East Coast Railway

Waltair Division



Station Working Rules

of

BOBBILI (VBL)

East Coast Railway / Waltair Division

Station Working Rules

of

BOBBILI (VBL)

Index of Correction Slips

Sl No	Correction Slip No	Date of issue	No. of Pages Replaced	Total No of Pages

East Coast Railway / Waltair Division

Station Working Rules of

BOBBILI (VBL)

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East Coast Railway **WAT Division**

Station Working Rules of Bobbili (VBL)

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EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF BOBBILI [BROAD GAUGE]

Date of Issue: -
Date brought in force:

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

1. STATION WORKING RULE DIAGRAM:

(i)The Station Working Rule diagram no: SI/WRD/23020 ALT 'R'
(ii) CSTE/East Coast Railway Signal Interlocking Plan No. SI/23020ALT 'R'
(iii)Date up to which is corrected:

2. DESCRIPTION OF STATION

2.1 GENERAL : LOCATION:

a	Name of the station	:	**BOBBILI**
b	Class of station	:	'B' class
c	Section	:	RAIPUR-VIZIANAGARAM
d	Double line/Single line	:	Double line
e	Electrified/Non Electrified	:	**ELECTRIFIED**
f	Railway	:	East Coast Railway
g	Route	:	'D'
h	Situated at Km	:	412.958 from Raipur
i	Reckoned from	:	Raipur
j	Operations	:	Centrally operated Domino type panel.
k	Standard of Inter locking	:	Std II (R)

2.2. BLOCK STATIONS, IBH. IBS ON EITHER SIDE AND THEIR DISTANCE AND OUT LYING SIDINGS:

S. No.	**Adjecent Block station**	Distance	Direction
1	DONKINAVALASA (DNV)	11.958 km	Towards VZM end
2	SITANAGARAM (SNM)	11.273 km	Towards Raipur end
	SALURU (SALR)	16.9 km	A branch line working with one train only system
3	Provision of IBS	IBH signal provided between VBL-DNV on both UP & DN lines Up IB No 27 at km 418/9-11. Controlled by SM / VBL Dn IB signal No 16 at KM 418/4-2 controlled by SM DNV, similarly IBH signal provided between VBL-SNM on both Up & Dn lines, Up IB signal No 15 at km 407.911,	

		controlled by SM/SNM Dn IB signal No 26 at km 408.56 controlled by SM/VBL. Details of working of IBH given in Appendix- "F"
4	Automatic Signal	Nil
5	DK station/Out laying Siding	SALURU (SLAR). Details of working given in the Appendex-F
6	Passenger Halt	Nil

2.3 BLOCK SECTION LIMITS ON EITHER SIDE OF THE STATION ON DIFFERENT DIRECTIONS:

Between Stations	Block Section	The point at which Block Section commences	The point at which Block Section Ends
VBL-DNV Up Line	**VBL - IBSS**	Up Adv Starter Signal No. 21 of VBL	400 Meters beyond Up IBSS No 27of VBL
	IBSS - DNV	400 Meters beyond Up IBSS No **27**of VBL	Outer most facing Point No 21-A of DNV
DNV–VBL Down Line	**DNV - IBSS**	Down Adv Starter Signal No. 12 of DNV	400 Meters beyond Down IBSS No 16 of DNV
	IBSS - VBL	400 Meters beyond Down IBSS No 16 of DNV	Outer most facing Point No 30-A of VBL
SNM-VBL Up Line	**SNM-IBSS**	From UP advanced starter signal No. 13 of SNM	400 Meters beyond Up IBSS No 15 of SNM
	IBSS- VBL	400 Meters beyond Up IBSS No 15 of SNM	Outer most facing point No 31 A
VBL-SNM Down Line	**VBL-IBSS**	From Down advanced starter signal no. 24 of VBL	400 Meters beyond Dn IBSS signal No 26 of VBL
	IBSS-SNM	400 Meters beyond Dn IBSS signal No 26 of VBL	Outer most facing point No 22 A

2.4 **GRADIENTS**:-

(a) From the centre of the station building towards SALURU

chainage		Distance	Grade	Falling/ Raising
from	**to**			
000.00	98.000	98 M	Level	--
98.000	444.440	46.440 M	1 in 1500	Falling
444.440	741.200	296.760 M	1 in 2412	Raising
741.200	Into section	--	1 in 2747	Raising

(b) From the centre of the station building towards DNV (Up &Dn Line)

Chinage		Distence	Grade	Falling/Raising
From	To			
000.000 M	70.000 M	70.000 M	1 in 700	Raising
70.000 M	661.600 M	561.600 M	1 in 400	Falling
661.600 M	850.000 M	188.400 M	1 in 158.8	Falling
850.000 M	1297.970 M	447.970 M	1 in 245	Falling
1297.970 M	1450.000 M	153.000 M	Level	-
1450.000 M	1800.000 M	350.000 M	1 in 435	Falling

1800.000 M	3625.000 M	1825.000M	1 in 150	Raising
3625.00 M	Into section	286.000 M	1 in 1685	Falling

(c) **from the centre of the station building towards Sitanagaram up & dn line:**

CHAINAGE		**DISTANCE**	**GRADE**	**FALLING/ RAISING**
FROM	**TO**			
000.000	108.780	108.780 M	1 in 700	Falling
108.780	941.264	833.260 M	1 in 400	Falling
941.264	945.260	4.000 M	1 in 400	Falling
945.260	981.260	36.000 M	1 in 150	Falling
981.260	1492.602	511.342 M	1 in 160	Falling
1492.602	1708.780	216.178 M	1 in 500	Falling
1708.780	2307.780	699.000 M	1 in 355	Falling
2307.780	2459.780	152.000 M	1 in 362	Raising
2459.780	4510.000	2050.220 M	1 in 150	Raising
4510.00	Into Section	-	1 in 315	Raising

(d) IB Zone for Down Line VBL-DNV:

CHAINAGE		Grade	Raising/Falling
From KM	**To KM**		
From section	422.445M	1 in 150	Falling
422.445	420.958 M	**LEVEL**	--
420.958	420.550 M	1 in 150	Raising
420.550	419.833 M	1 in 320	Raising
419.833	418.746 M	1 in 2500	Falling
418.746	417.705 M	**LEVEL**	--
417.705	416.583 M	1 in 150	Falling
416.583	Into Section	1 in 1685	Falling

e) IB Zone for Up Line VBL-DNV:

CHAINAGE		Grade	Raising/ Falling
From KM	**To KM**		
From Section	416.544 M	1 in 150	falling
416.544	417.450 M	**LEVEL**	--
417.450	418.761 M	1 in 150	Falling
418.761	420.600 M	**LEVEL**	--
420.600	421.485 M	1 in 150	Raising
421.485	422.009 M	1 in 125	Raising
422.009	Into Section	1 in 150	Raising

f) IB Zone for Down Line VBL-SNM:

CHAINAGE		**GRADE**	**Falling/ Raising**
From KM	**To KM**		
From section	410.484	1 in 150	Falling
410.484	408.434	1 in 362	Falling

408.434	407.883	1 in 150	Falling
407.883	407.685	1 in 315	Falling
407.685	407.535	1 in 490	Raising
407.535	407.283	1 in 1000	Raising
407.283	406.735	**LEVEL**	--
406.735	406.385	1 in 150	Falling
406.385	406.149	1 in 435	Falling
406.149	405.185	**LEVEL**	--
405.185	Into Section	1 in 320	falling

g) IB Zone for Up Line VBL-SNM:

CHAINAGE		**GRADE**	**Falling/ Raising**
From KM	**To KM**		
From section	410.492	**LEVEL**	--
410.492	407.621	1 in 150	Falling
407.621	407.170	**LEVEL**	--
407.170	406.430	1 in 150	Falling
406.430	406.083	**LEVEL**	--
406.083	405.179	1 in 300	Falling
405.179	Into Section	1 in 150	Raising

2.5(A) **LAY OUT:**

(a) **Running lines**:

a)	Number of Running Lines	:	Four
b)	Platforms	:	One High level passenger platform on Line No 1 measuring 560.00 x 8.53M in length
			One High level passenger platform on Line No 4 measuring 560.00 x 6.1M in length
			One low level passenger platform of 251.46 x 5.337 M is provided on Salur Bay line.
c)	Goods Siding/Siding	:	An Engg. Siding/Traffic loop takes off from line no.4 (Common loop) and extended into shunting neck at Raipur end of the yard and a goods platform of length 146.85 M x 13.4 M is provided at the SNM end of the yard.

(b) **NON RUNNING LINES**:

B) SIDING:

1) An engineering siding/ Traffic loop takes off from Line No.4 (Common loop) as line no.5 and is isolated by Derailing Switch towards DNV end & shunting Neck is provided towards DNV end at both ends. The entrance points and corresponding derailing switches are coupled and operated by Arc levers provided at site at either end of the sides. Hand plunger locks fitted at the entrance points at West end and East end are unlocked by the keys released from RKTs controlled through button no. 39 and 42 respectively from panel. Once the keys are released from the RKT locks Up and DN Home signals and starter signals at the respective end of the line no.4 in their normal position.

2) One Tower car siding taking off from Rt.4 in up direction towards DNV end isolated by DS No.48 and controlled by shunt signals no.9 and 20.

3) A track machine siding takes off on VBL-SALR line towards VBL end of length 300M and is isolated by a derailing switch. The point is operated by the key released from RKT IN SM's OFFICE. A control No. 46 is provided when the key is ÏN" RKT, a green light is shown and when the key is OUT a red light glows. Whenever the SM intends to operate the track machine siding he shall press the control No. 46 to extract the key from RKT. The key will be taken by the TPM to the siding and insert in the HPl, unlock and operate the point. After the shunting operation is over, the siding point is made normal and the key is taken back to SMs office. As the key is inserted is in the key the control is made normal.

4 **write about bay line**

2.5.1 **RUNNING LINES,DIRECTION OF MOVEMENT & HOLDING CAPACITY**

(a) DIRECTION OF TRAFFIC:-

The trains coming from **Sitanagaram** (SNM) end are Up Trains and
The trains coming from **Donkinavalasa** (DNV) end are Down Trains.

(b) HOLDING CAPACITIES:

Sl	Line No	Description	CSL in Meters		Electrified
01	Line No 1	Common Loop	**756Mtrs**	From Starter to Starter	Electrified
02	Line No 2	DN Main line	**786**Mtrs	From Starter to SB	Electrified
03	Line No 3	Up Main line	**768**Mtrs	From Starter to SB	Electrified
04	Line No 4	Common Loop	**721** Mtrs	From Starter to Starter	Electrified

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2.5.2 NON RUNNING LINES AND THEIR CAPACITY:

Non Running Line	CSL in Meters
Engg.Sidng/ Traffic Loop	**598** Meters
Bay Line	**251.59** Meters
Tower car siding	**115** Meters
Track machine siding	**300** Meters
Shunting Neck	**196** Meters (CAL)

2.5.3 (a) **ANY SPECIAL FEATURES IN THE LAYOUT:**

A branch line of 16.9 KM length to Saluru terminal takes off from VBL.

2.6 **LEVEL CROSSINGS**:

The following are the details of **Five manned level crossing gates** connected with magneto telephone communication with this station in either end of the **RV Line**.

Sl. No	LC Gate No. Description	Location KM	Class Dept	Whether Interlocked	Normal Position	Between
1	**RV 300 Ramavaram**	408/0-1	C- Class Engg.	Non-interlocked	**Open to Road**	SNM- VBL

2	**RV 301 Gummadivaram**	409/2-3,	C- Class Engg.	Non-interlocked	**Close to Road**	SNM- VBL
3	**RV 303 DG Valasa**	410/29-31 410/30-32	Spl- Class Engg.	**Interlocked**	**Open to Road**	SNM- VBL
4	**RV 307 Sugar Factory**	414/29-31 414/30-32	C- Class Engg.	Non-interlocked	**Open to Road**	VBL-DNV
5	**RV 308 GT Valasa**	417/1-3 417/2-4	C- Class Engg.	Non-interlocked	**Open to Road**	VBL-DNV

The details of L.C. Gates are given in the Appendix 'A' of this SWR.

The following are the details of **Eight Manned Level Crossing Gates** connected with magneto telephone communication with this station in **BOBBILI SALUR Branch Line**.

Sl.	LC Gate No. Description	Location KM	Class Dept	Whether Interlocked	Normal Position	Between
1	VS1 Rajamahal	KM 413/13	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
2	VS3 New Colony	KM 415/8	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
3	VS6 Paddy fields	KM 417/6	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
4	VS8 N. Valasa	KM 418/12	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
5	VS13 Gollapeta	KM 422/12	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
6	VS16 Sivrampurm	KM 425/4	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
7	VS17 Parnavalasa	KM 426/2	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR
8	VS21 Salur	KM 428/11	C- Class Engg.	Non-interlocked	Close to Road	VBL- SALR

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

System of working in force	:	Absolute block system between VBL-SNM, VBL-DNV and "One Train System" between VBL-SALR
Double Line / Single Line	:	Double Line.
Block instruments	:	SGE type Double Line Lock block instruments.
Co-operative/non-cooperative	:	Non co-operative.
Provision of Block Telephone	:	Attached with block instruments.
Custody of keys of Block Instruments.	:	SM is responsible for operation of the Block instruments. The Station Master on duty is the only authorized person to operate the instruments and their keys shall be in the personal custody vide GR 5.08 and 14.12(a). Block instrument is provided with double

		locking. One key will be with SM and other key will be with S&T maintainer.

4.0 **SYSTEM OF SIGNALLING AND INTERLOCKING::**

1.	Standard of Interlocking	Standard II (R) "B" class
2.	Type of Signaling.	Multiple aspect color light signals.(MACLS)
3.	Mode of the operating the signals.	Central Panel.
4.	Provision of calling-on Signals.	Calling-on signals are provided below Home signal (i.e. in both UP & DN lines) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b). To take off Calling-on signal the train must come to stop at the foot of the home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit, a RED light strip will appear on the Panel/VDU. The particular route on which the train is intended to be received shall be set by selecting and setting desired route through Panel by SS/SM on duty. After a lapse of 60 seconds, the Calling-on signal clears i.e. white light glows at the concerned Calling-on signal on the Panel. **NOTE:** SS/SM on duty to ensure that no through signals are given while receiving a train on Calling-on. Before taking off Calling –on signal during failure of track section, the route and the clearance of the track over which train would pass including fouling track showing Red shall also be verified by physically SM on duty
5.	Provision of shunt signals	Independent Shunt signals SH-6, 11, 20 is provided for track machine siding, Engineering siding & tower wagon siding, similarly SH-4A/B/C/D are provided at DNV end and SH-3A/B/C/D is provided at SNM end respectively. Other dependent SH-9 provided below the starter signal No 9 for the moments of Engg siding at DNV end.
6.	Emergency cross over	Nil.
7.	Track circuits	Track circuits are provided in the yard as L1T1,L1T2,L1T3,DMT1,DMT2,DMT3,UMT1,UMT2,UMT3,L4T1,L4T2,L4T3, Point zones are also provided with track circuits as 30AT, 30BT, 34AT. 34BT, 36AT, 36BT, 40AT, 40BT.38AT, 38BT, 44T, 35BT, 35AT, 37AT, 37BT, 39T, 33AT, 33BT, 31 AT, 31 BT and 11T.1AT and 2AT are the approach track circuits for UP and DN calling on signals respectively. UP Block release track circuits as 1T, 1T1 - DN Block release track circuits as 2T, 2T1 UP Advance starter approach and replacement track circuits as 21AT & 21T respectively. DN Advance starter approach and replacement track circuits as 24AT &24T respectively. Normally the panel is blank except point and Block section indications for the above track circuits/ Axle counters are available on Panel/VDU at SM's office. When a signal is

		cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.
8.	Axle counters	Entire Block Section between VBL-SNM is provided with High Availability Single Section Digital Axle Counters (HASSDACs). **For section: VBL-SNM :-** A pair of digital axle counter is provided between VBL-SNM on DN line, one just beyond DN advanced starter No.24 of VBL and another one on 24AXT for proving DN IB section between VBL-SNM and one just beyond DN IB Home signal No. 26 of VBL and another near DN BSLB of SNM for proving DN LVV for section VBL-SNM Another pair of digital axle counter is provided between VBL- DNV on UP line, one just beyond Up advanced starter No.13 of SNM and another one on 13AXT for proving UP IB section between VBL-SNM and one just beyond UP IB Home signal No. 13 of SNM and another near first facing point of VBL for proving UP LVV for section VBL-SNM. **For section: DNV-VBL: -** A pair of digital axle counter is provided between DNV-VBL on DN line, one just beyond DN advanced starter No.12 of DNV and another one on 12AXT for proving DN IB section between DNV-VBL and one just beyond DN IB Home signal No. 16 of DNV and another near first facing point of DNV for proving DN LVV for section DNV-VBL. Another pair of digital axle counter is provided between VBL- DNV on UP line, one just beyond Up advanced starter No.21 of VBL. and another one on 21AXT for proving UP IB section between VBL-DNV and one just beyond UP IB Home signal No. 27 of VBL. and another near first facing point of DNV for proving UP LVV for section VBL-DNV The position of the block section whether 'clear' or 'occupied' is reflected on the axle counter reset box provided in the Station Master's office which shows 'GREEN' when the block section is clear and 'RED' when block section is occupied. Whenever a train enters into the block section "Block section clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears. After complete arrival of the train the 'RED' indication disappears and 'GREEN' indication appears. If after complete arrival of the train 'RED' indication does not change to 'GREEN' it should be assumed as Block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal/IB Home Signal cannot be taken off for next train

		and the concerned instrument shall remain locked in last operated position. A resetting arrangement is provided in the SM office to reset the system to normal position in case of failure of axle counter. The resetting is to be initiated by the SM at the receiving station only after physical verification of complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the block section. If a train passes through the station without confirming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched. In case of failure of Axle counter the SM on duty shall obtain complete arrival certificate from the TMR of the train in the complete arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide GR 4.17 (1) that the train had arrived completely. In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number. Train passing on adjacent line shall be stopped and TMR & Loco pilot shall be issued with caution order to proceed cautiously and stop sort of any obstruction as per SR.4.17.03. On occasions when motor trolley follows a train the points shall not be operated until the following motor trolley is admitted on the same line. In event of motor trolley is delayed in the section the SM on duty shall take action in terms of SR.15.25.03 (b) (vi). <u>NOTE:</u>
		Before taking off reception and dispatch signals for UP or DN directions the SM on duty shall ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication.
9	Crank Handle	When any point fails to operate normally by the Route Setting operation through Panel/VDU it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa. The procedure for use

<table>
<tr><td></td><td></td><td>of crank handle for motor operated points shall be followed as per operating manual chapter-2, para-2.18 & 2.19 and Para No. 9 of Appendix-B.

<table><tr><th>CRANK HANDEL</th><th>CONTROL POINTS</th></tr><tr><td>CH-1</td><td>35,36,40.</td></tr><tr><td>CH-2</td><td>37,38,48.</td></tr><tr><td>CH-3</td><td>31,33.</td></tr><tr><td>CH-4</td><td>30,34.</td></tr></table></td></tr>
<tr><td>10.</td><td>Emergency Point operation</td><td>Emergency point operation facility is provided to operate the point from the Panel in case of failure of point controlling track circuit. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose. (Detailed procedure for operation of emergency point operation is laid down in Para No.3.0 of Appendix-B)</td></tr>
<tr><td>11</td><td>Block Instruments</td><td>a) SGE type Double line Lock Block Instruments are provided for block section VBL-DNV and VBL-SNM.
b) Telephone attached to Block instruments and Block Panels connecting the adjoining block stations concerned.
c) ‘ON’ aspect of UP/DN Home & UP/DN Adv.str signals towards DNV end and IB Stop Signals towards SNM end are proved with respective block instruments.
d) Custody of block instrument keys: One key will be with SM on duty and the other with S&T maintainer.</td></tr>
<tr><td>12</td><td>Emergency Route Release operation</td><td>This panel interlocking is based on the principle of ‘DEAD APPROACH LOCKING’. As such, when a route is set and signal is taken off on the route, the route gets locked. Normally the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken off vide SR 3.36.02 (a), the concerned signal must be put back to danger by pressing the Signal cancellation button and the concerned signal button. Then the emergency route release button (white with red dot) positioned in the top of panel is to be pressed by breaking the seal and subsequently the concerned signal button pertaining to the route is to be pressed. A white light will flash (Up or Down) indicating that the timer is working. After 60 seconds, the white light along with the white strip of light will disappear suggesting the route has been released. In case the route illumination (a white strip of lights) does not disappear, it suggests that the route is not released/cancelled. In such case the emergency cancellation of route has to be resorted to. The concerned S&T staff should be advised immediately to get the emergency route release button resealed after rectification of fault if any. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number</td></tr>
</table>

		should be recorded in the TSR, station diary and the register meant for this purpose.
13.	Emergency crank handle release.	Emergency crank handle release operation facility is provided to operate the point by using the crank handle in case of Route locked condition. Each operation of emergency crank handle operation shall be recorded in the TSR, station diary and in the register meant for this purpose.
14.	Emergency Gate Release:	If the LC Gate has locked by any of the signal route, for releasing the gate by the Emergency operation the SM 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. This will take 120sec of time to release the gate. After the time lapsed, the Key can be extracted from the RKT at Gate Lodge and concerned counter provided on the panel board will change to next higher digit number, which should be recorded in the TSR, SM Diary and register provided for this purpose.
15.	Operation of Control Panel/VDU	two position switch is provided on the control panel through which SM on duty can select the mode of operation (i.e. from Panel or VDU). The position of all points, signals and running lines are available in the Panel/VDU. Remainder Block collars are provided for use on push button which shall be placed on the point button and /or route button to prevent operation of the button in case of concerned line is blocked. The VDU is provided with SM's key user name and password which shall always remain with the personal memory of the Station Master on duty.

4.2 <u>CUSTODY OF RELAY ROOM KEY/RELAY HUBS/GOOMTIES/GATE GOOMTIES/CABIN HOUSING ETC. AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T MAINTENANCE STAFF:</u>

Custody of Relay room key/relay hubs/goomties/Gate goomties/cabin housing and procedure for its handover and taking over between SM and S&T staff has to follow the procedure as per JPO issued by COM and CSTE vide No. JPO/02/2012 dated 29.08.2012 and JPO issued by AM/Traffic & AM/Signal vide No. 2021/Sig/21/Safety Performance dated 10.06.2023. Relay room/ relay hubs/goomties/Gate goomties/cabin housing are provided with two independent locks. The key of one lock shall be in the personnel custody of Station Master on duty and the key of other lock shall be in the custody of S&T Maintainer. In the event of necessity such as for attending failure, or regular maintenance, on being requisitioned by S&T maintainer, SM shall hand over the key to the Maintainer. On completion of the work, maintainer shall lock the relay room/ relay hubs/goomties/Gate goomties/cabin housing and shall return the key to SM. The particulars of such transactions shall be entered by the SM in the relay room key register vide OM 2015 Para No.13.16 and in case of relay hubs/goomties/Gate goomties/cabin housing in the register meant for this purpose.

4.3 (A) <u>POWER SUPPLY</u>:

Normal: UP AT & DN AT.
Stand by: - Andhra Pradesh State Electricity Board.

i) CLS Auto Change Over panel with Auto change over switch is provided in the SM's room with the three power supplies 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 rotary switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, the on duty SM must ascertain the power is available on the other AT e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
iii) 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.
iv) In case of failure of one of the AT supply without any power block, on duty SM has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies, the local supplies shall be utilized by operating the switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEEE/GEN and CTFO/GEN for prompt rectification.
v) For IPS system that provides power supply /back up to the signaling system of EI. Selection output is taken from CLS Auto change over Panel.
vi) There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

(B) <u>REMOTE MONITORING ASM BOX:</u>

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

a) 50% DOD (Depth of Discharge) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged with audio cut off.
b) 60% DOD (Depth of Discharge), which warns for emergency. The Alarm for this condition is same as for condition 1.
c) 70% DOD (Depth of Discharge), which signals system, shut down. In this condition Signal feed cut off and all DC-DC converters continue working. Audio alarm will continue till power supply restored.
d) Any of the Module fails, which calls for "Call S&T".
e) Whenever there is a failure of 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.

C). <u>WORKING OF AUTOMATIC FIRE ALARM DETECTION SYSTEM:</u>

I. In case of any alarm in any particular area due to fire or dust-Zone number on the LCD display can be seen.
II. Note down the zone No. and panel display name, by referring display chart.
III. Once you find the zone number rush to that particular area where the detector gives alarm.
IV. The moment the smoke detector detects any smoke particles, the RED LED will blink along with the alarm.

V. 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.
VI. 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.
VII. To reset the panel press "OFF" button and enter the code 1111 (1 digit four times).
VIII. The control panel will get reset and siren muted.
IX. If the power fails on this will enable us to see the red indicator on the panel.
X. 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.

(D).AUTO DIALLING:

If you hear alarm from the panel, this system will dial the telephone/mobile number you fed. The pre-recorded messages will be heard on the phone. If you want to make two-way communications, press "6" on your mobile. You can have this communication for 50 seconds. If you want to talk more, press again "6" before completion of 50 seconds for another 50 seconds or you can acknowledge the receipt of call by pressing "2" on SSE/Signal mobile, in case number "2" is not pressed the system will dial again the same telephone number as per the programmed dial attempt and still if acknowledgement not come from 1st number then panel will dial 2nd number till the time acknowledgement comes it will keep on dialling.

5 TELECOMMUNICATIONS :

a)	Telephone attached to Double line Block Instruments is connected to adjacent Stations on either side.
b)	Hot line Telephone is provided between adjacent stations i.e., DNV and SNM Stations
c)	The station is connected to VZM-Raipur control Circuit
d)	Telephone communication is provided between Station Master on duty to Up CH location.
e)	Telephone communication is provided between Station Master on duty to Dn CH location.
f)	This station is connected to 'C' class LC gate at Km. 408/0-1 (LC gate RV-300)
g)	The station is connected to 'C' class LC gate at Km. 409.156 (LC gate RV-301).
h)	The station is connected to 'C' class LC gate at km 410/29-31 (LC gate RV-303
i)	The station is connected to 'C' class LC gate at Km.414/16-18 (LC gate RV-307)
j)	The station is connected to 'C' class LC gate at km 415.805 (LC No. RV-308)
k)	25w VHF set is provided at the station
l)	Provision of Traction Power Control & Traction Loco Control of section VSKP-RGDA
m)	Magneto Phone provided on Up IB Signal at km UP IBS Signal No 27 between VBL – DNV at km 418.478
n)	Magneto Phone provided on Down IB Signal at km UP IBS Signal No 26 between VBL – SNM at km 408.156

5.1 FAILURE OF COMMUNICATION: -

a. In the event of partial failure of communications between the adjacent block stations SR 6.02.06 shall be observed, for working the train.
b. In the event of total failure of communications between the adjacent block stations SR.6.02.02 & 6.02.03 shall be observed, for the working of trains.
c. In the event of failure of communication between IBS 3.75 (3)

6. SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF

The movement of trains is controlled by section controller on duty whose orders shall be complied with provided they do not contravene any provisions of General Rules, Subsidiary Rules, Station Working Rules, Block working manual and any 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 Stations and shall be responsible to ensure that there is no undue delay to train operation in general.

6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:

The following is the complement of operating staff provided at the station in each shift for train passing duty.

Station Superintendent /Station Master	**1**
Traffic Point's Man	**1**
Traffic Gate Keeper	**1**

The above staff shall work as per roster issued from time to time by Divisional Railway Manager (P) and these rosters shall be conspicuously displayed in the Station Superintendent's office and in Gate lodge for traffic gate man.

6.1.2 RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF LINES AND ZONES OF RESPONSIBILITY.

The SM on duty is responsible to ascertain the clearance of the nominated line from home signal to advanced starter signal in each direction.

Sufficient Private Number books and identification number sheets in sealed covers shall always be kept in stock by SM under lock and key by maintaining register for this purpose.

6.1.3 ASSURANCE OF THE STAFF IN THE 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 the SWR thoroughly and understood the system of working in force at the station and must sign such declaration.

No Railway servant shall be entrusted with any duty involving the safety of the public unless the SS/SM (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/SM (In-Charge) is responsible to see that all the staff are well conversant with the Station Working Rules of the Station 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 Class-IV staff, their signature/thumb impression must be obtained after explaining full about their duties and responsibility.

The SS/SM (In-Charge) is personally responsible for maintaining the Assurance Register and for obtaining declaration from the staff working under him. The Assurance Register must be maintained in two parts one for Group-'C' staff and other for Group-'D' staff & duplicate copy of the Assurance Register must be maintained and kept in the personal custody by the SS/SM (In-Charge).

Fresh assurance shall be obtained in the Assurance Register when:

1. He joins at the station as a new member.
2. There is any change in the Station Working Rules.
3. He resumes duty at the station after an absence of 15 consecutive days or more.

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

a) The trains are worked under Absolute block system of working with Double line between DNV-KMX and DNV-VBL and MACLS signalling vide GR 8.03.

b) Adequate distances for reception of trains at VBL.

LINE NO.	Dn TRANS		Up TRAINS	
	FROM	TO	FROM	TO
LINE NO. 1 (Common loop)	Starter No. 12	The end of Sand hump or Advanced starter No 24	Sarter No 13	SALR Line or Up advance starter No 21
LINE NO. 2 (Dn main line)	Starter No. 22	Advanced starter No 24	---	---
LINE NO. 3 (Up main line)	---	---	Starter No. 15	Advanced starter No. 21
LINE NO.4(Up main line)	Starter No. 16	The end of Overrun Line or Dn advance starter 24	Starter No. 9	The end of Sand hump or Advanced starter No 21

6.2.1 ANY SPECIAL CONDITIONS TO BE OBSERVED WHILE RECEIVING OR DESPACTHING A TRAIN:-

Special Restrictions:-

a) Due to 1 in 150 Falling gradient near IB signal No 27 of VBL No goods train shall be allowed in the rear of coaching train, if the Block section ahead is occupied by a passenger train.

b) Due to 1 in 150 Falling gradient near IB signal No 16 of VBL No goods train shall be allowed in the rear of coaching train, if the Block section ahead is occupied by a passenger train.

Special instructions :-

A live locomotive is to be attached at the lower end, while shunting towards SNM end.

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE

When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points at either end should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line vide **SR.3.51.06**

Safety Point Alarm:-

A safety point alarm is provided on the Table of the Duty SM with different indications.

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

If all the lines of a station happen to be blocked, when line clear has been granted to a train, **then the Safety Point Alarm will not work.** Then, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chances of causalities are minimized. In case of all the lines are occupied by passenger train, 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. Block Collars to be placed on the concerned button of blocked line.

To Block/unblock a particular line, displays 'Block' 'Unblock' option on the menu. Select line block option. After selecting the line block option, that particular line will be blocked and Red color indication will be displayed on the line.

6.2.1.2 RECEPTION OF A TRAIN ON BLOCKED LINE

Trains are to be admitted on a blocked line, by taking off calling-on signal as per GR 5.09(2) (a) or if calling signal cannot be taken off, trains are to be piloted in on a written authority on Form T/509 given by SM on duty and delivered by a competent railway servant to the Loco Pilot of the train as per GR 5.09 (2)(C)(3)(4)(5) and SR 5.09.01.

6.2.1.3RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

Reception of a train on non-signaled line is required for trains coming from SALR to VBL. the details of working One train only system shall be followed in Appex- "F"

6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE.

Dispatch of a train from non-signaled line is required for trains going VBL to SALR. the details of working One train only system shall be followed in Appex- "F"

6.2.1.5 DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMONSTARTER SIGNAL

NIL.

6.2.1.6 ANY SPECIAL CONDITIONS SHOULD BE MENTIONED GIVING REFERENCE TO G & SR

A) Special Restrictions:-

1) Shunting in the face of an approaching Train is prohibited towards KMX end Loco should be in the Falling side while Shunting towards KMX end.

2) Due to 1 in 150 Falling gradient near IB signal No 27 of VBL No goods train shall be allowed in the rear of coaching train, if the Block section ahead is occupied by a passenger train.

3) Due to 1 in 150 Falling gradient near IB signal No 16 of VBL No goods train shall be allowed in the rear of coaching train, if the Block section ahead is occupied by a passenger train.

B Special instructions :

1) Due to existence of gradient steeper than 1: 400 beyond 50 M of outer most point of the station yard, while shunting towards UP Adv. Starter signal no. S-13 engine should to be attached leading and falling side of the gradient.

2) For shunting up to Up Advance starter signal No 13 an engine must be attached in leading due to falling gradient.

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:-

i) Conditions for taking off approach signals are governed by GR 3.40(1) (a), 3.40(3) (b) and relevant SRs there to.

ii) Calling-on signal may be taken off for the admission of train in the event of failure of Home signal in terms of SR 3.69.02(a) or for the admission of a train on obstructed line in terms of GR 5.09 and SRs thereto.

6.3.1 RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO "ON":

Station master should ensure that signal is put back to 'ON' after passage of the train as per GR 3.36(2) (B), and SR 4.17.01.

6.4 SIMULTANEOUS RECEPTION/DESPACTH,CROSSING AND PRECEDANCE OF TRAINS:

The following simultaneous reception and dispatch facilities are provided at this station.

1.	Reception of an Up train on line No.4 setting overlap to Overrun line/Sand Hump.	AND	Dispatch of another UP train either from line No.3 or line No.1
2.	Reception of an Up train on line No.1 setting over lap SALR end	AND	Dispatch of another Up train either from line No 4 or line No 3.
3.	Reception of a DN train on line No. 1	AND	Dispatch of another DN train from

	setting overlap to Overrun line/ sand hump.		line No.2 or Line No. 4
4.	Reception of a Dn train on line No.4 common loop setting overlap to sand hump.	AND	Dispatch of another Dn train either from line No.1 or Line 2.

6.5 COMPLETE ARRIVAL OF TRAINS:

The entire block section between VBL-DNV and VBL-SNM on both Up and Down Lines are monitored by High availability single section digital axle counter (HASSDAC) and the position of the block section whether 'Occupied' or 'Clear' is indicated on Panel at SM's office. As soon as train enters in to that block section the RED indication appears on Panel/VDU. After whole train clears the block section GREEN indication appears on the Panel.

This confirms the complete arrival of train and the SM on duty shall give 'Train out of Block Section' report on seeing the section clear indication GREEN on the Panel. If a train passes through the station without confirming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched. In case of failure of Axle counter the SM on duty shall obtain Complete Arrival Certificate from the TMR of the train in the Complete Arrival Register (T/1410) maintained at the station for stopping train.

For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide SR 4.16.05 that the train arrived complete. In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number.

6.6 DESPATCH OF TRAINS:

Dispatch of trains is governed by the provisions of GR. 3.42 and SRs 3.36 .04(b), 3.42.04; 3.42.01(a) and BWM 2.07(5)(a)(e)(f) & (g) and other relevant provisions of G & SR, BWM and SWR.

a) DESPATCH OF TRAINS FROM NON-SIGNALLED LINE:

Dispatch of trains from non-signalled line is governed by the provision of GR 5.11 and SR 5.11.01.

b) ISSUE OF CAUTION ORDERS:

Whenever in consequent of the line being under repairs or for any other reasons special precautions are necessary, a caution order detailing the kilometer and speed at which train should run with reasons for taking such precautions shall be handed over to the TMR and Loco pilot in terms of GR 4.09 and SRs thereto.

6.7 TRAINS RUNNING THROUGH:

In addition to the procedure detailed in paras ''Reception and Dispatch of trains'' rules laid down in GR 3.40, 4.17, 4.42 with relevant SRs 3.42.02 (a) (iii) and other relevant provisions of G&SR, BWM, OM shall be followed. (Refer GR 4.1, 4.11(2)).The Station Master on duty is responsible to see that a train passes complete with its last vehicle indicator. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General and Subsidiary Rule. [Ref GR 3.42, 4.17 4.42, & SR 4.42.02 (b) (i), (ii), (iii), c & (d)]

6.8 WORKING IN CASE OF FAILURE:

Track Circuits	In case of failure of track circuits, the clearance of the concerned line should be ensured physically before a train is piloted.
Axle Counters	If the axle counter fails between the block sections, resetting procedure should be adopted as per Para 6.1 of SWR (APP-B). If the axle counter indication does not appear 'GREEN & continues to show 'RED' condition after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for their rectification.
Block Instruments	SGE type Lock and block instruments are provided for DNV-KMX & DNV-VBL section. 'ON' aspect of UP/DN Home & UP/DN Adv.str, Dn IBS signals are proved in respective block instruments. Custody of block instrument keys: One key will be with SM on duty and the other with S&T maintainer.
Reception of a train on obstructed line	When a train is to be dispatched from the station yard on signals, the Station Master on Duty must ensure that the route between the starter signal and the Advance Starter is clear of any obstruction (which includes point zones track circuits) before he takes off departure signals.
Reception of a train on non-signalled line	NIL
Defective Signals	Whenever signals become defective, the procedure laid down in GR 3.68 to 3.71, 3.80 and SR 3.68.01 (c) shall be followed. 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 laid down in GR and the relevant SRs (Refer 3.57, 3.69, 3.49 (4), 3.68 to 3.77).
Defective Interlocking	When interlocking becomes defective the SS/SM on duty shall be responsible and personally supervise the setting, clamping and pad locking of all required facing and trailing points for admission or dispatch of trains and procedure laid in GR 3.68 to 3.71 and SRs there to shall be followed.
Defective/Damaged Points	When any point fails to operate normally by the route setting operation or individually through VDU it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the Route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for the

	use of crank handle.
Defective IBS signal	When IBS Signal becomes defective the SM on Duty shall suspend the respective IB Signal and shall treat as Signal block Section. Details are given in the Appendix-'F'.

6.9 PROVISIONS FOR WORKING OF MOTOR TROLLIES / MATERIAL TROLLIES:

Motor trolleys are to run in accordance with rules laid down in SRs. Material Lorries will work in accordance with SR. [Rules laid down in BWM. Refer SR 15.25.03 to 15.25.07, 5.11(2), 5.12, 5.13 of BWM]

a) 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.

b) Motor trolleys shall be worked as per GR 15.25 and SR thereto, BWM 6.11, 6.12, 6.13, 6.14(2) and circulars and orders issued from time to time.

c) Material Lorries shall be worked as per GR 15.27 and SRs thereto and in accordance with the provisions of Block Working Manual.

d) Tower Wagon/OHE cars shall be worked as per GR 17.08 and SR thereto and BWM 6.11.

7. BLOCKING OF THE LINES:

When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points in rear on double line sections and at either end in single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line.

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 and SR 5.23.01]

8.0 SHUNTING

8.1 GENERAL PRECAUTIONS.

Shunting will be carried out at the station in accordance with General Rule and relevant Subsidiary Rules and Block working Manual [Refer GR 3.46, 3.52 to 3.56, 5.13,5.14,5.16 to 5.23, 8.05,8.06, 8.14 and 8.15] with relevant SRs and OM 7.01, 7.07, 7.08, 5.1(2) (B) shall be followed.

NOTE:

For any non-signaled movement physical verification of the clearance of the crossover points shall be ensured by the TMR/SM on duty for supervising shunting operations.

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

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

8.3 PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY:

(i) Hand shunting is prohibited at both ends of the yard vide GR 5.20.
(ii) Fly shunting is prohibited at both ends of the yard vide SR 5.21.01 (c).

8.4 SHUNTING ON SINGLE LINE:

Not applicable.

8.5 SHUNTING ON DOUBLE LINE:

a)	Block back	The procedure of Block Back given in BWM 3.21 & 6.15 shall be followed
b)	Block Forward	GR 8.05 & SRs there to and BWM 3.21 & 6.15 shall be followed.
c)	During failure of Block Instrument	Shunting in the block section in advance/in rear shall not be performed unless the section is clear of all obstructions and the block section is Blocked back/Blocked forward as the case may be. SM shall fix the line block collars on respective Block Instrument.
d)	Up to IBS	GR 8.06(3) shall be followed
e)	Beyond the IBS	NIL

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

While performing shunting in the siding and stabling line it should be authorized by taking-off shunt signal. In case failure of Shunt signals shunting will be performed by issuing shunting memo in the form of T/806.

9.0 ABNORMAL CONDITION:

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

(i) During partial interruption of communication between the adjacent block stations, SR 6.02.06 shall be observed.

(ii) In the event of occupation of block section due to accident or obstruction SR 6.02.05 shall be observed.

(iii) In the event of trains delayed in the block section, GR 6.04 and relevant SRs shall be followed.

(iv) Failure/passing of Intermediate block stop signal at 'ON' position:
G&SR 3.75 and As per Para No.4 of Appendix-'F'.

(v) Failure of Axle counter block/BPAC: Procedure to be followed laid in Appendix-B.

(vi) Failure of MTRC: Not applicable.

b) i. Procedure for emergency operation of points by Crank Handle.-

The detailed Procedure for emergency operation of points by Crank Handle of motor operated points shall be followed.

Crank handle operation is interlocked with the signaling and interlocking system at this station. Key of crank handles normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals leading over the points are in the Normal position and the route is not locked for whatever reasons. Crank Handle can be released by operating common 'TRANS' push button and concerned Crank handle control push button simultaneously. When this key is taken out, no signal to the concerned point can be taken 'OFF' in the yard. This key can be electrically transmitted at both ends of the yard.

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

ii. <u>Procedure for emergency operation of points with point zone axle counter/Track circuits failure and emergency route release:</u>

Emergency point operation facility is provided to operate the point from the panel in case of failure of point controlling track circuit. A push button (Black with Red dot) for emergency point operation is provided on the top of the Panel.

If such operation is necessary, the SM on duty, after ensuring that SM's point Key is 'IN' and no vehicle is standing on the concerned point zone shall press the emergency point operation button (by breaking the seal) along with relevant point button simultaneously. Then keeping point button pressed, emergency point button to be released and the point group normal button or point group reverse button is to be pressed for operating the point to 'NORMAL or REVERSE. Every emergency point operation shall be recorded in the station diary and in the register meant for this purpose. Each such emergency operation of points is registered by next higher number in the counter provided for this purpose. SM shall ensure sealing of Emergency point operation button after completion of each such operation by S&T staff.
Rules regarding locking of points and damaged points vide GR 3.39 and GR 3.77 to be followed.

c) <u>Certification of clearance of track before Calling –On Signal operation in initiated:-</u>
Before taking off Calling –On signal during failure of track circuit/axle Counter, the route and the clearance of the track over which train would pass to be verified by SM on duty.

d) <u>Reporting of failure of points, Track circuits/axle counter and interlocking:-</u>

i)Whenever there is a failure of points, Track circuits/axle counter or any interlocking gear at station, the failure should be reported by SM on duty to the concerned Signaling Maintenance Staff on duty responsible for attending to the failure and only after receipt of the written memo from the Signaling Maintainer for rectification of the fault, SM should restore the normal working.
ii) The entries in failure register to be done with message to the section controller.

9.1 <u>TOTAL FAILURE OF COMMUNICATION:</u>

Rules and regulations for working of trains during total interruption of communication on single line section shall be followed vide SR 6.02.03 and instructions laid down in BWM.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

In the event of failure of single line working on a double line section when communication is available, the provision laid down in SR 6.02.01 shall be followed.

Last stop signal of the station shall not be taken off but an authority to pass the last stop signal at 'ON' shall be issued on T/369 (3b) noting the private number & the identification number received from the block station in advance on form T/D/602 vide SR 6.02.01.

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

(i) In the event of total failure of communications, trains shall run on the authority to proceed without line clear in terms of SR 6.02.03.

(ii) In the event of necessity to send a train to assist the crippled trains, SR 6.02.05 shall be followed.

9.4 VISIBILITY TEST OBJECT:

The signal lights of UP loop starter signal No.13 of line No.1 and DN common loop starter signal No.122 of Line No.1 are ear marked to serve as visibility test object during day and night vide GR 3.61.2(b)(iii)

10. ESSENTIAL EQUIPMENT AT THE STATION:

Details are given in Appendix-'E'

11. FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG:

In case of thick, foggy or tempestuous weather impairing visibility, whenever it is necessary to indicate to the Loco Pilot of an approaching train the locality of a signal, the SM on duty at station shall arrange for signaling in terms of General Rules 3.61 and Subsidiary Rules thereto. The assurance of the staff shall be obtained in the month of OCTOBER every year in the Fog Signal Register vide SR.3.61 as a token of their acknowledgement in fog signaling Rules.

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.

12.1 STATION DETONATOR REGISTER (OPT/124):

A Register regarding detonator is maintained at the station.

12.2 INSTRUCTIONS:

This register contains the following parts.

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

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

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

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

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

b. Transportation inspectors shall check the registers and also the stock of detonators on hand each time they visit the station and initial with date as an indication having done so.

APPENDICES:

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

APPENDIX 'A'

WORKING INSTRUCTIONS FOR LEVEL CROSSING GATES

Following General Instructions are meant for all types of Manned Level Crossing Gates. Specific Instructions for working of different types of Level Crossing Gates are attached as Annexure.

GENERAL INSTRUCTIONS:-

1. **DUTIES OF GATE MAN**:

ALERTNESS: The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

Position during Passing of train::The gateman with whistle slung around his neck from a chord shall stand before the gate Lodge duly holding the Red & Green Hand Signal Flags during day in furled condition in Right and Left Hand respectively, and during night shall hold white light facing the Track.

2. **Routine Duties of Gateman**:

a) Gateman shall ensure that red banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
b) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
c) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency he must close and lock the gates against road traffic, before leaving the gate.
d) 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.
e) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / 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.
f) Gateman shall also prepare to repeat any signal which Train manager may give to drive on walkie-talkie or in any other way.
g) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
h) Gateman 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.
i) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
j) Gateman shall ensure that he is having competency certificate in his possession while on duty.
k) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
l) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
m) Gateman shall see that the channel for the flange of the wheel is kept clear
n) Gateman shall keep the road surface well-watered and rammed in case of un-metalled roads.
o) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
p) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.

q) Gateman shall prevent tress passing by persons or cattle to the maximum extent.
r) Gateman shall note down the registration number of the vehicle which damage the Gate.
s) Locking arrangement of gate should be checked daily.
t) Gateman should be ensured that no vehicles trapped in between barriers while closing the gate.

3. **ACTION IN CASE OF UNUSUAL OCCURANCE ON TRAIN:**

In case gateman observes anything unusual with a passing train, he shall take following action.

i. He shall take prompt action to warn the loco pilot / Train manager 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 / Train manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
iii. If loco pilot / Train manager falls to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
iv. In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
v. He shall endeavour to attract the attention of the loco pilot / Train manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
vi. In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

4. **ACTION IN CASE OF OBSTRUCTION AT THE LEVEL CROSSING**:

i. He shall try to remove the obstruction, if possible
ii. Make one or Two attempts to inform the Station Master
iii. If there is no response from the Station Master, the Gate Man shall take steps to protect the Gate as follows:

On Double Line

a) Place Banner Flag / Red Light by Day / Night respectively across the Tracks in both UP & DN directions.
b) Pick up Detonators, Hand Signals and proceed for protection of line on which a train is expected to arrive first, Place one Detonator at 600 Metres from the LC Gate, 3 Detonators 10 Meters apart at 1200 Meters from the LC Gate. While returning, pick up the first Detonator kept at 600 Meters, and proceed to another direction, and place detonators in the same manner as above.
c) In case of the Gate Man observes or hears the Train approaching, he shall place the Detonators on the line at a distance as far away as he can go and make efforts to warn the approaching train Loco Pilot.

5. **ACTION IN CASE OF BOOM DASHING AT THE LEVEL CROSSING**:

i. At Night the gate Man shall lit Two hand signal lamps and Take action to exhibit Red Light and protect the lines as described in the above Rules.
ii. If the Gate is broken by the Road vehicle which is fouling the Track, or if the Lifting barriers / Leaf gates , or any other parts of the Gate foul the Track, or if there is any other obstruction at the gate, the Gate Man shall take immediate action.
iii. He shall note down the particulars of the Road Vehicle, Vehicle Number, Name of the Driver, Name of the Owner, and relay these details to the nearest Station Master / or JE/ SE/ SSE/ PWay, including about the obstruction at the Level Crossing Gate, through messenger or any other means available.

6. **ACCIDENTAL ROLLING DOWN OF TRAINS:**

a. When the gateman sees that a train is rolling down or immediately after receipt of the information about accidental rolling down of the train the GK shall:
b. First close the gate against the road traffic.
c. Then immediately inform the SM on duty.
d. He shall not open the gate till he ensured that the train has completely cleared the LC gate.

7. **ACTION IN CASE OF EMERGENCY AT THE LEVEL CROSSING:**

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

7.1. ON ELECTRIFIED SECTION :

i. On noticing that, the whole or part of the OHE or feeder or a cable facing down, the GK shall ensure that as far as possible, human beings, animals or vehicles etc. are kept in order to avoid any contact with 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 and take all necessary measures for the portion of lines as under.

The gateman shall protect the line as under:-

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

A.1. Gate Working instructions for the Engineering LC Gate Interlocked with Stop Signals:

A-1.01. GENERAL INFORMATION Date of issue**:-**

1.	Number and Class of Level Crossing Gate	**RV-303/ 'C' Class**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / SSE/PWay	**SM/VBL, SSE/P.Way/VBL**
4.	Location at KM.	**410/29-31**
5.	At Station	**VBL**
6.	In between stations	**SNM-VBL**
7.	BG / MG / NG	Broad Guage
8.	Single line / Double line / Multiple line	Double Line
9.	Normal Position	Open to Road Traffic
10.	Interlocked / Non-Interlocked	**Interlocked**
11.	Means of Interlocking	**Interlocked**
12.	Provision of Gate signal at Kms. (i) UP Line (ii)DN Line	 KM 410/29-31 KM 410/30-32
13.	Signalling arrangements	**MACL**
14.	Means of Communication – Telephone / Bell	Magneto phone with SM/VBL
15.	Width of level crossing gate	4.5 Meters
16.	Type of road (NH / SH / Others)	Others
17.	Name of Road	**Dibba Guddi Valasa**
18.	Metalled / non-metalled	Non- Metalled
19.	Approach road	Non- Metalled
20.	Width of the road	5 Meters
21.	Angle of road crossing (in case of Skew gates)	90 º
22	Road gradient (if any) (i) North / East side (ii) South / West side	 Up line LEVEL Down line LEVEL
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 Straight Straight
24.	Provision of height gauges	Provided
25.	Type of Barriers	Lifting Barriers with Positive Boom locking
26.	Length of Check rails	4.5 Meters
27.	Road surface in between L-Xing gates	Plain
28.	Length of Rumble strip / speed breakers	8 Meters
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**80504**
32.	Census next due on	**Oct 2024**
33.	Demarcation for placement of Detonators	Provided
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	Vijayanagaram / Rayagada
36.	Nearest Private Medical Assistance available.	Bobbili

37.	List of equipment available Yes / No	Yes

(Refer page No 26-28 for common Working instructions for all LC gates)

1.2 EQUIPMENT:

Sl No	Items	Quantity / Numbers
1.	LED based flashing Tri Colour Hand Signal Lamp.	3 (5 on Quadruple / Line or twin single line)
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple / Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q / Twin single line and 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	Small chain for locking arrangement	2 No.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

1	In addition to the above equipment, following records shall also be kept at the gate lodge.
2	Gate Working Instructions in Hindi / English.
3	Gate Working Instructions in local vernacular language.
4	Gateman Rule Book in local vernacular language
5	List for tools and books.
6	Duty Roster.
7	Certificate for working as gateman.
8	Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
9	Accident Register.
10	Record of last census of road traffic at level crossing gate.

11	Public Complaint Book.
12	Inspection Book.
13	S & T failure register.

1.4 COMPETENCY: Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the concerned supervisor.

8.1. MODE OF OPERATION:-

For operating of this gate the following procedure to be followed

1 Gate shall normally be kept in Open to the Road Traffic. whenever it is required to close the gate, the SM / VBL shall inform the Gate Man on duty about the direction and the description of the Train intended to Receive or Dispatch.

2 If the actual running time of the train from the either end of the section is less than 10 minutes, the SM/VBL shall convey the advice to the Gate Man

3 The gate man should ensure that, the Gate is Closed in time so that there is no detention to the Train or excessive detention to the Road Traffic.

4 After Closing the Gate, the Gate Man shall extract Key – M from the whinch, it releases the Lever 1-GF

5 Lever 1GF when reversed effects the Boom Locking and releases the Key-N

6 Key –N has to be inserted in the EKT. Then the Switch No 3GS or 4GS gets released. And the concerned Gate Stop Signal can be taken Off.

7 Dead approach locking with time delay of 60 Seconds has been provided

8 In case of any Damage to the LC Gate and the Sliding Barriers, the Gate man shall immediately arrange to Put Back the concerned Signals to ON.

9 After passing of Up or Down trains, LC shall be released automatically after sequential Occupation and Release of Track Circuits.

10 In case of LC Gate interlocking failure, and leading to Non-extraction of normal key used for operation, an Emergency Key is provided in ExT-4 (in Locked and secured Box) for opening of LC Gate.

11 Approach warning to be provided at LC Gate whinch is effective. in Up Direction Up IBS Track 15T. in Down Direction 24T Track (Down Advance Starter Track)

9. Failure of Telephonic Communication:

1 In the event of failure of telephone, if the gate is required to be opened for passage of road traffic, the gateman shall lookout in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He shall thereafter, open the gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

2 Report the fact over telephone or through the loco pilot of a passing train or through a Gang Man to the station master/cabin master of the adjacent station and the nearest Gang Mate

3 The Station Master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and Train managers of all trains entering into the section.

a) To whistle frequently.

b) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman

4 The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE Signal), JE/SE/SSE(P way) and other officials concerned for immediate rectification and other necessary action.

10. Failure of Lifting Barriers:

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

2 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

3 Gateman shall secure the gate against road traffic by means of safety chains and padlocks

4 After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the driver of the approaching train

5 Station Master on duty shall issue caution order to the driver of a departing train

6 He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the driver before dispatching a train in the block section.

7 Station Master shall advise maintenance staff responsible for maintaining the lifting barrier/leaf gates to rectify the same at the earliest

8 Normal working will be resumed only after maintenance staff repair the lifting barrier/leaf gates and issue reconnection/fit memo for the same.

11. Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for opening the gate:

1 If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master/Switchman/Cabin man on duty on telephone, under exchange of private number

2 If Emergency Key is available at the gate lodge/cabin, Gateman/Switchman Cabin man/Lever man will take it out from the sealed box by breaking the seal and open the gate for road traffic

3 The record of the date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons

4 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.

5 Station Master on duty shall issue caution order to the driver of a departing train

6 He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.

7 Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest

8 Normal working will be resumed only after S&T staff repairs the key transmitter issue reconnection/fit memo for the same

9 After rectification, the Emergency Key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

12. Failure of the Gate Key with the gate in open condition:

1 If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master/Switchman/Cabin man on duty on telephone, under exchange of private number

2 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.
3 The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals
4 Station Master on duty shall issue a caution order to the driver 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 driver before dispatching a train in the block section from his end
6 Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest
7 Normal working will be resumed only after S&T staff repairs the key transmitter and issue reconnection/fit memo for the same
8 After rectification, the Emergency Key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

13. Defective Gate Signals:

1 The gateman shall treat the gate signal as defective and must not lower them under following circumstances
2 If gate signals can be taken 'OFF' without closing the gate, or
3 The key can be extracted from the operating winch when the gate is in open condition, or
4 The key can be extracted from the leaf gates when the gate is in open condition
5 If the Gate or the Gate Signal or Warner/Distant Signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position even by cutting signals wires, if necessary
6 The gateman will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals
7 Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch as prescribed for non-interlocked gates should be adopted
8 He shall show green hand signal flag by day and green light by night to the passing train after closing the gate
9 Station Master on duty will issue a caution order to the driver of a departing train
10 He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end
11 Station Master shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest
12 Normal working will be resumed only after S&T rectify the defective gate signal and issue reconnection / fit memo for the same.

14. Obstruction at the Gate:

1 If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers/ leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position
2 He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose
3 Immediately after this, the gateman shall advise the Station Master/Switchman/Cabin man on duty regarding the defects/obstructions at the gate, under exchange of private number
4 If there is no response from the Station Master/Switchman/Cabin man after two or three attempts, he shall first protect the gate and then inform on phone

5 Gateman shall then rush with detonators, fuse and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman

6 Thereafter, he shall protect the gate from the other direction also

7 He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gatemen that the road vehicle or the lifting barriers/leaf gates are not fouling the track

8 The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction

9 After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number

10 Station Master shall then issue a caution order to drivers of all train to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction

11 Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal, if the gate is not obstructed

12 Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gates to repair the same t the earliest

13 Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/leaf gats and issue reconnection/fit memo for the same

15 <u>Obstruction On The Track Near Level Crossing Gate</u>:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and station master will adopt the procedure given under item no. 5 above, if the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

A.2. Gate Working instructions for the Non-Interlocked Level Crossing Gate with Normal Position "Open to the Road Traffic".

A-2.01 GENERAL INFORMATION

1.	Number and Class of Level Crossing Gate	**RV-300 / 'C' Class**
2.	Engineering or Traffic Gate	**Engg**
3.	Under control of Station Master / SSE/PWay	**SM/VBL, SSE/P.Way/VBL**
4.	Location at KM.	**413/15-17**
5.	At Station	**VBL**
6.	In between stations	**SNM-VBL**
7.	BG / MG / NG	Broad Guage
8.	Single line / Double line / Multiple line	Double Line
9.	Normal Position	**Closed to Road Traffic**
10.	Interlocked / Non-Interlocked	**Non-interlocked**
11.	Means of Interlocking	Not Applicable
12.	Provision of Gate signal at Kms. (i) UP Line (ii)DN Line	Not Applicable
13.	Signaling arrangements	Not Applicable
14.	Means of Communication – Telephone / Bell	Magneto phone with SM/VBL
15.	Width of level crossing gate	7.5 Meters
16.	Type of road (NH / SH / Others)	Others
17.	Name of Road	**Ramavaram**
18.	Metalled / non-metalled	Non-Metalled
19.	Approach road	Metalled
20.	Width of the road	5.5 Meters
21.	Angle of road crossing (in case of Skew gates)	90 º
22	Road gradient (if any) (i) North / East side (ii) South / West side	 Up line LEVEL Down line LEVEL
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 Straight Straight
24.	Provision of height gauges	Provided
25.	Type of Barriers	Lifting Barriers with Positive Boom locking
26.	Length of Check rails	9.5 Meters
27.	Road surface in between L-Xing gates	Mooram
28.	Length of Rumble strip / speed breakers	4 Meters
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**5586**
32.	Census next due on	**Oct 2024**
33.	Demarcation for placement of Detonators	Provided
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	Vijayanagaram / Rayagada

36.	Nearest Private Medical Assistance available.	**Bobbili**
37.	List of equipment available Yes / No	Yes

1.2 EQUIPMENT:

Sl No	Items	Quantity / Numbers
1.	LED based flashing Tri Colour Hand Signal Lamp.	3 (5 on Quadruple / Line or twin single line)
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple / Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q / Twin single line and 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	Small chain for locking arrangement	2 No.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

1 In addition to the above equipment, following records shall also be kept at the gate lodge.
2 Gate Working Instructions in Hindi / English.
3 Gate Working Instructions in local vernacular language.
4 Gateman Rule Book in local vernacular language
5 List for tools and books.
6 Duty Roster.
7 Certificate for working as gateman.
8 Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
9 Accident Register.
10 Record of last census of road traffic at level crossing gate.
11 Public Complaint Book.

12 Inspection Book.
13 S & T failure register.

1.4 COMPETENCY: Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the concerned supervisor.

A.2. Gate Working instructions for the Non-Interlocked Level Crossing Gate with Normal Position "Open to the Road Traffic".

A-2.02 GENERAL INFORMATION

1.	Number and Class of Level Crossing Gate	**RV-307/ 'C' Class**
2.	Engineering or Traffic Gate	**Engg**
3.	Under control of Station Master / SSE/PWay	**SM/VBL, SSE/P.Way/VBL**
4.	Location at KM.	**414/19-21**
5.	At Station	**VBL**
6.	In between stations	**DNV-VBL**
7.	BG / MG / NG	Broad Guage
8.	Single line / Double line / Multiple line	Double Line
9.	Normal Position	**Open to Road Traffic**
10.	Interlocked / Non-Interlocked	**Non-interlocked**
11.	Means of Interlocking	Not Applicable
12.	Provision of Gate signal at Kms. (i) UP Line (ii)DN Line	Not Applicable
13.	Signaling arrangements	Not Applicable
14.	Means of Communication – Telephone / Bell	Magneto phone with SM/VBL
15.	Width of level crossing gate	5.5 Meters
16.	Type of road (NH / SH / Others)	Others
17.	Name of Road	**Sugar Factory**
18.	Metalled / non-metalled	Non-Metalled
19.	Approach road	BT Road
20.	Width of the road	7.5 Meters
21.	Angle of road crossing (in case of Skew gates)	90 º
22	Road gradient (if any) (i) North / East side (ii) South / West side	 Up line LEVEL Down line LEVEL
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 Straight Straight
24.	Provision of height gauges	Provided
25.	Type of Barriers	Lifting Barriers with Positive Boom locking
26.	Length of Check rails	7.5 Meters
27.	Road surface in between L-Xing gates	Mooram
28.	Length of Rumble strip / speed breakers	5 Meters
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**20171**

32.	Last Census conducted in	**Oct 2024**
33.	Demarcation for placement of Detonators	Provided
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	Vijayanagaram / Rayagada
36.	Nearest Private Medical Assistance available.	**Bobbili**
37.	List of equipment available Yes / No	Yes

1.2 EQUIPMENT:

Sl No	Items	Quantity / Numbers
1.	LED based flashing Tri Colour Hand Signal Lamp.	3 (5 on Quadruple / Line or twin single line)
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple / Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q / Twin single line and 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	Small chain for locking arrangement	2 No.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

1 In addition to the above equipment, following records shall also be kept at the gate lodge.
2 Gate Working Instructions in Hindi / English.
3 Gate Working Instructions in local vernacular language.
4 Gateman Rule Book in local vernacular language
5 List for tools and books.
6 Duty Roster.
7 Certificate for working as gateman.
8 Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher

course, safety camp etc.
9 Accident Register.
10 Record of last census of road traffic at level crossing gate.
11 Public Complaint Book.
12 Inspection Book.
13 S & T failure register.

1.4 COMPETENCY: Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the concerned supervisor.

A.2. Gate Working instructions for the Non-Interlocked Level Crossing Gate with Normal Position "Open to the Road Traffic".

A-2.03 GENERAL INFORMATION

1.	Number and Class of Level Crossing Gate	**RV-308 / 'C' Class**
2.	Engineering or Traffic Gate	**Engg**
3.	Under control of Station Master / SSE/PWay	**SM/VBL, SSE/P.Way/VBL**
4.	Location at KM.	**415/29-31**
5.	At Station	**VBL**
6.	In between stations	**DNV-VBL**
7.	BG / MG / NG	Broad Guage
8.	Single line / Double line / Multiple line	Double Line
9.	Normal Position	**Open to Road Traffic**
10.	Interlocked / Non-Interlocked	**Non-interlocked**
11.	Means of Interlocking	Not Applicable
12.	Provision of Gate signal at Kms. (i) UP Line (ii)DN Line	Not Applicable
13.	Signaling arrangements	Not Applicable
14.	Means of Communication – Telephone / Bell	Magneto phone with SM/VBL
15.	Width of level crossing gate	6.5 Meters
16.	Type of road (NH / SH / Others)	Others
17.	Name of Road	**GT Valasa**
18.	Metalled / non-metalled	Non-Metalled
19.	Approach road	BT Road
20.	Width of the road	5.5 Meters
21.	Angle of road crossing (in case of Skew gates)	90 º
22	Road gradient (if any) (i) North / East side (ii) South / West side	 Up line LEVEL Down line LEVEL
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 Straight Straight
24.	Provision of height gauges	Provided
25.	Type of Barriers	Lifting Barriers with Positive Boom locking
26.	Length of Check rails	9.5 Meters
27.	Road surface in between L-Xing gates	Mooram

28.	Length of Rumble strip / speed breakers	5.5 Meters
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**10671**
32.	Census next due on	**Oct 2024**
33.	Demarcation for placement of Detonators	Provided
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	Vijayanagaram / Rayagada
36.	Nearest Private Medical Assistance available.	**Bobbili**
37.	List of equipment available Yes / No	Yes

1.2 EQUIPMENT:

Sl No	Items	Quantity / Numbers
1.	LED based flashing Tri Colour Hand Signal Lamp.	3 (5 on Quadruple / Line or twin single line)
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple / Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q / Twin single line and 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	Small chain for locking arrangement	2 No.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

1 In addition to the above equipment, following records shall also be kept at the gate lodge.
2 Gate Working Instructions in Hindi / English.
3 Gate Working Instructions in local vernacular language.

4 Gateman Rule Book in local vernacular language
5 List for tools and books.
6 Duty Roster.
7 Certificate for working as gateman.
8 Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
9 Accident Register.
10 Record of last census of road traffic at level crossing gate.
11 Public Complaint Book.
12 Inspection Book.
13 S & T failure register.

1.4 COMPETENCY: Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the concerned supervisor.

8.1. MODE OF OPERATION:-

For operating of this gate the following procedure to be followed

For dispatching Trains from VBL to DNV / SNM:

1 SS/SM of VBL shall advise the Gate Man the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
2 Such advice shall be given by the SS/SM of VBL to the Gate Keeper, before taking Off the Departure Signals, or before giving an Authority to Proceed to the Loco Pilot.
3 The Gate Man on receiving such advice from the SM/ VBL shall close the gate well in time and confirm the same, under exchange of Private Number.
4 SS/SM of VBL shall take Off the Departure Signals only after getting the Private Number from the Gate Man that the gate is closed against to road traffic and the same is locked.
5 Gate once Closed against Road Traffic for Train, shall not be opened, unless that is authorized by ON Duty SS/SM of VBL under exchange of a Private Number.

For Receiving Trains from DNV / SNM to VBL:

1 SS/SM of DNV/SNM shall advise the SS/SM of VBL, the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
2 Such advice shall be given by the SS/SM of DNV/SNM to the SS/SM of VBL, before obtaining Line Clear.
3 SS/SM of VBL shall advise the Gate Man the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
4 The Gate Man on receiving such advice from the SS/SM of VBL, shall close the gate well in time and confirm the same, under exchange of Private Number.
5 SS/SM of VBL shall Give Line Clear to the SS/SM of DNV/SNM, only after getting the Private Number from the Gate Man after getting assurance that the gate is closed against to road traffic and the same has been locked.
6 Gate once Closed against Road Traffic for Train, the ON duty gate man shall not be opened, unless that it is authorized by the On Duty SS/ SM of VBL under exchange of a Private Number.

9. Failure of Telephonic Communication:

1 (i) In the event of failure of telephone, if the gate is required to be opened for passage of road traffic, the gateman shall lookout in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the

track on either side. He shall thereafter, open the gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

2 (ii) Report the fact over telephone or through the loco pilot of a passing train or through a Gang Man to the station master/cabin master of the adjacent station and the nearest Gang Mate if any.

3 The Station Master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and Train manager of all trains entering into the section.
(i) To whistle frequently.
(ii) To stop 30mts short of the level crossing gate and be guided by the hand signal, given by the On Duty gateman who is in with uniform.

4 The SS/SM shall intimate the fact to the SS/SM at the other end of the block Station for issue of caution order with the similar instructions as mentioned in (b) above.
The caution order shall continue to be issued till the defect communication is rectified. The SS/SM shall also advise the JE/SE/SSE Signal), JE/SE/SSE(P way) and other officials concerned for immediate rectification and other necessary action

10. Failure of Lifting Barriers:

1 When the gate cannot be closed due to failure of Lifting Barriers of Leaf Gates, the Gateman will immediately inform the SS/SM on duty under exchange of Private Number, and to ensure that the Lifting Barriers or leaf gates do not foul the track.

2 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.

3 Gateman shall secure the gate against road traffic by means of safety chains and padlocks.

4 After securing the gate against Road Traffic, he shall show Green Hand Signal Flag by day and Green Light by night to the driver of the approaching train.

5 SS/SM on duty shall issue caution order to the driver of a departing train.

6 He shall also advise the SS/SM at the dispatching end, under exchange of Private Number, to similarly issue a Caution Order to the driver before dispatching a train in the Block Section from his end.

7 He should also advise maintenance staff responsible for maintenance of the Lifting Barriers/leaf gates to rectify the defect at the earliest

8 Normal working will be resumed only after maintenance staff rectify the Lifting Barriers/leaf gates and issue reconnection/fit memo for the same

11. Obstruction at the Gate: In case of an obstruction on the line at the level crossing not protected by station signals, the gateman shall maintain the signals, if provided, in the 'ON' position, If unable to remove the obstruction forthwith, he shall protect the line in the following manner

1 In case both the lines are obstructed, he shall during day light hours, first fix a banner flag across the track in the direction from which a train is expected to arrive and then plant the second banner flag across the other track, against any train in the opposite direction. The banner flag shall be planted clear of the level crossing and at a distance of about 5 meters from the edge of the road/obstruction

2 He shall, thereafter, close and lock the gates

3 At level crossings provided with telephones, the gateman shall, if time permits, inform the Station master about the obstruction and ascertain the position of trains, after he has taken action as per clauses (i) and (ii) above

4 The gateman shall proceed in haste, exhibiting a red hand signal flag, towards the direction from which a train is expected first and place one detonator on the track at a distance of 600meters on BG and three detonators 10meters apart at a distance of 1200 meters on BG from the level crossing. Having thus protected one line, he shall immediately return to the level crossing, picking up the intermediate detonator on the way

and then proceed with the same haste in the opposite direction and protect the other line also in an identical manner. Having duly protected both In case of any one line is obstructed the aforesaid protection need be done only for the obstructed line. Every gate man on noticing any obstruction on the line , shall at once remove it or, if unable to do so shall-

A) Take action to ensure that the fixed signal if any, protecting the gate are kept at 'ON' position.

B) show stop hand signal and do his best to stop approaching trains; and

C) shall protect the obstruction as per rule G &SR 6.03.

12 <u>Obstruction On The Track Near Level Crossing Gate</u>:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and station master will adopt the procedure given under item no. 5 above, if the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

A.3. Gate Working instructions for the Non-Interlocked Level Crossing Gate with Normal Position "Close to the Road Traffic".

A-3.01 GENERAL INFORMATION

1.	Number and Class of Level Crossing Gate	**RV-301/ 'C' Class**
2.	Engineering or Traffic Gate	**Engg**
3.	Under control of Station Master / SSE/P Way	**SM/VBL, SSE/P.Way/VBL**
4.	Location at KM.	**409/5-7**
5.	At Station	**VBL**
6.	In between stations	**SNM-VBL**
7.	BG / MG / NG	Broad Gauge
8.	Single line / Double line / Multiple line	Double Line
9.	Normal Position	**Close to Road Traffic**
10.	Interlocked / Non-Interlocked	**Non-interlocked**
11.	Means of Interlocking	Not Applicable
12.	Provision of Gate signal at Kms. (i) UP Line (ii)DN Line	Not Applicable
13.	Signaling arrangements	Not Applicable
14.	Means of Communication – Telephone / Bell	Magneto phone with SM/VBL
15.	Width of level crossing gate	5.5 Meters
16.	Type of road (NH / SH / Others)	Others
17.	Name of Road	**Gummadivaram**
18.	Metalled / non-metalled	Non-Metalled
19.	Approach road	BT Road
20.	Width of the road	7.5 Meters
21.	Angle of road crossing (in case of Skew gates)	90 º
22	Road gradient (if any) (i) North / East side (ii) South / West side	 Up line LEVEL Down line LEVEL
23.	Road alignment (straight/curve)	

	(i) North / East side (ii) South / West side	Straight Straight
24.	Provision of height gauges	Provided
25.	Type of Barriers	Lifting Barriers with Positive Boom locking
26.	Length of Check rails	8.10 Meters
27.	Road surface in between L-Xing gates	Mooram
28.	Length of Rumble strip / speed breakers	3.5 Meters
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**596**
32.	Census next due on	**Oct 2024**
33.	Demarcation for placement of Detonators	Provided
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	Vijayanagaram / Rayagada
36.	Nearest Private Medical Assistance available.	**Bobbili**
37.	List of equipment available Yes / No	Yes

1.2 EQUIPMENT:

Sl No	Items	Quantity / Numbers
1.	LED based flashing Tri Colour Hand Signal Lamp.	3 (5 on Quadruple / Line or twin single line)
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple / Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q / Twin single line and 5 on Hexaple section)
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.

23.	Small chain for locking arrangement	2 No.

1.3 <u>RECORDS TO BE KEPT AT GATE LODGE:</u>

1 In addition to the above equipment, following records shall also be kept at the gate lodge.
2 Gate Working Instructions in Hindi / English.
3 Gate Working Instructions in local vernacular language.
4 Gateman Rule Book in local vernacular language
5 List for tools and books.
6 Duty Roster.
7 Certificate for working as gateman.
8 Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
9 Accident Register.
10 Record of last census of road traffic at level crossing gate.
11 Public Complaint Book.
12 Inspection Book.
13 S & T failure register.

1.4 COMPETENCY: Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the concerned supervisor.

8.1. MODE OF OPERATION:-

For operating of this gate the following procedure to be followed

For dispatching Trains from VBL to DNV / SNM:

The normal position of the gate is " Closed to Road Traffic" it should always be in closed condition against to road traffic, except when , it is opened for passage of road traffic over the Level crossing , subject to conditions

The SS/SM before permitting each train to enter into the block section, shall ask the Gate man on the phone by giving PN whether, gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is closed and locked against road traffic shall give a PN to the SS/SM on duty in assurance of gate being closed & locked against to road traffic.

The SS/SM shall not permit any train to enter the block Section, unless he is assured of the closure and locking of the gate by the gate man supported by PN.

When gate man desire to open the gate for passage of road traffic he should ensure that :

i) He has not exchanged PN with the SS/SM for closure of the gate as above said.

ii) If he exchanged the PN with the SS/SM on duty, the whole of the train with last vehicle indicator has passed over the Level Crossing gate and SS/SM has not exchanged PN with him for any other movement immediately in rear of a train or on the adjacent line(s).

Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing road traffic, keeping a red flag/red hand signal lamp ready in his hand to stop approaching train if any.

1 Station Master / VBL shall advise the Gate Man the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
2 Such advice shall be given by the SM/VBL to the Gate Keeper, before taking Off the Departure Signals, or before giving an Authority to Proceed to the Loco Pilot.

3 The Gate Man on receiving such advice from the SM/ VBL shall close the gate well in time and confirm the same, under exchange of Private Number.
4 Station Master / VBL shall take Off the Departure Signals only after getting the Private Number from the Gate Man.
5 Gate once Closed against Road Traffic for Train, shall not be opened, unless that is authorized by the Duty SM/VBL under exchange of a Private Number.

For Receiving Trains from DNV / SNM to VBL:

1 Station Master DNV/SNM shall advise the SM/VBL, the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
2 Such advice shall be given by the SM/DNV/SNM to the SM/VBL, before obtaining Line Clear.
3 Station Master / VBL shall advise the Gate Man the Train Number, Description, Direction, and expected time of the passage of the Train at the Gate, under exchange of Private Number.
4 The Gate Man on receiving such advice from the SM/ VBL, shall close the gate well in time and confirm the same, under exchange of Private Number.
5 Station Master / VBL shall Give Line Clear to the SM/DNV/SNM, only after getting the Private Number from the Gate Man.
6 Gate once Closed against Road Traffic for Train, shall not be opened, unless that is authorized by the Duty SM/VBL under exchange of a Private Number.

9. Failure of Telephonic Communication:

1 (i) In the event of failure of telephone, if the gate is required to be opened for passage of road traffic, the gateman shall lookout in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He shall thereafter, open the gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train if any.
2 (ii) Report the fact over telephone or through the loco pilot of a passing train or through a Gang Man to the station master/cabin master of the adjacent station and the nearest Gang Mate
3 The Station Master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and Train managers of all trains entering into the section.
(i) To whistle frequently.
(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman
4 The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.
The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE Signal), JE/SE/SSE(P way) and other officials concerned for immediate rectification and other necessary action.

10. Failure of Lifting Barriers:

1 When the gate cannot be closed due to failure of Lifting Barriers of Leaf Gates, the Gateman will immediately inform the Station Master/Switchman/Cabin man on duty. under exchange of Private Number, and ensure that Lifting Barriers or leaf gates do not foul the track

2 He shall immediately fix Red Banner Flag by day and Red Light by Night on the post at that end first from which the rain is approaching and then at the other end
3 Gateman shall secure the gate against road traffic by means of safety chains and padlocks
4 After securing the gate against Road Traffic, he shall show Green Hand Signal Flag by day and Green Light by night to the driver of the approaching train
5 Station Master on duty shall issue caution order to the driver of a departing train
6 He shall also advise the Station Master at the dispatching end, under exchange of Private Number, to similarly issue a Caution Order to the driver before dispatching a train in the Block Section from his end
7 He should also advise maintenance staff responsible for maintenance of the Lifting Barriers/leaf gates to rectify the defect at the earliest
8 Normal working will be resumed only after maintenance staff rectify the Lifting Barriers/leaf gates and issue reconnection/fit memo for the same.

11. Obstruction at the Gate: In case of an obstruction on the line at the level crossing not protected by station signals, the gateman shall maintain the signals, if provided, in the 'ON' position, If unable to remove the obstruction forthwith, he shall protect the line in the following manner

1 In case both the lines are obstructed, he shall during day light hours, first plant a banner flag across the track in the direction from which a train is expected to arrive and then plant the second banner flag across the other track, against any train in the opposite direction. The banner flag shall be planted clear of the level crossing and at a distance of about 5 meters from the edge of the road/obstruction
2 He shall, thereafter, close and lock the gates
3 At level crossings provided with telephones, the gateman shall, if time permits, inform the Station master about the obstruction and ascertain the position of trains, after he has taken action as per clauses (i) and (ii) above
4 The gateman shall proceed in haste, exhibiting a red hand signal flag, towards the direction from which a train is expected first and place one detonator on the track at a distance of 600meters on BG and three detonators 10meters apart at a distance of 1200 meters on BG from the level crossing. Having thus protected one line, he shall immediately return to the level crossing, picking up the intermediate detonator on the way and then proceed with the same haste in the opposite direction and protect the other line also in an identical manner. Having duly protected both In case of any one line is obstructed the aforesaid protection need be done only for the obstructed line

12 <u>Obstruction On The Track Near Level Crossing Gate</u>:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and station master will adopt the procedure given under item no. 5 above, if the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

A.4. Working instructions for the Non-Interlocked LC Gates between VBL-SALR with Normal Position "Closed to the Road Traffic" Controlled by the SM/VBL

A-4.01 The following are the details of **Eight manned level crossing gates** connected with magneto telephone communication with this station in **BOBBILI SALUR Branch Line**.

Sl. No	LC Gate No. Description	Location KM	Class Dept	Whether Interlocked	Normal Position	Between
1	**VS 1 Rajamahal**	KM **413/13**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
2	**VS 3 New Colony**	KM **415/8**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
3	**VS 6 Paddy Fields**	KM **417/6**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
4	**VS 8 N. Valasa**	KM **418/12**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
5	**VS 13 Gollapeta**	KM **422/12**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
6	**VS 16 Sivrampurm**	KM **425/4**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
7	**VS 17 Parna Valasa**	KM **426/2**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR
8	**VS 21 Salur**	KM **428/11**	C- Class Engg.	Non-interlocked	**Close to Road**	VBL-SALR

1) The SM/VBL shall inform all the LC Gates between VBL- SALUR NEW about the expected Train moment, supported by a Private Number. **The SM/VBL Shall also inform the LC Gates, about the Probable time of Train Movement in both directions (From VBL to SALUR NEW and from SALUR NEW to VBL also)**
2) On receiving information from the SM/VBL, All Gate Keepers shall ensure the Closing of the LC Gates against the Road Traffic for VBL- SALUR NEW Train Movement, and then give a Private Number to the SM/VBL.
3) On Receiving Private Numbers from all of the LC Gates between VBL- SALUR NEW, the SM/VBL shall handover the prescribed Authority to Proceed, to the Loco Pilot
4) After Passage of the Train from VBL to SALUR NEW, the LC Gate may be opened for Road Traffic as and when required, duly Placing Banner Flags as per **SR.16.03.01 (d)**
5) Immediately after clearance of Road Traffic. The Gate Keepers should Close the LC Gates against the Road Traffic, for the Train from SALUR NEW to VBL.
6) If the Departure of Train from SALUR NEW to VBL is known to be delayed more time, the SM/VBL shall inform the Gate Keepers, well in advance, regarding the expected time of Departure of train from SALUR NEW.
7) All of the Gate Keepers should remain on Duty till completion of Return of the SALUR NEW -VBL Train. And shall not leave the Gates, without the Prior Permission from the SM/VBL.
8) **Before Starting a Train from SALUR NEW**, The Train Manager of the Train shall call the SM/VBL, through his CUG phone, and inform that his Train is ready for Depart from SALUR NEW supported by a Private Number. **GR.4.35 (2), SR.4.35.01**.

9) On receiving of "Train Ready" message from the Train Manager, The SM/VBL shall confirm all the LC Gates between SALUR NEW -VBL about the Closing of LCs by exchanging Private Numbers.

10) After confirming the Closure of LC Gates, the SM/VBL shall inform the Train Manager of the Train Ready at SALUR NEW, SM/VBL shall exchange Private Number with the Train Manager.

11) On Receiving the "Permission to Start the Train" (by giving a Private Number) from the SM/VBL, the Train Manager shall Start his Train from SALUR NEW station, with sectional Speed of the Section duly observing Speed Restrictions if any.

12) In case of Non- Receiving of Private Number from the SM/VBL regarding the Closure of LC Gates, the Loco Pilot and Train Manager should start their Train at Scheduled Time of Departure, with a cautious Speed. Loco Pilot shall keep special vigil over the LC Gates, to observe any abnormality or to stop any short of obstruction.

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APPENDIX 'B'

Details of signalling and interlocking installations, instructions for working them normally and in emergencies etc., including the power of supply arrangements.

1.0 BRIEF DESCRIPTION OF THE SIGNALLING AND INTELOCKING INSTALLATIONS:

This is a "B" Class Station with standard-IIR interlocking (with isolation). **The points and signals are power operated from a composite 'DOMINO TYPE' full-fledged panel installed in the SM office**. This station is equipped with panel operated MACLS. The SGE type double Line lock and Block Instruments are provided in the SMs panel room for section VBL-SNM and VBL-DNV adjacent to the panel. The Station Working Rule Diagram No.SI /WRD/23020 Alt "R".

1.1 DESCRIPTION OF PANEL:

The yard layout is depicted in the panel board and is fixed parallel to the track so that when the SS/SM on duty faces, the Yard drawing on the panel corresponds to the actual field layout in either direction.

1.2. POINT PUSH BUTTONS:

Points are normally operated automatically along with route setting operation. However required points can be operated individually also. For this point push buttons BLACK in colour are fitted over the point layout on the panel board. The individual operation of electric point machine is controlled by these point push buttons in conjunction with the point group button (Black with Red dot) (Normal) or (Reverse) as per requirement, fitted on the top of the panel board.

1.2.1 When a point is set and locked correctly in NORMAL position, a 'white' steady strip light Indication on straight line appears suggesting that the point is in NORMAL position.

1.2.2 When a point is set and locked in REVERSE position, a white steady strip light indication in reverse appears suggesting that the point is in REVERSE position.

1.2.3 When the points of any route have been correctly set and relevant signal is taken 'OFF', 'RED' indication appears near the points indicating that the concerned points are locked either in NORMAL or REVERSE.

1.2.4 When the points are neither set nor locked either in NORMAL or in REVERSE correctly, the normal and reverse indication will not be there but the indication will start flashing till such time the point is housed and locked properly in one of the positions. In such case points are to be set both ways by crank handle and clamped and padlocked. This indication will flash during point operation also.

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

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

1.2.7 OPERATION OF POINTS:

Points are operated to normal or Reverse by pressing individual point button in conjunction with the point group button there by the white strip indication on normal point zone or reverse point zone as the case may be till the points are set to normal or reverse position and locked. Then the white steady strip indication on normal point zone and white steady strip indication on reverse point zone will appear as the case may be. During the automatic route setting of the train operation, the same indication will glow.

1.2.8 All running line points are operated by Electric point machine.

2.0 The course for non-setting of the point in the desired position has to be checked up by the SS/SM on duty according to G & SR 3.68.01(c) and if there is a defect other than obstruction the point has to be considered as defective and action shall be taken for clamping and pad locking these points in the desired position by the SS/Dy.SS onduty himself for all trains according to SR 3.69.03(c).

DESCRIPTION OF POINTS:

Sl No	Point Button No	Color	Description
1	31	Black	Cross over point between Up &Dn main line at Raipur end.
2	35	Black	Cross over point. between Dn main & common loop line at Raipur end.
3	37	Black	Cross over point between Up main & common loop line.4 at Raipur end.
4	30	Black	Cross over point between Up &Dn main line at VZM end.
5	40	Black	Cross over point between Dn main & common loop [line No.1] at VZM end
6	38	Black	Cross over point between Up main & common loop [line.4] at VZM end
7	33	Black	Cross over point between Up & DN main lines at Raipur end
8	34	Black	Cross over point between Up & DN mine lines at VZM end
9	36	Black	Cross over point between Dn main & SALR line at VZM end
10	Point group button (Normal)	Black with red dot.	Common button for normal operation of points.
11	Point Group Button (Reverse)	Black with Red dot.	Common button tor Reverse operation of points.

3.0 SIGNAL BUTTONS:

SI. No	Button No	Color	Description
1	C1	Red with white dot	Up Calling 'ON' signal for Line no. 1,3 & 4.
2	S1	Red	Up Home signal for line no.1 3,& 4.
3	C2	Red with white dot	Up calling 'ON' signal for line no. 1, 2 & 4.
4	S2	Red	D . Home signal for line no.1, 2 & 4.

5	S9	Red	Up starter signal for line no.4
6	S12	Red	Dn starter signal for line no.1
7	S13	Red	UP loop starter for line no. 1
8	S15	Red	Up main starter for line no. 3.
9	S16	Red	Dn starter signal for line no. 4
10	S21	Red	Up adv. Starter.
11	S22	Red	Dn Main Line starter for Line No:2
12	S24	Red	DN Adv. Starter Signal
13	SH3	Yellow	Shunt signal for line no. 1. 2.3 &4
14	SH4	Yellow	Shunt signal for line no. 1. 2.3 &4
15	SH 11	Yellow	Shunt signal for Salur line from Bay line.
16	SH6	Yellow	Shunt signal from Salur line to Bay line.
17	SH9	Yellow	Shunt signal from Tower Wagon Siding, from Common Loop line No.4
18	SH20	Yellow	Shunt signal from Common Loop line No.4, to Tower Wagon Siding
19	S26	Red	Down IB Home Signal
20	S27	Red	Up IB Home Signal

3.1 SIGNAL INDICATION:

The aspect of signal as obtained at any time is shown on the panel on the Signal indication (along side of the track).

4.0 ROUTE BUTTONS:

Route buttons are provided separately on each running line on the panel for indication of route (viz L1UN, L1UN1,L2UN,L3UN,L4UN,L4UN1). Common route buttons are also provided for taking off starters 21 AT UN, 24 AT UN. An individual route button is provided for taking off advance starter 21 UN, 24 UN. For clearing the signal, it is necessary to operate the signal button and the concerned route button concurrently

DESCRIPTIONS OF ROUTE BUTTONS			
SI. No	**Button No.**	**Color**	**Description**
1	L1 UN	White	Route button for Dn Home signalfor line no.1 setting overlap on Dn main line.
2	L1 UN1	White with black dot	Common route button for Up Home signal and Up Calling-On signal, DN Home and DN calling ON signal for line No 1 setting overlap to overrun line and sand hump respectively and common route button for shunt signal No.3 or 4 for Line No.1
3	L2 UN	White	Common route button for DN Home signal and Calling-On signal for line no.2 setting over lap on DN Main line and route button for shunt signal no. 3 or 4 for line no. 2.
4	L3 UN	White	Common route button for UP Home signal and Calling On signal for line no.3 setting over lap on UP main line and common route button for shunt signal no. 3 or 4 for line no.3.
5	L4 UN	White	Up Home signal and Shunt signal NO 3 or Up Home Signal for line No 4 setting Mainline.

6	L4 UN1	White with black dot	Common route button for Dn Home signal and Dn Calling-On signal and UP Calling on signal and shunt Signal No:3 or Up Home Signal for line no. 4 setting overlap on Sand Hump.
7	24 UN	White	Route button for Dn advance starter.
8	21 UN	White	Route button for Up advance starter.
9	24ATUN	White	Route button for Dn starters 12, 16, and 22
10	21ATUN	White	Route button for Up starters 9, 13 & 15.
11	Group (Trans)	White with black dot	Common Trans button for crank handle, siding control and gate control
12	Group Released	White with black dot.	Common release button for crank handle, siding control and gate control.
13	CH-1	Blue	Points no. 35, 36 & 40
14	CH-2	Blue	Points no. 37 & 38
15	CH-3	Blue	Points no. 31 & 33
16	CH-4	Blue	Points no. 30 & 34
17	Signal lamp failure Ack.	Red with white dot	For acknowledge the signal lamp failure / point failure
18	Button Held Ack.	White with Red dot	To be pressed to stop the buzzer in case of any button held.
19	Signal Cancellation	Red	For cancellation of signal this is a common button to be pressed in conjunction with the intended signal button for which cancellation is required
20	Emergency Point Operation	Black with red dot	For operation of points in the event of failure of Track circuit/Axle counter.
21	Siding Control	Black	For releasing of key from RKT of siding points. For Engg/Traffic loop 42 at VZM side and 39 at Raipur side 32 towards SALR and 44 from Line No1

4. <u>COUNTERS</u>:

1. DN LV Reset counter for section VBL-DNV.
2. UP LV Reset counter for section VBL-DNV.
3. DN LV Reset counter for section VBL-SNM
4. UP LV Reset counter for section VBL-SNM
5. Calling on Counter [UP].
6. Calling on Counter [DN].
7. Emergency route release counter.
8. Emergency point operation counter.
9. Emergency gate release counter control 26.

5.0 **5.0 POWER FAILURE INDICATION/BUZZER AND POWER ACKNOWLEDGEMENT:**

Power supply to the Signaling installation is through integrated power supply system. The IPS is normally fed through signal-phase state electricity supply. The standby power supply is through diesel generator of 15 KVA capacities. The available state/DG supply is fed to the IPS through auto-change over panel provided in IPS room.

In the event of failure of the state power supply the SS/SM on duty shall start Diesel Generator. The power supply of D.G. set is fed to the auto changeover switch provided in IPS. Through auto changeover switch the DG set power supply will be extended to the IPS. Normal state electricity supply is fed to IPS through auto changeover and as soon as state electricity supply is failed and the Generator is started, the generator power supply is switched over to IPS. When the state electricity supply is restored, the generator shall be stopped by the SS/SM on duty. The IPS system is connected with battery for safe working during transition of power. Remote monitoring ASM console for IPS is provided at SS/SM office, which will give the following instruction.

ASM INDICATION IPS PANEL

S.N	INSTRUCTIONS	CONDITION	LED indication	Remarks
A.	Start Generator	50% DOD	Red	Audio/visual alarm. Alarm shall be acknowledged by SM on duty and shall start generator.
B	Emergency start Generator	60% DOD	Red	-do-
C	System shutdown	70% DOD	Red	Signal feed cut off on all DC converters to work. Audio alarm to continue till generator is stated.
D	Call S&T staff	Equipment fault	Red	Failure of any module will give the in SS/SM's panel. Alarm shall be acknowledged by SS/SM on duty for auto cut off.

In the event of failure of Remote monitoring ASM console due to any reason when local power is failed the SS/SM on duty shall start D.G set immediately. In case call S&T staff 'or' system shut down ' indication appear on the remote monitoring panel of IPS and / or mal functioning of the remote monitoring panel SM on duty shall inform the same to concerned S&T staff immediately**.**

5.1 SIGNAL LAMP FAILURE INDICATION (MUTING BUTTON RED WITH WHITE DOT:

Whenever main filament of a signal lamp is fused, a miniature flashing Red light indication appears along with an audible buzzer indicates Signal lamp failure. Then SS/SM on duty shall press the Act button thereby the buzzer stops but the Red indication lamp becomes steady which continues till either the signal lamp is replaced or signal assumes other aspect.

Whenever auxiliary filament also fuses, the concern auxiliary lamps fusing Red indication lamp flashes and auxiliary buzzer start buzzing. The SS/SM on duty shall press the signal lamp Failure Acknowledgement button thereby the buzzer stops but the Red signal indication lamps becomes steady which continues till either the signal lamp is replaced or signal assumes other aspect. Whenever main filament is fused, SS/SM on duty shall immediately send message to SE/ESM for rectification.

5.2 BUTTON FAILURE INDICATION WHITE/BUTTON HELD BUZZER WHITE WITH RED DOT:

Whenever any button remains held up in pressed condition 'Button Held' white. Indication starts flashing along with an audible buzzer. The SM on duty then acknowledge it by pressing the "Button Held" push button (white with red dot) the buzzer stop but the white indication continues to flash till the same is rectified.

6.0 TRACK CIRCUIT/AXLE COUNTER:

At this station all the berthing lines i.e. loop lines end main lines and point zones are provided with track circuits to indicate the occupation/ clearance of berthing/point zone portion. Starters will automatically be replaced by the point ..one track circuits. Last Vehicle Track (LVT) and First Vehicle Track (FVT) circuits are provided near Home and advance starter signals for their automatic replacement and release of block instruments. In addition 90 Meters rail length track circuits, are provided in advance of Up and Dn home signals for control of calling on signals. The occupation/ clearance of track circuits indication is provided on the indication cum operating panel installed at station.

6.1 When a train is to be dispatched from the station yard on signals the SS/SM on Duty must ensure that the route between the starter signal and the block section limits demarcated by the Advance Starter is dear of any obstruction (which includes point zones track circuits) before he takes off departure signals.

Axle Counter: Entire Block Section between VBL-SNM & VBL-DNV is provided with (HASSDAC) Hihgh Availability Single Section Digital Axle Counter.

For section: VBL-SNM:-

A pair of High Availability Single Section Digital Axle Counter is provided between VBL-SNM on DN line, one just beyond DN advanced starter No.24 of VBL and another one on 24AXT for proving DN IB section between VBL-SNM and one just beyond DN IB Home signal No. 26 of VBL and another near DN BSLB of SNM for proving DN LVV for section VBL-SNM Another pair of digital axle counter is provided between VBL-DNV on UP line, one just beyond Up advanced starter No.13 of SNM and another one on 13AXT for proving UP IB section between VBL-SNM and one just beyond UP IB Home signal No. 13 of SNM and another near first facing point of VBL for proving UP LVV for section VBL-SNM.

For section: DNV-VBL:-

A pair of High Availability Single Section Digital Axle Counter is provided between DNV-VBL on DN line, one just beyond DN advanced starter No.12 of DNV and another one on 12AXT for proving DN IB section between DNV-VBL and one just beyond DN IB Home signal No. 16 of DNV and another near first facing point of DNV for proving DN LVV for section DNV-VBL. Another pair of digital axle counter is provided between VBL- DNV on UP line, one just beyond Up advanced starter No.21 of VBL and another one on 21AXT for proving UP IB section between VBL-DNV and one just beyond UP IB Home signal No. 27 of VBL and another near first facing point of DNV for proving UP LVV for section VBL- DNV.

6.2 **CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS CRANK:**

Crank handle is inter locked with the signaling and inter locking system at this station and the crank handle which is normally locked up in the RKT instrument in the goomties at the both End of the yards can be taken out when the signals on the connected route are in normal position and the route is not locked for any reason. Even when the route is locked the crank handle key can be extracted from the RKT through emergency operation by pressing the concerned crank handle button along with group Trans button concurrently. When this operation is resorted, the crank handle 'Key in' indication(white) and locked indication (Red) both start flashing. After 120 Second of flashing of both, the locked indication (Red) disappears. Similarly such red indication appears at the crank handle location at site near corresponding RKT and now the crank handle key can be taken out from the RKT at Site, After key extracted at site from the RKT, the key in indication (white) on panel, board will extinguish. After completion of work, crank handle key shall be restored to RKT which will be indicated by flashing key in (white) indication on panel board, which comes steady only after pressing of concerned crank handle button along with group release button concurrently.

6.3 On account of the doubtful operation of any track circuit by light vehicle/ vehicle including self-propelled vehicles such as motor trolley or a diesel shunting engine or a tower wagon, in indication of the occupancy of the track it is necessary that the SS/SM on duty satisfied himself that the said vehicle/ vehicles has/have cleared the point zone track circuits by observing the track indication of the tracks on either side of the cross over by positively checking of the ENTRANCE and EXIT track circuit are showing occupancy and clearance in accordance with the train movement.

7.0 **STATION MASTER'S KEY:**

The panel is also fitted with SS/SM lock up key to prevent unauthorized operation of this panel but with the arrangement to put back the signal to the ON position in the case of emergency without altering the route when the panel is locked position.

8.0 **EMERGENCY OPERATIONS:**

The following are the instructions for Emergency operations.

8.1 **ROUTE CANCELLATION**

For the purpose of the emergencies operations there is an emergency Route cancellation and also there is a veeder counter for counting emergency operations involving the concurrent operation of the emergency route cancellation button. The SS/SM on duty must press the emergency route button along with concerned signal button for which emergency route release is required. An yellow Indication will appear below the signal indicating that the timer has started operation and after lapse of 120 seconds. The desired route will be released provided all other conditions are favorable for the route release.

8.2 **SIGNAL CANCELLATION**

For the purpose of throwing the signal to danger in case of emergency, press concerned signal button along with common signal cancellation button. Then the signal will fly back to on position.

8.2.1 The numbers on the veeder counter register the number of operations performed for such emergency cancellation and the SS/Dy.SS on duty should specify the cause for such usage giving the particulars of cause and the time of operation as related to a particular train etc. in the train signal register. The detailed operation instructions are as follows:

8.3 CANCELLATION OF UNINTENDED LOCKING OF POINTS

Whenever there is un intended locking of any points (indicated by RED indication lamp near the concerned point) such a locking has to be released (after the concerned signal are in the normal position) by concurrently pressing the Emergency Group cancellation button (provided at the counter of the panel) and the concerned signal button provided the track circuits are clear and are in working condition. This operation is counted on the veeder counter/counter as already pointed out.

8.4	**CANCELLATION OF LOCKING OF ROUTE AND POINTS AFTER THE SIGNAL HAS BEEN PUT BACK TO 'ON'** **OR** **THE SIGNAL HAS GONE BACK TO ON EITHER AFTER THE MOVEMENT OF THE TRAIN IS CANCELLED** **OR** **THE TRAIN HAS COME TO A STOP OUT SIDE THE STOP SIGNAL**
	In case the route is set and the signal is taken off and if it is warranted that the signal has to be put back to ON and cancel the route. a) Firstly the signal has to be put back to the ON position b) Emergency route cancellation operation must be initiated as detailed in para 8.1.
8.5	**EMERGENCY OPERATIONS:**
	Cancellation of the locking of points not released after the passage of the train for any reason. If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operation. a) Firstly it must be ensured that the signal concerned to the route is in the normal position. b) Operation as details in para 8.1 to be followed.
9.0	**EMERGENCY OPERATION OF POINTS (IN CASE OF POINT ZONE TRACK CIRCUIT FAILURE):**
	The SS/SM on duty can operate points from panel; in case of point zone track circuit fails. The SS/SM on duty after physical verification insert the SM's emergency point key and turn into get the key. 'N' position keeping the Emergency point key in that position the SS/SM on duty must press the Individual point button after pressing the emergency point operation button (Black with Red dot). He shall then release the emergency point operation button only and press the point group Normal or Reverse button as per requirement keeping the individual point button is pressed condition. Points will be set to Normal or Reverse position as per operation. During the initiation on RED indication will appear above the emergency operation button. This operation will be registered in and emergency point operation counter placed about the emergency point operation button will increase in number by one.

10.0	**INTER LOCKING OF SIGNALS:**
10.1	All running line points are fitted with point machine and all are electrically detected by the relevant Home signals and starters.
10.2	Advance starters are interlocked with respective double line block instrument in LINE CLEAR position.
10.3	Home signals are interlocked with respective Double Line block instrument. The Block instruments cannot be made to normal unless the respective Home signals are in Normal position.
10.4	Signals once taken OFF can be put back to Danger in case of emergency by pressing the concerned signal button in conjunction with signal cancellation button even when the panel is locked up with Station Master.
11.0	**LOCKING OF RELAY ROOM:**
11.1	Relay room at this station is provided with double locks (Two independent locks) as necessary vide OM 1.14 one key shall be kept with the Signal Maintainer of the section and the other with Station Master on duty. The relay room cannot be opened unless both keys are used.
11.2	The Station Master shall ensure that the Relay Room key is given to S&T maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by the S&T staff immediately after completion of their work and the documentation should be made in the Relay Room key register maintained at the Station according to SR 3.51.05 and OM 1.14.

12.0 MAINTENANCE OF S&T INSTALLATION AND ADHERENCE TOMAINTENANCE SCHEDULES:

The regular maintenance of the S&T installation and adherence to the schedules of Maintenance as also to the mandatory schedules of testing of Points, Track Circuits, Signals, Ground Frames, Level Crossing Gates, the associated inter locking apparatus i.e. Cables and finally the interlocking functional tests is a must for the safe and satisfactory working these instillations at the Station.

12.1 The tests, checks and re-placement etc., including overhauling shall confirm to the Schedules of the maintenance as indicated in the Signal Engineering Manual as also in the current and extent instructions/Circulars on the subject.

13.0 PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL INTERLOCKING INSTALLATION:

13.1 Whenever there is failure of Points, Track Circuits, Signals , Axle-counters Or any other interlocking gear at the Station, the failure report should communicated by the SS/SM on duty through a Memo to the sectional Maintainer and the Signal Inspector of the section along with others as per G & SR 3.51.04 and 3.68.04 and document all such transactions.

14.0 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

14.1 However, before declaring as Signal defective the setting of the Point on the route to which It applies shall be inspected by the Station Master on duty irrespective of the position of the Switches on the Panel in terms of SR 3.68.04(c).

14.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

It is only after receipt of this information the sectional Maintainer [Electrical Or Mechanical] shall attend to the failure after giving a disconnection Memo. After rectification of the fault, the sectional maintainer shall give a re-connection Memo Detailing the rectification and it is only after the Station Master on duty has personally checked this defective gear and is satisfied that it is in good and proper working order. He shall resume the normal working of the said defective gear in terms of SR 3.68.04[c] and [d].

15.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORKS:

However any normal maintenance or special works for heavy renewals etc., are involved, These works should be pre-planned by the Signal and Telecom filed staff and the Inspector of the section should give to the Station Master in writing "Advance intimation" about this planned work in terms of G & SR 15.08.01.

16.0 EMERGENCIES:

Not with standing anything contained in the afore-said Para Nos. 14.1, 14.2 and 14.3 when a Gear is found to be defective and un-safe for passage of trains, the Signal & Telecom staff must at once suspend the working of that gear and the associated installations and issue a "Suspense Memo" explaining the seriousness of the defect Or Damage to the interlocking installation to the SS/SM and take Station Masters acknowledgment. After this, the usual practice of exchange of disconnection memo and re-connection Memo can follow and the Station Master must promptly act on such massages and take adequate precautions treating the S&T installation as defective and pass trains over the effected interlocking gears according to extent instructions as contained in G R 3.77 and SR thereon.

17. SIGNAL LIGHTS:

The Station Master on duty at every shift must also ensure from Panel Board that all the Signal lights are Burning properly and brightly. This fact must be recorded in the diary under a separate entry and confirm to the section controller on duty as per the instructions contained in Divisional Safety Circular No. 82/82, Dated 2.5.82 and GR 3.49(3).

18.0 CORRECTING TIME IN THE STATION CLOCKS:

The Station Master shall set the time on his Clock according to the time Signal given by the section Controller on duty at 16.00 hours every day according to G & SR 4.01.01 and 4.01.02.

19.0 NORMAL POWER SUPPLY:

The Station works on 230 Volts single-phase power supply. The normal power supply is from the State electricity local supply.

19.1 STANDBY POWER SUPPLY:

Diesel generator supply is available at the Station as stand by with changeover switch arrangement. The Station Master on duly shall arrange to start the generator in the event of failure of normal power supply.

19.2 NORMAL POWER SUPPLY-MAINTENANCE OF POWER SUPPLY, POWER FAILURE AND REPORTING SUCH FAILURES:

Normal power supply to the Signaling and Interlocking installations at this station is drawn from the State electricity supply sources [at 230-V-50HZ]. The Station Master must however, maintain the record of the power failure of the local supply and he must promptly report the failure immediately to the Section Controller and to the concerned Electrical and S&T maintenance Staff.

20.0 <u>WORKING OF POINTS – POSITION OF POINTS:</u>	
The normal position of all points shown in the Station Working Rule Diagram No. SI/WRD23020 ALT 'A' and also in the mimic indication panel provided in the Station Masters office.	
20.1	All cross over points and independent points on the running lines are worked by Electric Point Machines. The point machines have in-built locking and detection arrangements. These points are remotely controlled from the panel situated in the Station Master's office.
20.2	The operation and indication on the points and their route locking over them is already explained in earlier pares of Appendix-B.
20.3	All siding entrance points (on the running lines) and the corresponding derailing switches on the siding are coupled and locally operated by hand levers provided at site. The entrance points are provided with hand plunger locks with key locking arrangements, the key being released from the RKT instruments. The siding entrance points controlling key is inter locked with the interlocking and signaling system through the RKT as explained in earlier pares of Appendix-B.
21.0	**<u>PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL POINTSAND USE OF EMERGENCY CRANK HANDLE:</u>**
20.1	Whenever a Signal or a Point become defective any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at the Station.
21.2	In case of failure of Signal or a Point and in case the Point can not be operated from the Panel, the emergency Crank Handle which is Interlocked with the system has to be extracted and the following procedure has to be observed.
21.3	In case of failure on any point, Crank Handles are provided for setting of the points manually. For this operation procedure mentioned in para No 6.2 shall be followed.
21.4	The case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.
21.5	Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and then handover to him the emergency Crank Handle for the Points concerned. All the Points will be treated as defective till the Emergency Crank Handle is returned back to the Station Master on duty.
21.6	Before parting with the Emergency Crank Handle either for attending failure or for Maintenance work by Signal Maintenance Officials, the Station Master on duty will ensure that the reception and departure Signals are put back to on position.
	The Points of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The Station Master on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.

21.6.1

The Emergency Crank Handle Register is to be maintained in the following pro-forma by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded:

i. Date:
ii. Point Number which failed or required to be tested:
iii. Time failure:
iv. Disconnection memo number received from S&T Staff:
v. Signature of SM/Signal Official to whom the Emergency Crank Handle is handed over
vi. Time Emergency Crank Handle is sent out:
vii. Individual Point numbers, and Line number nominated for admission of dispatch for which Points are set, Clamped and Padlocked.
viii. Train number to be admitted or dispatched:
ix. Signature of the Station Master on duty to ensure correct setting, Clamping and Padlocking of the Points:
x. Date and Time fault rectified.
xi. Time of Emergency Crank Handle received back by SM on duty:
xii. Signature and Designation of the Signal Official who rectified the fault.

IMPORTANT NOTE:

When performing shunting operations in the sidings it must be clearly noted that the siding Points are interlocked with the system in the NORMAL position of the Points and in REVERSED position they are not interlocked. The Official responsible for shunting operation must clamp the Points at the both ends before permitting any movement.

22.0	**INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:**
22.1	**INTERLOCKING WITH HOME SIGNALS:**
	All the UP and DOWN HOME Signals are Electrically interlocked with the respective DLBI so that before the handle of the DLBI Instrument can be turned from TRAIN COMING FROM position to LINE CLOSED position, the Home Signals of UP or DOWN direction as the case may be must be in their NORMAL position.
22.2	The UP IB Signal No.27 of VBL and Down IB Signal No 26 of VBL are electrically interlocked with respective DLBIs, So that these Signals can not be taken off until the handle of the concerned Block instrument is in Line Clear Position.
22.3	**SUSPENSION OF IB Signals:**
	When the Double line block instrument is suspended with its handle in any position for whatever reason the concerned Last Stop Signals controlled by the DLBI must be treated as suspended and trains shall be Piloted Out.
23.0	**BURNING OF SIGNAL LIGHTS:**
	The Station Master on duty shall not grant LINE CLEAR un-lees he has ensured that the Lamps of fixed Signals that apply to the train are burning brightly. If the Signal Lights cannot Kept burning the Station Master on duty shall before giving LINE CLEAR initiate action in accordance with the procedure prescribed in GR 3.68 To 3.72 and relevant SR's vide GR 3.49 (4).

24.0 LAST VEHICLE VERIFICATION (LVV) BY BLOCK PROVING TROUGHHIGH AVAILABILITY SINGLE SECTION DIGITALAXLE COUNTER(HASSDAC):

Electronic Axle Counters (HASSDACs), have been provided between Up Adv. Starter of SNM - Up IBSS of SNM, Up IBSS of SNM– Up Homes Signal of VBL, Down Adv. Starter of VBL - Down IBSS of VBL, Down IBSS of VBL– Down Homes Signal of SNM, &Up Adv. Starter of VBL - Up IBSS of VBL, Up IBSS of VBL– Up Homes Signal of DNV, Down Adv. Starter of DNV - Down IBSS of DNV, Down IBSS of DNV– Down Homes

Signal of VBL.

Complete arrival of trains at respective stations is proved by these devices (HASSDAC).The status of the block section that is occupied or clear is indicated by the indications provided on the domino panel and on reset box. The advanced starter is controlled by the Clearance of the LV Axle counter section (HASSDAC).

Clearance of LV Axle counter section is proved in the respective Block control cct.aswell as in block release cct.In case of failure of HASSDAC Axle counter line clear cannot be granted through block instrument. Also in case of such failures on arrival of train block instrument cannot be normalized.

Whenever after complete arrival of train the HASSDAC axle-counter continue to show Red on the panel Board. The on duty SS/SM at VBL station shall resort to the reset of the axle counter. For this purpose SS/SM at VBL Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SS/SM shall obtain signature from the TMR of stopping train on the train intact register [videGR&SRNo.4.17,4.17..01] or by exchanging all right signal with the Guard of through train, so that he can ensure that the train has arrived completely before resetting of HASSDAC axle counter from SS/SM of SNM / DNV for Up and Down Block section. Before resorting to there setting of the HASSDAC axle counter (BPAC) SS/SM of the receiving station shall ensure complete arrival of train by means of physical verification and as per the practice in vogue by deputing concerned operating official. One Reset box for each HASSDAC axle counter (BPAC) hasbeen provided in the panel room. There are three indications on the reset box i.e Red, yellow and Green. The clearance and occupation of the block section is proved by the Green and Red indications respectively as on the panel. Yellow indication which is called PPR indication proves that resetting operation has been initiated. One reset key and one reset button are also provided on there set box for resetting. After complete train arrival is ascertained SS/SM on duty at receiving end shall confirm the same to the dispatching end SS/SM supported by a PN and shall request for preparatory resetting of axle counter.SS/SM on duty at both end shall adopt the following procedure simultaneously. SS/SM on duty at both ends hall press the reset button, then turn and press the reset key, then first release the reset button and then release the reset key. After this operation is completed, at both ends of the station PPR indication (yellow) will appear on the reset box and one number will increase in the reset counter which is provided on the reset box at both stations. SS/SM shall record the counter number in the reset register with reason for resetting. Whenever any of the HASSDAC Axle Counters (BPAC) fail, the first train has to be piloted out after completion of the resetting procedure. On arrival of the first piloted train, the HASSDAC counter section will show clear automatically by indicating Green on Reset Box and on operating panel. Even after above resetting procedure, if the section is not shown clear, on duty SS/SM shall inform concerned S&T staff immediately. Till such time the system is rectified, the absolute block working shall be suspended and the trains shall be worked as per relevant Para of G.SR &BWM.

24.2 <u>RESETTING OF AXLE COUNTER (HASASDAC):</u>

Whenever after complete arrival of train the HASSDAC axle counter continue to show Red on the panel board, the on duty SS/SM at both ends of the section shall resort to the reset of axle counter. For this purpose SS/SM at receiving end shall first verify that Block Section is clear of trains. If the failure has occurred after arrival of train, SS/SM shall obtain signature from the guard of stopping train on the train intact register (vide GR & SR No 4.17, 4.17.01) or by exchanging signal with the guard of through train, so that he can ensure that the train has arrived completely before resorting to the reset of

HASSDAC axle counter. SS/SM of receiving end shall inform the failure of axle counter to on duty SS/SM of despatching end for UP/DN section.

25. Working of Automatic Fire detection and Alarm System:-

- In case of any Alarm Zone Number on the LCD Display chart can be seen
- Note down the Zone number and Panel Display name by referring display chart
- Then open the keypad and press the 'Off' button and enter the code 1111 (1 digit Four times)
- Automatically it will get reset
- Once you find the Zone number rush to the particular area where the detector gives alarm
- The moment the detection detects any smoke particles, the RED LED will blink along with the Alarm.
- Once you reach the area where the detector gives the Alarm, Check whether the alarm is due to the Fire or for any other reason.
- To alert the people in case of emergency, press * sign of the ne which is present inside the keypad together for few seconds. This will enable you to here the panel alarm.
- To rest the panel, press 'Off' button and enter the code 1111 (1 digit Four times)
- 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.

Auto Dialing: - If you hear alarm from the panel, this system will dial the telephone/mobile number you fed. The prerecorded messages will be heard on the phone. If you want to make two-way communications, press "6" on your mobile. You can have this communication for 50 seconds. If you want to talk more, press again "6" before completion of 50 seconds for another 50 seconds or you can acknowledge the receipt of call by pressing "2" on SSE/Signal mobile, in case number "2" is not pressed the system will dial again the same telephone number as per the programmed dial attempt and still if acknowledgement not come from 1stnumber then panel will dial 2nd number till the time acknowledgement comes it will keep on dialing.

APPENDIX "C"

ANTI COLLISION DEVICE (RAKSHA KAVACH)

Not applicable to this station

APPENDIX 'D'

DUTIES TO BE PERFORMED BY THE STAFF AT BOBBILI STATION STATION MASTER (IN CHARGE):

The duties prescribed in OM 2015, Para no. 2.02 (a) to be followed in addition to the duties prescribed below.

i. He shall come on duty after taking complete rest and shall not perform his duty under the influence of liquor, drugs or intoxicants.
ii. He shall handle the block instrument himself when on duty and shall not permit any unauthorized person to manipulate or handle the block panel/block instrument and block telephone.
iii. He shall keep the station master's control keys of block instruments in his personal custody whenever, he is required to leave his office even for a short duration.
iv. He shall maintain TSR and other connected record/documents in good Shape and ensure that all entries are completed and are up to date.
v. He shall attend the control and given arrival departure of trains promptly and shall carry out instruction given by superiors provided these do not Violate safety rules & procedures.
vi. He shall inform the Technician/JE/SE (Sig) through a written message, any failure of signal or block working etc. and invariably enter these failures in Signal Failure Register.
vii. In case of any accident, he shall inform the Section Controller & Station Manager/Station Superintendent immediately. He shall give all the information available with him in regard to the nature, places, cause and assistance etc. in respect of the accident.
viii. He shall communicate reasons for late start of outgoing trains and late arrival of incoming trains to control.
ix. He shall keep his reference books (trains working manuals) up to date, Posted with latest correction slips and shall keep himself fully conversant With the extant rules. He shall keep his books readily available for Inspection when asked to do so.
x. He shall not absent himself from duty without prior permission of his superiors. He shall not leave his duty unless properly relieved by his reliever and shall not exchange his duty without prior permission of his superiors.
xi. He shall not consider himself relieved of duty unless, he has completed transactions of trains for which he has given /obtained line clear till the complete arrival of such trains.
xii. He shall always obey the lawful orders of his superiors so long as they do not contravene any of the extant rules in force.
xiii. In case of any abnormal working, he shall also perform the duties assigned to VDU ASM/SM.

Station Superintendent /Station Master:

He is responsible for trains passing during his shift as per OM 2015 Para No.2.02 b) and 2.02 c).

i. He shall come on duty after taking complete rest and shall not perform his duty under the influence of drugs or intoxicants.
ii. When on duty or when called upon to do so, in case of emergency, he shall be responsible for obtaining and granting line clear to trains as per SWR &GR.
iii. He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate panel.

iv. He shall keep the SM's control panel in his personal custody whenever, he is required to leave his office even for a short duration.
v. While coming on duty, he shall ensure that all points and signals are in good working order and all the registers, records, pertaining to train passage are completed in all respect before taking over the charge.
vi. He shall personally ensure that conditions for taking 'off' the reception signals are fulfilled and the clearance of line is verified as per SWR before actually pressing the relevant button for taking off the signals.
vii. He shall ensure from indications available in the panel that the signals are burning brightly and are giving correct indications.
viii. He shall ensure that proper indications of points, signals, track circuits crank handle, level crossing gate etc., are displayed at their proper places.
ix. He shall ensure that all Shunting operations are carried out as per extant orders and GR 5.19 and SRs thereof.
x. He shall inform the Technician/JE/SE (Sig) in writing or through a written message, any failure of track/signals/points/keys or panels etc. and shall invariably enter these failures in Signals Failure Register.

TRAFFIC POINTSMAN/TOKEN PORTERS:

He shall work under the orders of SS/SM on duty as per OM 2015 para No.2.02 f).

i. He shall obey all lawful orders of the ASM/SM/SS on duty or official in- charge supervising the shunting during the course of shunting operations including coupling or uncoupling of vehicles, wagons, fixing rubber washers, closing wagon doors, displaying hand signals etc.
ii. ii) He shall exhibit danger signal to the official supervising the shunting if vehicles are fouled during the shunting operation.
iii. He shall pilot the trains in case of abnormal working and when ordered by the SS on duty.
iv. He shall be in proper neat and clean uniform while on duty.
v. He shall come on duty after taking complete rest and shall not perform duty under the influence of liquor, drugs, or intoxicants.
vi. Neither shall he absent himself from duty nor shall he exchange his duty without prior permission of his superiors.
vii. He shall not leave his duty unless properly relieved or authorized by his superiors.
viii. He shall set the points properly in non-interlocked yard and man them for all shunting movements and shall not interfere with the points while the vehicles are standing and or passing over them.
ix. He shall be responsible to see that fouling marks are kept clear after completion of shunting.
x. He shall always commence his duty equipped with hand signal lamps during night and flags during day.
xi. He shall verify the correct setting of route before delivering required papers to the Loco Pilot either though taking 'OFF' the relevant shunt signal or by personal observation.
xii. In case of track failure he shall assist the SM to ascertain the clearance of line.
xiii. He shall be responsible for lighting up of the indicators in the evening and putting out in the morning time fixed by DRM office and ensure that these are burning brightly at night.

APPENDIX 'E'

ESSENTIAL EQUIPMENT

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

S N	Description	Station
1	Detonators	20
2	Battery operated LED based flashing Hand Signal lam	3 (1 spare)
3	Hand Signal Flags	3 (1spare)
4	Safety chains with Pad locks	6
5	Clamps with Padlocks	8
6	Iron skids	5
7	wedges	4
8	Fire & Sand buckets	6
9	Fire Extinguishers DCPT	2
10	Line Block Collars	6
11	Motor Trolley Online Board	2
12	Block Suspension Board	2

APPENDIX "F"

WORKING INSTRUCTIONS FOR RUNNING OF TRAINS BETWEEN VBL-SALUR NEW SECTION

To work trains between VBL-SALUR, 'ONE TRAIN ONLY' system of working is in vogue between VBL-SALUR NEW is 16.8 Km section having the following five Passenger Halts.

SL NO	Name of the Passenger Halt	Railway Code	Location from Raipur
1	Narayanappavalasa PH	NGJA	KM 418/3
2	Rompalli PH	RML	KM 420/2
3	Gollapalem PH		KM 420/11
4	Salur PH.	SALR	KM 429/14
5	Salur New PH		KM 429/19

1. **System of Working:-**
   Trains under ONE TRAIN ONLY system shall work in terms of G&SR 13.01.

2. **Essentials of ONE TRAIN ONLY system:**
   Under this system only one train shall be in section between VBL- SALUR vide G & SR 13.02.

3. **Authority to proceed:**
   A metallic badge with inscription thereon as per SR 13.03.01 will be authority for the loco pilot. In lieu of metallic badge, a line clear ticket can also be issued for the loco pilot by the SM/VBL, which shall be valid till the train return back to VBL vide SR 13.03.01.

4. **Level crossing gates between VBL- SALUR** :
   There are total 8 Manned Level Crossing Gates available as follow. All of these LC Gates are connected with Telephone (DTMF) communications, and controlled by the SM/VBL.

   The Normal Position of these LC gates is Closed against Road Traffic; However, the SM/VBL should ensure the Closing of these LC Gates before permitting any train to in VBL- SALUR NEW / SALUR NEW – VBL sections.

5. **Working of Trains from VBL to SALUR NEW:-**
   a) All Trains carrying passengers, which are supposed to be sent to SALUR NEW should be received on the Common Loop Line No.1 at VBL.
   b) Before leaving a Train from VBL to SALUR NEW, The Train Manager should give his Names and CUG Number, or Mobile Number, to the SM/VBL for further communication.
   c) Before dispatching a Train to SALUR NEW section, SM/VBL should ensure that the entire Section up to SALUR NEW is Clear and free from any obstruction.
   d) The SM/VBL shall inform all the LC Gates between VBL- SALUR NEW about the expected Train moment, supported by a Private Number. The SM/VBL Shall also inform the LC Gates, about the Probable time of Train Movement in both directions (From VBL to SALUR NEW and from SALUR NEW to VBL also)

e) On receiving information from the SM/VBL, All Gate Keepers shall ensure the Closing of the LC Gates against the Road Traffic for VBL- SALUR NEW Train Movement, and then give a Private Number to the SM/VBL.
f) On Receiving Private Numbers from all of the LC Gates between VBL- SALUR NEW, the SM/VBL shall handover the prescribed Authority to Proceed, to the Loco Pilot, in the following format.

EAST COAST RAILWAY **WAT Division VBL-SALUR NEW Section** Sl. No Train No:- Date: Time: **Authority to the Loco Pilot to Proceed** **Under One train Only system** **From**: **BOBBILI (VBL**) **to SALUR NEW** And Return Back **to BOBBILI (VBL)** Note to the Loco Pilot:- 1) Give long whistle while approaching the LC gates. 2) Hand over this Authority to SM/VBL, on arrival at VBL. Signature of the Loco Pilot Signature of the Station Master	**EAST COAST RAILWAY** **WAT Division VBL-SALUR NEW Section** Sl. No Train No:- Date: Time: **Authority to the Loco Pilot to Proceed** **Under One train Only system** From: **BOBBILI (VBL) to SALUR NEW** And Return Back to **BOBBILI (VBL)** Note to the Loco Pilot:- 1) Give long whistle while approaching the LC gates. 2) Hand over this Authority to SM/VBL, on arrival at VBL. Signature of the Loco Pilot Signature of Station Master

7) **Caution Order**:- SM/VBL shall issue a Caution Order to the Train manager and Loco Pilot of the train. Caution orders shall be issued for the both Outward and Return Journey.
8) If any of the manned LC Gates not responding, or could not be contacted, the SM/VBL Shall issue Caution Order indicating the LC Gate details.
9) SM/VBL shall ensure all conditions before sending a Train on Non-Signaled Line, SR.**3.70.01GR.5.11 and SR.5.11.1**
10) It shall be the duty of the Loco Pilot and Train Manager of the train under one train only system to stop their train at all the Passenger Halt stations as nominated for such period as specified with consideration to passengers boarding
11) The Points at SALUR station are permanently Set for the Mainline by Through Bolt Setting. The Loco Pilot shall take special care while passing points at SALUR Station, And Proceed up to SALUR NEW Station.
12) After Passage of the Train from VBL to SALUR NEW, the LC Gate may be opened for Road Traffic as and when required, duly Placing Banner Flags as per SR.16.03.01 (d)
13) Immediately after clearance of Road Traffic. The Gate Keepers should close the LC Gates against the Road Traffic, for the Train from SALUR NEW to VBL.
14) If the Departure of Train from SALUR NEW to VBL is known to be delayed more time, the SM/VBL shall inform the Gate Keepers, well in advance, regarding the expected time of Departure of train from SALUR NEW.

15) All of the Gate Keepers should remain on Duty till completion of Return of the SALUR NEW -VBL Train. And shall not leave the Gates, without the Prior Permission from the SM/VBL.

6. **Working of Trains from SALUR NEW to VBL:-**

a. Before Starting a Train from SALUR NEW, The Train Manager of the Train shall call the SM/VBL, through his CUG phone, and inform that his Train is Ready for Depart from SALUR NEW supported by a Private Number. GR.4.35 (2), SR.4.35.01.
b. On receiving of "Train Ready" message from the Train Manager, The SM/VBL shall confirm all the LC Gates between SALUR NEW -VBL about the Closing of LCs by exchanging Private Numbers.
c. After confirming the Closure of LC Gates, the SM/VBL shall inform the Train Manager of the Train Ready at SALUR NEW, SM/VBL shall exchange Private Number with the Train Manager.
d. On Receiving the "Permission to Start the Train" (by giving a Private Number) from the SM/VBL, the Train Manager shall Start his Train from SALUR NEW station, with sectional Speed of the Section duly observing Speed Restrictions if any.
e. In case of Non- Receiving of Private Number from the SM/VBL regarding the Closure of LC Gates, the Loco Pilot and Train Manager should start their Train at Scheduled Time of Departure, with a cautious Speed. Loco Pilot shall keep special vigil over the LC Gates, to

b) Observe any abnormality or to Stop short of any obstruction.

a. In Case of Changing of the Crew at SALUR NEW Station, the Authority to Proceed shall also be handed over to the Relieving Loco Pilot, along with the other Documents.
b. Once the Train started from SALUR NEW, the SM/VBL shall prepare to receive the Train on to the Common Loop Line No.1 at VBL.
c. After the Train Passes NARAYANAPPA VALASA PH, the Train Manager of the Train coming from SALUR NEW shall call the SM/VBL through CUG and inform about his train position.
d. The Loco Pilot of Train Coming from SALUR NEW should Stop his Train before the Stop Board provided beyond Outer most point of the VBL at SALUR NEW end. And wait for the proper Authority to receive his train on to Non-Signaled Line.
e. SM/VBL shall ensure all conditions before receiving a Train on to Non-Signaled Line, **SR.3.69.04GR.5.10 and SR.5.10.01**. Then SM/VBL shall send Competent Railway Servant to Receive the Train, with proper authority.
f. On Arrival of the Train from SALUR NEW-VBL section, the Loco Pilot shall Hand over the Authority to Proceed to the SM/VBL. SM/VBL should collect and cancel the Authority.
g. Ensuring Complete Arrival of Trains from SALUR NEW Section:-Apartfrom Collecting and cancelling the Authority to proceed from the Loco Pilot, The SM/VBL shall ensure complete arrival through Train intact arrival Register at VBL (GR.14.10).

7. **Accidents:-**

i. In the event of any accident on said line the Train Manager /loco pilot of the said trains shall observe GR 13.04 and relevant SRs and intimate the fact to the SM/VBL after protecting the train in terms of provisions under GR 6.03 and relevant SRs
ii. Messages of accidents or unusual incidents shall be communicated through any means of communications available.
iii. In the event of failure of any communication SR 13.04.01 shall be observed.
iv. It shall be the duty of the Loco Pilot and Train Manager of the train under one train only system to stop their train at all the Passenger Halt stations as nominated for such period as specified with consideration to passengers boarding

APPENDIX 'F'

WORKING OF D.K. STATIONS, HALTS, IBH, IBS AND OUTLAYING SIDINGS:
RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN VBL-SNM AND VBL-DNV

[A] The Block section starts from Down IB signal of VBL and ends with DN Home signal of SNM respective receiving ends" may be substituted with the following.

The Block section between VBL- SNM has been split into TWO IB section each. The entry into block sections in each is governed by Intermediate Block stop signal as:

1) Down IB signal between VBL-SNM is provided at KM 408.156 controlled by Switch No.26 of VBL (IB controlled by station in rear)
2) UP IB Signal between SNM-VBL is provided at KM 407.911 controlled by Switch No.15 of SNM (IB controlled by station in rear).

[B] The Block section starts from UP IB signal No. 27 of VBL and ends with UP Home Signal of DNV at respective receiving ends may be substituted with the following.

The Block section between VBL-DNV has been split into TWO IB section each. The entry into each is governed by Intermediate Block stop signal as:

1) Up IB signal between VBL-DNV is provided at KM 418/9-11 controlled by Switch No. 27 of VBL (IB controlled by station in rear).
2) Down IB Signal between VBL-DNV is provided at KM 418/4-2 controlled by Switch No.16 of DNV (IB controlled by station in rear)".

a. Block working for the section VBL-SNM, VBL-DNV is controlled by double line lock and block instrument (SGE type three positions) provided at VBL, SNM & DNV stations. Down Advanced starter No. 24 of VBL is controlled by clearance position of train past the down IBS No. 26 by 400 meters beyond respectively vide GR 8.04 (a). UP Advanced starter No. 21 of VBL is controlled by clearance position of train past the UP IBS No. 27 by 400 meters beyond respectively vide GR 8.04 (a).

b) Trains between intermediate block signal to respective Home signal of Station in advance in both the sides are worked by means of SGE type lock block instrument vide 4.09, 5.07, 14.01 to 14.14 of the G & SR and chapter V of BWM.

c) Last stop signal to the intermediate block stop signal in both the sides are controlled by Electronic Axle counter and are worked under absolute block system in terms of G & SR 14.01, 14.13. Indications on Panel provided at SNM/DNV and VBL station.

d] **INDICATIONS PROVIDED ON VDU FOR I.B. SECTION.** The indications of signals, IB and Block sections in both up and down directions are shown in the following table:

SECTION VBL-SNM:

Sl. No.	Signal Aspect [S24]	IB Section Indication [24 AXT]	IB Home Aspect [S-26]	Block Section Indication	Remarks
1	Green	White Illuminated	-	-	Advance starter No:24 is taken off to dispatch a train up to IB Home.

2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	White Illuminated	IB Home taken off for train up to Home of SNM.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

SECTION SNM-VBL:

Sl. No.	Signal Aspect [S-13]	IB Section Indication [13 AXT]	IB Home Aspect [S-15]	Block Section Indication	Remarks
1	Green	White Illuminated	-	-	Advance starter No:13 is taken off to dispatch a train up to IB Home.
2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	White Illuminated	IB Home taken off for train up to Home of VBL.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

SECTION VBL –DNV:

Sl. No.	**Signal Aspect [S-21]**	**IB Section Indication [21 AXT]**	**IB Home Aspect [S-27]**	**Block Section Indication**	**Remarks**
1	Green	White Illuminated	-	-	Advance starter No:21 is taken off to dispatch a train up to IB Home.
2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	White Illuminated	IB Home taken off for train up to Home of DNV.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

SECTION DNV –VBL:

Sl. No.	**Signal Aspect [S-12]**	**IB Section Indication [12 AXT]**	**IB Home Aspect [S-16]**	**Block Section Indication**	**Remarks**
1	**Green**	**White Illuminated**	-	-	**Advance starter No:12 is taken off to dispatch a train up to IB Home.**
2	**Red**	**Red**	-	-	**IB Section is occupied.**
3	-	-	**Green**	**White Illuminated**	**IB Home taken off for train up to Home of VBL.**
4	-	-	**Red**	**Red**	**Block section is occupied or IB Home passed at danger.**

e) **Buzzer/Bell**

One audio Multimedia speaker are provided in the SM room at VBL to detect Train Entering section for outgoing trains. After train passes the intermediate block stop signal, the buzzer/bell will start ringing VBL station. On hearing the buzzer/bell the SM On Duty must acknowledge the same by clicking on IB. train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the station in advance who shall turn 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 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 VBL-SNM or VBL-DNV 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.

g) **NORMALIZATION OF THE TRACK CIRCUIT AND OF BLOCK WORKING BY RESETTING FEATURE:**

i. No train should be allowed to leave station in any particular direction unless I.B. track clear indication is available for the relevant track circuited portion of I.B. section and last stop signal cannot be taken off. A Resetting arrangement for the resumption of I.B. Axle counter under failure condition through co-operative features of both the SS/ SM on duty at either end station of the Block section is provided in respective VDU's, which should only be resorted after the train that was lastly sent arrives fully at the receiving station and is certified in this respect by the SS/SM at the receiving station through exchange of private number.

ii. For monitoring of I.B. section working & re-setting of I.B. Axle counters, Track Indications and Re-setting arrangements are provided with button icons on the Panel at VBL, SNM and DNV stations. Counters are also provided for the purpose of recording the re-settings for the I.B. Axle Counters in case of failures in IB section.

1) The SS/SM on duty at VBL station shall maintain a separate register for use of resetting at IB Axle Counters wherein every operation of the resetting shall be recorded giving details of date of use, train number, time, number registered in the counter on Panel and reasons for **For Section from Up Adv Starter No. of SNM-Up IBSS No**:

2)

Sl	Dispatching Station (SNM)	Sl	Receiving Station (VBL)
1	SS/SM on Duty at SNM shall call the attention of the SS/SM of VBL Station through Telephone for Re-Setting the 000AXT Axle Counter zone, giving the details of the Last Train left his station, in to the	1	SM/SS on duty at VBL after verifying that the said dispatched train arrives fully, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' 13AXT Push

	Section.		button provided on the Panel.
2	On getting the Rest Permission on Panel, the SM/SS of SNM shall insert the Key and Apply Rest by Pressing the concerned Button 13AXT. The reset counter increases on Number and the HASSDAC will get Rest. LSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out	2	
3	SM / SNM shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

3) For Section from Up IBSS No – Up Home Singal No of VBL.

Sl	Receiving Station (VBL)	Sl	Dispatching Station (SNM)
1	SS/SM on Duty at VBL shall call the attention of the SS/SM of SNM Station through Telephone for Re-Setting the IB Axle Counter zone, giving the details of the Last Train arrived his station.	1	SM/SS on duty at SNM after verifying that the said dispatched train, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button **LVUR** provided on the Panel.
2	On getting the Rest Permission on Panel, the SM/SS of VBL shall insert the Key and Apply Rest by Pressing the concerned Button **LVUR**. The reset counter increases on Number and the HASSDAC will get Rest. IBSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out	2	
3	SM / VBL shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

4) For Section from Down Adv Starter No. of VBL-Down IBSS No:

Sl	Dispatching Station (VBL)	Sl	Receiving Station (SNM)
1	SS/SM on Duty at VBL shall call the attention of the SS/SM of SNM Station through Telephone for Re-Setting the 000AXT Axle Counter zone, giving the details of the Last Train left his station, in to the Section.	1	SM/SS on duty at SNM after verifying that the said dispatched train arrives fully, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **24AXT**
2	On getting the Rest Permission on Panel, the SM/SS of VBL shall insert	2	

	the Key and Apply Rest by Pressing the concerned Button**24AXT**. The reset counter increases on Number and the HASSDAC will get Rest. LSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out		
3	SM / VBL shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

5) For Section from Down IBSS No – Down Home Singal No of SNM.

Sl	**Receiving Station (SNM)**	**Sl**	**Dispatching Station (VBL)**
1	SS/SM on Duty at SNM shall call the attention of the SS/SM of VBL Station through Telephone for Re-Setting the IB Axle Counter zone, giving the details of the Last Train arrived his station.	1	SM/SS on duty at VBL after verifying that the said dispatched train shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **LVDR**
2	On getting the Rest Permission on Panel, the SM/SS of SNM shall insert the Key and Apply Rest by Pressing the concerned Button **LVDR**. The reset counter increases on Number and the HASSDAC will get Rest. IBSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out	2	
3	SM / VBL shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

6) For Section from Up Adv Starter No. of VBL-Up IBSS No:

Sl	**Dispatching Station (VBL)**	**Sl**	**Receiving Station (DNV)**
1	SS/SM on Duty at VBL shall call the attention of the SS/SM of DNV Station through Telephone for Re-Setting the 000AXT Axle Counter zone, giving the details of the Last Train left his station, in to the Section.	1	SM/SS on duty at VBL after verifying that the said dispatched train arrives fully, shall exchange private number with SS/SM on duty at VBL and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **21AXT**
2	On getting the Rest Permission on Panel, the SM/SS of DNV shall insert the Key and Apply Rest by Pressing the concerned	2	

	Button**21AXT**. The reset counter increases on Number and the HASSDAC will get Rest. LSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out		
3	SM / SNM shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

7) For Section from Up IBSS No – Up Home Singal No of DNV.

Sl	Receiving Station (DNV)	Sl	Dispatching Station (VBL)
1	SS/SM on Duty at DNV shall call the attention of the SS/SM of VBL Station through Telephone for Re-Setting the IB Axle Counter zone, giving the details of the Last Train arrived his station.	1	SM/SS on duty at VBL after verifying that the said dispatched train, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **LVUR**
2	On getting the Rest Permission on Panel, the SM/SS of DNV shall insert the Key and Apply Rest by Pressing the concerned Button **LVUR**. The reset counter increases on Number and the HASSDAC will get Rest. IBSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out	2	
3	SM / DNV shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

8) For Section from Down Adv Starter No. of DNV-Down IBSS No:

Sl	Dispatching Station (DNV)	Sl	Receiving Station (VBL)
1	SS/SM on Duty at DNV shall call the attention of the SS/SM of SNM Station through Telephone for Re-Setting the 000AXT Axle Counter zone, giving the details of the Last Train left his station, in to the Section.	1	SM/SS on duty at VBL after verifying that the said dispatched train arrives fully, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **12AXT**
2	On getting the Rest Permission on Panel, the SM/SS of DNV shall insert the Key and Apply Rest by	2	

	Pressing the concerned Button**12AXT**. The reset counter increases on Number and the HASSDAC will get Rest. LSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out		
3	SM / DNV shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

9) <u>For Section from Down IBSS No – Down Home Singal No of VBL.</u>

Sl	Receiving Station (VBL)	Sl	Dispatching Station (DNV)
1	SS/SM on Duty at VBL shall call the attention of the SS/SM of DNV Station through Telephone for Re-Setting the IB Axle Counter zone, giving the details of the Last Train arrived his station.	1	SM/SS on duty at DNV after verifying that the said dispatched train, shall exchange private number with SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the Panel. **LVDR**
2	On getting the Rest Permission on Panel, the SM/SS of VBL shall insert the Key and Apply Rest by Pressing the concerned Button **LVDR**. The reset counter increases on Number and the HASSDAC will get Rest. IBSS can be taken off if the Green (Clear) indication shows on the HASSDAC. Otherwise the 1st Train shall be Piloted Out	2	
3	SM / VBL shall write the particulars of the Rest Counter Numbers in a Separate Record maintained for that Purpose		

h] **DISPATCH OF TRAINS**:
Dispatch of trains is governed by the provision of G & SR 3.42, 3.70 and Block working manual rules.

i] From VBL towards SNM and DNV.
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.

j] VBL TO IBS ON UP AND DOWN LINES:
The SS/SM on duty shall ensure that the portion of line between Advanced Starter and 400 Metres beyond IBS at their respective ends is clear of obstruction and indication to this effect is available in the VDU 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. Advise the Station Master at the station in advance, of the train No. and description of such intended train to be dispatched and shall take his

assent supported by Private Number and shall then set and lock the route and take off the Starter and Advanced Starter.

k] <u>IBS SIGNAL TO THE STATION IN ADVANCE:</u>

The SS/SM on duty shall obtain line clear over lock & Block instruments from the station in advance to dispatch a train past the IBS signal at the respective ends and shall take off the IBS signal by means of taking offIB Signal No.26 of VBL for Down line for SNM Side, and Signal No.27 of VBL for Up line for section VBL-DNV.

After the train passes the intermediate Block Stop signal of VBL a buzzer will ring in the VDU. On hearing the buzzer/bell the. SS/SM must acknowledge the same by clicking train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the SS/SM of the station in advance who in turn will turn 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 VBL into the Block section between DNV/SNM and intermediate Block Post 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 Dy. SS/SM on duty at VBL will then inform the matter to SCR on duty and concerned S&T official.

The 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 Register and SS/SM's diary book of both the Stations.

l] Dispatch of trains towards SNM and DNV stations in case of failure of the Down or Up Advanced Starter signal as the case may be at VBL Station due to failure of "Axle Counter" device or otherwise. If the failure of the Advanced starter of VBL due to the failure of axle counting device or the indication lamp (repeated by indication lamp) showing 'Red' light either due to power failure or due to any other causes, the re-setting " Button Icon" provided on VDU with Veeder counter at the SM/SS office for restoring the normal function of the signal, should be operated accordingly to the following instruction whenever the UP or DN Advance starter signal of VBL is found defective by the Station Master and the following procedure shall be adopted.

On receipt of this information, the SS/SM on duty after ensuring that all trains which had left his Block Station had arrived complete and intact at SNM or DNV station as the case may be (by exchange Private Number with the SS/SM SNM or DNV confirming this), shall press the resetting button Icon of the axle counter. When the resetting is successful, it shall be indicated by a green light in the VDU provided in the SS/SM's office at VBL. The use of this resetting button is registered on the veeder Counter and the SS/ SM should record this giving the details of the occasion with timings in the Veeder Counter register kept in the station.

If it is not possible to restore normal working of the IBS by use of the resetting button, 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 SS/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 SS/SM concerned and ask him to reset the axle counter by pressing the reset push button. There after the SS/ SM on duty, after ensuring that all the trains which had left his Block Station had arrived complete and intact at SNM or DNV (by exchanging of P.N with SS/SM /SNM/DNV confirming this) shall press the resetting button provided in the VDU at VBL station and resume the normal working.

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

a) When a loco pilot 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 SS/SM of VBL station, on being contacted over Telephone by the loco pilot, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorized the loco pilot on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give Locopilot the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance. The loco pilot shall then sound one short, one long and one short whistle and, on receipt of Train Manager signal shall proceed ahead duly exchanging signals with him. The station Master on being contacted by the Loco pilot 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 Train Manager through the Loco pilot 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 Loco pilot 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 Loco pilot 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 Kilometres an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometres 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 Loco pilot 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 Loco pilot 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 Loco pilot 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 Train manager.

On reaching the block station ahead the Loco Pilot 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 Loco Pilot will pass the IB signal as per GR 3.75(3) & SR 3.75.02, and on reaching the block station ahead, the Loco Pilot shall report the failure of the signal to the SS/SM, Following train shall not be allowed to leave VBL unless the complete arrival of the

receiving train is certified by the SM on duty at SNM or DNV 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 loco Pilot to pass the defective intermediate Block Stop Signal at "ON" without stopping at the signal. In accordance with the procedure prescribed in the special instructions.

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 SS/SM on the Block station immediately in rear of an intermediate Block Signal is aware that UP/DN intermediate Block Signal is defective shall before Dispatching a train shall verify that all trains which had left his Block Station had arrived complete and intact at SNM/DNV station (by exchanging Private Number with SS/SM SNM/DNV Stations) shall press the resetting button of Axle counter equipment.
e) Thereafter loco Pilot 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. The use of this re-setting push button is registered on the veeder counter and SS/SM should record this usage giving details of the occasion with timings in the veeder Counter/register and also train registers.

[N] <u>INDICATION CUM RESETTING PROVISION IN THE VDU AT VBL:</u>

The VDU provided for following light indications:

a. Yellow indications for the track- circuited portion by Axle Counter, which remain normally lit to indicate that the track is clear. These lamps extinguish no sooner the train passes the last stop signal and their place red indication are lit to indicate that the track is occupied.
b. Red indications for the last stop signal replacement track circuit which remain lit so long this track- circuit is occupied or in under failure condition.
c. Red indication ahead of the IBS Signal, which are lit if the train passes the IB signal in "ON" Position. These indications continue to glow till such time the lock and block working is resumed through emergency re-setting feature.
d. A red indication just ahead of IBS Signal for the IBS signals replacement track circuit. These indications normally remain yellow and are lit either during occupation by a train or during failure of this track circuit.
e. Red indications for the block section for receiving trains. These indications shall normally remain yellow indications and shall be lit only when the incoming train passes the IBS signal. It remains lit till such time train arrives fully and Block Instrument is normalized.

<u>[O] RE SETTING PROVISION IN THE VDU AT VBL STATION</u>:

For resetting of I.B. Axle counter please refer Para No: 5.1 of Appendix 'B' of this SWR.

[P] SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBH AT 'ON' POSITION:

a. In case train run away indication appears the SS/SM receiving Station shall not turn the block instrument handle to line clear position and SS/SM at sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal in the 'ON' position has actually arrived and its complete arrival 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 Loco Pilot and action to be taken accordingly.

iii. When train run away indication appears at the Dispatching Station without any train in the section, the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after duly taking line clear treating entire section as one Block section as per GR 3.75(4).

iv. Whenever a train after having obtained line clear passes IBS (when not taken off) in "ON" position the train run away indication appears at the Dispatching station and train entering section indication appears at the receiving station, under such circumstances no further train shall be allowed in the section till, the said train arrives completely at the receiving station i.e., station in advance, and its complete arrival received at the receiving station i.e. station in rear 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 station ahead, the train run away indication will appear at both receiving and Dispatching station. Under such circumstances the SS/SM in the receiving station shall not turn the Block instrument to Line Clear position and SS/SM at sending station shall not take action to dispatch the (3rd) train, unless the 2nd train which passes the IBS in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

vi. Permission button icon to be pressed for the runaway train by only after verifying that the last vehicle of the runaway train has arrived in tact and ensured by exchange of private number with the SS/SM of the sending station.

vii. In case of failure of Axle Counter equipment at the sending station, permission button may also be pressed for normalizing the system only after verifying that there is no train in the section and after duly exchanging Private number with the SS/SM of the sending station.

viii. 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 as per item No.30.3 above.

ix. Before any re-setting 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 exchanging of private number that the last train has arrived complete at 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	Private No. of station ahead for Complete Arrival of	Veeder Counter No Before resetting operation	Train No. Entering Block section Immediately after the	Remarks	Signature of SS/SM

	section	**the train Under Col.2**	**completed**	**resetting operation**		
1	2	3	4	5	6	7

x. 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).

xi. Action to be taken when a train passes Intermediate Block Stop Signal at 'ON'

a) **By SS/SM of Block Station in advance of the Intermediate Block Stop signal :**

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 when IBS is passed at "ON" position.

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 comutator 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" in the 'ON' position arrives complete and its complete arrival is verified.

b) By the SS/SM of Block Station in rear of the intermediate Block Stop Signal must ensure that last stop signal controlling entry of trains into the section between the last stop signal and the intermediate Block Stop Signal is in its 'ON' position and shall under no circumstances take 'OFF' or attempt to take 'OFF' the said last Stop signal even if the Axle counter/Track circuit section from his block station up to and including the adequate distance beyond the Intermediate Block Stop signal shows 'clear' unless the train which had passed the intermediate Block Stop signal in the 'ON' position arrives complete the block station in advance and its complete arrival is verified, and intimate the SS/SM/ASM/Cabin Master of the block station in advance the number, description and the departure time of the last train Dispatched from his block station under exchange of Private number. By the SS/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 (b) above, the SS/SM of the block station in advance shall communicate the same to the SS/SM of the station in rear supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the SS/SM of the dispatching station and the SS/SM of the receiving station shall operate the 'Resetting ' and 'reset' panel respectively in conjunction. This simultaneous operation will cause the 'counter' to 'reset panel' at the dispatching station to illuminate then the Station Master shall operate the push button which in turn will record the next higher number in the counter at the cabin.

ii. The SS/SM of the Block Station in advance shall then take steps or authorized Station Master of the receiving end cabin supported by a Private Number to normalize the block instrument.

iii. Record of Private Number exchange and the number shown in the counters shall be maintained by the concerning SS/SM and the Station Master in the train signal (Cum log) Register/Train Log Register.

It is to be noted that in terms of GR3.75 whenever intermediate block stop; signal is at 'on' a loco pilot must stop his train in rear of the signal and contact the SS/SM of the block Station in rear on the telephone provided on the signal post who will authorize him to pass the signal in 'ON' position supported by Private Number and identification number which were taken for the line clear from the station in advance. If the telephone is not provided or is out of order, the loco pilot, after waiting for 5minutes shall pass it at "ON' but he must report the failure to the SS/SM at the Block Station ahead after following the provision in GR.3.75(3). This would mean that the loco pilot shall either get an authority on telephone from the station master or must report at the station ahead about the failure of the telephone. If none of those provisions are complied with, it should be taken as breach of Block Rules.

In the event of failure of IBS signal in the "OFF" position or cannot resume to "ON" position immediately after it has been passed by a 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.

[Q] **RUNNING OF MOTOR TROLLYS ON IBS ZONE**:

i. While allowing motor trolley/4 wheeler tower wagon/material trolley etc., entire section between VBL-SNM and VBL-DNV 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.

SIGNAL POST TELEPHONE:
A telephone socket (RE Type portable telephone kept with loco pilots) with a RED Press button at the bottom is provided at the foot of each IB signal and is meant for loco pilot to contact the SS/SM in rear by pressing the RED button. The loco pilot 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.

NORMAL POWER SUPPLY TO IBS GOOMTIES AT KM 695.175 AND AT KM 707.641:
Normal power supply to the Signaling and Interlocking installation at the IBS Goomties drawn from the traction power sources (230V-50 HZ, AT1 and AT2) with auto-change over arrangement in IB Goomties through a panel. Whenever any traction power supplies fails, the auto-change over unit will automatically connected to the other available AT supply.