate is of lifting barrier type and motor operated by means of motor from panel provided at the gate lodge. The normal position of the gate is open to road traffic. The key “K” of the LC normally remains locked in the Panel when the gate is in open condition.

When it is necessary to close the gate, for taking of signals, the SM on duty shall inform the gatekeeper to close and lock the gate. The gatekeeper on duty shall close the barriers of the LC gate by operating the RED push button provided on the panel. gate keeper will keep the red push button till gate is closed & locked against road traffic and the red indication appears on the panel. Then key ‘K’ is to be extracted from EKT-1 and inserted in EKT-2. This Key ‘K’ will be transmitted electrically to SM VDU in conjunction with switch GS reversed to control concerned UP & DN signals, Switch ‘GS’ is provided in the panel to put back the concerned signal to ‘ON’ in case of emergency.

During Non-Interlocking working the Traffic gate keeper shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so.

In case of failure in extracting key-K from EKT, one emergency key ‘L’ mechanically free & electrically proved is provided in a red sealed glass box and the barriers are to be opened by manual operation of lifting barriers by crank handling. Concerned signals will be put back to “ON” position when emergency key “L” is extracted from EKT-3. The date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons by the gatekeeper. During DN Home reception, once L.C.gate is closed & key “K” is transmitted electrically to SM, gate control No.-50 can be released after passage of train through sequential occupation & clearance of Track circuit 2T1 & 2T2.

2. WORKING OF SLIDING BOOM BARRIER :-

In case of failure of lifting barriers of level crossing gate due to failure/damage of gate boom etc., emergency sliding boom can be used as auxiliary gate without piloting IN and OUT of train. This emergency sliding boom cannot be used during normal working condition of main boom.

INSTRUCTIONS FOR OPERATION OF SLIDING BOOM:-

- Sliding boom provided at the far end of gate lodge has been padlocked with chain in open position and sliding boom at near end in open position has been locked by E-type lock.
- In case of breakage of normal boom or LC gate cannot be closed due to failure, the gate keeper shall release electro-mechanically free Key ‘S’ from “ EKT- 5 ” provided in the gate lodge. Extraction of Key “S” from the EKT will put back the road signals to danger and the hooter will sound simultaneously.
- The gate keeper shall insert the Key “S” in E-type lock provided at near end sliding boom and unlock the emergency sliding boom. He will slide the boom against the road traffic and lock it in closed position by pushing the locking plunger. The locking plunger initially in locked condition can be released by unlocking the E-type lock with the key attached to the chain of the boom. This will also release key “SB-1” (Sliding Barrier-1) attached to the lock post. Key SB - 1 when released locks the near end sliding boom.

- d) The far end sliding boom is normally in padlocked condition and the Key SB-1 is in the custody of gatekeeper. The gatekeeper shall unlock the sliding boom by this Key and slide it against the road traffic and lock it in closed position by pushing the locking plunger. The locking plunger is initially in locked condition. This can be freed by unlocking the E-type lock with the help of Key attached to the chain of the boom and “SB-1” concurrently. This will also release key “SB-2” (Sliding Barrier-2) attached to the far end lock post. Key SB-2 when extracted locks the far end sliding boom and Key “SB-1”. This key “SB-2” is to be transmitted to SM by inserting it in “EKT- 4” provided in the gate lodge in conjunction with the GS (Gate Slot) switch provided in the gate lodge to enable the SM on duty to take off concerned signals.
- e) In case of any damage to sliding boom when it is in closed condition to road traffic, leading to infringement or obstruction on track, the gatekeeper shall normalize the switch GS to put back the concerned signals to danger.
- f) After passage of train, SM on duty shall transmit the gate Key. The gatekeeper shall extract SB-2 Key from EKT- 4, normalize the switch GS, unlock the sliding boom and operate the gears in reverse sequence of operation to normalize the sliding boom.

In the event of failure of reception and dispatch signals or during Non-Interlocking working the Traffic Gatekeeper shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a).

OPERATION OF ELECTRIC LIFTING BARRIER DURING 110/24 V DC POWER FAILURE:-

(Hand Generator Mode-During Power Failure)

In case of power failure (110/24 V DC), the barriers cannot be operated from the panel. But the barriers can be operated simultaneously by use of hand generator as mentioned below.

Put the Mode selector switch on the panel to MANUAL position.

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

OPERATION OF ELECTRIC LIFTING BARRIER WHEN 110/24 V DC POWER SUPPLY ASWELL AS HAND GENERATOR FAILS:-(During Power Failure and failure of hand generator)

In case of failure of 110/24 V DC power supply as well as fault in the hand generator system a provision of hand cranking of each barrier has been provided.

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

INDICATIONS PROVIDED ON CONTROL PANEL FOR OPERATION OF ELECTRICAL LIFTING BARRIER:-

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

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

In the event of failure of reception and dispatch signals or during Non-Interlocking working the Traffic Gatekeeper shall be informed and the train shall be passed in terms of SR 3.69.02, and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic in consistence with safety as per subsidiary rule 16.03.01 (a).

3. INTIMATION TO GATEKEEPER: -

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

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personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

2.7. **FAILURE OF TELEPHONIC COMMUNICATION:**

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

- i) Station Master on duty /DOBH shall send written advice to the Gate Keeper through the porter with full details of number, description and direction of the train.
- ii) Gate Keeper on receipt of such advice shall close the gate and transmit the key to the Station Master, which will enable him to take 'OFF' reception/Departure signals.
- iii) When sufficient time is not available because of greater frequency of train service, station Master/DOBH will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- iv) In addition, Station Master/DOBH shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.
- v) The train Loco Pilot shall be instructed to pass the gate cautiously, on before signaled by the gatekeeper. If hand signal is not seen, Loco Pilot should be prepared stop short of the gate and ensure that gate is closed following GR.3.73.
- vi) In case of an approaching train, the Station Master/DOBH shall advise the SM/BRGA under exchange of private number, that the telephone at the gate has failed.
- vii) The station Master/BRGA shall then issue a caution order to the Loco Pilot before dispatching a train into the block section from his end.
- viii) He should also advise S&T staff responsible for maintenance of the telephone rectify the defect at the earliest.
- ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection /fit memo for the same.

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/DOBH under exchange private number, and ensure the lifting barriers of gate do not foul the track. Then he shall resort to operate the sliding barrier to close against the road traffic. If both the lifting barrier and sliding barrier became defective, then he shall take the following action.
- 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/DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/BRGA 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/DOBH will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

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

2.9. FAILURE OF GATE KEY WITH THE GATE IN CLOSED POSITION, WHEN GATEKEY CANNOT BE EXTRACTED FOR OPENING THE GATE :

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gatekeeper must immediately inform the Station Master/DOBH on duty on telephone, under exchange of private number.
- ii) For emergency opening of the gate, he will extract key-K from EKT kept in the red sealed glass box which is mechanically free & electrically proved. Concerned signals will be put back to “ON” position when emergency key is extracted. The date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons by the gatekeeper.
- iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gates should be adopted.
- iv) Station Master on duty/DOBH shall issue caution order to the Loco Pilot of a departing train.
- v) He shall also advise the Station Master/BRGA at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train into the block section his end.
- vi) Station Master/DOBH shall advise S&T staff responsible for maintenance the key transmitter to repair the same at the earliest.
- vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection/fit memo for the same.

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

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

2.11. 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 normalize GS switch to put back concerned signals and then fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- ii) Immediately after this, the gatekeeper shall inform the Station Master/DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/DOBH 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/DOBH 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/DOBH 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/DOBH shall also inform the station Master /BRGA 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/DOBH 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/DOBH 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.
- xiii) Station Master/DOBH shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the Gatekeeper, if the gate is broken, but is clear of any obstruction.

2.12. 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 will adopt the procedure given under item No.2.11 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 obstructions.

2.13 ACCIDENTAL ROLLING DOWN OF TRAINS:-

When the gatekeeper seen 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.

3.0 GATE WORKING INSTRUCTIONS FOR 'B2' CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE No. JT-41 AT KM 595/5-7 (UP) & 595/6-8 (DN) IN BETWEEN DOBH-BRGA SECTION

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	:	JT-41
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	Km. 595/5-7(UP)&595/6-8(DN)
5.	At station	:	----
6.	In between station	:	DOBH-BRGA
7.	BG/MG/NG	:	BG
8.	Single line/Doubling Line/Multiple Line	:	Double line
9.	Normal position	:	Closed to road traffic
10.	Interlocked/Non-interlocked	:	Non-Interlocked
11.	Means of interlocking	:	----
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 to the SM Office /DOBH.
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others (Village)
17.	Name of Road	:	Deobahal
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.5 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	Nil
22.	Road Gradient (if any)	:	(a) East/North side – 1 in 30 (b) West/South side – 1 in 30
23.	Road alignment (straight/curve)	:	(a) East/North side – Curve (b) West/South side – Curve
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.	:	CC BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	16928 on 12/2024
32.	Census next due on	:	12/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift)
35.	Nearest Railway Medical Assistance	:	Sambalpur
36.	Nearest Private Medical Assistance available (if any)	:	BRGA
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
19. 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 RECORDS TO BE KEPT AT GATE LODGE:

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

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

3.4 DUTIES OF 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-metalled 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/ DOBH 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/ DOBH 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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	600 M.
	Left	600 M.
DOWN	Right	600 M.
	Left	600 M.

(ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.

(iii) Periodical Census of traffic has been taken and the recent TVU is 16928 as on 12/2024

3.6 SPECIAL INSTRUCTIONS-

1. MODE OF OPERATION:-

This is a Manned & Non-interlocked Engineering L.C. Gate situated at Km 595/5-7 (UP) & 595/6-8 (DN) in between DOBH-BRGA 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 DOBH station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/DOBH shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gate keeper 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/DOBH 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/DOBH. 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 / DOBH 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 / DOBH in assurance of gate being closed and locked against road traffic.

- (iii) The Station Master / DOBH 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:
 - (a) He has not exchanged any private number with the SM / DOBH as per (ii) above.
 - (b) If he has exchanged private number with the Station Master / DOBH , the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / DOBH has not exchanged private number with him for any other movement immediately in rear of the train.
Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag / red hand signal lamp ready in his hand to stop approaching train if any.
- (v) In case the 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/ DOBH 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/ DOBH 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/DOBH 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/ DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/BRGA 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/ DOBH 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.

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/ DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/ DOBH 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/ DOBH 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/ DOBH 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/ DOBH shall also inform the Station Master/ BRGA 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/ DOBH 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/ DOBH 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/DOBH 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

4.0 GATE WORKING INSTRUCTIONS FOR 'B2' CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE No.JT-42 AT KM 596/25-27 (UP), 596/26-28(DN) IN BETWEEN DOBH-BRGA SECTION.

4.1 GENERAL INSTRUCTIONS-

4.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of level crossing gate	:	JT-42
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	596/25-27 (UP), 596/26-28(DN)
5.	At station	:	----
6.	In between station	:	DOBH-BRGA
7.	BG/MG/NG	:	BG
8.	Single line/Doubling Line/Multiple Line	:	Double line
9.	Normal position	:	Closed to road traffic
10.	Interlocked/Non-interlocked	:	Non-Interlocked
11.	Means of interlocking	:	---
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 to the SM Office /DOBH
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others
17.	Name of Road	:	Village
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.5 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	Nil
22.	Road Gradient (if any)	:	(a) East/North side -1 in 30 (b) West/South side – 1 in 30
23.	Road alignment (straight/curve)	:	(a) East/North side – Straight (b) West/South 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.	:	CC BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	15374 on 12/2024
32.	Census next due on	:	12/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift each)
35.	Nearest Railway Medical Assistance	:	Sambalpur
36.	Nearest Private Medical Assistance available (if any)	:	Deobahal
37.	List of equipment available Yes / No.	:	YES

4.2 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
20. 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

4.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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

4.4 DUTIES OF 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-metalled 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/DOBH 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/DOBH 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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.

4.5 ENGINEERING ITEMS:

(i) Visibility:

DIRECTION	SIDE	VISIBILITY DISTANCE
UP	Right	800 M.
	Left	800 M.
DOWN	Right	800 M.
	left	800 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 15374 as on 12/2024

4.6 SPECIAL INSTRUCTIONS-

1. MODE OF OPERATION:-

This is a Manned & Non-interlocked Engineering L.C.Gate situated at Km 596/25-27 (UP), 596/26-28(DN)in between DOBH-BRGA 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 DOBH station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/DOBH 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/DOBH 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/DOBH. 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 / DOBH 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 / DOBH in assurance of gate being closed and locked against road traffic.

- (iii) The Station Master / DOBH 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:
 - (a) He has not exchanged any private number with the SM / DOBH as per (ii) above.
 - (b) If he has exchanged private number with the Station Master / DOBH , the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / DOBH has not exchanged private number with him for any other movement immediately in rear of the train.
 - (c) 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/ DOBH 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.

4.7. **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/DOBH 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.

4.8 **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/ DOBH 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/ DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/ BRGA 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/ DOBH 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.

4.9 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/ DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/ DOBH 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/ DOBH 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.4.4. (5).
- vi) Thereafter he shall protect the gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and reply these details to the Station Master/ DOBH 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/ DOBH shall also inform the Station Master/BRGA 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/ DOBH 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/ DOBH 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.

4.10 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/ DOBH will adopt the procedure given under item No. 4.9 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.

4.11 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

5.0 GATE WORKING INSTRUCTIONS FOR 'B1' CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE No. 43 AT KM 599/3-5 (UP) & 599/4-6 (DN) IN BETWEEN DOBH-BRGA.

5.1 GENERAL INSTRUCTIONS-

5.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of level crossing gate	:	JT-43
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	Km. 599/3-5(UP)& 599/4-6 DN)
5.	At station	:	----
6.	In between station	:	DOBH-BRGA
7.	BG/MG/NG	:	BG
8.	Single line/Doubling Line/Multiple Line	:	Double line
9.	Normal position	:	Open to road traffic
10.	Interlocked/Non-interlocked	:	Non-Interlocked
11.	Means of interlocking	:	----
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 to the SM Office /DOBH
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others(Village)
17.	Name of Road	:	Kurla village Road
18.	Metaled/Non Metaled	:	Concrete road
19.	Approach Road	:	Non-Metaled
20.	Width of the Road	:	5.5 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	Nil
22.	Road Gradient (if any)	:	(a) East/North side – Level
		:	(b) West/South side – Level
23.	Road alignment (straight/curve)	:	(a) East/North side – Straight
		:	(b) West/South 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.	:	CC BLOCK
28.	Length of Rumble strip/speed breakers.	:	7.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	28876 on 12/2024
32.	Census next due on	:	12/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift)
35.	Nearest Railway Medical Assistance	:	Sambalpur
36.	Nearest Private Medical Assistance available (if any)	:	BRGA
37.	List of equipment available Yes / No.	:	YES

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5.2. **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
21. 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

5.3 **RECORDS TO BE KEPT AT GATE LODGE:**

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

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

5.4 **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-metalled 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/ DOBH 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/ DOBH 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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.

5.5 ENGINEERING ITEMS:

(i) Visibility:

DIRECTION	SIDE	VISIBILITY DISTANCE
UP	Right	600 M.
	Left	600 M.
DOWN	Right	600 M.
	left	600 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 28876 as on 12/2024

5.6 SPECIAL INSTRUCTIONS-

1. MODE OF OPERATION:-

This is a Non-interlocked 'C' Class Engineering L.C. Gate situated at Km 599/3-5(UP) & 599/4-6(DN) in between DOBH-BRGA stations. This gate is provided with winch operated coupled lifting barriers. The gatekeeper closes and opens the lifting barriers of gate manually by operating the winch. Telephone connection is provided between the L C. gate lodge and SM's office of DOBH station. The level crossing gate is normally kept open to road traffic and closed against road traffic for passage of trains. The gatekeeper shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

2. EXCHANGE OF PRIVATE NUMBERS.

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

- i) Station Master / DOBH at the dispatching end shall advise the gatekeeper the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before taking 'OFF' departure signal or giving an authority to proceed to the Loco pilot.
- iii) The gatekeeper on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
- iv) Station Master / DOBH will take off the departure signals after getting the private number of the gatekeeper.
- v) The gatekeeper shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

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

- i) Station Master /BRGA at the dispatching end shall advise the Station Master / DOBH at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before obtaining line clear.
- iii) Station Master / DOBH at the receiving end shall in turn convey the same advice to the gatekeeper, under exchange of private number.
- iv) Gatekeeper shall close the gate and thereafter give his private number to the Station Master / DOBH.
- v) Only then shall the Station Master / DOBH at the receiving end grant line clear to the Station Master /BRGA at the dispatching end.
- vi) The gatekeeper shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

5.7. 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/ DOBH 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.

5.8 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/ DOBH 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/ DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/BRGA 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/ DOBH 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.

5.9 **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/ DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/ DOBH 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/ DOBH 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.5.4. (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/ DOBH 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/ DOBH shall also inform the Station Master/ BRGA 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/ DOBH 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/ DOBH 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.

5.10 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/DOBH will adopt the procedure given under item No. 5.9 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.

5.11 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:

- a. First close the gate against the road traffic.
- b. Then immediately inform the SM on Duty.
- c. 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

6.0 GATE WORKING INSTRUCTIONS FOR ‘C’ CLASS ENGG. NON-INTERLOCKED LEVELCROSSING GATE No. JT-44 AT KM 599/29-31 (UP) & 599/30-32 (DN) IN BETWEEN DOBH-BRGA SECTIONS

6.1 GENERAL INSTRUCTIONS-

6.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of level crossing gate	:	JT-44
2.	Engineering or Traffic Gate	:	Engineering
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	Km. 599/29-31 (UP) 599/30-32(DN)
5.	At station	:	----
6.	In between station	:	DOBH-BRGA
7.	BG/MG/NG	:	BG
8.	Single line/Doubling Line/Multiple Line	:	Double line
9.	Normal position	:	Closed to road traffic
10.	Interlocked/Non-interlocked	:	Non-Interlocked
11.	Means of interlocking	:	---
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 lodge to the SM Office /DOBH
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others(Vilage)
17.	Name of Road	:	Bargarh Road
18.	Metaled/Non Metaled	:	Metaled
19.	Approach Road	:	Metaled
20.	Width of the Road	:	5.5 MTRS.
21.	Angle of Road Crossing (in case of the SKEW gates)	:	Nil
22.	Road Gradient (if any)	:	(a) East/North side – 1 in 30
		:	(b) West/South side – 1 in 30
23.	Road alignment (straight/curve)	:	(a) East/North side – Straight
		:	(b) West/South 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.	:	CC BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	6682 on 12/2024
32.	Census next due on	:	12/2027
33.	Demarcation for placement of detonators.	:	Provided.
34.	No. of Gatekeepers working	:	02 (12 Hours shift each)
35.	Nearest Railway Medical Assistance	:	SBP
36.	Nearest Private Medical Assistance available (if any)	:	BRGA
37.	List of equipment available Yes / No.	:	YES

S.MISHRA
DSTE(TELE)/SBP

V. K. MALVIYA
DEN (Central)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

6.2. 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
22. 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

6.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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

6.4 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.

S.MISHRA
DSTE(TELE)/SBP

V. K. MALVIYA
DEN (Central)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

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-metalled 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/ DOBH 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/ DOBH 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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.

6.5 ENGINEERING ITEMS:

- (i) Visibility:

DIRECTION	SIDE	VISIBILITY DISTANCE
UP	Right	400 M.
	Left	600 M.
DOWN	Right	600 M.
	left	400 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 6682 as on 12/2024

6.6 SPECIAL INSTRUCTIONS-

1. MODE OF OPERATION:-

This is a Manned & Non-interlocked Engineering L.C. Gate situated at Km 599/29-31 (UP) & 599/30-32 (DN) in between DOBH-BRGA 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 DOBH station. The level crossing gate is normally kept closed and locked against road traffic. The Station Master/DOBH 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/DOBH 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/DOBH. 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 / DOBH 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 / DOBH in assurance of gate being closed and locked against road traffic.

- (iii) The Station Master / DOBH 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:
 - (a) He has not exchanged any private number with the SM / DOBH as per (ii) above.
 - (b) If he has exchanged private number with the Station Master / DOBH , the whole of the train with last vehicle indicator has passed over the level crossing gate and Station Master / DOBH has not exchanged private number with him for any other movement immediately in rear of the train.
 - (c) 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/ DOBH 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.

6.7. **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/ DOBH 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.

6.8 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/ DOBH 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/ DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/ BRGA 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/ DOBH 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.

6.9 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/ DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/ DOBH 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/ DOBH 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.6.4. (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/ DOBH 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/ DOBH shall also inform the Station Master/BRGA 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/ DOBH 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/ DOBH 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.

6.10 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/DOBH will adopt the procedure given under item No. 6.9 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.

6.11 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

7.0 GATE WORKING INSTRUCTIONS FOR ‘B2’ CLASS ENGG. NON-INTERLOCKED LEVEL CROSSING GATE No. JT-45 AT KM 601/3-5 (UP) & 601/4-6 (DN) IN BETWEEN DOBH-BRGA SECTION

7.1 GENERAL INSTRUCTIONS-

7.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1. Number of level crossing gate : JT-45
2. Engineering or Traffic Gate : Engineering
3. Under control of Station Master or SSE(P.WAY) : SSE(P.WAY)
4. Location at KM : Km.601/3-5(UP) & 601/4-6(DN)
5. At station : ---
6. In between station : DOBH-BRGA
7. BG/MG/NG : BG
8. Single line/Doubling Line/Multiple Line : Double line
9. Normal position : Open to road traffic
10. Interlocked/Non-interlocked : Non-Interlocked
11. Means of interlocking : ---
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 to SM Office /DOBH
15. Width of Level Crossing Gate : 7.5 MTRS
16. Type of Road (NH/SH/Others) : Others(Village)
17. Name of Road : Barahguada Canal Road
18. Metaled/Non Metaled : Metaled
19. Approach Road : Metaled
20. Width of the Road : 5.5 MTRS.
21. Angle of Road Crossing (in case of the SKEW gates) : Nil
22. Road Gradient (if any) : (a) East/North side – Level
: (b) West/South side – Level
23. Road alignment (straight/curve) : (a) East/North side – Curve
: (b) West/South side – Curve
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. : Level
28. Length of Rumble strip/speed breakers. : 5.5 MTRS
29. Road Signs : Provided
30. Speed breakers indication board : Provided.
31. TVU : 14882 on 12/2024
32. Census next due on : 12/2027
33. Demarcation for placement of detonators. : Provided.
34. No. of Gatekeepers working : 02 (12 Hours shift)
35. Nearest Railway Medical Assistance : DEOBAHAL
36. Nearest Private Medical Assistance available (if any) : BRGA
37. List of equipment available Yes / No. : YES

7.2. 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
23. 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

7.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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

7.3 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-metalled 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/ DOBH 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/ DOBH 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 DOUBLE LINE:-

- i) If both lines are obstructed the Gatekeeper shall plant a red banner flag by day and a red light by night at 5 meters away from the line on which train is expected to arrives first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line at 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 line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the Gate Keeper 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.

7.5 ENGINEERING ITEMS:

- (i) Visibility:

DIRECTION	SIDE	VISIBILITY DISTANCE
UP	Right	800 M.
	Left	350 M.
DOWN	Right	350 M.
	left	800 M.

- (ii) Speed Breakers: - Speed Breakers of approved Design are provided on either side of the Level Crossing.
- (iii) Periodical Census of traffic has been taken and the recent TVU is 14882 as on 12/2024

7.6 SPECIAL INSTRUCTIONS-

1. MODE OF OPERATION:-

This is a Non-interlocked 'C' Class Engineering L.C. Gate situated at Km 601/3-5(UP) & 601/4-6 (DN) between DOBH-BRGA stations. This gate is provided with winch operated coupled lifting barriers. The gatekeeper closes and opens the lifting barriers of gate manually by operating the winch. Telephone connection is provided between the L C. gate lodge and SM's office of DOBH station. The level crossing gate is normally kept open to road traffic and closed against road traffic for passage of trains. The gatekeeper shall be authorized to open the L.C. Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

2. EXCHANGE OF PRIVATE NUMBERS.

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

- i) Station Master / DOBH at the dispatching end shall advise the gatekeeper the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before taking 'OFF' departure signal or giving an authority to proceed to the Loco pilot.
- iii) The gatekeeper on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
- iv) Station Master / DOBH will take off the departure signals after getting the private number of the gatekeeper.

S.MISHRA
DSTE(TELE)/SBP

V. K. MALVIYA
DEN (Central)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

- v) The gatekeeper shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

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

- i) Station Master /BRGA at the dispatching end shall advise the Station Master / DOBH at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
- ii) Such advice shall be given before obtaining line clear.
- iii) Station Master / DOBH at the receiving end shall in turn convey the same advice to the gatekeeper, under exchange of private number.
- iv) Gatekeeper shall close the gate and thereafter give his private number to the Station Master / DOBH.
- v) Only then shall the Station Master / DOBH at the receiving end grant line clear to the Station Master /BRGA at the dispatching end.
- vi) The gatekeeper shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gatekeeper before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

7.7. 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/DOBH 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.

7.8 **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/DOBH 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/DOBH shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the station Master/BRGA 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/DOBH 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.

7.9 **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/ DOBH on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- iii) Station Master/ DOBH 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/ DOBH 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.7.4. (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/ DOBH 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/ DOBH shall also inform the Station Master/BRGA 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/ DOBH 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/ DOBH 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.

7.10 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/DOBH will adopt the procedure given under item No. 7.9 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.

7.11 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 NORMALLY AND EMERGENCIES ETC. INCLUDING THE POWER SUPPLY ARRANGEMENTS.****1.0 BRIEF DESCRIPTION OF THE SIGNALLING & INTERLOCKING INSTALLATIONS:**

This is a 'B' class station provided with Standard –III(R) interlocking. The station is provided with Route setting type Electronic Interlocking system having points, signals, track circuits and other signaling gears. The Station is equipped with Multiple Aspect Colour Light Signaling. All points and Signals etc. are power operated through a central Visual Display Unit (VDU) with a standby VDU installed in the SM's Office.

2.0 DESCRIPTION OF OPERATOR CONSOLE CUM VISUAL DISPLAY UNIT:

The Operator Console cum Visual Display Unit (VDU) is provided for operation of Signals, Points, L.C Gates, Crank Handles, Siding & other controls etc. A Mimic yard diagram based on approved SI plan will be displayed on the VDU. The VDU is used for controlling and monitoring the station. Indications on the Station yard mimic diagram of VDU will be dynamically updated.

2.1 SYSTEM OVERVIEW:

An Operator Console consisting of a VDU (Colour monitor), with keyboard and pointing device (mouse) connected with a computer (CPU) is provided. The CPU is connected to the Electronic Interlocking (E.I) equipment to exchange control and indication messages. The system is programmed to display the Station Yard Mimic diagram on the VDU and that it allows access to all functions through pop-DN menus. When a particular function is selected, an appropriate Menu will appear on the screen. A function (clearance of Signal or cancellation, Route release, Point operation, Gate release etc.) can be executed through selecting the required operation by clicking the Left button of the pointing device (mouse) on the desired function.

2.2 An additional VDU connected with a computer is provided as standby arrangement in case of failure of the working operator console. In case of failure of the working operator console the system shall switch over to the stand by VDU automatically.

2.3. ICONS AND INDICATIONS PROVIDED ON THE VDU

In addition to mimic yard diagram including signal, points, track circuit, Axle counters, L.C.gates, sidings as indicated in the WRD, various other ICONS and indications have been provided on the VDU. A brief description of the same are described below.

SL. NO	ICONS	INDICATIONS	FUNCTIONS	REMARKS
1	SM's Key	Yellow light when key is 'IN'	Ensures operation of VDU by authorized person	Protected by pass word
2.	---	Emergency Route release - DN & UP	Flashing indication appears when Emergency route release operation is initiated.	
3.	---	Emergency Gate release	Flashing indication appears when Emergency gate release operation is initiated.	

4.	Emergency Point operation key	Yellow light when key is 'IN'	Ensures emergency point operation by authorized person	For each operation concerned counter shall register one count higher.
5.	---	System indication On/Off	Indicates System 'A' or 'B' is in working mode	
6.	Point failure Ack. Icon	Red	Flashing indication appears when any point fails. SM has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledgement buzzer stops. After verification at site inform S&T staff Immediately.
7.	Signal failure Ack. icon	Red	Flashing indication appears when any signal fails. SM has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledgement buzzer stops. Inform S&T staff Immediately.
8.	CH-1 to CH5	Yellow lamp indicates 'KEY IN'. Red lamp indicates 'CH LOCKED'	In normal condition yellow lamp will be lit. Whenever the crank handle is locked in route or otherwise red indication will glow.	--
9.	'UP Train Entering Section' muting	Yellow - acknowledged	SM shall left click on the button icon to acknowledge it.	
10.	'DN Train Entering Section' muting	Yellow - acknowledged	SM shall left click on the button icon to acknowledge it.	
11.	DN Block release	Yellow –Prepared for Block release.	On getting indication SM shall left click on the button icon which shall release Block Handle.	After complete arrival of train this will be activated
12.	UP Block release	Yellow –Prepared for Block release.		
13	Line Block	Red when blocked	SM shall select the required counter on the menu and can read the latest counter reading. SM shall point the curser on the icons provided on the berthing track and right click. One drop menu will appear indicating line blocked and un-blocked, SM has to select the required menu.	When line block is selected the concerned berthing portion of track will appear as thick Red line.

3.0. OPERATIONAL PROCEDURE THROUGH VDU AND INDICATIONS:

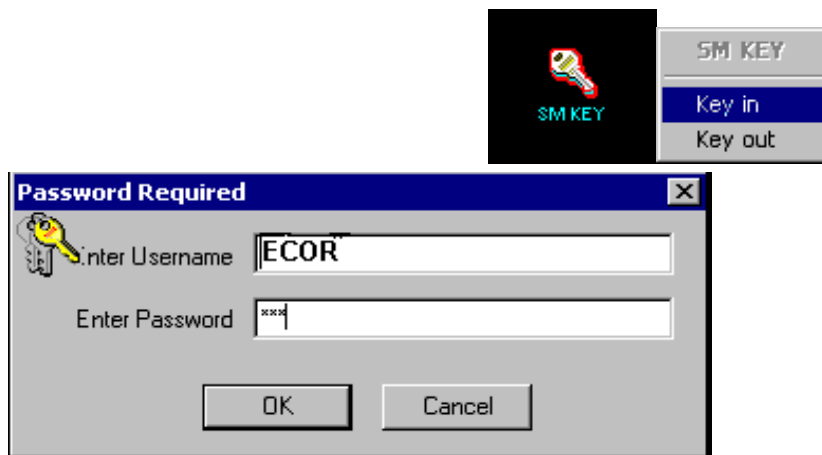
In addition to the mimic yard diagram various other indications will be available on the VDU. The implications of different indications provided and the operational procedure for different functions shall be strictly followed as per the following description.

3.1 ELECTRONIC INTERLOCKING (E.I) SYSTEM INDICATIONS:

Electronic Interlocking Equipment (E.I) at the center can work in either of the two modes i.e, System-‘A’ or System-‘B’. On the VDU (Computer), there are two system indications in which Green indication mentioning the On-line system and the Red indication mentioning that the system is in power off condition.

3.2 OPERATION PROCEDURE OF SM’s KEY :

To prevent the unauthorized operation by any person other than SM on duty this facility is provided on VDU. On duty SM needs to track the pointer to the “SM KEY” icon and click the ‘KEY IN’ menu by the clicking left button of the mouse, by this a Password window will appear. SM on duty needs to enter the password and press the ‘OK’ Button provided on the Password window. This will allow operating all the controls e.g., Signals, Points, and Crank handles etc. through VDU. In case incorrect password or user name is entered, no operation can be made. In such cases the same procedure is to be repeated till correct password is entered.



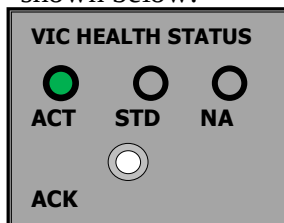
Enter the USER NAME and PASSWORD and click the OK button.

Now the Operating VDU is ready for use & the entire yard can be controlled from the VDU.

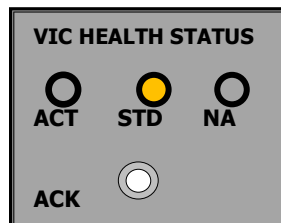
Similarly Station Master to select the KEY OUT to prevent the unauthorized operation.

3.2.1 VIC (Vital Interlocking Computer) Status Indications:

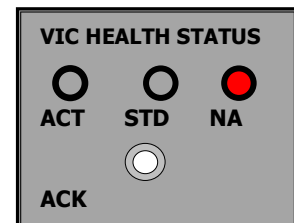
VIC-A Active, Stand By and Not Available indications will be displayed in VDU as shown below:



VIC-A is Active

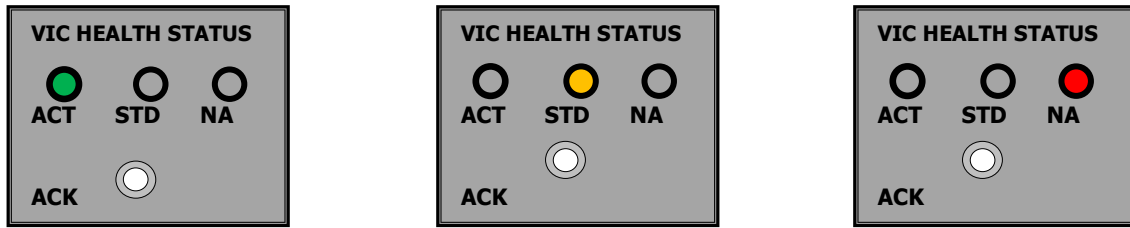


VIC-A is Stand-by



VIC-A is Not Available

VIC-B Active, Stand By and Not Available indications will be displayed in VDU as shown below:



VIC-B is Active

VIC-B is Stand-by

VIC-B is Not Available

If there is any change in VIC's status, its changed status will be displayed in VDU as shown below to alert the Station Master. When the Station Master acknowledges the fault message, the corresponding fault message will be cleared in VDU. For acknowledging the fault message the operator needs to Right click on the corresponding fault message and shall select the "ACK" option from the pop-DN menu.

VIC A STATUS CHANGED TO ACTIVE

VIC A STATUS CHANGED TO STAND BY

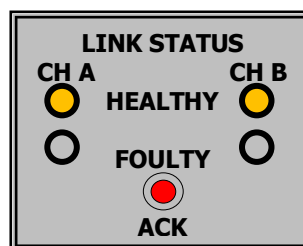
VIC A STATUS NOT AVAILABLE

If at least one VIC is available in Active State EI will continue to function normally. On observing the fault message, SM shall acknowledge the fault message and immediately inform to EI Maintainer.

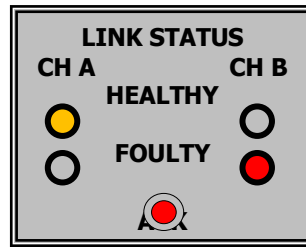
3.2.2 Link Status Indications:

These indications are provided to display the status of communication between VDU and CIU (Central Interlocking Unit).

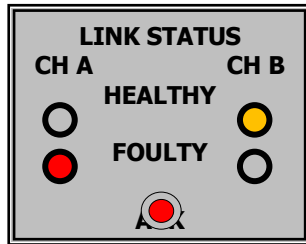
When both Channels A & B communication links with CIU are Healthy, then the corresponding indications will be displayed as shown below:



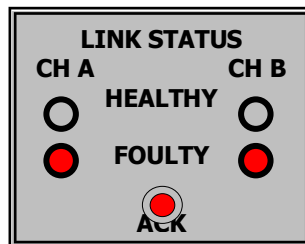
When Channel-A Link Status is Healthy and Channel-B is Faulty then the corresponding indications will be displayed as shown below:



When Channel–A Link Status is Faulty and Channel–B is Healthy then the corresponding indication will be displayed as shown below:



When both Channels A & B are Faulty, then the corresponding indications will be displayed as shown below:



When Channel-A link or Channel-B Link fails, corresponding fault Buzzer is turned on to alert the operator. To acknowledge the failure, Station Master shall Right click on the above control and shall select the “ACK” option in the pop up menu. Then the Buzzer stops.

When both Channel-A and Channel-B Links fail, all the VDU indications become blank since no indication data is received by the VDUs from the CIU. And CIU will restart for every 60 minutes until link is recovered. The Station Master shall report the failure to ESM for troubleshooting.

3.2.3 OC SHUTDOWN STATUS (VCOR RELAY DROP)

When VCOR Relay Drops in any OC, corresponding fault message will be shown in VDU and also a buzzer starts automatically to alert the Station Master. SM shall acknowledge the fault message and inform the EI Maintainer regarding the failure.

VCOR RELAY DROPPED AT OC NO- 4

3.2.4 CIU SHUT-DOWN

If CIU is shutdown due to any critical fault, corresponding fault message will be shown in VDU and a buzzer starts automatically to alert the Station Master. SM shall acknowledge the fault message and inform the EI Maintainer regarding the failure.

During the both system's failure, all indications on the VDU become blank. Then the station master should immediately inform to the EI Maintainer.

3.3 OPERATION PROCEDURE OF PC Enable :

On duty SM/ASM needs to track the pointer to the "PC CONTROL" icon and click right button of the mouse, a pop DN menu appear as shown below and then select the "PC ENABLE" option with left click. Now SM/ASM can operate all controls from the active VDU.



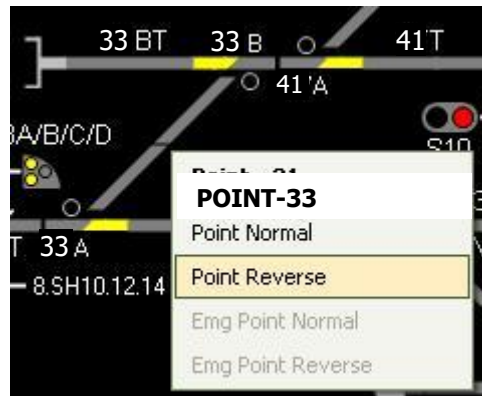
After selecting PC Enable, it will ask for Login Authentication as shown below.

Select the User Name and Enter Password and click the OK button.

Now the Operating VDU is ready for use & the entire yard can be controlled from the VDU.

3.4 OPERATION AND INDICATION OF POINT:

To operate any Point the SM needs to track the mouse pointer to concerned point's Normal /Reverse indications on the VDU, Right click on it, then it will show a Menu as shown below.



3.4.1 REVERSE TO NORMAL OPERATION:

Track the pointer to POINT NORMAL menu and click. A Normal flashing indication will appear and the indication will be steady after the point is set to Normal.

3.4.2 NORMAL TO REVERSE OPERATION:

Track the pointer to POINT REVERSE menu and click. A Reverse flashing indication will appear and the indication will be steady after the point is set to reverse.

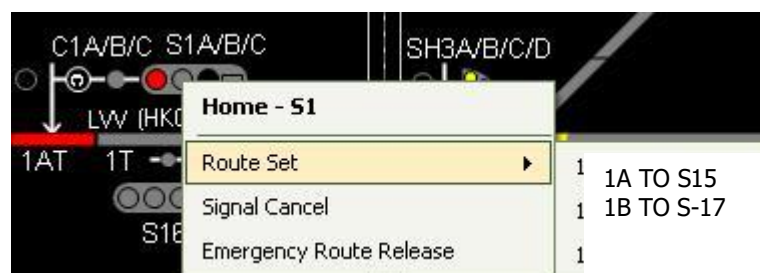
3.4.3 POINT INDICATIONS

For every point, a steady strip of yellow light will appear in the point zone to indicate the point Normal / Reverse condition. It will flash if the point is operating from Normal to Reverse or vice versa. And it will flash continuously if the point's detection not available.

For every point, an indication is provided, it will show Red indication if the Point is in Locked condition otherwise it will be blank.

3.4.4 PROCEDURE FOR SETTING OF ROUTES AND TAKING OFF SIGNALS:

To Take-Off a Signal on the desired route the SM on duty needs to track the mouse pointer over the concerned Signal on the VDU, after clicking by the right button of the mouse a menu will appear as shown below:



SM on duty will select the route as per the requirement by moving the mouse pointer on the appropriate menu & left clicking on the menu. It will set the route and clear the signal provided all the conditions required to clear the signal is satisfied. Similarly by following the similar procedure operation of other signals can be done.

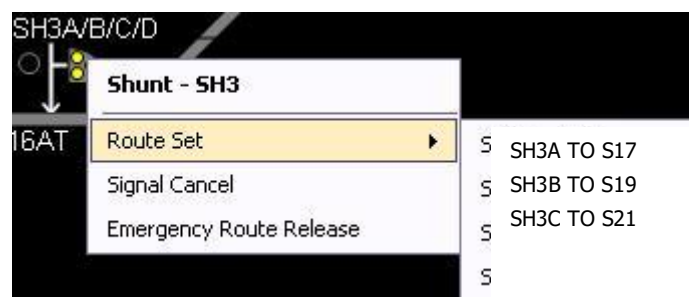
3.4.5 SETTING A ROUTE AND ITS INDICATIONS:

To set a route of a signal, click on a possible route of the signal, after doing so the route gets initiated & Red-flashing indication will appear on the replacement track of the signal. Point operation is initiated as per the requirement of the desired route and Normal/

Reverse set indications will start flashing if favorable point detection is not available. After setting of points in the route, overlap & isolation flashing indication will be replaced by steady indication and a complete yellow 'Route set' indication will appear from the replacement track of the signal to the last track of overlap section of the route. In addition, the points lock indication will appear. A Point locked can be ensured from the Red Steady indication will appear near the point. Finally a Route locked Yellow Steady indication will appear on the immediate rear of the signal. Now the signal will be Taken-off. The yellow route set indication will turn to red when different track circuit portion within the route is occupied during passage of a train.

3.4.6 SHUNT SIGNAL OPERATION:

The same procedure as main signal has to be followed as explained above. To set the signal route for shunt signals SM on duty shall put the pointing device on the Shunt signal icon and right click on the same. A drop down menu will appear indicating different actions that can be selected. After selecting, the desired route SM on duty shall left click on it. Desired route will be initiated and the Shunt signal can be taken off.



3.4.7 CALLING ON SIGNAL OPERATION:

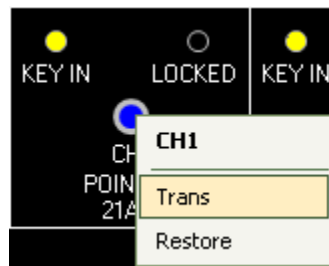
The same procedure as main signal has to be followed as explained above. To set the signal route for CALLING ON signals SM on duty shall select the desired route and left click on the same after a train occupies the approach track circuit in immediate rear of the stop signal. The signal is cleared after a lapse of 60 seconds provided other conditions are fulfilled.



3.5 CRANK HANDLE CONTROL OPERATION:

Normally a 'KEY IN' (Yellow) indication will appear on the VDU indicating that the crank handle's Key is in RKT. To Transmit or Receive control of the Crank Handle, right click on the crank handle control button icon provided on VDU.

The appearing pop-up menu gives details of the possible commands on the Crank Handle.



To Transmit the Crank Handle KEY to the field personnel, SM on duty has to click transmit control menu. After transmission the 'KEY IN', indication will start flashing, now the KEY can be extracted from the RKT at site. After extracting the key from the RKT, the 'KEY IN' indication will disappear. When the Manual point operation is over, after putting CH key in the RKT, 'KEY IN' flashing indication will appear on the VDU, Now the SM on duty has to Release the control for the steady indication by clicking release control menu.

A Crank handle locked indication (Red) will appear when the particular point is on the signal route set over it or engaged in route setting in any other way.

3.6 LEVEL CROSSING GATE OPERATION:

To Transmit or Release control of the Level crossing gate, click on the Level crossing control button icon provided on the VDU.

The appearing pop-up menu gives details of the possible commands on the Level crossing gate.



Normally no indication will be available on the VDU indicating that the gate control key is out and gate is open. When it is required to close the gate SM on duty shall intimate the gate man to close the gate. On instructed by the SM on duty the gate man shall close and lock the gate and after reversing the concerned slot lever, he shall transmit the gate control key to station by inserting and transmitting the key in the RKT. A flashing yellow indication will appear on the VDU seeing which SM on duty shall receive the control by clicking on the L.C. Gate control button icon and select 'Restore'. The flashing indication shall become steady.

When the key is required to be transmitted to the Gate man, SM on duty has to transmit the control by clicking, after transmission the CLOSED indication will start flashing, now the KEY can be extracted from the RKT. When the gate has been closed, locked & slot lever is in reverse position, after putting the key in the RKT, A CLOSED flashing indication will appear on the VDU. Now the SM has to release the control for the steady

indication. The locked indication will appear when the LC Gate has locked by initiation of any of the possible signal routes.

3.7 OVERLAP TIME RELEASE (YELLOW LIGHT):

Separate indication (Yellow Light) for each overlap is provided near the starter signal to indicate the free or locked condition of overlap. This indication light will glow when any Home Signal route locks overlap and there will be no light when overlap is free. The locked indication starts flashing when the approaching train clears the rear end point zone track and occupies the berthing track. After a time release of 120 seconds the white flashing light will disappear indicating concerned overlap is free.

4 EMERGENCY OPERATIONS:

To carry out different emergency operations the following procedures are to be followed.

4.1 CANCELING A ROUTE/ EMERGENCY ROUTE RELEASE:

To cancel a signal route when the route is set and the signal is taken-off, click on the signal. After clicking by the right button on the mouse, a pop-DN menu will appear as shown in Para 3.4 above. Click on the "Signal Cancel" menu of the concerned signal, the signal will immediately go to 'ON' aspect. After doing so, click on the "Emergency Route release" menu the route locked indication will start flashing for 120 sec & the Emergency Route Release Indication (DN / UP as the case may be) will flash for the entire time interval. After the completion of 120 sec, the locked route will be released. This action will be recorded in a counter. The counter will increase to next higher number for each and every such operation and also, this number should be recorded by the SM on duty who shall record the details of the Route cancellation along with the latest counter no. in a register and SM's diary.



4.2 EMERGENCY OPERATION OF POINTS:

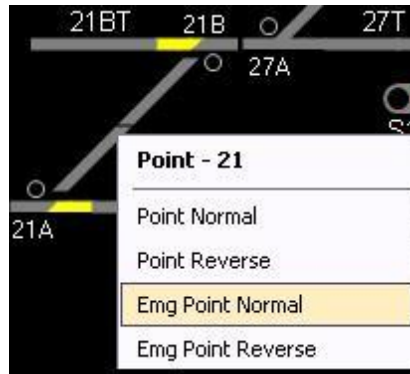
When the Point zone Track circuits failed without any Point lock condition by any signal routes, a point can be operated by the Emergency Point operation.

Note: Before resorting to this operation SM on duty shall verify that the point zone is clear of any vehicle occupying the track section and the same is clear of any obstructions.

4.2.1 EMERGENCYNORMAL OPERATION

Before doing the emergency operation the Emergency Point Operation Key is to be made "KEY IN" by clicking the 'KEY IN' menu. The user name and password is to be logged in. Track the pointer to 'EMERGENCY NORMAL' menu and click. A Normal flashing indication will appear and the indication will be steady after the point is set to Normal. This action will be recorded in a counter. The counter will increase by next number for each and every such operation and also, this number should be recorded by the SM on duty who shall record the details of the Emergency Point Operation along with the latest counter no. in a register.

After the completion of the Emergency point operation, the Key to be 'KEY OUT' by clicking 'KEY OUT' menu. The user name and password is to be given for "KEY OUT" also.



4.2.2 EMERGENCY REVERSE OPERATION OF POINTS:

Before doing the emergency operation an Emergency Point Operation Key is to be made 'KEY IN' by clicking the 'KEY IN' menu. The user name and password is to be logged in. Emergency reverse menu is to be clicked. Track the pointer to 'EMERGENCY REVERSE' menu and click. A Reverse flashing indication will appear and the indication will be steady after the point is set to Reverse. The counter will increase by next number for each and every such action and also, this number should be recorded by the SM on duty who shall record the details of the Emergency Point Operation along with the latest counter no. in a register.

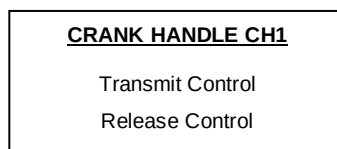
After the completion of the Emergency point operation, the Key to be 'KEY OUT' by clicking 'KEY OUT' menu. The user name and password is to be given for 'KEY OUT' also.

4.3 EMERGENCY CRANK HANDLE RELEASE OPERATION:

When a crank handle is locked due to route set earlier is not released or otherwise to Transmit or Release control of the Crank Handle, SM on duty shall cancel the relevant signal first and then click on the crank handle control button icon provided like the following on the VDU.



On clicking, the appearing pop-up menu gives details of the possible commands on the Crank Handle



For Transmitting the Crank Handle KEY to the field personnel SM on duty has to click transmit control menu. After transmission the 'KEY LOCKED' (Red) indication will start to flash for 120 seconds & 'KEY IN' remains steady. After a lapse of 120 seconds the 'KEY LOCKED' indication will vanish & 'KEY IN' indication will start to FLASH. After extracting the key from the RKT, the 'KEY IN' indication will disappear. When the Manual point operation is over, after putting the emergency crank handle key in the RKT, flashing 'KEY IN' indication will appear on the VDU, Now the SM on duty shall Release the control for the Steady indication by clicking 'RELEASE CONTROL' menu.

The counter will increase by next number for each and every such action and also, this number should be recorded by the SM on duty who shall record the details of the Emergency Crank Handle Operation along with the latest counter no. in a register.

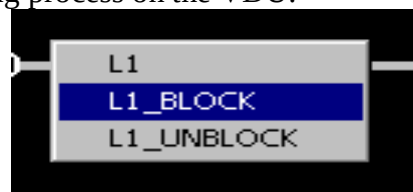
Release of crank handle when both the VDU's fail: In case of failure of both the VDU's station master on duty shall turn physical SM's Key to NO VDU mode. The he shall insert ECHR key and turn . This will facilitate emergency crank handle release automatically.

4.4 LINE BLOCK AND UNBLOCK:

When SM on duty requires demarcating a berthing/stabling line as BLOCKED / FREE line he shall adopt the following procedure:

4.4.1 LINE BLOCK:

To set the 'LINE BLOCKED', the SM on duty shall select "L. No.- - BLOCK" command using the left mouse button, after selecting the Line Block that particular line will be blocked for all the possible Track circuit section on that particular line. The 'TRACK BLOCK' yellow colour indication will be displayed after the successful application of such a blocking process on the VDU.



4.4.2 LINE UNBLOCK:

To release the set block of any particular line, the SM should select "L. No. ____ UNBLOCK" command using the left mouse button. After selecting the "L. No. ____ UNBLOCK" that particular line will be available for the train movement leading to all the possible L1 Track circuit section.

5.0 PROCEDURE FOR RESETTING OPERATION OF LVCD (DIGITAL) AXLE COUNTER IN SECTION DOBH-BRGA AND DOBH-ATS.

5.1 Digital Axle Counters are provided on both DN & UP line of DOBH-BRGA section and DOBH-ATS block section. The occupation and clearance of the axle counter section are indicated on VDU by RED & GREEN light respectively. When after arrival of a train the LVCD Axle counter does not show clear indication and the 'Section Occupied' indication continues to glow SM on duty shall initiate resetting procedure for the LVCD Axle Counter monitoring the Block section. Before initiating Resetting procedure SM on duty shall ensure that the train which has left arrived completely at receiving station and block

section is clear [free] of trains. If the track indication of that particular block section is showing 'Red' then the following actions are to be performed by the SM on duty.

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

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 to the section to make the system normal.

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

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

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

6.0 MAIN SIGNAL LAMP FAILURE INDICATION AND BUZZER ACKNOWLEDGMENT:

LED signal lamps are provided for main signals at this station. In case failure of LED signals will be indicated by the appearance of 'RED' light on VDU along with audible buzzer, which can be acknowledged and muted by pressing the 'SIGNAL FAILURE ACKNOWLEDGEMENT' button icon. However the RED light will continue to glow until the LED lamp is replaced by a new lamp. For rectification of failure SM on duty should inform the concerned S&T staff.

6.1 POINT FAILURE INDICATION (RED), POINT FAILURE BUZZER AND POINT FAILURE ACKNOWLEDGEMENT:

Whenever there is failure of point due to non-setting, point failure indication flashing light appears near the point button icon along with point failure Buzzer.

The buzzer stops when the point failure acknowledgement button icon is pressed, but the flashing light above the ACK button shall continue to glow. The flashing light at the concerned point zone can identify the defective point. After the failure is rectified, the flashing light above the 'POINT FAILUR ACK' button will disappear.

6.2 SHOWING OF COUNTERS:

A physical counter box is available on SM table.

7.0 TRACK CIRCUITS:

All lines are track circuited from Home signal to Advanced starter signals at either direction of the yard. Approach Track Circuit (5 Rail lengths) for Calling-on signal are also provided in rear of the Home signals in both directions. In addition there are (5 Rail length) track circuits beyond Advanced starter Signals in both the directions for replacement of Last Stop Signal. Indications for the above track circuits are available on VDU at SM's office. Yellow strip on VDU indicates 'ROUTE IS SET AND TRACK CLEAR' and Red strip indicates 'TRACK OCCUPIED CONDITION'.

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

8.0 TAKING OFF CALLING-ON SIGNAL:

Calling-on signals are provided below Home signals (i.e in both UP & DN directions) and below starter signals as per GR 3.13(1) (b).(2) (3) (4) & (6) (b). Miniature color light Calling-on signal is provided below Home signal in terms of GR.3.13 (6) (B). A Calling-on signal shows no light in the 'ON' position and yellow light when taken "OFF". A calling-on signal, will be taken "OFF" for reception of a train when the Home signal above it cannot be taken "OFF" due to failure or any other reason or for admission of train on blocked line and for shunting purpose (Calling-on cannot be taken off when both 1st & 2nd track circuit in advance of Home signal are shown red simultaneously). Before taking "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 VDU. The particular route on which train is intended to be received shall be set by selecting the desired route and SM on duty shall left click on the same after a train occupies the approach track circuit in rear of the signal. The Calling-on signal below Home signal is cleared after lapse of 60 seconds i.e a yellow light glows at the concerned Calling-on signal on the VDU. Before taking off calling-on signal provided below starter signal, it shall be ensured that , the train has stopped. The calling-on signal below starter signals is cleared immediately and a yellow light glows at the concerned Calling-on signal on the VDU. For every such operation veered counter provided for the purpose counts next higher count. Each such operation shall be recorded by the SM on duty along with the reasons to do so. The Calling-on signal route cannot be released automatically after complete arrival of the train. To release the route after passage of train SM on duty has to cancel the Signal.

Note:

- i) SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal.
- ii) Before admitting a train on Calling on signal ,SM must satisfy himself that the route on which train to be received is free from all obstructions by physical verification untill and unless track circuit is occupied.

9.1 RELEASE/CANCELLATION OF ROUTE:

Normally when a train is received on any route or dispatched, the route illumination will disappear automatically after passage of the train suggesting that the route is released. When the route is not released automatically after passage of train over it or when SM on duty intends to cancel the route set by him shall follow procedure for cancellation of route described in para 4.1 of APPENDIX-B above.

Note: DN and UP Calling-on signals are to be manually cancelled after the passage of the train to release the route.

9.2 REPLACEMENT OF SIGNALS TO 'ON':

Signals are replaced to 'ON' automatically by the passage of a train beyond 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 SM shall follow para No. 3.4 of APPENDIX-B.

9.3 INTERLOCKING OF SIGNALS:

DN Advanced starter is interlocked with Block Instrument of section DOBH-ATS and UP Advanced starter signal is interlocked with Block Instrument of section DOBH-BRGA in Line Clear position.

The Block Instrument cannot be made normal unless the respective Home signal is put back to 'ON' and the respective Block Section monitored by Axle Counter is clear of trains. Signals once taken 'OFF' can be put back to danger in case of emergency by following para No. 3.4 of APPENDIX-B even when the SM's Key is withdrawn from VDU.

9.4 PILOTING OF TRAINS:

Whenever both reception and departure stop signal becomes defective, trains can be admitted/dispatched by taking off Calling-on signal. Whenever both reception and departure Stop signal and Calling-on signal failed, all trains will be piloted in vide SR. [Refer SR 3.69.06 & 3.70.02,3.70.03].

9.5 SHUNTING:

Shunt signals at top point viz., SH4 at BRGA end and shunt below Starter and SH3 at ATS end have been provided for back shunt movement.

For taking off shunt signal, the same procedure as main signal has to be followed as explained above. To set the signal route for shunt signals SM on duty shall put the pointing device on the Shunt signal icon and left click on the same. A drop down menu will appear indicating different actions that can be selected. After selecting the desired route SM on duty shall left click on it. Desired route will be initiated and the Shunt signal will be taken off.

10 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 shall be kept 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 VDU indications and/or physical verification of track(if Track circuit Showing occupation) before any movement of trains are permitted on the concerned route subject to the other conditions such as locking of the point's etc.

11 CRANK HANDLING/EMERGENCY OPERATION OF POINTS:

Crank handle operation is interlocked with the Signaling and interlocking system at this station. Key for Crank handle keys are normally locked inside the RKT instrument inside Location boxes in the yard and can be taken out only when all the signals leading are in the 'normal' position and the route is not locked for whatever reasons. Crank handle can be transmitted or released by following procedure as laid down in Para no.3.5 of Appendix-'B'. When this key is taken out, no signal to the concerned point can be taken 'OFF' in the yard. This key can be electrically transmitted at both ends of the yard.

12. OBSERVATION OF TRACK CIRCUIT AFTER STABLING OF TRAINS ON RUNNING LINES:

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

13. LOCKING OF RELAY ROOM: Refer para no.-4.2 of main SWR.**14. MAINTENANCE OF S&T INSTALLATION AND ADHERENCE TO MAINTENANCE SCHEDULES:**

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

15. PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF AN INTERLOCKING GEAR:

In case of failure of any interlocking gear at the station, the failure report should be communicated by the Station Master to the sectional Maintainer, the SSE(Signal) of the section and others through a memo as per GR and SR 3.51.04 and 3.68.04 and document all such transactions.

16. INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

Before declaring a point as defective, the setting of the point on the route to which it applies shall be inspected by the Station Master on duty.

17. RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

After receipt of the failure information, the sectional Maintainer shall attend to the failure after giving a 'Disconnection Memo'. After rectification of the fault, the Sectional Maintainer shall give 'Reconnection Memo' detailing the rectification. Thereafter the Station Master on duty shall personally check this 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) and (d) 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.

18 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:

Whenever any normal maintenance or special works for major renewals etc., are involved, the Signal and Telecom department should preplan these works. Field staff and the Inspector of the section should give to the Station master in writing 'Advance Intimation' about this work in terms of GR and SR.15.08.01.

19. EMERGENCIES:

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

20. PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL POINTS AND USE OF EMERGENCY CRANK HANDLE:

- 20.1** Whenever a Signal or a Point becomes defective any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at the Station.
- 20.2** In case of failure of Signal or a Point and in case the Point cannot be operated from the VDU, the emergency Crank Handle which is interlocked with the system has to be extracted and the following procedure has to be observed.
- 20.3** One common emergency Crank Handle is provided for all the Motor operated Points of a group. This is mechanically riveted to the Key of RKT. This Key along with Crank Handle can be released from the RKT by following procedure vide 3.5 of appendix-B. The Station Master on duty in case of Point Motor failure will take out the Crank Handle set the Point manually by inserting Crank Handle on the Motor.
- 20.4** When the Crank Handle is removed from RKT for operation of the defective Motor Operated Points, the responsibility for its safe custody rests with the SM on duty till it is replaced back in RKT and sealed by Signal Maintainer.
- 20.5** The case of failure of Motor Operated Points should be promptly reported to the concerned SSE (Signal)/ESM for immediate rectification.
- 20.6** Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and then handover to him the

emergency CrankHandle for the Points concerned. All the Points will be treated as defective till the EmergencyCrank Handle is returned back to Station Master on duty.

20.7 Before parting with the Emergency Crank Handle either for attending failure or for Maintenance work by Signal Maintenance Officials, the Station Master on duty will ensure that the reception and departure Signals are put back to on position. The Points of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The Station Master on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.

21.0 The Emergency Crank Handle Register is to be maintained by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded as per operating manual and other circulars issued.

22.1 INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

22.2 INTERLOCKING WITH SIGNALS:

DN and UP HOME Signals are electrically interlocked with the respective block instruments, so that before the handle of the Block Instrument can be turned from TRAIN ON LINE position to LINE CLOSED position, UP & DN Home as the case may be must be in their NORMAL position.

22.3 The UP advanced starter signal is controlled and interlocked with Block Instrument of section between DOBH-BRGA & DN Advanced starter signal is interlocked with Block Instrument of section DOBH-ATS so that this Signal cannot be taken OFF until the Handle of the concerned Block Instrument is in 'LINE CLEAR' position.

22.4 SUSPENSION OF LAST STOP SIGNALS:-

When the block instrument for section DOBH-BRGA or DOBH-ATS is suspended with its handle in any position for whatever reason the concerned Last Stop Signal controlled by the Block Instrument must be treated as suspended and a train towards BRGA and ATS shall be worked on T/369(3b).

23.0 NORMALISATION OF THE BLOCK AXLE COUNTER AND OF BLOCK WORKING BY RESETTING FEATURE:

23.1 Dual Digital Axle Counters are provided on both DN and UP line Block Sections between DOBH-BRGA and DOBH-ATS section.

23.2 The occupation and clearance of the axle counter section are indicated on the VDU by 'RED' and 'GREEN' light.

23.3 If any Block proving Axle Counter [LVCD] section fails, the Last Stop Signal at the rear station cannot be taken 'OFF' and Block instrument at advance Station cannot be turned to 'Line Closed' position after arrival of a train and in such case, resetting of last Vehicle Checking Device is to be resorted to either Section.

23.5. No train shall be allowed on signal to leave a station in any particular direction unless: - Track clear indication is available for the relevant Axle Counter track circuited portion and Last Stop Signal is taken OFF. [Refer Para No:5 of appendix 'B' for procedure of resetting of LVCD Axle counter].

24.0 TELECOMMUNICATION FACILITIES: -

- (i) Telephone attached with DLBI of DOBH-BRGA & DOBH-ATS Block Sections.
- (ii) Station to Station fixed telephone (Hot line) is provided
- (iii) Station is provided with Auto telephone connected with Railway Exchange.
- (iv) BSNL telephone is provided.
- (v) The station is connected to Balangir - Jharsuguda control circuit by a control telephone.
- (vi) Station to station 25 Watt VHF communication is provided.
- (vii) Telephone is provided between Station and both end crank handle locations.
- (viii) Telephone is provided between Station and L.C.Gates at KM. 592/3-5 (UP)& 592/4-6 (DN)(JT-39), 593/19-21(UP) & 593/20-22(DN)(JT-40), 595/5-7 (UP) & 595/6-8 (DN)(JT-41), 596/25-27(UP) & 596/26-28(DN) (JT-42), 599/3-5 (UP) & 599/4-6 (DN) (JT-43), 599/29-31 (UP) & 599/30-32 (DN) (JT-44), 601/3-5 (UP) & 601/4-6 (DN) (JT-45)
- (x) Telephone is 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.

25.0 FAILURE OF COMMUNICATION / FAILURE OF BLOCK INSTRUMENTS:

- 1) In the event of Partial failure/suspension of block instrument, Track circuit & Axle Counter 'Line Clear' shall be obtained over telephone attached to the block instrument or station to station telephone by exchanging identification number and supported by private number as per SR 6.02.06 (a) and Chapter-III Part-I of Block Working Manual.
- 2) In the event of Partial failure/suspension of block instrument and block telephone attached to the block instrument, or the Station to station fix telephone 'Line Clear' shall be obtained on Railway auto phone or BSNL phone, by exchanging identification number supported by private number vide SR 6.02.06 (1)(b) and Chapter-III Part-I of Block Working Manual.
- 3) In the event of Partial failure/suspension of block instrument, block telephone and station to station fixed telephone or Railway auto phone or BSNL phone, Line Clear shall be obtained over the control phone exchanging identification number and supported by 'Private Number' vide SR 6.02.06(1) (c) and Chapter-VI of Block Working Manual.
- 4) In the event of Partial failure / suspension of block instrument or block telephone attached to the block instrument, or station to station fixed telephone or Railway auto telephone or BSNL phone or control telephone line clear shall be obtained on the VHF sets exchanging ID number supported by PN provided that the instructions contained in SR 14.01.02 are followed vide SR 6.02.06 (1) (d) Chapter-VI of Block Working Manual.
- 5) In the event of total failure of all communications trains shall be worked vide SR 6.02.03 and SR 6.02.04.

26.0 [A] POWER SUPPLY ARRANGEMENTS FOR THE SIGNALLING INSTALLATION

Power signaling 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 State Electricity Board (OSEB) [Single phase 230V-50Hz].
- iii) Normal power supply [Single phase 230V-50Hz] to the Signaling & 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 maintains the record of AT power supply/ local 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 UP AT, DN AT supply and local power 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** 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 other AT and change over the switch to desired position.
- 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 changeover switch if required.
- d) 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.
- e) 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] WORKING OF INTEGRATED POWER SUPPLY (IPS), INDICATIONS & ACTION TO BE TAKEN BY SS/SM ON DUTY.

Power supply to the signaling installation is fed through IPS installed in the S&T power supply room. The IPS is normally fed through UP AT/DN AT traction power selected by SS/SM. On duty. Standby power supply is through OSEB local supply. One changeover switch is provided in the SM's room for selection of output of either traction power supply or local power supply. The available traction/local supply is fed to the IPS through auto-change over switch provided in IPS.

The IPS system is connected with Battery as a back-up power source for safe working during transition of power and in case when there is no 230V AC supply available due to any reason.

In the event of the failure of all the sources of 230V 50Hz AC supply, the signalling system shall be fed by power generated by back-up battery bank connected to IPS for a approx. time of 06 to 08 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 IPS monitoring Panel, their implications and action to be taken by SS/SM on duty is tabulated below.

Sl. No.	Instruction	Health of Battery Bank/ Equipment.	Visual Indication	Audio Indication	Action to be taken by SS/SM on duty
A	-	50%DOD (105.9v)	Red	Alarm	Alarm shall be acknowledged by SS/SM on duty
B	-	60% DOD (105.1v)	Red	Alarm	-do-
C	System Shut down	70% DOD (104.3v)	Red	Alarm	Feed to signals gets cut off however all DC-DC converters continue to work. Audio alarm will continue till power supply is restored.
D	Call S&T Staff	Equipment fault	Red	Alarm	If any of the modules of IPS fails this alarm will appear on the SM's panel. Alarm shall be acknowledged by 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 IPS monitoring ASM console due to any reason and when both traction power and local power 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 IPS monitoring panel of IPS and/or mal-functioning of the IPS 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 approx. up to 06 to 08 hours before system shut down indication of IPS.

27.0 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 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 MANAGER-I (INCHARGE) :**

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

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

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

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

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

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

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

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

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

His special attention is drawn to chapter No.II of G & SR 1976 (Revised-2020) and GR 5.01 to 5.08 with relevant SRs. He shall follow the instruction laid down in SR 3.68.01© & (d) and SR 14.07.01 and BWM 2.09 (e). He shall conduct surprise night inspection, safety meetings and fire drills. He shall maintain good public relation as well as look after passenger's amenities and be helpful to travelling public.

1.1 **ASSURANCE REGISTER:**

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

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

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

The declaration shall be renewed in the following cases: -

- (i) Whenever there is a change in the Station Working Rules.
- (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 a staff join as new member in the station

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

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

3.0 **ACCIDENTS:**

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

4.0 **TESTING OF POINTS AND SIGNALS:**

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

5.0 SS/STATION MASTER:

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

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

He is responsible for working beyond this period when called upon to do so in the exigencies of services. He will follow SR 3.68.01© & (d), SR 14.07.01. Their special attention is drawn to Chapter II of G & SR 1976 (Revised-2012) and GR 5.01 to 5.08 with relevant SRs. As an Assistant to the SS, he shall follow the instructions given to him by the Station Superintendent.

6.0 HANDING OVER AND TAKING OVER CHARGE:

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

7.0 TRAFFIC POINTSMAN:

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

- i) Delivery of authority to proceed and caution order etc. to the Loco Pilot of train.
- ii) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation under the supervision of Station Master.
- iii) Piloting and hand signaling of trains when necessary.
- iv) Knowledge of hand signals, detonators and their use.
- v) Protection of line in emergency.
- vi) Exchange of signals with the Loco Pilot and TMR of passing trains as directed by the Station Master.
- vii) Loading/unloading of parcels, luggage and packages to and from the train and watching the packages and other materials by properly stacking in the station premises.
- viii) Dusting of station office, filling the fire buckets with sand/water and getting train arrival register (T/1410) signed by the TMR as and when required.
- ix) Serving messages and any other duties entrusted to them by the SMR/SM from time to time.
- x) Uses of emergency crank handle for setting of points.
- xi) To supervise shunting as per SR 5.13.03.
- xii) 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.
- xiii) When necessary, they will work in the Goomties for observing and reporting the complete/incomplete arrival/departure of trains as per the order of the SM on duty in case of failure of Axle Counter/Track Circuit.

GENERAL

- i. All staff should be in uniform while on duty and follow the rosters issued by DPO/SBP from time to time.
- ii. A set of Red and Green flags and Tricolor hand signal lamps will be part of the essential equipments of staff while on duty. They shall not leave the station except when required by the SM on duty or with his permission. They shall comply with SR 4.42.02 (b) & (c).

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.

Sl. No	Description	Quantity
(i)	Detonators	10 in tin case
(ii)	LED based Tri colour flashing torch	04 Nos
(iii)	Hand signal flags	04 Sets
(iv)	Safety chains with pad locks	08Nos
(v)	Wooden Wedges	12Nos
(vi)	Skid	03Nos
(vii)	Fire buckets (with sand and water)	06Nos
(viii)	Clamps with padlocks	12Nos
(ix)	“Block suspension” Boards	02 Nos
(x)	“Motor Trolley on Line” Boards	02 Nos
(xi)	First aid Box	01 Nos
(xii)	Stretcher	01 Nos
(xiii)	Fire extinguisher	02 Nos
(xiv)	Blanket	01 Nos

APPENDIX 'F'

RULES FOR WORKING OF DK STATIONS, HALTS, IBH AND OUTLYING SIDINGS

NIL

APPENDIX- 'G'**RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS**
DEOBAHALSTATION**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. RVNL/WAT/SWR/DOBH/22/13,ALT-A 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)

For opening the switch: Release the lock of the switch and get the switch handle down with sudden jerk. Now the switch is open. Lock the switch again so that it cannot be closed without releasing the lock.

For closing the switch: Release the lock of the switch and get the switch handle up with sudden jerk. Now the switch is closed. Lock the switch again.

Note: While operating switch, station master must use insulated gloves.
The list of isolators with location number of DOBH are given below.

<u>Sl. No.</u>	<u>Isolator No.</u>	<u>Loc. No.</u>	<u>Sl. No.</u>	<u>Isolator No.</u>	<u>Loc. No.</u>
1.	SM-118	593/30	5.	SS-198 (N/O)	DOBH/1048
2.	SM-117	593/33	6.	SS-199	592/29
3.	SM-119	592/19	7.	SS-198A	593/20
4.	SM-120	592/12			

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 AND 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 are 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

**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).
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.

c) 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 signal.

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

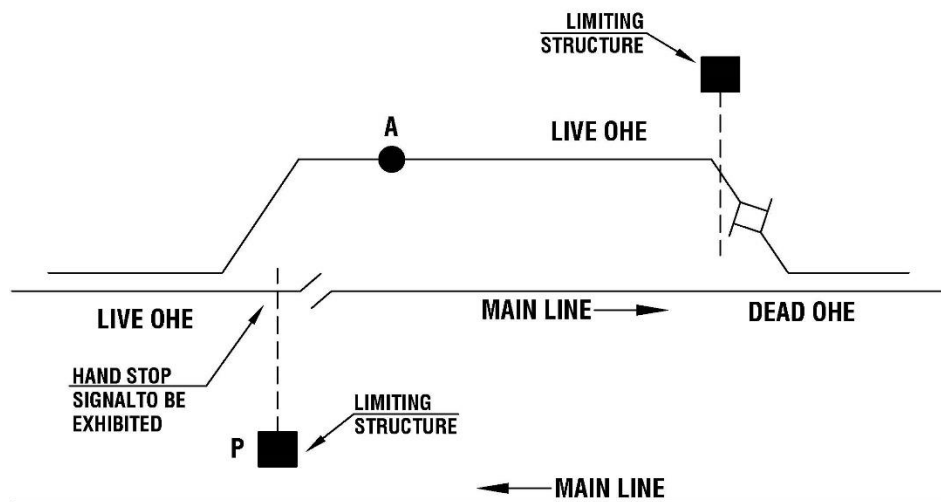
PROTECTION OF DEAD SECTION

The protection of a dead section is achieved by the following means:

1. a) In the normal running direction movements of trains are generally controlled by Signals. Protection is obtained by blocking the concerned route on the VDU.
- b) If the points and signals are locally operated they should be locked and the key should be kept with the Station Master on-duty.
- c) This action must be taken care by the Station Master on duty as case may be, in respect of each and every movement prescribed in the Station Working Rules and after completion, confirmation should be given to the Section Controller to enable him to agree for the power block to be issued by the TPC.

SHUNTING MOVEMENT TOWARDS DEAD SECTION

- 1) a) In case where no signal exists for controlling the entry of an electric train into the dead section the station master should arrange a hand stop signal to be exhibited at the point up to which alone the electric locomotive is allowed to proceed.
- b) If it is necessary for an electric locomotive to carry on shunting movement towards the dead section the section can be unblocked to permit the movement provided that a hand stop signal is exhibited and LP is specifically instructed not to move the loco beyond the point.
- 2) An example of the operation is given figure as shown below:



As per protection of Dead Section Para above the line/signal/point block feature controlling the signals should have blocked on them to give protection to the dead section. However, if it is essential to carry out at shunting operation with an electric locomotive situated at point 'A' on the loop line to move into the main though the turn out this may be permitted provided that the shunting movement is carried out only up to limiting mast 'P' short of the overlap span where a hand signal is to be exhibited to prevent all movement beyond the point 'P'.

- 3) Train or shunting movements by other than electric locomotives. i.e by steam or diesel locos may be permitted to enter the dead section. Provided that the Station Master ensures by personal inspection that the train formation does not include an electric locomotive or OHE inspection Car or EMU with pantograph raised and after issuing necessary caution order. The line block may be permitted to be unblocked to allow such movements.

HANDLING OF ISOLATOR SWITCHES – DEOBAHAL STATION

1. The Duplicate keys for all outdoor switches shall be kept in locked glass fronted key box duly padlocked under the custody of SM on duty or with Competent OHE officials concerned persons stationed conveniently near the switches as the case may be. The keys shall be issued on demand only to authorised persons whose signatures for receipt shall be obtained in a book maintained for the purpose. The list of authorised OHE Officials who can withdraw the duplicate keys from the SM on duty is displayed at station duly signed by an officer of the Traction Distribution Department. These keys shall be handed over to the authorised officials by the SM or only after obtaining the permission from TPC.
2. In the event of breakage of the glass of the key box the key or keys shall be kept in safe custody of the SM on duty until the glass is replaced. The Traction power controller will keep a record where such keys are kept so that in an emergency he will be able to direct the parties concerned.
3. In an emergency the SM shall operate isolator switches as per specific direction of the Traction Power Controller under exchange of private numbers.
4. Should the traction Power controller wish to give any isolator switch opened or closed he shall as the Junior Engineer's / TRD or SM or any authorised person to carry out the required switching operation. The person concerned shall after carrying out the orders lock the switch either in "Open" or "Closed" position, as the case may be and inform the Traction Power Controller of the action taken. He shall not part with the key until receipt of further orders from the Traction Power Controller. A record of every such operation shall be maintained by TPC as well as by the SM in the power block register in RED ink.
5. Every Station manager or SM on duty shall be fully aware of the location of the isolator switches provided for the control of power supply to Over Head Equipment at the Station and shall be conversant with the correct method of opening and closing of the same in an emergency.

Details of Isolators to be operated by station master/ assistant station master/ points men during emergency under instructions of Traction Power Controller (TPC).

(Authority: Advanced Correction Slip No.24, dated 10.01.2013 to Railways Manual of AC Traction (ACTM), Vol-II, Part-I, Para: 20970-5 issued vide ED/(EEM)/Rly. Board's L/No.2001/Elect(G)/138/4 Pt.-I dated 10.01.2013 in consultation with Traffic Transportation Directorate of Railway Board)

INSTRUCTIONS FOR ISOLATOR SWITCH OPERATION

OPERATION OF SWITCHES:

- i) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller (TPC) 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 on duty in accordance with GR 17.04 and ACTM VOL II Part I Para 20600 and 20601.
- ii) In times of emergency, authorized and trained station staff may open isolator switches under specified instructions of the Traction Power controller (TPC).
- iii) Every station masters, points man shall be fully aware of the location of isolator switches provided for the control of Power supply to the overhead equipment at or near his station and shall be conversant with the correct method of opening and closing the same in an emergency (ACTM VOL II Part I Para 20624).

POSITION OF SWITCH HANDLES:

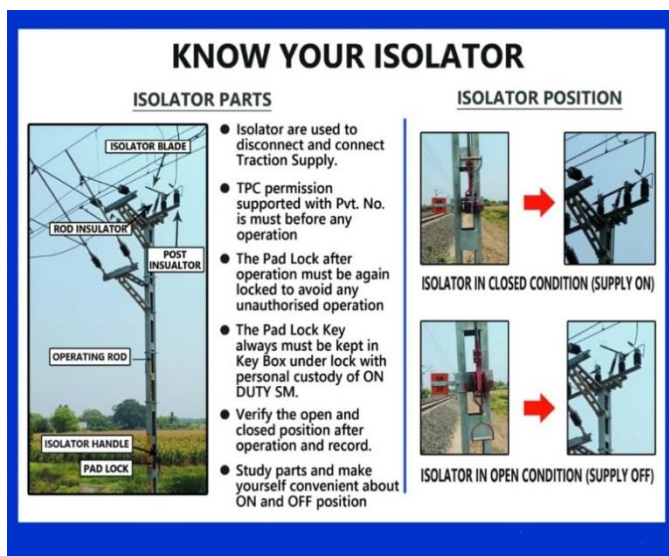
1. When an Isolator is in CLOSED position, the operating handle of the Isolator is at the TOP.
2. When an Isolator is in OPEN position, the operating handle of the isolator is at the BOTTOM.

NOTE: The operation handle of every isolator switch shall always be kept locked either in the open or closed position. Any loss shall be reported immediately to the OHE Section Charge man, Chief Traction Foreman (OHE) and TPC.

PROCEDURES AND PRECAUTIONS FOR OPERATING ISOLATORS:

The procedure for operation of Isolator switches has been given in SR 17.04.15 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.



EAST COAST RAILWAYSTATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR
DEOBAHALSTATION

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 P/B	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		
<u>A.Sector :</u>					
1.	Sector between GBQ/TSS to BRGA/SP.	i) Movement of Electric Trains/Locos shall not be permitted into HKG-BRPL on UP & DN line. ii) Line clear shall not be granted to/obtained from ATS &BRGA for Electric Trains/Locos on both UP & DN lines. iii) Reception and dispatch signals for both UP & DN lines shall be kept at ‘ON’.	NIL	i) Ensure BX–197 at GBQ/ TSS is in open position. ii) Ensure BM–188 & 189 at BRGA/SP is in open position.	
				Open CB–129 at GBQ /TSS.	Close CB–129 at GBQ /TSS.
<u>B.Sub-Sector :</u>					
1.	DN Sub-sector between ATS/SSP to BRGA/SP on DN Line. Section between BRPL-BRGA-DOBH-ATS on DN line. L-4, DN loop gets automatically blocked	i) Movement of Electrical Trains/Locos shall not be permitted into BRPL-BRGA-DOBH-ATS on DN line. ii) Line clear shall not be obtained from ATS for Electric Trains/Locos iii) Line clear shall not be granted to BRGA for Electric Trains/Locos. iv) Shunting of Electric Trains/Locos shall be prohibited between L-2 to L-3 at both ends. v) Ensure that no Electric Trains/Locos is standing with its panto raised condition on L-3 & L-4 at DOBH Yard. vi) Concerned Reception & dispatch and Shunt signals shall be kept at 'ON'	Crossover point no 34A/B at BRGA end and 33A/B at ATS end shall be kept in normal position only.	Ensure BM-188 atBRGA/SP is in open position. i) Open BM-192 at ATS/SSP ii) Open BM-193 at ATS/SSP iii) Open BM-190 at BRGA/SP.	i) Close BM-190 at BRGA/SP. ii) Close BM-193 at ATS/SSP iii) Close BM-192 at ATS/SSP

SI. No.	Description of electrified section under P/B	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.	UP Sub-sector between ATS/SSP to BRGA/SP on UP Line. Section between ATS-DOBH-BRGA-BRPL on UP Line.	i) Movement of Electrical Trains/Locos shall not be permitted into ATS-DOBH-BRGA-BRPL on UP line. ii) Line clear shall not be granted to ATS for Electric Trains/Locos on UP line. iii) Line clear shall not be obtained from BRGA for Electric Trains/Locos on UP line. iv) Ensure that no Electric Trains/Locos is standing with its panto raised condition on R-1 & R-2 at DOBH Yard. v) Shunting of electrical trains/locos shall be prohibited L-3 to L-2 at both ends. vi) Concerned Reception & dispatch signals shall be kept at 'ON'	Crossover point no 34A/B at BRGA end and 33A/B at ATS end shall be kept in normal position only.	Ensure BM-189 at BRGA/SP is in open position. i) Open BM-191 & BM-193 at ATS/SSP ii) Open BM-190 at BRGA/SP.	i) Close BM-190 at BRGA/SP. ii) Close BM-191 & BM-193 at ATS/SSP
	C. Elementary Section				
1.	E/S No 19101 on UP line between sections ATS/SSP to DOBH SM-119 of DOBH at Loc. No. 592/19 at DOBH.	i) Movement of Electrical Trains/Locos shall not be permitted into ATS-DOBH on UP line. ii) Line clear shall not be granted to ATS for Electric Trains/Locos on UP line. iii) UP Reception signals shall be kept at 'ON'.	Nil	i) Open BM-191 & 193 at ATS/SSP ii) Open SM-119 of Loc. No. 592/19 at DOBH.	i) Close SM-119 of Loc. No. 592/19 at DOBH. ii) Close BM-191 & 193 at ATS/SSP

SI. No.	Description of electrified section under P/B	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.	E/s No. 19103 on UP line from Loc. No. SM-119 of DOBH at Loc. No. 592/19 to SM-117 of DOBH at Loc. No. 593/33. {(L-1), common loop & TM Siding gets automatically blocked.}	i) Movement of Electric Trains/Locos shall not be permitted on UP line. ii) No Electric train/ locos shall be admitted into/dispatched from (L-2) & (L-1). iii) Ensure that no electric train/loco is standing with its panto raised condition on (L-2) & (L-1). iv) Line clear shall not be granted to ATS for Electric train/Locos v) Line clear shall not be obtained from BRGA for Electrical Trains/Locos on UP line. vi) Shunting of electrical trains/locos shall be prohibited L-3 to L-2 at both ends. vii) Reception and dispatch signals for (L-2) and L-1 shall be kept at 'ON'.	Crossover point No. 34A/B at BRGA end and 33A/B at ATS end shall be kept in normal position only.	i) Open SM-119 of DOBH at Loc. No. 592/19 ii) Open SM-117 of DOBH at Loc. No. 593/33	i) Close SM-117 of DOBH at Loc. No. 593/33 ii) Close SM-119 of DOBH at Loc. No. 592/19
3.	E/S No. 19105 on UP line between section SM-117 of DOBH at Loc. No. 593/33 to SM-115 of BRGA at Loc. No. 604/21	i) Movement of Electric Trains/Locos shall not be permitted on UP line between section DOBH-BRGA. ii) Line clear shall not be obtained from BRGA for Electric trains/locos on UP line. iii) UP dispatch signals at DOBH end shall be kept at 'ON'.	Nil	i) Open SM-117 of DOBH at Loc. No. 593/33 ii) Open SM-115 of DOBH at Loc. No. 604/21	i) Close SM-115 of DOBH at Loc. No. 604/21 ii) Close SM-117 of DOBH at Loc. No. 593/33
4.	E/S No. X-199 on (L-1), common loop line and TM siding.	i) Movement of Electric Trains/Locos shall not be permitted into (L-1) at DOBH. ii) No Electric Trains/Locos can be admitted/ dispatched into/from (L-1). iii) Ensure that no Electric loco is standing with its panto raised condition on (L-1) and Common loop. iv) Shunting of Electric Trains/Locos shall be prohibited for L2 to L-1 at both ends. v) Reception & dispatch signals for (L-1) shall be kept at 'ON'	Crossover point No. 42A/B at BRGA end 41A/B at ATS end shall be kept at normal only. position	Open SS-199 of DOBH at Loc. No. 592/29	Close SS-199 of DOBH at Loc. No. 592/29

SI. No.	Description of electrified section under P/B	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		
5.	E/S No. 19206 on DN line between SM-114 of BRGA at Loc. No.604/32 to SM-118 of DOBH at Loc. No. 593/30.	i) Movement of Electric Trains/Locos shall not be permitted into DN line; ii) Line clear shall not be granted to BRGA for Electric Trains/Locos on DN line. iii) Shunting of Electric Trains/Locos shall be prohibited from L-3 to L-4 at BRGA end. iv) DN Electric Trains/Locos can be dispatched from L-3 & L-4 to ATS. v) DN Reception signals shall be kept at 'ON'.	Crossover point No. 32A/B at BRGA end shall be kept at normal position only.	i) Ensure SS-198(N/O) of DOBH at Loc. No. DOBH/1048 is in open position. ii) Ensure SM/114A(N/O) of BRGA at Loc. No. 604/2A is in open position. i) Open SS-118 of DOBH at Loc. No. 593/30 ii) Open SM-114 of BRGA at Loc. No. 604/32	i) Close SM-114 of BRGA at Loc. No. 604/32 ii) Close SS-118 of DOBH at Loc. No. 593/30
6.	E/S No. 19204 on DN Main Line between SM-118 of DOBH at Loc. No.593/30 to SM-120 of DOBH at Loc. No.592/12.	i) Movement of Electric Trains/Locos shall not be permitted into DN main line (L-3). ii) DN Electric Trains/Locos can be admitted on L-4. iii) Line clear shall not be obtained from ATS for DN Electric Trains/Locos. iv) Ensure that no Electric Trains/Locos is standing with its panto raised on L-3. v) Shunting of Electric Trains/Locos between L-2 to L-3 and L-3 to L-4 vice-versa shall be prohibited at both end vi) Concerned DN reception and Dispatch signal shall be kept at 'ON'	Crossover point No. 34A/B & 36A/B at BRGA end and point no. 33A/B & 35 at ATS end shall be kept at normal position only.	i) Close SS-198(N/O) of DOBH at Loc. No. DOBH/1048. ii) Open SM-120 of DOBH at Loc. No. 592/12 iii) Open SM-118 of DOBH at Loc. No. 593/30 iv) Open SS-198A of DOBH at Loc. No. 593/20	i) Close SS-198A of DOBH at Loc. No. 593/20 ii) Close SM-118 of DOBH at Loc. No. 593/30 iii) Close SM-120 of DOBH at Loc. No. 592/12 iv) Open SS-198(N/O) of DOBH at Loc. No. DOBH/1048

Sl. No.	Description of electrified section under P/B	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		
7.	E/S No. 19202 between SM-120 of DOBH at Loc. No. 592/12 to ATS/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section DOBH-ATS on DN Line. ii) Line clear shall not be obtained from ATS for DN Electric Trains/Locos. iii) Shunting by Electric Loco shall be prohibited from (L-3) to (L-2) at ATS end beyond Loc. No.592/12. iv) Down dispatch signal and concerned shunt signal shall be kept at 'ON'.	Nil	i) Open BM-192 & BM-193 of ATS/SSP ii) Open SM-120 of DOBH at Loc. No.592/12.	i) Close SM-120 of DOBH at Loc. No.592/12. ii) Close BM-192 & BM-193 of ATS/SSP.
8.	E/S No. X-198 on DN Long Haul Loop line L-4 at DOBH.	i) Movement of Electric Trains/Locos shall not be permitted into long Haul Loop line L-4. ii) Ensure that no Electric Trains/Locos is standing with its panto raised condition at L-4 DN Loop line. iii) Reception and dispatch signal for Loop line siding shall be kept at 'ON'. iv) Shunting by Electric Locos from L-3 to L-4 is prohibited on both ends.	Crossover point No. 32A/B & 36A/B at BRGA end and 35A/B at ATS end shall be kept at normal position only.	Ensure SS/198(N/O) of DOBH at Loc. No. DOBH/1048 is in open position. Open SS-198A of DOBH at Loc. No. 593/20.	Close SS-198A of DOBH at Loc. No. 593/20.

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. RVNL/WAT/SWR/DOBH/22/13, ALT-A