EAST COAST RAILWAY
SAMBALPUR DIVISION

Sl. No. SWR/SRGP/16

STATION WORKING RULES OF SARAGIPALI STATION (CODE: SRGP)

BG/MG/NG: Broad Gauge
Date of issue:- 18.03.2023
Date brought into force:- 18.03.23

NOTE: -

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

1. STATION WORKING RULE; -

1.1 **STATION WORKING RULE DIAGRAM NO.** : - SI/WRD – 22137,ALT-C

1.2 **SIGNAL INTERLOCKING PLAN NO**. : - S.I – 22137, ALT-C

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

2. DESCRIPTION OF STATION: -

SARAGIPALI is a four line station situated in Talcher - Sambalpur section at KM 659.032 from HWH & 96.527 km from SBP JN. It is Standard – II (R) interlocked Class 'B' station with EI and having Absolute Block System of Working. LVCD axle counters at either ends have been provided at the station for last vehicle check.

2.1 **GENERAL LOCATION:-**

a)	Name of the station	:	SARAGIPALI (SRGP)
b)	Class of station	:	Class:- 'B'
c)	Section	:	Sambalpur Jn.–Talcher,
d)	Double line/Single line	:	BG, Double line towards BAMR and HNPA end.
e)	Electrified/Non Electrified	:	Electrified
f)	Railway	:	East Coast Railway
g)	Route	:	'D'
h)	Situated at	:	KM 659.032 from HWH & Km 96.527 from SBPJn.
i)	Reckoned from	:	Howrah (659.032)
j)	Number of cabins	:	NIL
k)	PI/EI	:	EI with two VDU Terminals (One VDU is working and another as stand by).

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

i) Talcher end :- HANDAPA (Code: HNPA) inter distance 14.188 K.M.

ii) Sambalpur end :- BAMUR (Code: BAMR) inter distance 9.537 K.M.

iii) Passenger Halt : - Nil

iv) Flag station : - Nil

v) Outlying siding : - Nil

vi) D.K. station : - Nil.

vii) IBH : - NIL

viii) IBS : -01 No.:- IBS Signal is provided between SRGP & HNPA stations on both UP & DN Lines at KM 103.650.

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2.3 **BLOCK SECTION LIMITS: -**

Between stations	**The point from which 'Block section' commences.**	**The point at which 'Block section' ends.**
Between SRGP-HNPA (UP Line)	UP Advanced starter signal No.25 of SRGP.	400M beyond UP IB signal No. S-29.
	UP IB signal No.29.	UP facing point no.31A of HNPA.
Between SRGP-HNPA (DN Line)	DN Adv. Starter no.26 of HNPA.	400m beyond DN IB signal no. S-30.
	DN IB Signal no.30.	BSLB of SRGP.
Between SRGP-BAMR (UP Line)	Up Advanced starter signal No-25 of BAMR	BSLB of SRGP Station on UP Line.
Between SRGP-BAMR (DN Line)	DN Advanced starter signal No-26 of SRGP. .	BSLB of BAMR station on DN Line.

2.3.1 **STATION SECTION:**

The portion of line in between BSLB at BAMR end to UP Advanced starter signal no. 25 on UP line and between BSLB at HNPA end to DN Advanced starter signal No-26 on DN line is the station section of SRGP station.

2.3.2 **STATION LIMIT:**

The portion between DN Distant signal at HNPA end to DN Advanced starter signal No-26 on DN line and between UP Distant signal at BAMR end to UP Advanced starter signal No-25 on UP line is station limit of the Station.

2.4: **GRADIENT: -**

(a) FROM THE CENTER OF STATION BUILDING TOWARDS HANDAPA (UP LINE)

Chainage in meter		**Inter distance in meter**	**Gradient (Falling/Raising/Level)**
FROM	**TO**		
0 M	473.00 M	473.00 M	1 in 1200 R
473.00 M	1392.00 M	919.00 M	1 in 1200 R
1392.00 M	1593.00 M	201.00 M	1 in 2325.60 R
1593.00 M	1913.00 M	320.00 M	1 in 250 F
1913.00 M	2273.00 M	360.00 M	Level
2273.00 M	3928.50 M	1655.50 M	1 in 150 R
3928.50 M	Block Section	--	1 In 575 R

(b) FROM THE CENTER OF STATION BUILDING TOWARDS HANDAPA (DN LINE)

Chainage in meter		**Inter distance in meter**	**Gradient (Falling/Raising/Level)**
FROM	**TO**		
0 M	1392.00 M	1392.00 M	1 in 1200 R
1392.00 M	1593.00 M	201.00 M	1 in 2300 R
1593.00 M	1913.00 M	320.00 M	1 in 250 F
1913.00 M	2273.00 M	360.00 M	Level
2273.00 M	3932.00 M	1659.00 M	1 in 150 R
3932.00 M	Block section	--	Level

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(c) FROM THE CENTER OF STATION BUILDING TOWARDS BAMUR (UP LINE)

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0 M	757.00 M	757.00 M	1 in 1200 F
757.00 M	1007.00 M	250.00 M	1 in 1200 F
1007.00 M	1317.00 M	310.00 M	1 in 313.45 F
1317.00 M	1687.00 M	370.00 M	1 in 800 F
1687.00 M	2027.00 M	340.00 M	1 in 170 F
2027.00 M	2827.00 M	800.00 M	1 in 155 F
2827.00 M	3239.00 M	412.00 M	1 in 150 F
3239.00 M	3629.00 M	390.00 M	Level
3629.00 M	Block section	--	1 IN 150 F.

(d) FROM THE CENTER OF STATION BUILDING TOWARDS BAMUR (DN LINE)

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
0 M	1007.00 M	1007.00 M	1 in 1200 F
1007.00 M	1317.00 M	310.00 M	1 in 315 F
1317.00 M	1687.00 M	370.00 M	1 in 800 F
1687.00 M	2103.00 M	416.00 M	1 in 150 F
2103.00 M	2147.00 M	44.00 M	Level
2147.00 M	2827.00 M	680.00 M	1 in 155 F
2827.00 M	3239.00 M	412.00 M	1 IN 150 F.
3239.00 M	3627.00 M	388.00 M	Level
3627.00 M	Block section	--	1 in 150 F.

(e) FROM SAMBALPUR STATION BUILDING TO HANDAPA (UP LINE)

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
Block section	100720 M	--	1 in 575 R
100720 M	101680 M	960 M	1 in 1100 R
101680 M	102739 M	1059 M	1 in 169 R
102739 M	103420 M	681 M	1 in 156 R
103420 M	106360 M	2940 M	1 in 150 R
106360 M	Block section	--	1 in 178 R

(f) FROM SAMBALPUR STATION BUILDING TO HANDAPA (DN LINE)

Chainage in meter		Inter distance in meter	Gradient (Falling/Raising/Level)
FROM	TO		
Block section	100720 M	--	Level
100720 M	101610 M	890 M	1 in 645 R
101610 M	102760 M	1150 M	1 in 175 R
102760 M	104200 M	1440 M	1 in 150 R
104200 M	104739.2 M	539.2 M	1 in 175 R
104739.2 M	106800 M	2060.8 M	1 in 150 R
106800 M	Block section	--	1 in 175 R.

2.5 **LAY OUT: -**

i) No. of running lines :- 4 (FOUR).
ii) No. of sidings :- One Hot Axle / Engg. Siding. CSL-78M(SH-DE)
iii) No. of Passenger platform :- 03 (Three).
One High level Pass. Platform (600X 6.10M) beside line No-1 and One High Level Island Pass. P. F. (580 x10M) in between Line No.3 and 4.
iv) No.of goods shed platform :- Nil.

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

DESCRIPTION	CSL	ISOLATION PROVIDED	
		TOWARDS HNPA	TOWARDS BAMR
Line No.1 (Common Loop)	752 M. (STR. to STR.)	ORL	ORL
Line No.2 (UP MAIN)	745 M. (SH to STR.)	----	----
Line No.3 (DN MAIN)	750 M. (SH to STR.)	----	------
Line No.4 (Common loop.)	739 M. (STR to STR.)	ORL	ORL

II. DIRECTION OF MOVEMENTS: -

a. Trains arriving from BAMUR are UP trains.

b. Trains arriving from HANDAPA are DN trains.

2.5.2 **NON-RUNNING LINES**.–

Sl. No.	Description	CSL	Takes off from	Exit	Operation
1.	Hot Axle / Engg. Siding.	78M (SH-DE)	ORL of Line No. 1	One way	Controlled by Shunt signal No. SH-6 operated from VDU

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

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

Sl. No	Location	K.M.& No.	Normal Position	Class	Type	Operation	Communication
1.	Between DN Home and UP Starter signal of SRGP	(ST-59) 96/23-25(UP) 96/22-24(DN)	Open to road traffic	'C' Class	Inter locked	Winch operated lifting barriers	Magneto telephone connection with SM/SRGP

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

Sl. No	Location	K.M.& No.	Normal Position	Class	Type	Operation	Communication
1.	Between SRGP-HNPA	(ST-63) 102/1-3(UP) 102/2-4(DN)	Open to Road Traffic	'B1' Class	Non-Inter locked	Winch operated lifting barriers	Voice loger telephone connection with SM/SRGP
2.	Between SRGP-HNPA	(ST-65) 106/9-11(UP) 106/10-12(DN)	Closed to Road Traffic	'C' Class	Non-Inter locked	Winch operated lifting barriers	Magneto telephone connection with SM/HNPA

Approach Warning has not been provided at the above Level Crossing Gates.
(Working of Level Crossing Gate is given in detail in appendix 'A')

3. SYSTEM AND MEANS OF WORKING:-

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

i) **System of working-** **:-** Absolute Block system.

ii) **Type of block instrument-** **:-** DLBI for both side SRGP-HNPA & SRGP-BAMR

iii) **Instrument-** **:-** Non-Co-operative type.

iv) **Block Telephone-** **:-** Provided with respective block instruments of SRGP-HNPA & SRGP-BAMR sections.

v) **Staff responsible for their operations** **: -** S.M. on duty.

vi) **Custodian of keys-** **: -** S.M. on duty.

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4. **SYSTEM OF SIGNALLING AND INTERLOCKING: -**

4.1.1 **STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING:** This Station is provided with Standard-II (R) Electronic Interlocking with Multiple Aspect Color Light signals. The Home signals and Advanced Starter signals are interlocked with respective block instruments.

4.1.2 **TYPE OF SIGNALS**:

Multiple aspect colour light signals. The aspect and indications of MACLS are governed by GR 3.08(4).

a) **Minimum equipment of signal**– Distant, Home, Starter and Advanced starter signals in either direction.

b) The Station is provided with **Central Electronic Interlocking system (EI)** and having no end cabins. All signals and points are electrically operated from the VDU provided in SM's Office.

c) **Method of operation**:

One VDU as working, other as standby are provided in the Station Master's office to electrically control all signals and points. (The details of operation from VDU is given under Appendix-'B')

d) **Provision of axle counter and Track circuits**:

I. **TRACK CIRCUIT: -**

All the lines including point zones between Home and Advanced starter signal on either direction are track circuited. The position of the running lines including point zones i.e. occupied/clear is indicated in the illuminated diagram on the VDU at the Station Master's office. Normally there will be no indication of track circuits when track is clear. It shows 'Red' when the line is occupied and 'yellow' when the track circuit is clear provided the route is set. (Detailed track circuits given in appendix-B).

II. **AXLE COUNTER**:

Block sections SRGP-HNPA & SRGP-BAMR are monitored by axle counter system. Dual detection digital axle counters have been provided at both ends of the station.

A pair of digital axle counter is provided for UP line between SRGP & IBS at km 103.650 (beyond Advanced starter signal of SRGP and beyond IBS) and another pair between IBS & HNPA (beyond IBS and beyond UP Home signal of HNPA). For DN line, a pair of digital axle counter is provided between HNPA & IBS at km 103.650 (beyond Advanced starter signal of HNPA and beyond IBS) and another pair between IBS & SRGP (beyond IBS and beyond DN Home signal of SRGP) for counting the axles 'IN' and counting the axles 'OUT' to indicate whether the section is clear of trains as well as to verify the last vehicle of the incoming train.

Similarly, a pair of digital axle counter is provided for UP/DN lines between SRGP & BAMR (beyond Advanced starter signal of SRGP & beyond Home signal of BAMR on DN line) and another pair of digital axle counter is provided for UP line of SRGP - BAMR (beyond advanced starter of BAMR & beyond Home signal of SRGP on UP line) for counting the axles 'IN' and counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

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

Dual detection reset box is provided with a counter, a resetting key, a push button, two sets of display arrangement, one 'RED', one 'GREEN', one miniature GREEN and one 'YELLOW' indication. 'RED' and 'GREEN' indicates occupation and clearance of block section respectively, 'YELLOW' indication glows when power is ON and miniature GREEN flashes when resetting operation is initiated and becomes steady when axle counter is in the state of preparatory reset the first train will be piloted out. Then after passage of first train the Axle counter will show clear indication. The key of the reset box is kept under the custody of SM on duty.

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

and necessary action as per GR 14.13 to be followed. The axle counter is interlocked with Block instruments of concerned section.

f) **Calling-on signals**:

Calling-on signals are provided below Home signals (i.e. in both UP & DN directions) as per GR 3.13 (1)(b), (2) (3) (4) & (6)(b). Miniature colour light Calling-on signal is provided below the Home signals in terms of GR 3.13(6)(b). A Calling-on signal shows no light in the 'ON' position 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. Before taking 'OFF' Calling-on signal during failure of track circuit, the route and clearance of the track over which the train will be admitted must be checked physically by SM on duty.

To take "OFF" Calling-on signal the train must come to a stop at the foot of the Home signal, occupying the track circuit in rear of the signal. When the 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. The Calling-on signal is taken OFF after a lapse of 60 seconds i.e. a Yellow light glows at the concerned Calling-on signal on the VDU. Each such operation shall be recorded by the SM on duty along with the reasons to do so. The calling-on signal route will not get released automatically after complete arrival of the train. SM on duty has to cancel the signal manually to release the route.

NOTE: SM on duty to ensure that no through signals are given while receiving a train on Calling-on signal.

g) **IBS Signal-** (GR 3.11, SR 3.42.05 and GR 3.75)
The block section between SRGP-HNPA has been split into two block sections by providing Intermediate Block Stop signals at KM 103.650 F/SBP [controlled by SRGP station] for UP line and at KM 103.650 F/SBP [controlled by HNPA station] for DN line. Intermediate Block stop signals are controlled by double line lock and block instruments at the respective receiving stations. (Trains will be worked vide SR 3.42.05 and GR 3.75).
Details of the working of IBS are mentioned in Appendix - F.

h) **STATION MASTER'S OPERATING CONTROL: -**

The Station is provided with Central Electronic Interlocking (EI). 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 UP & DN directions). The VDU in Station Master's office electrically controls all signals, points, LC gates, crank handle keys, etc., The VDU is provided with SM's key, user name and password of which shall always remain in the personal custody of the Station Master on duty in terms of SR 3.36.03(a).

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

4.1.3 **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		**CONTROL POINTS**
CH-1	----------	31,35.
CH-2	----------	33,38.
CH-3	----------	34,37.
CH-4	----------	32,36.
CH-5	----------	40.

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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 respective 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 the concerned crank handle 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 at CH location, SM should click the Crank handle 'TRANSMIT' control option. After transmission, the KEY IN indication will start flashing on the VDU, 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 20.06(d) 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.

4.1.4 **SHUNT SIGNALS:**

Independent shunt signals SH3 (A-D) on DN main line at BAMR end and SH4 (A-D) on UP main line at HNPA end have been provided for back shunting movement. Shunt signal SH-16 below Stop signal on UP main line, SH-15 below Stop signal on DN main line and SH-11 below UP starter signal No-11 have been provided for forward shunting movement. Shunt signal no. SH-6 has been provided for shunting from Hot Axle/Engg siding to line no. 1. Shunt signal no. 11 below starter signal is provided for dispatch of trains from Line no. 1 to Hot Axle/Engg siding.

4.1.5 **POINT AND TRAP INDICATORS:-** : -NIL
4.1.6 **REPEATING SIGNAL (ELECTRIC/BANNER TYPE)** :- NIL
4.1.7 **EMERGENCY CROSSOVER** :- NIL
4.1.8 **L.C. GATE OPERATION** :- (Given in Appendix A)
4.1.9 **ANTI COLLISION DEVICE** : -NIL
4.1.10 **TRAIN PROTECTION & WARNING SYSTEM** :- NIL

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

Emergency point operation facility is provided to operate the point from the VDU in case of failure of point controlling track circuit. If such operation is necessary, the SM on duty shall ensure that no vehicle is standing on the concerned point zone track circuit. Then 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/REVERSE' menu and click. A NORMAL/REVERSE flashing indication will appear and the indication will be steady after the point is set to Normal or Reverse. 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 the concerned register and SM's diary.

After the completion of the Emergency point operation, the Key to be made 'KEY OUT' by clicking 'KEY OUT' menu.

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

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), the concerned signal must be put back to danger.

When the route is set and the signal taken OFF, click on the signal. After clicking by the right 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' position. After doing so, click on the Route release menu the route locked indication below the concerned signal will starts flashing for 120 seconds and also the Emergency Route Release Indication (UP/DN 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 number 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 number in the register and SM's diary.

In case the route is not released, the concerned S&T staff should be advised for rectification of fault, if any.

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

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, goomties, LC Gate relay huts/goomties within station limits and cabins provided as an extension of station relay room for housing signaling gears in station yard.

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

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

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

When the key of Operating Lock is returned by S& T staff to SM on duty, he shall first verify the Relay Room for proper locking and then keep the key in safe custody and acknowledge it on the Relay-Room key register. If the relay room key is handed over to the Signal staff regarding the interference in safety gears the train shall be piloted in and out.

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

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

relay room by Electrical and Engineering staff, during failures, data logger resetting and inspection by Divisional and Headquarter officials, Track Circuit adjustments & voltage monitoring during

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

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

In case 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 [A] POWER SUPPLY: -

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

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

The SS/SM on duty however maintain the record of 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.

i) A changeover switch is provided in the SM's office with the three power supply viz UP AT, DN AT and Local power supply for changing the switch to the required supply position. Luminous indicators are provided above the circuit breaker for each supply to indicate the availability of the supplies.
ii) 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.
iii) In case of failure 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 on the CLS power panel, one for each supply and their normal position is upwards and goes downwards when tripped. 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.

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

v) 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 on duty SS/SM himself, during his daily checks, shall test the availability of power supplies on both AT's and make entry in station diary initiating action for rectification of failure, if any.

[[

[B] REMORE MONITORING ASM BOX:

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

a) 50% DOD (Depth of Discharge)(105.9V) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged for audio cut off.

b) 60% DOD (Depth of Discharge)(105.1V) of Battery, which warns for emergency. The Alarm for this condition is same as for condition 1.

c) 70% DOD (Depth of Discharge)(104.3V) of Battery, power to the signal will be cut-off however all DC-DC converters will continue to work. Audio alarm will continue till power supply is restored.

d) If any of the IPS Modules fails, "Call S&T" alarm will appear.

e) Whenever there is a failure of power supply in one AT, 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 power supply on both AT's and make an entry in station diary duly initiating action for rectification of failure, if any.

5.0 **TELECOMMUNICATION FACILITIES:-**

(i) Telephone attached with Double line Block Instrument of SRGP-HNPA and SRGP-BAMR Block Section.

(ii) Station to Station fixed telephone (Hot line) is provided.

(iii) Station is provided with Auto telephone connected with Railway Exchange.

(iv) BSNL telephone has been provided.

(v) The station is connected to Sambalpur-Angul 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 interlocked L.C.Gate at KM 97/0-1, Engg. L.C. Gate No. ST-59 at km. 96/23-25(UP),96/22-24(DN) and ST-63 at km. 102/1-3(UP), 102/2-4(DN).

(ix) Telephone is provided between Station and IBS at KM 103.650 i.e. between SRGP-HNPA.

(x) Telephone is provided for communication 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.

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 partial failure of communication between the adjacent block stations the SM on duty shall work vide SR 6.02.06. In the event of total failure of communications between SRGP-HNPA and SRGP-BAMR sections SR 6.02.03 shall be observed for working the trains respectively.

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

6.0 **SYSTEM OF TRAIN WORKING: -**

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

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

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

6.1.1 **TRAIN WORKING STAFF: -**

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

SL. NO.	DESIGNATION	ROSTER	NO. OF STAFF IN EACH SHIFT	HRS. OF DUTY
1.	Station Superintendent (in-charge)-------- SS/SM	Continuous	01	09 hrs. 08 hrs.
2.	TP/Sr.TP/TPM-B/ TPM-A	Continuous	01	08 hrs.
3.	Sr.GK/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 conspicuously displayed in the SM office.

6.1.2 **RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINE: -**

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

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

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

No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The SMR is responsible to see that all the staff are conversant with the Station Working Rules and their 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 (In-Charge).

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 new staff join as a new member in the station.

6.2 CONDITIONS FOR GRANTING LINE CLEAR: -

The conditions laid down in GR 8.01 (1)(a),(b), 8.01(2)(b), 8.03(1)(a),(b),(c)(ii) and BWM 2.07(3) & (4) shall be complied with before the line is considered clear and 'Line Clear' is granted for a train by on duty SM.

[A] For double line Section-(SRGP-BAMR)

i) The whole of the last preceding train has arrived complete inside outermost facing point or BSLB if any.
ii) All necessary signals have been put back to 'ON' behind the said train.
iii) The line is clear up to BSLB for UP trains.

[B] For double Line Section-(SRGP-HNPA)

i) The whole of the last preceding train has arrived complete inside outermost facing point or BSLB if any.

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ii) All necessary signals have been put back to 'ON' behind the said train.

iii) The line is clear up to BSLB for DN trains.

NOTE-If the light of the reception signal is found not burning, line clear shall not be granted for train till such time it is ensured that concerned driver is notified of the fact in writing by the SM of the station to which such line clear is to be granted. [Ref GR:3.49(4), 8.01(1)(a),(b), 8.01(2)(b), 8.03(1),(a),(b),(c)(ii)]

[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 at either end should immediately be set against the blocked line except when shunting or for any other movement towards the blocked line is required to be done vide SR 3.51.06 (a). If all the lines at the station happen to be blocked, then SR.3.51.06 (b) will be followed.

Safety Point Alarm Unit (SPAU):

A safety point alarm unit is provided on the SM table with different indications: On complete arrival of a train at the station, the SM has to set the points immediately against the occupied line as per SR 3.51.06. 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. 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. On setting the points against the occupied line, the RED indication will disappear. 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. If all the lines of a station happen to be blocked when line clear has been granted to a train the safety point alarm will not work and the point should be set for the line occupied by a stable load or a goods train by SM on duty, in that order so that, in case of any mishap, the chance of causalities minimized. In case of all the lines are occupied by passenger trains points should be set for a loop line to negotiate which the speed of incoming train would be reduced, which in turn would minimize the consequences/causalities vide SR 3.51.06 (b). These precautions shall be taken in addition to the observance of other precautions as contained in SR 5.04.01 and SR 5.23.01.

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

Whenever trains are to be admitted on an obstructed line, trains can be admitted by taking off Calling-On signal. When calling-on signal fails, then SM on duty shall authorize the loco pilot 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 points of 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 :-**

GR 5.10 and SR there to shall be followed.

6.2.1.4 **DESPATCH OF TRAINS FROM NON-SIGNALLED LINE:-**

GR 5.11 and SR there to shall be followed.

6.2.1.5 **DESPATCH OF TRAINS FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:-**

Not Applicable

6.2.1.6 **SPECIAL RESTRICTIONS**:

(I) Due to 1in 150 rising gradient on UP line near UP IB signal, no passenger train is to be allowed in to the block section in rear, if the block section ahead is occupied by a goods train.

(II) While performing shunting at either end of the yard, engine shall be leading towards the falling gradient.

(III) GR 5.20 and SR's thereto shall apply at the station.

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

Reception of trains is governed by GR 3.36, 3.38, 3.40, 4.17, SR 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.

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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)	Starter signal no.11	End of overrun line with point no. 40 in normal position or UP Adv. starter no. 25.	Starter Signal no.18	End of overrun line
2	Line No. 2 (UP Main Line)	Starter signal no.13	UP Adv. Starter Signal no.25.	____	_____
3	Line No. 3 (DN Main Line)	____	____	Starter Signal no.14	DN Adv. Starter Signal no. 26.
4	Line No. 4 (Common Loop)	Starter signal no.17	End of overrun line	Starter Signal no.12.	End of overrun line or DN Adv. Starter no.26.

Note-For admission of an UP train, the signal overlap shall be kept clear as mentioned above. Before admitting a train on any line, it must be ensured that the track indication for the respective line indicates clear indication on the VDU. To receive a train, for which line clear is to be 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 on 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 the Home signal at either end provided the first track circuit or second track circuit in advance of Home signal does not show ‘RED’ indication.

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

B. TAKING OFF CALLING ON SIGNAL

To take “OFF” Calling-on signal the train must come to a stop at the foot of the Home signal, occupying 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 concerned calling-on signal. 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 signal lock indication will start flashing for 60 seconds. After a lapse of 60 seconds, the Calling-on signal below Home signal will then clear i.e. a White 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 will not get released automatically after complete arrival of the train. SM on duty has to cancel the signal manually to release the route.

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NOTE:

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

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

6.3.1 **RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON': -**
If for any reason after taking off signals, it is required to put back the signal and alter the route, Subsidiary Rules 3.36.02 (a) & (b) 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 a DN train on line no.1 setting overrun line.	Reception of UP trains on line no. 4 setting overlap to ORL or dispatch of DN trains from line no. 3 or 4
(ii)	While receiving a DN train on line no.3	Reception of an UP train on line no. 1 or 2 or dispatch of UP train from line no 1 or 2.
(iii)	While receiving a DN train on line no.4 setting overrun line.	Reception of UP trains on line no.1 or 2 or dispatch UP trains from line no. 1 or 2. dispatch of DN trains from line no. 1 or 3
(iv)	While receiving a DN train on line no.4 setting overlap up to Advanced Starter no. 26.	Reception of an UP train on line no. 1 or 2 or dispatch of UP trains from line no 1 or 2.
(v)	While receiving an UP train on line no.1 setting overlap to overrun line.	Reception of DN trains on line no. 3 or 4 or dispatch of UP trains from line no. 2 or 4 or dispatch of DN trains from line no. 3 or 4.
(vi)	While receiving an UP train on line no.1 setting overlap up to Advanced Starter no. 25.	Reception of DN trains on line no. 3 or 4 or dispatch of DN trains from line no. 3 or 4.
(vii)	While receiving an UP train on line no.2	Reception of DN trains on line no. 3 or 4 or dispatch of DN trains from line no. 3 or 4.
(viii)	While receiving an UP train on line no.4 setting overlap to overrun line,	Reception of a DN train on Line no. 1 setting overlap to overrun line or dispatch of UP trains from line no. 1 or 2.

6.5 **COMPLETE ARRIVAL OF TRAIN: -**
(Rule no. GR 4.16, SR 4.17.01, 4.17.02, 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 on the VDU & Axle Counter reset Box. As soon as a train enters into the block section, the 'RED' indication appears in the axle counter indication panel as well as on the VDU. After the whole train clears the block section, 'GREEN' indication appears on the axle counter indication panel as well as on the VDU. 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.

6.5.2 **L.V. VERIFICATION WHEN AXLE COUNTER FAILS:-**
In case of failure of axle counter, the Station Master on duty shall obtain complete arrival certificate from the Guard of the train in the complete arrival register (T/1410) maintained at the station for stopping train. For through passing train the station master on duty shall satisfy himself about complete arrival of train by verification of the last vehicle indicator vide GR 4.16 that the train is complete. In case a train arrives/passes incomplete, action shall be taken as per SR 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 Guard 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 SR 15.25.03 (b)(vi).

6.6 **DESPATCHING 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 himself by observing the visual indication on the VDU. Then ensure closure of the LC Gates to dispatch a train in to section. Then he shall take “OFF” the concerned route Starter signal and Advance starter signal. The ‘OFF’ aspect of the Starter and Advanced Starter is the authority to proceed into the block section. However, an UP train can be allowed up to IBS by observing section clear indication from VDU upto 400m beyond IBS.

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. After the train passes the Advance starter complete, he shall send the train entering block section signal to the station in advance. If a train worked without Guard or Brake Van the instruction laid down in Subsidiary Rule & safety circulars shall be followed.

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

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

If a signal once taken ‘Off’ for reception/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) & (ii).

6.7 TRAINS RUNNING THROUGH: -

a) The provision of GR 3.40, 4.17, 4.42 with relevant SRs and SR 3.42.02 (a)(iv) and other relevant provisions of BWM shall be observed.

b) The sequence for taking ‘OFF’ signals for run through trains is governed by SR 3.42.02 (a) (iv).

c) 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 GR 5.23 may be kept standing on a connected line which is not isolated from through line vide SR 4.11(2).

d) 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)].

e) 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 Guard of the train. He shall depute his points man with hand signal to the other side of the passing train who shall exhibit hand danger signal to draw the attention of the guard/ 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 OF POINTS AND SIGNAL: -**

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

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

6.8.2 **TRACK CIRCUIT**

In the event of failure of track circuit in the yard trains shall be admitted in to yard after piloting 'IN' before piloting a train in to the yard the clearance of the track must be ensured by physical verification.

6.8.3 **AXLE COUNTER**

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

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 3.77, 3.52 to 3.56, 3.80 and SR 3.68.01(c)].

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

6.8.5 **BLOCK INSTRUMENT**

In the event of partial/total failure of 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) During partial failure of block instrument the authority to dispatch a train to SRGP-HNPA and SRGP-BAMR section will be T/369(3b) with identification number and Private Number received from concerned stations written both in figure and words.

6.8.6 **DEFFECTIVE INTERLOCKING**

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

6.8.7 **DEFFECTIVE/DAMAGED POINTS**

When any point fails to operate normally by the route setting operation through 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-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.

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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 locopilot 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 ad 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 45 mts. 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. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]. Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49(4) and 3.68, 3.77]

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

6.9 **WORKING OF MOTOR TROLLEY, MATERIAL LORRIES ETC: -**

(a) Motor Trolleys are run in accordance with Subsidiary Rules 15.25.03 to 15.25.07.
(b) Material Trolleys will work in accordance with Subsidiary Rules 15.27.05 to 15.27.08.
(c) Rail Dolleys will work in accordance with Subsidiary Rules 15.27.10.

The following precautions must be taken:

i) The section where axle counters are provided in lieu of track circuits, trolleys, motor trolleys, Lorries etc which are not insulated, shall not be allowed to run except on line clear.

ii) Motor trolleys / tower wagons / material Lorries are not likely to actuate the axle counter correctly. When they are to run over the sections split by axle counters, the whole section to be treated as one and next train to be started after the first train has arrived complete.

iii) In all other respects, the working of a light Motor trolley shall conform to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley or a motor trolley.

7. **BLOCKING OF LINES: -**

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. ‘Line Block’ is to be activated on VDU by SM on duty following procedures as laid down in para No. 4.4 of Appendix ‘B’. A clear remark in ‘RED’ ink shall be made immediately in the train signal register and a record shall be made in the Station Master’s diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured 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)]

7.1 **LINE BLOCK FEATURE IN VDU**-

Line block feature identical to conventional panel is incorporated in VDU panel 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 right click the mouse on the route button icon provided on running line then 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 this blocking option no train can be dispatched to the block section.

7.2 **SECURING OF VEHICLES:**-

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

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

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 5.19.01.

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: -**

The rules laid down in GR 3.46, 3.52 to 3.56, 5.13 to 5.23, 8.05(2) (3), 8.06, 8.14 and 8.15(c) with relevant SRs and OM 7.01, 7.07 and 7.08 shall be observed. All shunt moment 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.
The staff supervising shunting shall ensure correct setting of points, clamping and pad locking of points, if necessary.

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:**
i) Hand shunting /Fly shunting/ Loose shunting is prohibited at both ends of the yard.
ii) While performing shunting at either end of the yard engine shall be leading towards the falling gradient.

8.4 **SHUNTING ON SINGLE LINE:-** NA

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.

8.6 **SHUNTING IN THE SIDING TAKING OFF FROM THE STATION YARD:**
While performing shunting in Hot axle siding, aspect of shunt signals is to be followed. For any non-signalled movement, it should be authorized by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in shunting. The relevant provisions of GR 5.14 and SR thereto shall be meticulously followed.

8.7 **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 rear vide GR. 8.05[2].

8.8 **SHUNTING WITHIN STATION SECTION:**
If the necessary signals are kept at "ON", shunting may be carried out within the station section vide GR 8.05[2].

8.9 **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.

9.0 **ABNORMAL CONDITIONS: -**

(a) THE RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITION: -
[I] **PARTIAL FAILURE OF COMMUNICATION: -**
In the event of suspension of Block Instrument and during partial failure of other available means of communications, trains will be worked in terms of Subsidiary Rule 6.02.06 and Chapter-III, V & VI of Block Working Manual.

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

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, train signal register and SM's diary. On the block ticket (T/A 602) it shall be mentioned in detail the place of obstruction i.e. Engine Km., B/Van Km., whether the train is to return or to wait at the place of obstruction for the arrival of another following train(s) or to proceed to next station and to obey the site officer instructions. A caution order shall be issued restricting the speed to 15 KMPH in day light hours when the visibility is clear and 10 KMPH at night or whenever view of 800 mtrs. is not clear. On arrival at the station the block ticket shall be collected with necessary endorsement from Loco Pilot/Guard and cancelled and pasted to its record foil shall be sent to the issuing station for cancellation.

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

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

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

[IV] **FAILURE/PASSING OF INTEMEDIATE BLOCK STOP SIGNAL AT ON: -** Details of working of IBS is mentioned in Appendix F of SWR.

[V] **FAILURE OF LV AXLE COUNTER: -** Details of the operation are given in Appendix 'B' of SWR.

[VI] **FAILURE OF MTRC**- Not Applicable.

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

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

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

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

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

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9.1 (A) TOTAL FAILURE OF COMMUNICATION: -

In the event of total failure of communications between SRGP-HNPA or/and SRGP-BAMR i.e. when line clear cannot be obtained by any one of the following means stated in order of preference, viz.

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

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

(i) Each train before being allowed to enter into the Block Section should be stopped and the Guard and Loco Pilot of the train apprised of the situation.
(ii) The SM will hand over an authority i.e. 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 30minutes between the train about to leave and the train, which has immediately proceeded.
(iv) Fixed signals except the last stop signal may be taken "OFF" for the dispatch of the train and for the reception of the train at the next block station, reception signals may be taken 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 SRGP-HNPA or/and SRGP-BAMR the trains shall be worked as per the procedure, [Refer SR 6.02.01] 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 Gateman about the single line working (for the first train only).
- The speed of the first train to be restricted to 25 KMPH subject to other speed restriction.
- Authority to pass Signal in "ON" position.

(ii) 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 **THE AUTHORITY TO PROCEED IN OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION ON LINE OR ACCIDENT:**
Rules and Regulations for working of trains on an obstructed line in case of obstruction or accident on the authority of Block Ticket (T/A-602) when communications are available shall be followed in accordance with the provisions which is summarized as follows [Refer SR 6.02.05]
After sending a train on block 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 Loco Pilot 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 /Guard of the train and cancelled.

10. **VISIBILITY TEST OBJECT**: -

i) V.T.O. post / Authorized 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 OBJECTS vide GR 3.61 (2) (b) (ii).
ii) Distance between CSB and V. T. O. post: - 180 Mts.

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

11. **ESSENTIAL EQUIPMENTS AT THE STATION**:- This is mentioned in the Appendix 'E' of the SWR. Essential equipments shall be kept ready on hand in good condition with necessary relief stock.

12. **FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG: -** In order to indicate to the Loco Pilots of approaching trains the location of signal during thick, foggy and tempestuous weather or during dust storm, the SM on duty shall arrange for fog signalling in terms of General Rule 3.61 and Subsidiary Rules thereto. Assurance of the staff shall be taken in the Fog Signal Register in the month of October every year as token of their having knowledge of Fog Signalling Rules and their use. Fog signalmen shall be detailed for duty at stations being recruited partly from the station traffic staff and partly from Engineering Gang man and must not be substitutes or casual labor but regular employees of the railway.

STATION DETONATOR REGISTER (OPT/124)
A Register regarding detonator is maintained at the station.

(a) **INSTRUCTIONS:**
This register contains the following parts.

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

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

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

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

(b) In charge of the station shall ensure that the information maintained in the register is kept 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 CANCELL ALL PREVIOUS STATION WORKING RULES OF **SARAGIPALI** STATION.

APPENDICES

APPENDIX 'A'	--	WORKING OF L.C. GATE.
APPENDIX 'B'	--	SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
APPENDIX 'C'	--	ANTI COLLOISION DEVICE (RAKSHA KAVACH).
APPENDIX 'D'	--	DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.
APPENDIX 'E'	--	ESSENTIAL 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.

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APPENDIX – 'A'

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

1.0 **GATE WORKING RULE FOR "C" CLASS TRAFFIC INTERLOCKED LEVEL CROSSING GATE NO. ST-59 AT 96/23-25(UP), 96/22-24(DN) IN BETWEEN THE DN HOME SIGNAL AND UP STARTER SIGNAL OF SRGP STATION.**

1.1 ***GENERAL INSTRUCTIONS***: -

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

1.	Number of Level Crossing Gate:	ST-59
2.	Engineering or Traffic Gate:	Traffic
3.	Under control of Station Master / SSE(P.WAY)	SM/SRGP
4.	Location at KM:	**96/23-25(UP), 96/22-24(DN)**)
5.	At Station:	SRGP
6.	In between stations:	SRGP-HNPA
7.	BG/MG/NG:	BG
8.	Single line / Double line / Multiple line:	Double Line
9.	Normal Position:	Open to Road Traffic.
10.	Interlocked / Non-Interlocked:	Inter-locked.
11.	Means of Interlocking	Control by-46 in VDU
12.	Provision of Gate signal at Kms.	Nil
13.	Signaling arrangements:	Interlocked with station stop signal
14.	Means of communications /Telephone with or without Voice logger	Magneto Telephone Connection with SM/ SRGP
15.	Width of level crossing gate:	7.5 Mt.
16.	Type of road (NH/SH/Others):	Others
17.	Name of Road:	SARAGIPALI Road.
18.	Metalled / non-metalled:	WBC
19.	Approach road:	WBC
20.	Width of the road:	5.5 M
21.	Angle of road crossing (in case of the skew gates):	90 Degree
22.	Road gradient (if any)	North/East side: 1 in 54 South /West side: 1 in 54
23.	Road alignment (straight/curve)	North/East side: Straight South/ East side: Straight
24.	Provision of height gauges:	Provided
25.	Type of Barriers:	Winch Operated Lifting Barrier
26.	Length of Check rails:	9.5 M.
27.	Road surface in between LC gates:	C.C Block
28.	Length of Rumble strip / speed breakers:	7.5 M
29.	Road signs:	Available
30.	Speed breaker indication board:	Provided
31.	TVU:	7244 on 09/2024
32.	Census next due on:	09/2027
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):	HNPA
37.	List of equipment available Yes / No:	Yes

1.2. **EQUIPMENTS:**

S N	DESCRIPTION	REQUIREMENT	TO BE USED AS
1.	LED based flashing 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 is to be displayed on each line except on single line it is to be placed on either side of the 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	(10) Ten 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/Train Manager 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.

1.3 **List of registers provided at the LC Gate lodge.**

1. Gate Working Instructions in Hindi/English.
2. Gate Working Instructions in Local vernacular language
3. Gatekeeper Rule Book in Local vernacular language.
4. List for tools and books.
5. Duty rosters.
6. Certificate of Competency for working as gatekeeper.
7. Bio-data particulars of Gatekeepers, including date of passing vision test, Initial/refresher course, safety camp etc.
8. Accident Register.
9. Records of last census of road traffic at LC gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 **DUTIES OF GATEKEEPER:**

1. ALERTNESS:

The Gatekeeper 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 GATEKEEPER DURING PASSAGE OF TRAINS:

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

i) Gatekeeper will stand attentively in front of the gate lodge facing the approaching train.

ii) In daytime, Gatekeeper shall hold red and green flags furled up on separate sticks in right and left hands respectively.
iii) In night time, Gatekeeper 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 GATEKEEPER:

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 Gatekeeper 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, Gatekeeper shall immediately inform the Station Master on duty to take appropriate action, under exchange of private number.
iv) In case of train parting, Gatekeeper shall not show stop hand signal but shall show prescribed signal for train parting.

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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, Gatekeeper 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, Gate Keeper 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 in10 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	1000 M.
	Left	1000M
DN	Right	1000 M
	Left	850 M

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

Iii) Periodical Census of traffic has been taken and the latest TVU is 7244 on 09/2024.

1.6 SPECIAL INSTRUCTIONS-

1. **MODE OF OPERATION**:

This is a Manned, interlocked traffic L.C.Gate situated at the HNPA end of the yard in between DN Home signal and UP Starter Signals. This gate is interlocked with Station stop signals. Telephone communication is provided between the L C. gate lodge and SM on duty of SRGP Station. The L.C gate is operated by Gatekeeper of Operating department under the control of SM/SRGP. The level crossing gate is of lifting barrier type operated by means of winch provided at the gate lodge. The normal position of the gate is open to road traffic.

A two-lever ground frame is provided at the gate lodge. The key of the LC remains in the winch when the gate is opened condition. When it is necessary to close the gate for taking off signals or for shunting operations, the SM on duty shall inform the gate man to close and lock the gate. The gate man on duty shall then close the barriers of the LC gate by operating winch. Then key 'G' is to be extracted from the winch, which will be inserted in the lever of GF-2. When GF-2 is reversed it locks the booms of the gates and releases GF-1 and key 'P'.GF –1 when reversed, Key 'P' is extracted. This Key 'P' will be inserted in the RKT and turned, L.C Gate closed indication will appear on the VDU and then UP & DN reception and UP despatch signals can be taken OFF. GF1 is provided to put back the concerned signals to ON in case of emergency.

After passage of the Train or completion of shunting, the SM on duty shall inform the gateman and trans the LC gate control No.46, gate man shall then extracts the control key 'P' from the RKT instrument. After getting the Key 'P', the gate man will open the L.C gate by normalising the levers. 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).

One emergency key mechanically free & electrically proved is provided in a red sealed glass box for emergency opening of the gate incase of failure in extracting key-P from EKT-1. 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 gateman.

Working of emergency key for winch operated gate.

Normally, key 'P1' remains inside the EKT-2 (provided in the sealed red box). When the key 'P' cannot be extracted from RKT-1 for opening of the gate, the gate main on duty will inform the SM on duty regarding the failure supported by private number and seek his permission to use emergency key. After obtaining the permission from SM on duty supported by private number, the gate man on duty will break the seal of the red box open it and take out the key 'P1' form EKT-2 and open the gate an also after closing the gate the key 'P1' is to be inserted in EKT-2 for lowering of concerned signals. After the failure is rectified the red box shall be sealed by S&T staff.

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

WORKING OF SLIDING BOOM BARRIER IN CASE OF FAILURE/ DEFECTIVENESS LIFTING BARRIERS.

(i) Key'S' when extracted from lock free EKT-5, Makes road signals danger & actuates road hooter key'S' unlocks the siding barrier-1.

(ii) Sliding barrier-1 to be rolled across the road up to the lock post key

(Chained with barrier) Releases the lock plunger & Key'SB-1'. Key'SB1' when extracted lock the sliding boom barrier-1.

(iii)Similar sliding barrier-2 after unlocking the padlocks, to be rolled across the road up to the lock post (Key chained within the barrier) along with key-SB-1 inserted releases the road up to be lock post & key-SB-2 when extracted lock the sliding barrier-2 & key-SB-1.

(iv)Finally released key-SB2 is to be transmitted electrically to SM through EKT-4 in conjunction with slot switch '50GS' reversed for taking OFF concerned signals.

2. **INTIMATION TO GATEMAN**:

i) Before taking off DN reception or UP dispatch signals Station Master/SRGP shall inform the gateman, the number, description, and direction of the Train.
ii) The gateman shall close the gate and transfer the key to the SM/SRGP.
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/SRGP must ensure that the Train is ready for departure in all respects before he advises the gateman for closing the gate.
v) When a Train has to be piloted to and from the Station yard or any shunting movement is to be done, the staff deputed to pilot the Train to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

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1.7 <u>FAILURE OF TELEPHONIC COMMUNICATION</u>

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 /SRGP 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/SRGP will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
iv) In addition, Station Master/SRGP 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/SRGP shall advise the SM/HNPA under exchange of private number, that the telephone at the gate has failed.
vii) The station Master/HNPA 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.

1.8 **<u>FAILURE OF LIFTING BARRIERS</u>:**

i) When the gate cannot be closed due to failure of lifting barriers of the gate, the gatekeeper will immediately inform the Station Master on duty, He shall then resort to operate the sliding boom for closing of the gate. If both of them fails, then he shall follow the following procedure, under exchange of private number, and ensure that lifting barriers of the 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) Gatekeeper shall secure the gate against road traffic by means of safety chains and padlocks.
iv) After securing the gate against road traffic, Gatekeeper shall show green hand signal flag by day and green light at night to the Loco Pilot of the approaching train.
v) Station Master/SRGP on duty shall issue caution order to the Loco Pilot of departing train.
vi) He shall also advise the Station Master at the other 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.
vii) Station Master/SRGP shall advise maintenance staff responsible for maintenance of lifting barriers to rectify the defect at the earliest.

viii) Normal working will be resumed only after maintenance staff rectify the lifting barrier and issue reconnection/ fit memo for the same.

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

1.9. **FAILURE OF GATE WHEN THE GATE IN CLOSED POSITION AND CANNOT BE OPENING THE GATE FROM THE GATE PANEL: -**

(i) If the gate cannot be opened then gatekeeper must immediately inform the Station Master on duty on telephone, under exchange private number.

(ii) Switch 87GS (Gate Slot) should be in normal position. If the gate cannot be opened from the Gate panel, emergency direct crank handle operation has to be done. The gatekeeper on duty shall obtain permission from SM on duty under exchange of private number for breaking the seal for emergency operation. For this operation, a Red sealed glass box is provided at the gate lodge. A crank handle welded with EKT-L is provided in the sealed box. After breaking the seal, the EKT-L has to be taken out from the box which is mechanically free. Unlock the Barrier 'A' and Barrier 'B' by crank handle. Then the crank handle is to be inserted into the hole provided in the mechanism box rear door. For opening the barrier, rotate the crank handle anti clock wise direction. As soon as the crank handle is inserted electrical operation is automatically cut off and remains cut off till crank handle is removed from the hole. In addition to above facilities, individual operation of barriers is also provided. For individual barrier operation, barrier "A" and "B" can be operated from pedestal individually.

(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 shall issue a caution order to the Loco Pilot of a departing train.

(v) He shall also advise the Station Master at the other 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 shall advise S & T staff responsible for maintenance of transmitter to rectify the defect at the earliest.

(vii) Normal working will be resumed only after S & T staff repairs the pedestal/gate operating panel/key transmitter and issue reconnection/ fit memo for the same.

1.10 FAILURE OF GATE WHEN THE GATE IN OPEN CONDITION:

1. If the gate cannot be closed from Gate panel then gatekeeper must immediately inform the Station Master on duty on telephone, under exchange of private number.
2. The gatekeeper on duty shall obtain permission from SM on duty under exchange of private number for breaking the seal for emergency operation. For this operation, a Red sealed glass box is provided at the gate lodge. A crank handle welded with EKT-L is provided in the sealed box. After breaking the seal, the EKT-L has to be taken out from the box which is mechanically free. Then the crank handle is to be inserted into the hole provided in the mechanism box rear door. For closing the barrier, rotate the crank handle clock wise direction. As soon as the crank handle is inserted electrical operation is automatically cut off and remains cut off till crank handle is removed from the hole. In addition to above facilities, individual operation of barriers are also provided. For individual barrier operation, barrier "A" and "B" can be operated from pedestal individually.
3. 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.
4. Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
5. He shall also advise the Station Master 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.
6. Station Master shall advise S & T staff responsible for maintenance of pedestal/gate operating panel/key transmitter to rectify the defect at the earliest
7. Normal working will be resumed only after S & T staffs repair the pedestal/gate operating panel/key transmitter and issues reconnection/ fit memo for the same.

1.11 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 advise the Station Master/SRGP on duty, regarding the defects/obstruction at the gate, under exchange of private number.

iii) Station Master/ SRGP 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/SRGP after two or three attempts, he shall first protect the gate and then inform on phone.

v) Gate Keeper 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 Gate Keeper 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/SRGP who shall not start the trains unless he has been assured by the Gate Keeper that the road vehicle or the lifting barriers are not fouling the track.

viii) The Station Master/SRGP shall also inform the station Master/HNPA 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 Gate Keeper shall inform the Station Master/SRGP accordingly, under exchange of private number.

x) Gate Keeper 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/SRGP 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/SRGP 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 Gate Keeper, if the gate is broken, but is clear of any obstruction.

1.12 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 gateman, the gatekeeper and Station Master will adopt the procedure given under item No.1.11 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 obstruction.

1.13 ACCIDENTAL ROLLING DOWN OF TRAIN:

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.

<u>CERTIFICATE</u>: -

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

S.SAINI	L. B. JENA	LINGARAJ GARTIA
DSTE(SIG)/SBP	**DEN (East)/SBP**	**DOM(G)/SBP**

2.0 GATE WORKING INSTRUCTIONS FOR "B1" CLASS, ENGG. NON-INTERLOCKED LEVEL CROSSING GATE No. ST-63 AT KM 102/1-3(UP), 102/2-4 DN) IN BETWEEN SRGP-HNPA STATIONS.

2.1. GENERAL INSTRUCTIONS:

2.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of level crossing gate	:	ST-63
2.	Engineering or Traffic Gate	:	Engineering 'C' class.
3.	Under control of Station Master or SSE(P.WAY)	:	SSE(P.WAY)
4.	Location at KM	:	102/1-3(UP), 102/2-4 DN)
5.	At station	:	----
6.	In between station	:	SRGP-HNPA
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	:	Nil
12.	Provision of gate Signal at Kms	:	Nil
13.	Signaling arrangement	:	Nil
14.	Means of communications /Telephone with or without Voice logger	:	Voice Logger Telephone from Gate Goomty with SM /SRGP
15.	Width of Level Crossing Gate	:	7.5 MTRS
16.	Type of Road (NH/SH/Others)	:	Others
17.	Name of Road	:	Nakchi -Takurgarh 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) North /East side – 1 in 30
		:	(b) South/ West side – 1 in 92
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	:	Winch Operated Lifting barrier
26.	Length of check Rail	:	9.5 MTRS.
27.	Road surface in between LC gates.	:	C.C BLOCK
28.	Length of Rumble strip/speed breakers.	:	5.5 MTRS
29.	Road Signs	:	Provided
30.	Speed breakers indication board	:	Provided.
31.	TVU	:	28810 on 09/2024
32.	Census next due on	:	09/2024
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)	:	Saragipali
37.	List of equipment available Yes / No.	:	YES

2.2 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
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (in case of asphalted road this may not be provided)
13.	Pick Axe	1 (in case of asphalted road this may not be provided)
14.	Tin case for flags	1
15.	Water pot/Bucket	1
16.	Canister for Muster Roll	1
17.	Set of spare spectacles of Gatekeeper wearing glasses.	1
18.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate	1
19.	Basket	1
20.	Whistle	1
21.	Wall clock	1
22.	Small size chains with padlocks to be used in case of failure of boom lock.	2

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

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

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2.4 **DUTIES OF GATEKEEPER**:

1. <u>ALERTNESS:</u>

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

2. <u>POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS:</u>

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. <u>ROUTINE DUTIES OF GATE KEEPER:</u>

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

4. <u>ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN:</u>

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/SRGP 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/SRGP to take appropriate action, under exchange of private number

5. <u>ACTION IN AN EMERGENCY AT THE LC GATE:</u>

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

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

(A) ON ELECTRIFIED SECTION:

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

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

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

(B) PROTECTION ON 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.

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2.5 **ENGINEERING ITEMS:**

i) **Visibility :**-

Direction	Side	Visibility Distance
UP	Right	800m.
	Left	800 m.
DN	Right	1000m
	Left	1000m

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

iii) Periodical Census of traffic has been taken and the latest TVU is **28810 on 09/2024**.

2.6 **SPECIAL INSTRUCTIONS**:

1. **MODE OF OPERATION**:

This is a Non-interlocked 'C' Class Engineering L.C.Gate situated at Km 102.051(102/0-1) between SRGP-HNPA stations. This gate is provided with winch operated lifting barriers. The gateman closes and opens the lifting barriers of gate manually by operating the winch. Telephone connection has been provided between the L C. gate lodge and SM's office of

SRGP station. The level crossing gate is normally kept open to road traffic and closed against road traffic for passage of trains. The gateman shall be authorized to open the L.C.Gate after complete passage of train from the gate by observing tail board/ tail lamp. The gateman before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.

2. **EXCHANGE OF PRIVATE NUMBERS**.

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

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

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

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

2.7 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/SRGP shall issue caution order to the Loco Pilot of the departing train.
ii) In the caution order, it shall advice the Loco Pilot to whistle continuously and approach the gate cautiously.
iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gatekeeper. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If gate is closed, ALP will give all right signal and if gate is not closed, the ALP must close the gate and then give all right signal. In the absence of the ALP, the LP may take the assistance of TMR.
iv) In case of an approaching train, the SM shall advise the SM at the dispatching end, under exchange of private number that the telephone at the gate has failed.
v) The SM at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.

vi) The SM shall advise the GK through gang man/patrol man or the LP of the first train that the telephone has become defective.
vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

2.8 FAILURE OF LIFTING BARRIERS:-

i) When the gate cannot be closed due to failure of lifting barriers, the Gate Keeper will immediately inform, the Station Master on duty/SRGP 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/SRGP shall issue a caution order to the Loco Pilot of a departing train.
vi) He shall also advise the station Master/HNPA 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/SRGP will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

2.9 OBSTRUCTION AT THE GATE:-

i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gatekeeper shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
ii) Immediately after this, the gatekeeper shall advise the Station Master/ SRGP on duty, regarding the defects/obstruction at the gate, under exchange of private number.
iii) Station Master/ SRGP 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/ SRGP 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/ SRGP 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/ SRGP shall also inform the Station Master/HNPA 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/ SRGP 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/ SRGP shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
xii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers and issue reconnection/fit memo for the same.

1.10 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/SRGP will adopt the procedure given under item No. 2.9 above. If the obstruction fouls

the level Crossing Gate, gatekeeper must keep the gates closed against road traffic till the track is cleared of the obstruction.

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

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

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

<u>CERTIFICATE</u>: -

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

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 –II(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 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, Crank Handles, LC gates, 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 (EI) 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-up menus. When a particular function is selected, an appropriate menu will appear on the screen. A function (clearance/cancellation of signals, releasing of routes, operation of points, 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, LC 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	INDICATION	FUNCTIONS	REMARKS
1	SM's Key	Yellow when key is 'IN'	Ensures operation of VDU by authorized person	Protected by pass word
2.	---	Emergency Route release UP & DN	Flashing indication appears when Emergency route release operation is initiated.	
3.	---	Flashing Red for Emergency Gate release	Flashing indication appears when Emergency gate release operation is initiated.	Protected by password. When flashing red disappears EM REL indication glows SM shall then trans the gate key.
4.	Emergency Point operation key	Yellow when key is 'IN'	Ensures emergency point operation by authorized person	Password protected. For each operation concerned counter shall register one count higher.
5.	---	System indication On/Off	Indicates System 'A' or 'B' is in working mode	----

S.SAINI
DSTE(SIG)/SBP

LINGARAJ GARTIA
DOM(G)/SBP

6.	Point failure Ack.	Red	Buzzer with flashing indication appears when any point fails.	SM has to click on the icon to acknowledge. Buzzer will stop but the yellow indication remains and will disappear only after the point failure is rectified.
7.	Signal failure Ack.	Red	Buzzer with flashing indication appears when any signal fails.	SM has to click on the icon to acknowledge. Buzzer will stop but the yellow indication remains and will disappear only after the signal failure is rectified.
8.	CH-1 to CH4	Yellow for 'KEY IN' and Red for 'LOCKED'	When CH key is in 'KEY IN' steady yellow will glow and a steady red will glow along with yellow when locked.	Both yellow & red will not glow when CH key is out of RKT at the location
9.	'UP Train Entering Section' muting	Yellow	An alarm buzzer sounds when UP train passes the UP IB Home signal.	On getting alarm buzzer SM shall left click on the icon to acknowledge it and then give a TES report to HNPA.
10.	UP Block release	Yellow	This indication glows after complete arrival of train	After complete arrival of train SM shall click on this icon to normalize the block handle.
11.	DN Block release	Yellow		
12.	LC Gate control-46	Yellow for 'Gate Closed' and Red for 'Gate Locked'.	SM shall right click on the button icon to select menu to Transmit / Receive/ emergency operation of gate as required.	In case of emergency operation 'EM REL' indication will appear and it is password protected. For each operation concerned counter shall register one count higher.
13.	Line Block	Red when blocked	SM shall keep the curser on the button type icons provided on the berthing track and right click. One pop-up menu will appear indicating line blocked and un-blocked, SM has to select the required menu.	When line block is selected the concerned button type icon will appear as thick Red.

3.0. **OPERATIONAL PROCEDURE THROUGH VDU AND INDICATIONS**:

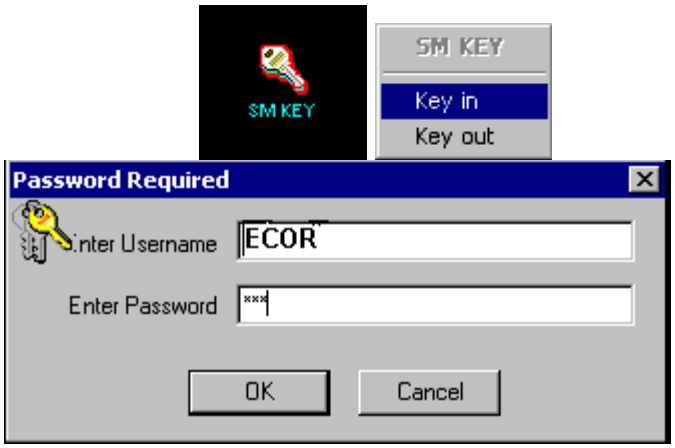
In addition to the mimic yard diagram various other indications will be available on the VDU. The implications of different indications provided and the operational procedure for different functions shall be strictly followed as per the following description.

3.1 **ELECTRONIC INTERLOCKING (EI) SYSTEM INDICATIONS**:

Electronic Interlocking Equipment (EI) 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 showing that the system is in power off condition and yellow indication showing the standby condition.

3.2 **OPERATION PROCEDURE OF SS/SM's KEY** :

To prevent the unauthorized operation by any person other than SM on duty this facility is provided on the VDU. On duty SM needs to track the pointer to the "SM KEY" icon and right click on the 'SM KEY' and then left click on the 'KEY IN' menu, by this a password window will appear. SM on duty needs to enter the password and press 'OK' provided on the password window. This will allow operation of all the controls e.g., Signals, Points, LC gates, 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.



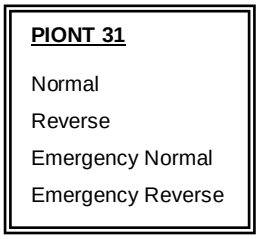
Enter the USER NAME and PASSWORD and click the OK.
Now the Operating VDU is ready for use & the entire yard can be controlled from the VDU.
Similarly, station master has to select the KEY OUT to prevent unauthorized operation.
In case of KEY OUT only signal cancellation can be done for the signals already taken off and no other operations can be done through VDU.

1.1.1 **<u>DESCRIPTION OF CROSS OVERS/DS POINTS</u>** :-

Srl No	Point No.	Description
1	31	Crossover point between UP Main line and DN Main line at BAMR end.
2.	32	Crossover point between UP Main line and DN Main line at HNPA end.
3.	33	Crossover point between line no. 1 and UP Main line at BAMR end.
4.	34	Crossover point between DN main line and line no. 4 at HNPA end.
5.	35	Crossover point between UP Main line and DN Main line at BAMR end.
6.	36	Crossover point between UP Main line and DN Main line at HNPA.
7.	37	Crossover point between line no. 4 and DN Main Line at BAMR end.
8.	38	Crossover point between line no. 1 and UP main line at HNPA end.
9	40	DS point isolating ORL of line no. 1 with HA & ENGG. siding at HNPA end.

3.3 OPERATION AND INDICATION OF POINT:

To operate the points the SM needs to track the mouse pointer to concerned point. After right clicking the mouse a pop-up menu will appear as below:



3.3.1 REVERSE TO NORMAL OPERATION:

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

3.3.2 NORMAL TO REVERSE OPERATION:

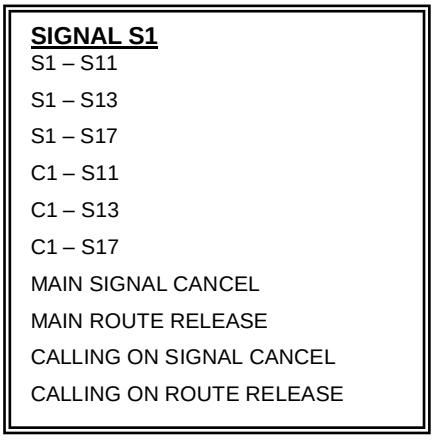
Track the pointer to REVERSE menu and left click. A Reverse flashing indication will appear and the indication will be steady after the point is set to reverse.

3.3.3 POINT INDICATIONS-

When the point is free, a steady strip of light will appear in the point zone (In case of cross-over at both ends) indicating the point is in normal/reverse condition. When the point is operated the same strip of light starts flashing till the point is set and detected then becomes steady. When the signal is taken off for a particular route RED indication will appear near the concerned points indicating that the points are locked and cannot be operated now.

3.4 PROCEDURE FOR SETTING OF ROUTES AND TAKING OFF SIGNALS:

To Take-Off a Signal on the desired route the SM on duty shall track the mouse pointer over the concerned Signal on the VDU, after right clicking the mouse a pop-up menu will appear as below:



SM on duty will select the route as per the requirement by moving the mouse pointer and left click on the appropriate menu. It will set the route and lower the signal, provided all the conditions required are satisfied.

3.4.1 SETTING A ROUTE AND ITS INDICATIONS:

To set a route of a signal, track the pointer on the signal, right click and then left click on the appropriate option. The route gets initiated & RED flashing indication will appear on the replacement track of the signal. Point operation of the desired route is initiated and Normal/Reverse setting indications will start flashing in favour of the route. 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. Also the point lock indication will appear. Point locking can be ensured from the RED indication near the point. Finally a Route locked YELLOW indication will appear near the signal. The yellow route indication will turn into red with the occupation by the train on run.

3.4.2 SHUNT SIGNAL OPERATION:

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

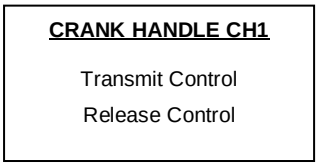
3.4.3 CALLING ON SIGNAL OPERATION:

The same procedure as main signal has to be followed as explained above. To set the route for CALLING ON signal SM on duty shall select the desired route and left click on the same, after the train occupies the approach track circuit immediately in rear of the stop signal. The signal is lowered 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 is free to Transmit the Crank Handle, by right clicking on the crank handle control icon provided as shown below on VDU.

A pop-up menu will appear as shown below showing details of the possible commands on the Crank Handle icon.



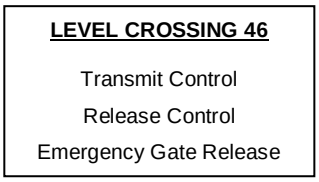
To Transmit the Crank Handle KEY to the field personnel, SM on duty has to left click on transmit control menu. The 'KEY IN' indication will start flashing, now the KEY can be extracted from the RKT at site. After extracting the key from the RKT, the 'KEY IN' indication will disappear. When the manual operation of point is over and after putting CH key in the RKT, 'KEY IN' indication will start flashing on the VDU, now the SM on duty has to left click on release control for the steady indication.
After every such operation counter will register the next higher number which will be recored in the register provided.

A Crank handle locked indication (Red) will appear when the particular route is set.

3.6 LEVEL CROSSING GATE OPERATION:

To Transmit or Release of the LC gate, right click on the LC control icon provided as below on the VDU.

A pop-up menu will appear as shown below gives details of the possible commands on the Level crossing gate control icon.



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 switch he shall transmit the gate control key to station by inserting and transmitting the key in the RKT. A flashing 'KEY IN' yellow indication will appear on the VDU then SM on duty shall receive the control by right click on the L.C. Gate control icon and select 'Release Control'. The flashing indication shall become steady. When the key is required to be transmitted to the Gate, SM on duty has to transmit the control by clicking on 'Transmit Control'. After transmission, the KEY IN indication will start flashing, now the KEY can be extracted from the RKT for opening the gate. The gate locked indication will appear when the signal is taken off.

3.7 OVERLAP TIME RELEASE (WHITE LIGHT):

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

4.0 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, right click on the signal, a pop-up menu will appear as shown in Para 3.4 above. Click on the signal 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 indication in rear of the signal will start flashing and the Emergency Route Release Indication (UP/DN as the case may be) will flash for 120 seconds. After the completion of 120 sec, the route will be released. This action will be recorded in a counter. The counter number will increase to next higher number for each such operation. This number has to 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.

4.2 EMERGENCY OPERATION OF POINTS:

When the point zone track circuit has failed without any point lock condition, the 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 vehicles occupying the track section and the same is clear of any obstructions.

4.2.1 EMERGENCY NORMAL 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 will become steady after the point is set to Normal. This action will be recorded in a counter. The counter number will increase by next number for every such operation. This number has to 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 made 'KEY OUT' by clicking 'KEY OUT' menu.

4.2.2 EMERGENCY REVERSE OPERATION OF POINTS:

Before doing the emergency operation, 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 will become steady after the point is set to reverse. The counter number will increase by next number for each and every such operation. This number has to be recorded by the SM on duty who shall record the details of the Emergency Point Operation along with the latest counter no. in the register and SM's diary.

After the completion of the Emergency point operation, the Key to be made 'KEY OUT' by clicking 'KEY OUT' menu.

4.2.3 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 icon provided like the following on the VDU.

On clicking, a pop-up menu will appear as shown below gives details of the possible commands on the Crank Handle

CRANK HANDLE CH1
Transmit Control
Release Control

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 number 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 the counter register.

4.3 EMERGENCY GATE OPERATION:

LC Gate control can be released and the gate can be opened by this operation when LC gate control remains in locked condition due to setting of any of the signal routes over it or otherwise. For releasing the gate by the Emergency operation the SM on duty has to cancel the signal by signal cancellation control of the relevant signal. Then he has to click the 'Emergency Gate release' control in the Gate pop-up menu, a password window will appear. SM has to login the password and then click OK on this window. Now the 'LOCKED' (Red) indication will disappear 'EM REL' (White) and 'KEY IN' (Yellow) indication will flash for 120 seconds and then the 'EM REL' indication will disappear but 'KEY IN' indication will continue to flash. Now the SM on duty shall transmit the 'GATE CONTROL'. Now the KEY can be extracted from the RKT at Gate Lodge and gate can be opened. This action will be recorded in a counter. The counter will increase by next number for every such operation. This number has to be recorded by the SM manually in a register. SM on duty who shall record the details of the Emergency Gate Operation along with the latest counter no. in a register.

4.4 LINE BLOCK AND UNBLOCK:

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

4.4.1 LINE BLOCK:

To set the 'LINE BLOCKED', the SM on duty shall select the button icon of the line which is to be blocked and after a right click a pop-up menu as shown below will appear. Left click 'Line Block' that particular line will be blocked. A red indication will be displayed on the button icon indicating successful application of such a blocking process on the VDU. No signals can be taken off for the blocked line.

4.4.2 LINE UNBLOCK:

When the blocked line is cleared, the SM on duty shall select the button icon of the line which is to be unblocked by right clicking. A pop-up menu as shown above will appear. Left click on 'Line unblock'.

5.0 PROCEDURE FOR RESETTING OPERATION OF LVCD (DIGITAL) AXLE COUNTER IN SECTION SRGP-HNPA AND SRGP-BAMR.

Block sections SRGP-HNPA & SRGP-BAMR are monitored by axle counter system. Dual detection digital axle counters have been provided at both ends of the station.

A pair of digital axle counter is provided for UP line between SRGP & IBS at km 103.650 (beyond Advanced starter signal of SRGP and beyond IBS) and another pair between IBS & HNPA (beyond IBS and beyond UP Home signal of HNPA). For DN line, a pair of digital axle counter is provided between HNPA & IBS at km 103.650 (beyond Advanced starter signal of HNPA and beyond IBS) and another pair between IBS & SRGP (beyond IBS and beyond DN Home signal of SRGP) for counting the axles 'IN' and counting the axles 'OUT' to indicate whether the section is clear of trains as well as to verify the last vehicle of the incoming train. The Axle counter resetting procedure in section provided with IBS is detailed in Appendix-'F'.

Similarly, a pair of digital axle counter is provided for UP/DN lines between SRGP & BAMR (beyond Advanced starter signal of SRGP & beyond Home signal of BAMR on DN line) and another pair of digital axle counter is provided for UP line of SRGP - BAMR (beyond advanced starter of BAMR & beyond Home signal of SRGP on UP line) for counting the axles

'IN' and counting the axles 'OUT' to indicate whether the block section is clear of trains as well as to verify the last vehicle of the incoming train.

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

Dual detection reset box is provided with a counter, a resetting key, a push button, two sets of indication arrangement ('RED', 'GREEN' and miniature GREEN) and one 'YELLOW' indication. 'RED' and 'GREEN' indicates occupation and clearance of block section respectively, 'YELLOW' indication glows when power is ON and miniature GREEN flashes when resetting operation is initiated and becomes steady when axle counter is in the state of preparatory reset. Then after passage of first train the Axle counter will show clear indication. The key of the reset box is kept under the custody of SM on duty.

Dual detection axle counter system has the provision of auto resetting feature when any one of the detection system fails. In case of failure of one detection system RED indication will glow on the reset panel indicating which one of them has failed. By this facility the failed detection system gets reset automatically then a miniature green appears on the reset panel indicating that the system has come to preparatory reset state. Then after passage of first train the system is normalized. In case of failure of both the detection systems SM has to resort to resetting procedure.

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 of trains. If the track indication of that particular block section is showing 'Red" then the following actions shall be taken 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. And, if arrived fully intimate the station in rear supported by 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 and receiving end individually.

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. Simultaneously press LV reset button provided on the reset box.
c. Release SM's LV reset key and reset button.
d. Turn left the SM's LV reset key and remove it.
e. After initiation of reset procedure miniature green starts flashing and becomes steady when the LVCD attains the preparatory reset state.
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 on duty shall record in his TSR the resetting operation giving details of train number, time, Private Number exchanged with SM, 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 instrument 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 of failure of LED signals, a flashing RED indication will appear on the 'Signal Failure Ack' on VDU along with audible buzzer. SM shall then right click on 'SIGNAL FAILURE ACKNOWLEDGEMENT' icon. A pop-up menu will appear on which he shall then left click to mute the buzzer. However, the flashing RED indication will continue to glow until rectification. 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, a flashing RED indication will appear on the 'Point Failure Ack' on VDU along with audible buzzer. SM shall then right click on 'POINT FAILURE ACKNOWLEDGEMENT' icon. A pop-up menu will appear on which he shall then left click to mute the buzzer. However, the flashing RED indication will continue to glow until rectification. For rectification of failure SM on duty should inform the concerned S&T staff.

6.2 SHOWING OF COUNTERS:

The following counter icons pertaining to SRGP station are provided on the VDU.

1. Emergency Route Release.
2. Emergency Point Operation.
3. Emergency Crank handle release.
4. Emergency gate release.
5. UP Calling-on counter.
6. DN Calling-on counter.
7. UP IB Axle Counter.
8. UP LV Axle Counter.

Separate veeder counter is provided for each type of operation on the VDU near their respective icons. Whenever any one of the above operation is done corresponding counter number increases by one count.

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 the mimic yard diagram on the VDU at SM's office. Track indication will show no light when route is not set and track is clear. Indication will show a yellow strip of light when route is set and track is clear and will show red strip of light when track is occupied.

7.1 On account of the doubtful behaviour of any track circuit when occupied by a light vehicle including self-propelled vehicle such as; motor trolley, light engine or tower wagon etc., it is necessary that the Station Master on duty satisfies himself that the said vehicle has cleared the track circuit zone by physical verification.

8.0 TAKING OFF CALLING-ON SIGNAL:

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

To take off Calling-on signal the train must come to stop at the foot of the home signal, occupying the track circuit 1AT for UP Calling-on and 2AT for DN Calling-on in rear of the respective home signals. When a train occupies the track circuit, a RED light strip on the concerned track circuit will appear on the VDU. The particular route on which the train is intended to be received shall be set by selecting and setting desired route through VDU by SM

on duty. After a lapse of 60 seconds Calling-on signal will clear. A white light will glow on the concerned Calling-On signal on the VDU provided the first track circuit or second track circuit beyond the home signal any one of them is in picked up condition. For UP Calling-on signal 1T1 or 1T2 and for DN calling-on signal 2T1 or 2T2, any one of them is in picked up condition.

NOTE:

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

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

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 himself shall follow procedure for cancellation of route described in para 4.1 of APPENDIX-B above.

9.2 REPLACEMENT OF SIGNALS TO 'ON':

Signals are replaced to 'ON' automatically by the passage of a train beyond the signal. If it is not possible SM shall right click on the concerned signal. A pop-up menu will appear where he has to left click on appropriate option.

9.3 INTERLOCKING OF SIGNALS:

DN Advanced starter is interlocked with Block Instrument of section SRGP-BAMR and UP advanced starter signal is interlocked with Block Instrument of section SRGP-HNPA. The Block Instrument cannot be made normal unless the respective Home signals are 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 the procedure given in para 9.2 of APPENDIX-B even when the SM's Key is withdrawn from VDU.

9.4 PILOTING OF TRAINS IN TO STATION YARD.

Whenever Home signal becomes defective, trains can be admitted by taking off Calling-on signal. Whenever both Home signal and Calling-on signal fails, trains shall be piloted-in vide SR 3.69.03(a) & (c). The SM on duty shall nominate a clear line and shall advise the TPM on duty at station to set the nominated route with the help of crank handle if the points cannot be set from the VDU. Then the TPM shall set the facing and trailing points and clamp and padlock the same under the supervision of SM on duty. The SM on duty shall then hand over the written authority T/369(3b) to the TPM for piloting the train. While going towards Home signal the TPM shall check the points and satisfy himself that the route is correctly set. After the train is brought to a dead stop at the Home signal the TPM shall hand over the pilot memo to the Loco pilot, board the engine and display proceed hand signal to pass the Home signal.

NOTE:

(i) The Station Master on duty shall personally supervise the correct setting, clamping and padlocking of the facing & trailing points, if any and ensure clearance on the nominated route vide SR 3.69.03(c).

(ii) The keys of padlock of the clamps put on to the points on the route for piloting in or piloting out shall be in the personally custody of the SM on duty or any other authorized operating officials till such time the train/engine/vehicle has utilized the route or alternatively such movement is cancelled.

9.5 PILOTING OF TRAINS - OUT OF STATION YARD:

When the starter signal has become defective, the Station Master on duty shall advise on duty TPM to set all points correctly for the outgoing trains. Then he shall clamp and padlock the same under the supervision of SM on duty. Then the SM on duty shall hand over the pilot memo T/369(3b) along with the other authority if necessary to the on duty TPM. The TPM on duty shall hand over the authority to the Loco pilot of the train and display proceed hand signal at the foot of the starter vide SR 3.70.01. In case the advanced starter signal has become defective, such signal shall be passed on the written authority on the form T/369(3b). The TPM shall hand over the pilot memo in form T/369(3b) to the Loco pilot after the train has stopped vide SR 3.70.02.

9.6 SHUNTING:

Caution aspect of starter signals can be used for forward shunting up to Advanced Starter. For back shunting independent shunt signals no. SH3 and SH 4 are provided at both ends of the yard. SH16 on UP mainline and SH15 on DN main line shall be used for forward shunt movement up to Advanced starter signal. SH-11 below starter signal no 11 shall be used for forward shunting movement into the Hot Axle /Engg. Siding and the SH-6 in Hot Axle /Engg. siding shall be used for shunting movement of trains from the Hot Axle /Engg. siding to Line No-1. For taking OFF Shunt signals refer Para no. 3.4.2 of APPENDIX-B.

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 passage of any train or for any other movements. The clearance of the route including overlap must be ensured by the SM on duty personally through VDU indications and/or by physical verification of track before any movement of trains are permitted on the concerned route subject to the other conditions such as locking of the point's etc.

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 over the points are in the 'ON' 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 over the concerned point can be taken 'OFF' in the yard. This key can be electrically transmitted to 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 running of trains 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 SE(Signal) of the section and others through a memo as per 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' where necessary. 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 pre-plan 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 SR.15.08.01.

19. EMERGENCIES:

Notwithstanding, anything contained in the aforesaid paras, 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 according to extant instructions as contained in G&SR 3.77.

20. PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL POINTS AND USE OF EMERGENCY CRANK HANDLE: Refer para 4.2.3 of Appendix-B.

20.1 Whenever a Signal or a Point becomes defective, any movement over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points on the line 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 is to be extracted and the following procedure 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 key 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.

20.5 The case of failure of Motor Operated Points should be promptly reported to the concerned SE (Signal)/ESM for immediate rectification.

20.6 Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance work or attending 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 Crank Handle for the Points concerned. All the concerned Points will be treated as defective till the Emergency Crank 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 concerned Points 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.

22.0 INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

22.1 INTERLCOKING WITH HOME SIGNALS:

The UP HOME Signal is electrically interlocked with the DLBI of section SRGP-HNPA and DN Home signal is interlocked with DLBI of SRGP-BAMR section, so that before the handle of the Block Instrument can be turned from TRAIN ON LINE position to LINE CLOSED position, respective UP or DN Home signal must be at ON position.

22.2 The UP advanced starter signal is controlled and interlocked with DLBI of SRGP-HNPA section & DN Advanced starter signal is interlocked with DLBI of SRGP-BAMR section so that these signals cannot be taken OFF until LINE CLEAR has been obtained.

22.3 **SUSPENSION OF LAST STOP SIGNALS:-**
When the block instrument of section SRGP-HNPA or SRGP-BAMR 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 trains shall be Piloted Out to SRGP-HNPA and SRGP-BAMR section.

23.0 **NORMALISATION OF THE BLOCK AXLE COUNTER AND OF BLOCK WORKING BY RESETTING FEATURE**: Refer para 5 of Appendix-B.

24.0 **TELECOMMUNICATIONS:**

(i) Telephone attached with double line lock & block instrument of SRGP-HNPA and SRGP-BAMR section.
(ii) Station to Station fixed telephone (hot line) is provided
(iii) Station is provided with Auto telephone connected with Railway Exchange
(iii) BSNL telephone is provided.
(v) The station is connected to Sambalpur-Angul 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.Gate no. ST-59 at KM 96/23-25(UP),96/22-24(DN)ST-63 at KM. 102/1-3(UP),102/2-4(DN).
(i) Telephone is provided between Station and UP IBS signal at km 103.650.
(ii) Telephone is provided for communication between station and TPC.

NOTE:

(i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.

(ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Loco Pilots, Guards or any other staff.
(iii) The on duty SM shall use the above electrical communication instruments stated in Para-24.0 from item no. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide

SR 14.01.01. In case of failure of any of the above means of communication the SM on duty shall work vide SR 6.02.06.

25.0 FAILURE OF COMMUNICATION / FAILURE OF BLOCK INSTRUMENTS:

1) In the event of failure/suspension of block instrument, Track circuit & Axle Counter 'Line Clear' shall be obtained over telephone attached to the block instrument or station to station telephone by exchanging identification number and supported by private number as per SR 6.02.06(1)(a) and Chapter–III Part–I of Block Working Manual.

2) In the event of failure/suspension of block instrument and block telephone attached to the block instrument, or the Station to station fix telephone 'Line Clear' shall be obtained on Railway auto phone or BSNL phone, by exchanging identification number supported by private number vide SR 6.02.06(1)(b) and Chapter-III Part-I of Block Working Manual.

3) In the event of failure/suspension of block instrument, block telephone and station to station fixed telephone or Railway auto phone or BSNL phone, Line Clear shall be obtained over the control phone exchanging identification number and supported by 'Private Number' vide SR 6.02.06(1)(c) and Chapter-III Part-I of Block Working Manual.

4) In the event of failure/suspension of block instrument or block telephone attached to the block instrument, or station to station fixed telephone or Railway auto telephone or BSNL phone or control telephone line clear shall be obtained on the VHF sets exchanging ID number supported by PN provided that the instructions contained in SR14.01.02 are followed vide SR6.02.06(1)(d) Chapter-III Part-I of Block Working Manual.

5) In the event of total failure of all communications between SRGP-HNPA and SRGP-BAMR trains shall be worked vide SR 6.02.03.

26.0 [A] **POWER SUPPLY ARRANGEMENTS FOR SIGNALLING INSTALLATIONS:**

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

i) Normally supply from UP AT/DN AT connected to OHE traction distribution [230V 50 Hz]
ii) Stand by supply from Odisha State Electricity Board (OSEB) [Single phase 230V 50 Hz]
iii) Normal power supply [Single phase 230V 50 Hz] to the Signalling installation at the station is drawn from the traction power sources.
iv) 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 if required.
v) 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.
vi) A changeover switch is provided in the SM's office with the three power supply viz UP AT, DN AT and Local power supply for changing the switch to the required supply position. Luminous indicators are provided above the circuit breaker for each supply to indicate the availability of the supplies.
vii) 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.
viii) In case of failure 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 CLS panel, one for each supply and their normal position is upwards and goes down when tripped. 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.

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

x) 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 on duty SS/SM himself, during his daily checks, shall test the availability of power supplies on both AT's and make entry in station dairy 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.

i) 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.

ii) 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.

iii) 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 limited time of 08 to 10 hours. The health of battery bank is monitored through one IPS monitoring panel provided in the SM's room which shall be display the voltage 110V DC [Battery Bank provided as back-up source of power supply]. Depending upon the health of the Battery Bank and the system, the following indication/alarm will appear on the IPS monitoring Panel, their implications and action to be taken by SS/SM on duty is tabulated below.

Sl. No.	Instruction	Healthy of Battery Bank/Equipment	Visual Indication	Audio Indication	Action to be taken by SS/SM on duty
A	-	50%DOD (depth of discharge) (105.9V)	Red	Alarm	Alarm shall be acknowledged by SS/SM on duty
B	-	60% DOD	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 malfunctioning 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 maximum up to 08 to 10 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 alert the people in case of emergency press "*" sign of the fire which is present inside the key pad together for few seconds. This will enable you to hear the panel alarm.
- To reset the panel follow the instructions provided by S&T official in station master's room near the fire alarm panel.
- The control panel will get reset and siren muted.
- If the power fails on this will enable us to see the red indicator on the panel.
- In case of failure in power and if the battery is fully charged, the panel can function effectively as long as the charge in the battery is present.

APPENDIX - 'C'

ANTI COLLISION DEVICE (RAKSHA KAVACH)

NIL

APPENDIX - 'D'

1.0 **STATION MANAGER (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 VDU, points, Crank handle and signals etc.

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

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

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

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

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

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

He is responsible for booking all staffs working under him for PME and Refresher Course / Safety camp in their due time. His Special attention is drawn out to chapter II of General and Subsidiary Rules and GR 5.01 to 5.08 with relevant Subsidiary Rules, Chapter –02 of Operating Manual.

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

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

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

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

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

1.1 **ASSURANCE REGISTER:**

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

No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The

SS is responsible to see that all the staff are conversant with the Station Working Rules and their signature obtained in the Assurance register after he is satisfied that they have thoroughly

understood the working rules of the station. In case of Group 'D' staff, their signature/thumb impression must be obtained after explaining fully about their duties and responsibilities.
The station superintendent is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance Register must be maintained in two parts, one for Group 'C' and the other for Group 'D' staff. A duplicate copy of the Assurance Register must be maintained and kept in personal custody of the Station Superintendent.
The declaration shall be renewed in the following cases: -

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

2.0 **USE OF PRIVATE NUMBER 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 up all safety principles without delay.

4.0 **TESTING OF POINTS AND SIGNALS**:
The Station Superintendent shall test the working of the reception signals daily during the day when there is no train due to arrive/leave the station. He shall also test the working of points, crossings, 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 (Amendment) 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 SS/SM of his responsibility to ensure by physical check that the nominated line is clear of all obstructions before admission of any train on it.

7.0 **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) To couple and uncouple vehicles under the supervision of Station Master/Guard when shunting operation is in progress.

(iv) Piloting and hand signalling of trains when necessary.

(v) Knowledge of hand signals, detonators and their use.

(vi) Protection of line in emergency and fog signalling.

(vii) Exchange of signals with the Loco Pilot and Guard of passing trains as directed by the Station Master.

(viii) Cleaning.

(ix) Loading/unloading of parcels, luggage and packages to and from the train and watching the packages and other materials by properly stacking in the station premises.

(x) Dusting of station office, filling up the fire buckets with sand/water and getting train interact arrival register (T/1410) signed by the Guard as and when required.

(xi) Serving messages and any other duties entrusted to them by the SS/SM from time to time.

(xii) Uses of emergency crank handle for setting of points.

(xiii) To supervise shunting as per SR 5.13.03.

(xiv) They must be thoroughly conversant with the GR 3.38, 3.46, 3.77(I), 5.09, 3.52 to 3.60, 3.62, 5.13, 5.15, 5.16, 5.21, 5.23 & SRs there to.

(xv) 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

All staff should be in uniform while on duty and follow the rosters issued by DPO/SBP from time to time.

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'

ESSENTIAL EQUIPMENTS OF THE STATION

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

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

APPENDIX - 'F'

IBS:RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN SRGP-HNPA

The block section between SRGP-HNPA has been split into two block sections by providing Intermediate Block Stop signals at KM 103.650 F/SBP [controlled by SRGP station] for UP line and, at KM 103.650 F/SBP [controlled by HNPA station] for DN line. Intermediate Block stop signals are controlled through double line lock and block instruments at the respective receiving ends.

A] The Block working for section between SRGP-HNPA on UP & DN lines are controlled by the provision of Double line Lock and Block Instruments (SGE type) and are provided at SRGP and HNPA stations. The UP Advanced starter signal no. 25 of SRGP and DN Advanced Starter signal no. 26 of HNPA are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB Home signals are controlled in turn through the line clear position of respective Double line lock and block instruments and LV section monitoring axle counters of receiving stations.

B] Trains between intermediate block signal to respective Home signal of station in advance are worked by means of SGE type lock & block instrument vide GR 3.75, 4.09, 5.07, 14.01 to 14.14 of the G & SR and chapter VI of BWM.

C] Last stop signal to the intermediate block stop signal is controlled by Digital Axle counter and are worked under absolute block system in terms of G & SR 14.01, 14.13.

D] **INDICATIONS PROVIDED FOR I.B. SECTION.**
The indications of signals of IB in both DN and UP directions are provided at SRGP Station and HNPA Station.

SECTION SRGP-HNPA

SN	Signal Aspect [S-25] (SRGP)	IB Section Indication [25 AXT]	UP IB Home Aspect	Block Section Indication	Remarks.
1	Green.	Green illuminated when section is clear. When train enters the section RED illuminated	-	-	Advanced starter no. 25 of SRGP is taken off to dispatch a train upto UP IBS.
2	Red.	RED Illuminated	-	-	IB section occupied.
3	-	-	Green	Green illuminated when LVV section is clear. When train enters the section RED illuminated	UP IBS is taken off for train upto UP home signal of HNPA.
4	-	-	Red	Red Illuminated	LVV section is occupied.

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SECTION HNPA-SRGP:

SN	Signal Aspect [S-26] (HNPA)	IB Section Indication [26 AXT]	DN IB Home Aspect	Block Section Indication	Remarks.
1	Green	Green Illuminated when section is clear. When train enters the section RED illuminated	-	-	Advanced starter no. 26 is taken off to dispatch a train up to DN IB Home.
2	Red	Red Illuminated	-	-	IB Section is occupied.
3	-	-	Green	Green illuminated when LVV section is clear. When train enters the section RED illuminated	DN IB Home taken off for train up to DN Home signal of SRGP.
4	-	-	Red	Red Illuminated	LVV section is occupied.

E] **Buzzer/Bell**

One audio buzzer has been provided in the SM room at both SRGP and HNPA to detect Train Entering section for outgoing trains. After train passes the intermediate block stop signal, the buzzer/bell will start ringing. On hearing the buzzer/bell the SS/SM of sending station must acknowledge the same by clicking on IB train entering section [TES] muting icon to stop the buzzer/bell and then send train entering section report to the receiving station who shall turn the commutator of the Double Line Lock and Block Instrument from the 'Line Clear' position to 'Train On Line' position and acknowledge train entering section following the procedures laid down vide Block Working Manual.

F] In the event of failure of I.B. track circuit [i.e. track clear indication not available] which shall not permit taking 'OFF' last stop signal, it should be ensured by SS/SM on duty at the dispatching station through exchange of private number with the SS/SM of the receiving station that the last train that has passed the last stop signal of his station has fully arrived at receiving station, before allowing the next train to enter in to the section, such permission to the next train shall be granted and the section SRGP-HNPA as the case may be shall be treated as single section by issuing the pilot memo when normalization of the system is not possible. In such case, line clear has to be taken on lock and block instrument. Trains are to be dispatched from the station only after obtaining line clear till such time track circuit or last stop signal is restored to normal.

CLOSING OF IBS:-

If the electrical block instruments provided at the station on either side of an IBP or the track circuiting provided beyond IBS or the axle counters provided at either end of block section fail, the IBS shall be treated as defective and the IBP shall be deemed to be closed and section between stations on either side of the IBP shall be treated as one block section.

G] **NORMALIZATION OF IB AXLE COUNTER AND RESTORATION OF BLOCK WORKING BY RESETTING FEATURE:**

i] A Resetting arrangement for the resumption of IB Axle counter under failure condition through co-operative feature of both the SM on duty at either end station of the Block section is provided, which should only be resorted to after the train that was sent last has arrived fully at the receiving station and is certified in this respect by the SM at the receiving station through exchange of private number.

ii] For monitoring of IB section working & re-setting of IB Axle counters, track Indications are provided on the VDUs of SRGP and HNPA stations. Counters are also provided for the purpose of recording of each act of re-setting for the IB Axle Counters in case of failures in IB section.

iii] The SM on duty at SRGP station shall maintain a separate register for use for resetting of IB Axle Counters wherein every operation of the resetting shall be recorded giving details of date of use, train number, time, and number registered in the counter on Veeder Counter and reasons for resetting and initial for each such entry.

iv] The procedure for resetting of the IB Axle counters in terms of clause G(i) & (ii) above shall be as follows:

SECTION SRGP-HNPA:

	DISPATCHING STATION [SRGP]		**RECEIVING STATION [HNPA]**
1	In case of failure of axle counter between sending station and IB signal then SM on duty of sending station shall call the attention of SM of receiving station through Telephone for granting Permission to re-set IB Axle counter as well as Train Passed signal with Danger [train run away condition] giving details of last train left the station into the section.	1	SM on duty at receiving station shall after verifying that the said dispatched train arrived fully and exchange private number with SM on duty of sending station and gives permission to re-set by clicking on the 'Reset Permission Button' icon provided on the VDU. Then a flashing yellow indication will appear near the icon. For each such operation the permission granting counter shall increase by one digit. SM on duty shall make an entry of changed permission granting counter number in counter register
2	On getting permission to reset from receiving station, a flashing yellow indication will appear on Permission Received icon which shall be acknowledged by SM on duty by acknowledging 'Permission Ack Button' icon and then flashing indication will become steady. On duty SM at sending station shall then	2	After completion of reset procedure Permission granting indication will go blank at the receiving station.

	make IB Reset 'key IN' on the VDU and then click 'PRESS' on the 'Reset Push Button' icon. Approximately after 5 seconds click the 'RELEASE' on the reset button icon and then make the reset 'key OUT'. Now SM on duty has to manually reset the near end axle counter. He shall insert the reset key, turn right and press on the reset box simultaneously with reset button. On doing the above process for resetting preparatory reset indication will appear on both VDU and reset box. First train has to be piloted out. On passing of the first train IB Axle counter will get reset. After this preparatory reset and Permission Received indication will go blank. For each such operation, the IB. reset counter provided shall increase by one count. SM on duty shall make an entry of changed Reset counter number in re-setting register.		
3	In case of train passed IB signal at danger, train run away indication will appear on the VDU along with buzzer. SM on duty shall then acknowledge the same. He shall call the attention of SM of receiving station through telephone for granting Permission to reset the runaway indication giving details of last train left the station into the section.	3.	SM on duty of receiving station, after verifying the complete arrival of last train shall give a private number to the sending station that the section is clear. He shall then grant permission to reset the train run away indication.
4.	SM of the sending station shall acknowledge the permission granted. The trains run way indication will go blank and the system is normalized. In such case there is no need of piloting out of the first train.		

H] **<u>NORMALIZATION OF LVV AXLE COUNTER AND RESTORATION OF BLOCK WORKING BY RESETTING FEATURE</u>:**

	DISPATCHING STATION [SRGP]		**RECEIVING STATION [HNPA]**
1	In case of failure of axle counter between IB signal and receiving station, SM on duty of sending station shall call the attention of SM of receiving station through telephone giving details of last train left the station into the section.	1	SM on duty at receiving station shall after verifying that the said dispatched train arrived fully and exchange private number with SM on duty of sending station.
2	On duty SM at sending station shall then make IB Reset 'key IN' on the VDU and then click 'PRESS' on the 'Reset Push Button' icon. Approximately after 5 seconds click the	2	Now SM on duty has to manually reset the near end axle counter. He shall insert the reset key, turn right and press on the reset box simultaneously with reset

	'RELEASE' on the reset button icon and then make the reset 'key OUT'. On doing the above resetting process, preparatory reset indication will appear on VDU. T/369(3b) shall be issued to loco pilot of first train to pass IBS at ON. On passing of the first train LVV Axle counter will get reset. For each such operation, the LVV reset counter provided shall increase by one count. SM on duty shall make an entry of changed Reset counter number in re-setting register.		button. On doing the above resetting process, preparatory reset indication will appear on reset box. After passage of the first train the preparatory reset indication will go blank. For each such operation, the LVV reset counter provided shall increase by one count. SM on duty shall make an entry of changed Reset counter number in re-setting register.

l] **DISPATCH OF TRAINS:**

Dispatch of trains is governed by the provision of GR 3.42, 3.70 & SR there to and Block working manual rules. For dispatching trains with last vehicles/trains without guard/banking engine in rear, JPO and safety circulars issued along with relevant GR & SRs to be followed.

From SRGP towards HNPA.

Train will be dispatched in accordance with the General Rules 3.42, 3.70., 3.75, 4.35 and 8.01 and subsidiary Rules thereto.

SRGP TO IBS ON UP LINE:

The SM on duty shall ensure that the portion of line between Advanced Starter and 400 Mtrs beyond IBS at their respective ends is clear of obstruction and indication to this effect is available and shall also ensure any non-isolated shunting at their respective ends suspended and shunting authority issued if any is withdrawn and kept in his custody.

IBS SIGNAL TO HNPA:

The SM on duty SRGP shall obtain line clear through lock & Block instrument from the station in advance to dispatch a train in to section and pass the IBS signal through by taking off the IBS signal no. 29 of SRGP for UP line.

After the train passes the UP IBS a buzzer will ring at both the receiving and dispatching stations. On hearing the buzzer/bell the SM must acknowledge the same by pressing train entering section [TES] muting icon to stop the buzzer/bell and then send train entering section report to the station master of the station in advance who in turn will turn the commutator of the Double line Lock and Block Instrument from the line clear position to Train On Line position and acknowledge train entering section. After dispatch of a train from SRGP into the Block section, in case when the intermediate stop signal is not taken 'off' but the buzzer has started ringing, this may be either due to the train passing intermediate Block stop signal at 'ON' position or due to failure of the track circuit in advance of that intermediate Block Signal. The SM on duty will then inform the matter to SCR on duty and concerned S&T official.

The above procedure must be rigidly followed irrespective of the fact whether line clear for train has been received from station in advance or not and this must be recorded in the Train Signal Register and SM's diary book of both the Stations.

(i) Dispatch of trains towards HNPA station in case of failure of the UP Advanced Starter signal due to failure of "IB Axle Counter" device or otherwise-.

If the failure of the UP Advanced starter of SRGP due to the failure of IB axle counting device or the indication showing 'Red' light either due to power failure or due to any other cause, the SM should resort to the resetting procedure mentioned in para G(iv).

If it is not possible to restore normal working of the IBS by use of the resetting procedure, the ESM-in-charge of the section shall be served with a written memo to attend the defective signal and rectify the same. The ESM-in-charge of the section on being served with a memo by the SM shall attend the failure and rectify the fault. The ESM after ensuring that all S&T gears relating to defective signal have been attended to and are in working order except the axle counter which needs re-setting, shall establish communication with SM concerned and ask him to reset the IB axle counter by following the reset procedure mentioned in the para G(iv). SM on duty shall follow the resetting procedure after ensuring that all the trains which had left his Block Station had arrived complete and intact at HNPA (by exchanging of P.N with SM/HNPA confirming this) for resumption of normal working.

DESPATCH OF TRAINS IN CASE OF FAILURE OF INTERMEDIATE BLOCK STOP SIGNAL:

[a] When a driver finds an intermediate Block Stop signal at 'ON' Position he shall stop his train in rear of the signal and advise the guard of the fact by sounding long continuous whistle and shall then contact the Station Master of the Block Station in rear over the signal post telephone provided for the purpose vide SR.3.75.01[i].

[b] If the SM of SRGP station, on being contacted over Telephone by the driver, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorize the driver on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give Driver the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance.
The driver shall then sound one short, one long and one short whistle and, on receipt of Guard's signal shall proceed ahead duly exchanging signals with him. The station Master on being contacted by the Driver on signal post telephone if he is unable to obtain "Line Clear" for the train due to total interruption of communications, shall call for the Guard through the Driver and on being contacted by guard, he shall advise the guard of the circumstances and give a Private Number for the train to proceed up to the next block station. The guard shall prepare a memo in duplicate authorizing the Driver to proceed with the Private Number received from the Station Master. In such case the speed of the train shall be restricted as prescribed in GR 3.75(3).

[c] In such case the Driver shall pass the IB signal at "ON" and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometers an hour if he has a good view of the line ahead otherwise, at a speed not exceeding 8 kilometers an hour and report the failure to the Station Master at the block station ahead.
While complying with the instructions contained in GR 3.75(3), when the Driver has to pass IB signal at "ON" after waiting for 5 minute at the signal, he shall proceed cautiously preparing to stop short of any obstruction at a speed not exceeding 15KMPH when view ahead is clear and 8 KMPH when view ahead is not clear due to curve, obstruction, rain, fog or any other cause until he reaches the foot of the next stop signal and even the signal is "OFF" the Driver shall continue to look out for possible obstruction short of the same and will act upon its indication only after he has reached it. Before starting, the Driver shall sound one long whistle which may be repeated as necessary and shall then start his train on receipt of Guard's signal. Thereafter he shall exchange signals with the Guard.
On reaching the block station ahead the Driver shall report the failure of the signal to the Station Master. If the telephone is provided at the intermediate Block Stop signal Post is out of order the Driver will pass the IB signal as per GR 3.75(3) & SR 3.75.02, and on reaching the block station ahead, the Driver shall report the failure of the signal to the SM, Following train

shall not be allowed to leave SRGP unless the complete arrival of the receiving train is certified by the SM on duty at HNPA under exchange of Private Numbers.

The station Master of the block station working the intermediate block stop signal on becoming aware that such a signal is defective shall, before dispatching the train, treat the entire section up to the block station immediately ahead of the intermediate block post as one block section and issue a written authority to the driver to pass the defective intermediate Block Stop Signal at "ON" without stopping at the signal in accordance with the procedure prescribed by special instruction.

A written authority as mentioned in GR 3.75(4) shall be in Form T/369[3b] in which the Private Number and identification Number obtained from the station in advance in support of the "Line Clear" shall be recorded. Display of "Proceed hand signal at the foot of defective Intermediate Block Stop Signal may be dispensed with.

[d] However, if the SM on the Block station immediately in rear of an intermediate Block Signal is aware that UP intermediate Block Signal is defective shall before Dispatching a train verify that all trains which had left his Block Station had arrived complete and intact at HNPA station by exchanging Private Number with SM/HNPA and shall follow the resetting procedure mentioned in the para G(iv). Thereafter driver shall be handed over the authority of T-369[3b] to pass IBS Signal at "ON" position where in, the Private Number and identification number obtained for line clear shall also be written. After each such resetting process, next higher number is registered on the veeder Counter and the SM should record this, giving the details of the occasion with timings in the Veeder Counter register kept in the station.

J] **SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBS AT 'ON' POSITION:**

I] In case train run away indication appears the SM of receiving Station shall not turn the block instrument handle to line clear position and SM at sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal at 'ON' position has actually arrived complete and is verified by the receiving station.

II] Every case of a train passing IB signal at 'ON' position without strictly following the provision of GR 3.75 should be treated as a breach of block rule by the driver and action to be taken accordingly.

III] When train run away indication appears at the dispatching Station without any train in the section, then SMs should resort to train run away resetting procedure. If the same could not be reset the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after taking line clear and treating entire section as one Block section as per GR 3.75(4).

IV] Whenever a train after obtaining line clear passes IBS at "ON" position the train run away indication appears at the dispatching station and also at receiving station. Under such circumstances no further train shall be allowed in the section till the said train arrives completely at the receiving station and its complete arrival report has been received at the receiving station supported by Private Number treating the entire block section as single section.

V] If any train passes IB Signal at 'ON' position when there is a train in the Section between IBS and the receiving station, the train run away indication will appear at both receiving and dispatching station. Under such circumstances the SM in the receiving station shall not turn the Block instrument to Line Clear position and SM at sending station shall not dispatch the (3rd) train, unless the 2nd train which passes the IBS at 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

VI] Resetting procedure is to be followed as detailed in para G(iv) after verifying that the last vehicle of the runaway train has arrived intact and ensured by exchange of private number with the SM of the receiving station.

VII] Whenever a train run away indication appears when there is a train in the section, no further train should be allowed in the section till resetting is done.

VIII] Before any resetting operation is done, the Dispatching station should advise the receiving station giving details of the last train that has entered the section and should ensure by exchange of private number that the last train has arrived complete at the receiving station.

Every Case of re-setting shall be entered in a register in the following proforma.

Date and time	Train No. Last entered the block section	Private No. of station ahead for Complete Arrival of the train Under Col.2	Veeder Counter No Before resetting operation completed	Train No. Entering Block section Immediately after the resetting operation	Remarks	Signature of SS/SM
1	2	3	4	5	6	7

IX] If resetting is not possible under item as mentioned above, the system should be treated as failed and train will work treating the entire section up to the Block Station immediately ahead of the IBS Post as one block section as per GR 3.75(4).

K] **ACTION TO BE TAKEN WHEN A TRAIN PASSES INTERMEDIATE BLOCK STOP SIGNAL AT 'ON'**

a**) By SM of receiving Station.**

I] Shall not turn the Block Instrument commutator to "Line Closed" Position Unless the complete arrival of the train which passed IBS at "ON" position is ensured, without any exception even for such a train which leaves the rear station after obtaining line clear and passes IBS at "ON" position, since there is a chance of leaving a vehicle or vehicles in the Axle Counter area where the function of Axle Counter also fail.

II] In case the bottom needle of the SGE type block instrument is in its 'Line closed' position, action should be taken to turn the block instrument commutator to 'TOL' Position vide BWM 5.16(2)(iv) and must not turn to "Line closed" and then to "Line clear" position unless the train which had passed the "Intermediate Block Stop Signal" at 'ON' position arrives complete and its complete arrival is verified.

b] **By the SM of both the block stations in rear and in advance of the intermediate Block Stop Signal**.

I] After the complete arrival of the last train, according to the information received vide sub-para (a) above, the SM of the receiving station shall communicate the same to the SM of the sending station supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the SM of the dispatching station and the SM of the receiving station shall resort to Resetting procedure. This simultaneous operation will cause the 'counter' to increase by one count at both the stations and SM shall record the next higher number in the register mentioned for the purpose and details of it.

II] After completion of resetting procedure and normalization of IBS the SM of the Block Station in rear shall then take steps or authorize Station master of the receiving station supported by a Private Number to normalize the block instrument.

Q] (a)In the event of failure of IBS signal in the "OFF" position or fails to go to "ON" position immediately after passage of train, the station master controlling the signal shall take steps to put back the IBS signal to "ON" position and treat IBS signal failed and train shall be dispatched treating entire section between his station and station in advance as one Block section.

Correction slip No.02
Date of issue: 01.11.2024

L] **RUNNING OF MOTOR TROLLEYS ON IBS ZONE**:

i) While allowing motor trolley/4 wheeler tower wagon/material trolley etc., entire section between SRGP-HNPA shall be treated as one block section and shall be issued T-369 [3B] for passing IBS at “ON” position.

ii) After the complete arrival of the said Motor Trolley/4 wheeler tower wagon/material trolley etc., at the station ahead, Station Master at adjacent station shall exchange Private Number in token of complete arrival and then shall resume normal working by resetting the Axle Counter as stated in the SWR.

iii) Motor Trolleys shall not be allowed on following line clear.

NOTE:- Backing of train on the portion of line after passing the intermediate Block Stop signal normally shall not be allowed, However, if it becomes inevitable to back, such backing may be done with great caution as mentioned in SR 3.75.04.

M**] SIGNAL POST TELEPHONE:**

A telephone socket (RE Type portable telephone kept with drivers) with a RED Press button at the bottom is provided at the foot of each IB signal and is meant for driver to contact the SS/SM in rear by pressing the RED button. The driver of the train encountering the IB signal at ‘ON’ position shall contact the station in rear to find out the occupancy or otherwise of the block section ahead.

N] NORMAL POWER SUPPLY TO IBS GOOMTIES :

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

i) Normally supply from UP AT/DN AT connected to OHE traction distribution [230V 50 Hz]

ii) Normal power supply [Single phase 230V 50 Hz] to the Signalling & Interlocking installation at the IB is drawn from the traction power sources. Whenever traction power supply fails the Power supply switched over through Auto change over switch provided in the CLS power panel at IBS Goomty connecting the power supply from the healthy sources to the installation.

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APPENDIX - 'G'

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS

Enclosed

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DOM(G)/SBP

ANNEXURE-'G'

Date of issue:-_____

Date of brought into force:-_____

STATION WORKING RULES FOR 25KV AC ELECTRIC TRACTION SARGIPALI STATION

1. **GENERAL & SUBSIDIARY RULES:**

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

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

2. **GENERAL SAFETY PRECAUTIONS:**

a) All staff are warned that contact 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.EL/CON/OHE/SRGP/2019/Rev01 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 (Isolators 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 isolator switches provided for the control of power supply of OHE at or near the station and shall be conversant with correct method of opening and closing the same. (Competency certificate is provided after getting assurance).

Sl.No.	Isolator No.	Loc. No.	Sl.No.	Isolator No.	Loc. No.
1	SM-433	95/17	2	SM-434	95/24

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3	SM-435	96/29	4	SM-436	96/30
5	SS-535	SRGP/1003	6	SS-536	95/30A

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:**
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.

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.
Isolator switches may be opened only after ensuring :-

A) If the Isolator switch is on the main line then the adjacent interrupters on either end of isolators switch is to be opened.

B) If the Isolator switch is controlling supply to yard lines that, either such Isolator switch, which is controlling the Elementary Section free of raised pantographs of Electric Locomotives or the Interrupters controlling the supply to the yard lines in question is to be opened (GR 17.04.15).

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 od 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 locomotive/s 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.

c) Strict enforcement of longitudinal and transverse protection as per the Appendix-G attached shall be ensured before imposing power block. The detailed procedure for protection during power block has been given SR 17.04.16.16(d).

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 give 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 purpose 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 with in 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 warned 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. 17.04.17 (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 Master/Cabin master on duty must always watch for any unusual working in the Block instrument or any other signaling equipment, which may arise due to voltage, induced from traction system. The Block instrument or the signaling Equipment must be suspended whenever there is any signs of unusual working and the nearest signal and Telecom, maintenance Inspector may be contacted to inspect and certify the same. In the event of a break of the OHE, the Station Master Master must immediately check up whether all Block and signaling 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.

EAST COAST RAILWAY
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 Wires 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 kilometer 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 signaling 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 article likely to be brought within the danger zone of 2 Mtrs. (Approximately 7 feet) of the traction wires.

b) DON'T(s)

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

EAST COAST RAILWAY

STATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR SARAGIPALI STATION

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

Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
A.	**Sector**				
1	Sector between RAIR/TSS to KPJG/SP On double line RAIR to JRPD and on single line from JRPD to KPJG section.	1) Ensure that no electric loco with its raised panto condition at SRGP yard. 2) No Electric Loco/ Trains movement is allowed between RAIR to KPJG sections. 3) Line clear shall not be granted/obtained to/from BAMR and HNPA for UP& Down Electric Trains/Locos. 4) No electric shunting is permitted in the yard. 5) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON'.	Nil	1) Ensure BM-453 is in open position at KPJG/SP. 2) Ensure BX-431 at RAIR/TSS is in open position. 1) Open CB-407 at RAIR/TSS.	1) Close CB-407 at RAIR/TSS.

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Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
B.	**Sub Sector:**				
1.	UP Sub-Sector between BAMR/SSP to SRGP/SP On UP line between BAMR - SRGP section. **(E/Sections 43501,43503,43505, X-535,)**	1) Ensure that no electric loco with its raised panto condition at SRGP UP yard. 2) No Electric Loco/ Train movement is allowed between BAMR – SRGP – HNPA UP line & yard. 3) Line clear shall not be granted to BAMR for UP Electric Trains/Locos. 4) Line clear shall not be obtained from HNPA for UP Electric Trains/Locos. 5) No electric shunting is permitted in L-1 & L-2 in the yard. 6) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON' for the UP yard.	Cross Over point No. 31 A/B, 35 A/B at BAMR end and point No. 32 A/b and 36 A/B at HNPA end shall be kept at 'NORMAL' position.	1) Open BM-433 at BAMR/SSP 2) Open BM-436 and BM-437 at SRGP/SP	1) Close BM-433 at BAMR/SSP 2) Close BM-436 and BM-437 at SRGP/SP
2.	DN sub sector between SRGP/SP to BAMR/SSP on DN line between from SRGP to BAMR section. **(E/Sections43406, 43404,X536, 43402)**	1) No Electric Loco/ Train movement is allowed between HNPA – SRGP – BAMR DN line & yard. 2) Line clear shall not be granted to HNPA and obtained from BAMR for DN Electric Trains/Locos. 3) No electric shunting is permitted in the DN line and yard. 4) Ensure that no electric loco with its raised panto condition at SRGP on L-3 & L-4. 5) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON' for the DN yard.	Cross Over point No. 31 A/B, 35 A/B at BAMR end and point No. 32 A/b and 36 A/B at HNPA end shall be kept at 'NORMAL' position.	1) Open BM-434 & BM- 433 at BAMR/SSP 3) Open BM-436 & BM-438 at SRGP/SP	1) Close BM-434 & BM-433 at BAMR/SSP 2) Close BM-436 & BM-438 at SRGP/SP

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Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
3	Up Sub-Sector between SRGP/SP to HNPA/SSP on Up line between SRGP to HNPA section. (E/Sections 44103,44101 & X-537 of HNPA)	1) No Electric Loco/ Train movement is allowed between SRGP - HNPA section on Up line. 2) Line clear shall not be obtained from HNPA on UP line for UP Electric Trains/Locos. 3) Concerned Dispatch signals shall be kept at 'ON'	Nil	1) Open BM-441 at HNPA/SSP. 2) Open BM-440 at HNPA/SSP. 3) Open BM-439 and BM-437 at SRGP/SP.	1) Open BM-441 at HNPA/SSP. 2) Open BM-440 at HNPA/SSP. 3) Open BM-439 and BM-437 at SRGP/SP.
4	Down Sub-Sector between SRGP/SP to HNPA/SSP on Down line between SRGP to HNPA section. (E/Sections 44204,44202,X-538 & X-540 of HNPA)	1) No Electric Loco/ Train movement is allowed between SRGP - HNPA section on Down line. 2) Line clear shall not be granted to HNPA on Down line for Down Electric Trains/Locos. 3) Concerned Reception signals shall be kept at 'ON'	Nil	1) Open BM-442 at HNPA/SSP. 2) Open BM-440 at HNPA/SSP. 3) Open BM-438 at SRGP/SP.	1) Close BM-442 at HNPA/SSP. 2) Close BM-440 at HNPA/SSP. 3) Close BM-438 at SRGP/SP

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Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
C.	**Elementary Sections:**				
1	E/Section 43501 on UP Line between BAMR/SSP to SM/433 at Loc. No. 95/17 of SRGP yard	1))No Electric Loco/ Train movement is allowed between BAMR- SRGP UP line. 2) Line clear shall not be granted to BAMR for UP Electric Trains/Locos. 3) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON'.	Nil	1) Open BM-433 at BAMR/SSP. 2) Open SM/433 at Loc. No.95/17 of SRGP Yard.	1) Open BM-433 of SRGP/SP. 2) Close SM/433 at Loc. No.95/17 of SRGP Yard.
2	E/Section 43503 on UP yard between SM/433 at loc. No. 95/17 to SM/435 at loc. No. 96/29 at SRGP yard. **(E/section X-535 on Line No.1 also gets blocked)**	1) Ensure that no electric loco with its raised panto condition on Line No.1 & 2 in the yard. 2) No movement is allowed between BAMR - SRGP sections. 3) Line clear shall not be granted to BAMR for UP Electric Trains/Locos. 4) Admission/ Dispatch of Electric Trains/Locos on Line No 1& 2 is prohibited. 5) No electric shunting is permitted in towards SBP end and on Up line towards TLHR end of the yard. 6) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON'.	1) Cross Over Point No.31A&B, 36A&B and 35A&B shall be kept in Normal position.	1) Open SM/433 at loc. No. 95/17 of SRGP yard. 2) Open SM/435 at loc. No. 96/29 of SRGP yard.	1) Close BM-433 at SRGP/SP. 2) Close SM/435 at loc. No. 96/29 of SRGP yard.

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Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
3	E/Section 43505 on UP line between SM/435 at Loc. No. 96/29 at SRGP yard to SRGP/SP.	1) No Electric Loco/ Train movement is allowed on Up line between SRGP - HNPA section. 2) Line clear shall not be obtained from HNPA for UP Electric Trains/Locos. 3) No electric shunting is permitted on UP line towards HNPA end of the yard. 4) Concerned Dispatch & Shunt signals shall be kept at 'ON'. 5) DN Electric Loco/ Train can be admitted in L-1.	1) Cross Over Point No.32A&B shall be kept in Normal position.	1) Open SM/435 at loc. No. 96/29 of SRGP yard. 2) Open BM-436 and BM-437 at SRGP/SP	1) Close SM/435 at loc. No. 96/29 of SRGP yard. 2) Close BM-436 and BM-437 at SRGP/SP
4	E/Section 44103 on UP line between SM/437 at loc. No. 109/25 at HNPA yard to SRGP/SP.	1) No Electric Loco/ Train movement is allowed on Up line between SRGP - HNPA section. 2) Line clear shall not be obtained from HNPA for Up Electric Locos/ Trains. 3) Concerned Dispatch & Shunt signals shall be kept at 'ON'.	Nil	1) Open SM/437 at loc. No. 109/25 at HNPA yard. 2) Open BM-439 at SRGP/SP.	1) Close SM/437 at loc. No. 109/25 at HNPA yard. 2) Close BM-439 at SRGP/SP.
5	E/Section 43404 on DN line between SM/434 at loc. No. 95/24 at SRGP yard to SM-436 at loc No.96/30 of SRGP yard. **(E/section X-536 on Line No.4 also gets blocked)**	1) Ensure that no electric loco with its raised panto condition is on Line No.3 & 4 in the yard. 2) No Electric Loco/ Train movement is allowed L-3 & L-4. 3) Line clear shall not be granted to HNPA for Down Electric Trains/Locos. 4) Concerned Reception & Dispatch signals shall be kept at 'ON' for L-3 & L-4 5) DN Electric Loco/ Train can be dispatched toward BAMR from L-1.	1) Cross Over Point No.32A/B,35A/B and 36A/B shall be kept in 'NORMAL' position.	1) Ensure BM-438 is in open position at SRGP/SP. 1) Open SM-434 at Loc No.95/24 of SRGP yard. 2) Open SM 436 at Loc No. 96/30 of SRGP yard.	1) Close SM-434 at loc No.95/24 of SRGP yard. 2) Close SM-436 at Loc. No. 96/30 of SRGP yard.

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Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
6	E/Section 44204 on section between SM/438 at Loc. 109/30 in HNPA yard to SRGP/SP.	1) No Electric Loco/ Train movement is allowed on DN line between SRGP - HNPA section. 2) Line clear shall not be granted to Handapa for down Electric Trains/Locos. 3) Concerned Reception, signals shall be kept at 'ON'.	Nil	1) Open SM-438 at loc No.109/30 of HNPA yard. 2) Open BM-439 at SRGP/SP.	1) Close SM-438 at loc No.109/30 of HNPA yard. 2) Close BM-439 at SRGP/SP. .
7	E/Section 43406 on section between SM/436 at loc. No. 96/30 at SRGP yard to SRGP/SP.	1) No Electric Loco/ Train movement is allowed between HNPA - SRGP section on down line. 2) Line clear shall not be granted to HNPA for Down Electric Trains/Locos. 3) Concerned Reception shall be kept at 'ON'. 4) UP Electric Loco/Train can be dispatched toward HNPA.	Nil	1) Open BM-436 & BM-438 at SRGP/SP 2) Open SM-436 at Loc. 96/30 in SRGP yard.	1) Close BM-436 & BM-438 at SRGP/SP 2) Close SM-436 at Loc. 96/30 in SRGP yard.

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8	E/Section 43402 on DN line between SRGP - BAMR section from SM-434 at Loc. 95/24 in SRGP yard to BAMR/SSP.	1) No Electric Loco/ Train movement is allowed on DN line between SRGP - BAMR section. 2) Line clear shall not be obtained from BAMR for down Electric Locos/ Trains. 3) UP Electric Loco/ Train can be admitted in L-4. 4) Concerned Dispatch signals shall be kept at 'ON'.	Cross Over point No. 31 A/B shall be kept at 'NORMAL' position.	1) Open BM-433 & BM-434 at BAMR/. 2) Open SM-434 at Loc. 95/24 in SRGP yard.	1) Close BM-433 & BM-434 at BAMR/SP. 2) Close SM-434 at Loc. 95/24 in SRGP yard.
Sl./ No.	**Description of electrified section under P/B**	**Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.**	**Transverse protection**	**Sequence of Switching Operation for granting power block.**	**Sequence of Switching Operation for restoring OHE power.**
9.	E/Section X-535 on line No.1 at SRGP yard.	1) Ensure that no electric loco with its raised panto condition on L-1 in the yard. 2) Admission/Dispatch of Electric Trains/Locos on/from L-1 is **PROHOBITED**'. 3) Electric shunting is not permitted from L-1 to L-2 and vice versa at the yard. 4) Concerned Reception, Despatch & Shunt signals shall be kept at 'ON' for L-1.	1) Cross Over Point No.33 A/B and 38 A/B shall be kept in 'NORMAL' position.	1) Open SS/535 at loc. No. SRGP/1003 at SRGP yard.	1) Close SS/535 at loc. No. SRGP/1003 at SRGP yard.

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10	E/Section X-536 on L-.4 at SRGP yard.	1) Ensure that no electric loco with its raised panto condition on Line No.4 in the yard. 2) Admission/Dispatch of Electric Trains/Locos on/from Line No.4 is **PROHIBITED**. 3) Electric shunting is not permitted from L-4 to L-3 and vice versa at the yard. 4) Concerned Reception, Dispatch & Shunt signals shall be kept at 'ON' for L-4	1)Cross Over Point No.37A/B and 34A/B shall be kept in "NORMAL' position.	1)Open SS/536 at loc. No. 95/30A at SRGP yard.	1) Close SS/536 at loc. No. 95/30A at SRGP yard.

NOTE:

i) For any unusual movement of Electric Locos, the Station Master on duty must refer to the working rule diagram from 25kV 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. TRD/SWR/SRGP/2019/ Rev-01

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