East Coast Railway
Waltair Division

STATION WORKING RULES

OF

AMBAGAON (AGB)

East Coast Railway / Waltair Division

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AMBAGAON (AGB)

Index of Correction Slips

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STATION WORKING RULES OF AMBAGAON (AGB)

EAST COAST RAILWAY

WALTAIR DIVISION

STATION WORKING RULES OF AMBAGAON [AGB] [BROAD GAUGE]

Date of Issue:
Date brought in force:

Ref: Lr No: 2000/Safety (A&R)/19/36 of Rly. Board dated 27.10.05.

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:

The Station Working Rule diagram no: SI/WRD/23196 based on CSTE/E.Co.Rly Signal Interlocking Plan No.SI-23196 shows the complete layout of the yard, normal position of points, the Signalling and Interlocking arrangements, Gradients within the station limits. This must be referred to for giving details of the points and Signals when reporting accidents.

2. DESCRIPTION OF STATION:

Ambagaon (code: AGB) is a standard-II (R) 'B' class station with MACLS on the Kottavalasa-Kirandul B.G.section of E.Co.Rly on 'E' Special route. It is situated at km 281.429 from KTV and provided with centrally operated by VDU.

2.1. GENERAL LOCATION:

a)	Name of the station	AMBAGAON
b)	Class of station	'B' class
c)	Section	Kottavalasa-Kirandul
d)	Double line/Single line	Double Line between AGB-AGZ & AGB-KPRR
e)	Electrified/Non Electrified	Electrified
f)	Gauge BG/MG/NG	BG
g)	Railway	East Coast Railway
h)	Route	"D" Class
i)	Situated at	Km 271.410 F/KTV
j)	Reckoned from	Kottavalasa
k)	Operation	Centrally operated with VDU.

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

S.No	Adjacent Block Station	Distance	Direction
1.	KOTPAR ROAD	7.608 km	KTV end
2.	AMAGURA	10.019 km	KRDL end
3.	Provision of IBS	Nil	
4.	Automatic signal	Nil	
5.	DK station/Outlaying sidings	Nil	

S.No	Adjacent Block Station	Distance	Direction
6.	Passenger halt	Nil	

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

Between Stations	The Point from which the Block section commences	The Point at which the 'Block Section' ends
AGZ-AGB DN.	From DN advanced starter signal no. 26 of AGZ.	Point No. 32A of AGB.
AGB-AGZ UP.	From UP advanced starter signal no. 25 of AGB.	BSLB on UP line of AGZ.
AGB-KPRR DN.	From DN Advanced starter signal no.26 of AGB.	BSLB on DN line of KPRR.
AGB-KPRR Up	From UP Advance Startet signal of 25 of KPRR.	BSLB on UP line of AGB.

2.3.1. STATION SECTION:

DN LINE: From the outer most point No.32A at KRDL end to DN Advanced Starter Signal No.26.

UP LINE: From the UP BSLB of AGB to UP Advanced Starter Signal No. 25 of AGB.

2.3.2. STATION LIMIT:

UP LINE: From UP Distant Signal to UP Advanced Starter Signal No.25.

DN LINE: From DN Distant Signal to DN Advance starter Signal No 26.

2.4. GRADIENTS:

a) From the Centre of the station building towards AGZ (UP Line):

Chainage in Mtrs from CSB		Stretch	Gradient
From	To		
0.000 F/CSB	700.00M	700.00M	Level
700.00M	1140.00M	440.00M	1 in 319 Raising
1140.00M	1840.00M	700.00M	1 in 192 Raising
1840.00M	2300.00M	460.00M	1 in 458 Raising
2300.00M	2580.00M	280.00M	Level
2580.00M	In to section	--	1 in 1400 Raising

b) From the Centre of the station building towards AGZ (DN Line):

Chainage in Mtrs from CSB		Stretch	Gradient
From	To		
0.000 F/CSB	750.00M	750.00M	Level
750.00M	1140.00M	390.00M	1 in 300 Raising
1140.00M	1840.00M	700.00M	1 in 190 Raising

1840.00M	2320.00M	480.00M	1 in 575 Raising
2320.00M	2460.00M	140.00M	Level
2460.00M	In to section	--	1 in 1530 Raising

c) From the Centre of the station building towards KPRR (UP Line):

Chainage in Mtrs from		**Stretch**	**Gradient**
From	**To**		
0.000 F/CSB	880.00M	880.00M	Level
880.00M	1320.00M	440.00M	1 in 650 Raising
1320.00M	1660.00M	340.00M	Level
1660.00M	2500.00M	840.00M	1 in 1250 Raising

d) From the Center of the station building towards KPRR (DN Line).

Chainage in Mtrs from		**Stretch**	**Gradient**
From	**To**		
0.000 F/CSB	980.00M	980.00M	Level
980.00M	1292.00M	312.00M	1 in 500 Raising
1292.00M	1680.00M	388.00M	Level
1680.00M	2500.00M	820.00M	1 in 800 Raising

2.5. A) <u>LAY OUT</u>:

Sl no	Running/Non Running line	Electrified/Non Electrified
1.	Line no-1 (Common Loop)	Electrified
2.	Line no-2 (UP Main Line)	Electrified
3.	Line no-3 (DN Main Line)	Electrified
4.	Line no-4 (DN Loop)	Electrified

B) <u>PLATFORMS:</u>

i) One Rail level passenger platform on Line No.1 is provided with measurement of 400.00M x 6.10M.

ii) One Medium Level Passenger Platform on Line No.4 is provided with measurement of 400.00M x 11.20M.

2.5.1. <u>RUNNING LINES, DIRECTION OF MOVEMENT & HOLDING CAPACITY IN CSR:</u>

<u>Direction of traffic:</u>

The trains coming from AGZ and are proceeding towards KPRR are DN trains and the trains coming from KPRR and proceeding towards AGZ are UP trains.

<u>Holding Capacities of lines in CSL:</u>

S.No	Running lines	Name of the Line	Clear Standing Room	Whether Electrified/ Non Electrified
1.	Line No 1	Common Loop	831.10 M (STR to STR)	Electrified
2.	Line No 2	UP Main.	866.40 M (SH to STR)	Electrified
3.	Line No 3	DN Main.	846.50 M (STR to SS)	Electrified
4.	Line No 4	DN Loop.	728.00 M (STR to SH)	Electrified

2.5.2. NON RUNNING LINES AND THEIR CAPACITY IN CSR:

a) T.M. siding:

TM Siding of CSL 350 mtrs (SH to SB) takes off from line no. 4 at KRDL end and it has entry and exit at one ends. The siding is isolated by point no. 38A/B at KRDL end the points are operated from the operating panel. Independent shunt signal No. 19 at KRDL end has been provided for shunt movement from the siding. T.M. can be directly dispatched from the siding by taking off the signal SH-6A. at KRDL end have been provided for reception of train into the T.M. siding.

b) SHUNTING NECK*:*

Shunting Neck of CSL 71 mtrs (SH to DE) takes off from line no. 4 at KRDL end and it has entry and exit at one ends. The siding is isolated by DS point no. 36 at KRDL end the DS points is operated from the operating panel. Independent shunt signal No. 6A/B at KRDL end have been provided for shunt movement for reception of train from the shunting neck. Independent shunt signal No. SH19 & SH 17 in the station yard has been provided for shunt movement to dispatch train to the shunting neck.

Holding Capacities of Siding in CSL/CAL:

S.No	Name of the Line	Clear Standing Room	Whether Electrified/ Non Electrified
1.	T.M. Siding	350 M (From SH to DE)	Electrified

2.5.3. ANY SPECIAL FEATURES IN THE LAYOUT:

a) NIL

2.6. LEVEL CROSSINGS:

S No	LC gate No. & KM	Class of Gate	Type of interlocking	Section
1.	KK-71, Km No: 273/7-8	'C' Class Engineering.	Non-Interlocked	AGB-AGZ

3. SYSTEM AND MEANS OF WORKING:-

1	System of working enforce	Absolute Block Working, of GR 7.01 (1) (a), 8.01 (1) (a)& (b) 8.01 (2) (b), 8.03 (1) (a) (b) (c)

		(ii), 14.01 to 14.07, 14.08 (a), 14.09 to 14.11, 14.13 and Block Working Manual Chapter-V
2	Double Line/ Single Line/Multiple	Double Line.
3	Type of Signals	Multiple Aspects Color Light Signal (MACLS)
4	Block Instrument	S.G.E Type (Non Co-operative) double line lock and block instruments are provided for AGB-KPRR & AGB-AGZ block section in the Station Master's room vide BWM 5.01 (a) and GR 14.01 (a). The Lock and Block instruments are operated by Station Master on duty as per the provisions of GR Chapter-XIV of G & SR and Block Working Manual Chapter-V.
5	Co-operative/Non Co-operative	Non co-operative
6	Block Telephone Provided	Yes, Block Telephone attached to Block Instrument is provided.
7	Custody of Block Instrument	The on duty SS/SM is responsible for operation of the Block Instrument, he is the only authorized person to operate the Instrument the keys in the personal custody vide G&SR 5.08 & 4.12(a). Block instrument is provided with Double locking system one key with on duty SS/SM, and another one with ESM/SSE(signal)
8	Telephone Provided at IBS	No IBS Not Applicable.

4. SYSTEM OF SIGNALLING AND INTERLOCKING:

1	Standard of Inter Locking	Standard II R
2	Type of Signal	MACLS is governed by GR.3.08 (4) (b) & 3.07 (4).
3	Mode of Inter Locking	The Station is provided with centralized Electronic Interlocking (EI). All signals and points are electrically operated centrally from the VDU provided at SM's Office
4	*Method of operation*	VDU is provided with a stand-by VDU in the Station Master's office to centrally control all signals, points and crank handles etc. The SM's Key which is provided with SM's Key box shall always remain in the personal custody of the station master on duty in terms of GR 3.36 (3). The detail of operation from VDU is given under APPENDIX-'B'.
5	*Track circuits*	Track circuits are provided in the yard as 1AT, 1T1, 1T2, 26AT, 31AT, 31BT, 33AT, 33BT, 35AT, 35BT, L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L4T1, L4T2, L4T3, 40AT, 40BT, 38T, 34BT, 32AT, 32BT, 25AT, 25T, 2T2, 2T1, and 2AT. Indications for the above track circuits/ Axle counters are available on VDU at SM's office. When a signal is cleared the route indication 'Yellow' strip appears for the particular route

		set and 'Red' light appears as the train occupies the track circuit.
6	*Axle counters*	High available Axle counters with dual detections are provided for section AGB-KPRR on both UP & DN lines and section AGB-AGZ for last vehicle verification. The position of the Block section whether cleared or occupied are reflected in the VDU provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters in to the Block Section, "Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears. After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as Block Instrument failure for the particular section and necessary action as per GR.14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, Advanced Starter signal shall not come to OFF and the concerned instrument shall remain locked in last operated position. A resetting arrangement for resumption of the system in case of failure of both the axle counters has been provided in the SM office. After being assured by SS/SM of both the stations that the last vehicle has arrived completely at the receiving station by exchanging Private Number, the resetting to be complied with. (Details of resetting procedure are given in APPENDIX-'B' of this SWR).
7	*Calling on signals*	Calling-on signals are provided below Home signals (i.e. in both UP & DN lines) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b). Miniature colour light Calling-on signal is provided below the Home signals and below starter and intermediate starter signal in terms of GR.3.13 (6)(b). A Calling-on signal shows no light in the 'ON' position and Yellow light when taken "OFF". A calling-on signal will be taken 'OFF' for reception of a train when the Home signal above it cannot be taken 'OFF' due to failure or any other reason or for admission of train on blocked line. Before taking 'OFF' Calling on signal during failure of track circuit, the track over which the train is going to be admitted must be checked physically by SS/SM on duty. To take "OFF" Calling-on signal the train must come to a stop at the foot of the Home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the signal. (The detailed procedure is given in Appendix-B)

<table>
<tr><td></td><td></td><td>Note: SS/SM on duty should ensure that no through train signals are given while receiving a train on Calling-on Signal.</td></tr>
<tr><td>8</td><td>IBS</td><td>Not applicable</td></tr>
<tr><td>9</td><td>Crank Handel</td><td>When any point fails to operate normally by the Route Setting operation through VDU, it is inevitable to operate the points with crank handle. The SS/SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual chapter-2, para-2.18 & 2.19.
<table>
<tr><th>CRANK HANDLE</th><th>CONTROL POINTS</th></tr>
<tr><td>CH-1</td><td>31A/B</td></tr>
<tr><td>CH-2</td><td>33A/B</td></tr>
<tr><td>CH-3</td><td>35A/B</td></tr>
<tr><td>CH-4</td><td>32A/B</td></tr>
<tr><td>CH-5</td><td>40A/B,</td></tr>
<tr><td>CH-6</td><td>34A/B</td></tr>
<tr><td>CH-7</td><td>36,38A/B</td></tr>
</table>
These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when concerned signals are not taken ‘OFF’ and the route is not locked for whatever reasons. To Transmit or Release control of the Crank Handle, click on the crank handle control button, a pop-up menu will appear. The appearing pop-up menu gives details of the possible commands on the Crank Handle, which are transmit control and Receive control. Crank Handle can be released by clicking the Transmit control. When the keys are taken out no signal can be taken ‘OFF’ over the particular route on the points nominated by the crank handle. This key can be electrically transmitted at both end locations of the yard for manual operation of the defective points. The failure of motor operated points must be ensured by physical checking that there is no obstruction for the same. SS/SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SS/SM on duty at the station as per Para 2.19(d) of the operating Manual. Correct setting, clamping and padlocking of the points devolve on the SS/SM on duty. (Details of use of Crank Handle as per Appendix-‘B’).</td></tr>
</table>

		The cases of failure of motor point should be promptly reported to the concerned signal maintainer/signal SSE/JE for immediate rectification. When Crank handle operation is resorted to, the concerned counter will be incremented. The same should be recorded in the register provided for with the reason by SS/SM on duty.
10	Emergency Cross Over	Emergency Cross Over 31A/B towards KTV end and 32 A/B towards KRDL are provided.
11	Provision of Shunt Signal	Shunt back signal SH-3(A-D) is provided towards KPRR end of the yard. Shunt signal SH19 to receive trains /Loco from TM siding. SH 6A/B to receive trains/Locos from Shunting Neck. Independitent Shunt signal SH-16,17 are provided towards KPRR & AGZ respectively for Line No. 2 & 4 respectively. Shunt Back signal SH-4(A-B) is provided towards AGZ end of the yard.
12	Motor operated points	All the running line points including T.M siding & Shunting Neck are operated with Electrical point machines.
13	EMERGENCY/CRANK HANDLE KEYS AND THEIR CUSTODY	The Crank Handle location boxes are painted with yellow and black diagonal strips and pad locked. The key of Crank handle location is kept in the custody of the SS/SM on duty. One Crank Handle is kept in the custody of SS/SM on duty for operation of points in case of emergency. Telephone communication is provided in the crank handle location box.
14	Indication of points/ signals/track circuits/Axle counters	All the points and signal indications in the yard will be displayed in the mimic diagram of the VDU as per the site conditions. Normally no indication shall display in the mimic diagram when track circuit is clear, “RED” indication is displayed when the same is occupied on any track circuit Zone. Axle counter clear or occupied indication is displayed in the mimic diagram of VDU.
15	Description of VDU	Details described in Appendix-B
16	Level crossing Gate Operation	Details described in Appendix-A
17	Emergency route release Counter.	This counter is provided to register the number of operations made for emergency cancelation of route. The SS/SM on duty must record the last number registered on the counter while taking/Handing over duty.
18	Emergency Route Release Indication.	This Electronic interlocking is based on the principle of 'DEAD APPROACH LOCKING'. As such, when a route is set and signal is taken “OFF” on the route, the route gets locked. Normally the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken “OFF” vide SR 3.36.02 (a), the concerned signal must be put back to danger by click on the signal cancellation

		option on the menu (Main/Calling on) of the concerned signal, the signal will immediately go to “ON” aspect. The precondition for route release is, the route should have been set and the signal has been put back to danger. Click the Left mouse button on concerned Signal, the system would display a popup menu with a list of commands. Select the "Route Release" from the menu list. A white light will flash (UP or DN) indicating that the timer is working. After 120 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 concerned S&T staff should be advised for rectification of fault. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary, train signal register & in the register meant for this purpose.
19	Emergency Point operation	Emergency point operation facility is provided to operate the point from the VDU in case of failure of point controlling track circuit. For doing the Emergency Point Operation click on the Emergency Point Key. Now track the mouse pointer over the KEY IN option. By doing this a Password window appears. Enter the User name and Password. The user name is ECOR and the password of this station is AGB. Now the Emergency point operation can be carried out by the following steps. Track the pointer to the corresponding Point which is intended to operate and then click the mouse button. After doing so, a pop-up menu will appear consisting point normal, point reverse, Emergency normal and Emergency reverse options. Normally Emergency normal and Emergency reverse options are in disable mode and these are in enable mode only when the Emergency point Key is in condition. By left click on Emergency normal or Emergency reverse as the case may be, point gets operated and flashing indication will appear the indication will be steady after the point is set to Normal or reverse as the case may be. After the completion of Emergency point operation, the key is to be KEY OUT by clicking KEY OUT menu. The user name and password is to be given for KEY OUT also. After the Emergency point operation a specific counter will change to its next higher digit and this number should be recorded in the register provided for this purpose by the SS/SM.

20	Emergency crank handle release operation.	Emergency crank handle release operation facility is provided to operate the point by using the crank handle in case of Route locked condition. For Emergency crank handle operation the procedure laid down in Para No.5.3 of Appendix-'B' shall be followed. Each operation of emergency crank handle operation shall be recorded in the station diary, train signal register and in the register meant for this purpose.

4.1. CUSTODY OF RELAY ROOM/GOOMTIES/RELAY HUTS KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T MAINTENANCE STAFF:

Custody of Relay room/ Goomties/Relay Huts key and procedure for its handover and taking over between SS/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/Safety Performance dated 10.06.2023. Relay room/Gate Goomties/Relay Huts 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, SS/SM shall hand over the key to the Maintainer. On completion of the work, maintainer shall lock the relay room/Gate Goomties/Relay Huts and shall return the key to SS/SM. The particulars of such transactions shall be entered by the SS/SM in the relay room key/Gate Goomties/Relay Huts register vide OM 2015 para No.13.16 and in the register meant for this purpose.

4.2. POWER SUPPLY:

i) The station works on 230V single phase power supply. The normal power supply is from the auxiliary transformer (25KVA Rating) connected to OHE traction distribution.

ii) An Auto changeover switch is provided in the Station Master's Office with the three power supplies viz., UP AT, DN AT and Local supply for automatic selection from available source or changing the switch position to the required supply manually. A luminous indicator provided above the circuit breaker for each supply indicates the availability of the supply.

iii) Normally the switch is kept in auto mode. Whenever power block is to be given, the on duty SS/SM must ascertain that power is available on the other AT. Ex: if power block is given to the up line, DN AT must be available and vice-versa.

iv) In case of failure of one of the AT Supply without any power block, the on duty SS/SM has to check whether the circuit breaker has tripped (Three circuit breakers are provided in the changeover switch board one for each supply and their normal position is Up and when tripped it goes down). In case of failure of both AT supplies, the Local supply shall be utilized by operating the switch. If the circuit breaker is tripping even after resetting, no attempt shall be made to hold it by any means and a message shall be given to concerned SSE [Elect.] and SSE/PSI [OHE] for prompt rectification.

v) For IPS system which provides supply to EI, a manual changeover switch is provided at SM's Office with the two power supplies viz., selected supply from CLS panel and DG supply for changing the switch to required supply position manually.

vi) Normally manual changeover switch is kept in selected supply from CLS panel position, if in case any emergency, changeover switch is changed to DG supply position by on duty SS/SM.

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

REMOTE MONITORING ASM BOX: Remote monitoring ASM Box gives alarm to the ASM for the following fault conditions:-

a) 50% depth of discharge (DoD) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.

b) 60% DOD, which warns for emergency. The alarm for this condition is same as for condition 1.

c) 70% DOD, which signals system, shut-down. In this condition signal feed is cut-off and all DC-DC converters continue working. Audio alarm continues till power supply is restored.

d) Any of the module fails, which calls for 'call S&T'.

e) Whenever there is a failure of power supply in AT or Local 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 AT and Local and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

5. TELECOMMUNICATIONS:

i). The station is connected to KRPU-KRDL control Circuit.

ii). The station is connected to KRPU-KRDL traction power control circuit.

iii). Railway Auto Telephone provided at the station is connected to Divisional Exchange at WAT through Exchange at JDB.

iv). Telephones attached to single line Token less Block Instruments and double line block instruments are connected to adjacent stations on either side.

v). Magneto Telephone communication is provided between AGB-KPRR and AGB-AGZ stations.

vi). Telephone communication is provided between Station Master on duty to UP CH locations and to DN CH Locations.

vii). Telephone communication is provided between Station Master on duty and C-Class LC Gate No.KK-71 at Km No.273/7-8 between sections AGB-AGZ.

viii). 25w VHF set is provided at the station for emergency communication.

ix). CUG phone is provided at this station with SS/SM on duty.

5.1. FAILURE OF COMMUNICATION: -

a) In the event of total failure of communications between the adjacent block stations SR 6.02.03 shall be observed for double line section for working the train.

b) In the event of partial interruption/failure of communications between the adjacent block stations SR 6.02.06 shall be observed for working the train.

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:

STAFF IN EACH SHIFT:

SS/SM	1
TPM/TP	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 Master's office.

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

The SS/SM on duty is responsible to ascertain the clearance of the nominated line between first facing point and advanced starter signal in each direction. The private number book should be under the custody of SS/SM on duty that is authorized to use it.

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 IN-CHARGE (Supervisor) 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 (Supervisor) 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 (Supervisor) 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 (Supervisor).

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) For section AGB-KPRR:

i). The conditions laid down in GR 8.03 (1) (a) (b) (c) (ii) shall be complied with SS/SM on duty before line is considered clear and line clear is granted for double line section AGB-KPRR.

ii). Line shall not be considered clear and line clear shall not be granted to a UP train unless:

a) SS/SM ensures the reception signals pertaining to a train are in 'ON' position and glowing properly vide GR 3.49 (4).

b) Whole of the last preceding train has arrived completely.

c) UP Home signal /calling-on signal No. 1(A-B) and/or C-1(A-B) is put back to 'ON' position.

d) Line is clear up to BSLB of AGB in UP line.

B) For section AGB-AGZ:

i). The conditions laid down in GR 8.03 (1) (a) (b) (c) (ii) shall be complied with SS/SM on duty before line is considered clear and line clear is granted for double line section AGB-AGZ.

ii). Line shall not be considered clear and line clear shall not be granted to an DN train unless:

a) SS/SM ensures the reception signals are in 'ON' position and glowing properly vide GR 3.49 (4).

b) Whole of the last preceding train has arrived completely.

c) DN Home signal /calling-on signal No. 2A/B/C and/or C-2A/B/C are put back to 'ON' position.

d) Line is clear up to Outer most point No.32A of AGB.

e) Ensure that the closure of LC Gate No. KK-71 at Km No.273/7-8 against the road traffic from Gateman supported by Private Number.

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

NIL

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 immediately be set against the blocked line except when shunting or any other movement is required to be done on that line [Refer SR.3.51.06 (a)].

Safety Point Alarm Unit (SPAU):

A safety point alarm is provided on the panel board with different indications:

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

2. In case the SS/SM forgets to alter the points, after a time lag of 02 minutes, an audible buzzer will be heard from this instrument along with the 'RED" indication of the line on which the train has arrived.

3. The SS/SM shall then press 'ACK' button to mute the buzzer and immediately set the required points against the line on which the train has arrived.

4. On setting the points against the occupied line, the RED indication will disappear.

5. In case SS/SM fails to set the required points against the occupied line a fault message will be triggered SMS will be sent to concerned station mobile and all concerned staff. 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 the safety point alarm will not work and the point should be set for the line occupied by a stable load or a goods train by SS/SM on duty in that order so that, in case of mishap, the chance of causalities minimized. In case of all the lines are occupied by passenger trains, points should be set for a loop line to negotiate which the speed of incoming train would be reduced which in turn would minimize the consequences/causalities vide SR 3.51.06(b). These precautions shall be taken in addition to the observance of other precautions as contained in SR 5.04.01 and SR 5.23.01. Block collars to be placed on the concerned button of blocked 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 SS/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

6.2.1.3. RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

Before receiving a train on Non-Signaled line, the SS/SM shall ensure that-

a) The train is brought to a stand at the first stop signal.
b) The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
c) All over which the train has to pass are correctly set, the facing and trailing points are clamped and padlocked and
d) The driver is authorized to pass the approach stop signals at ON through a written authority [Refer GR 5.10].

6.2.1.4. DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:

Whenever a train is to be dispatched from a Non-Signalled line a starting order on form T-511 shall be given to the driver to start from the Non-Signalled line [Refer SR.5.11.1].

6.2.1.5. DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:

NIL

6.2.1.6. ANY SPECIAL CONDITIONS:

a) SPECIAL RESTRICTIONS:

1. Due to 1 in 190 falling gradient on DN line at AGZ end, while line clear granted to AGZ for reception of DN trains, opposite side shunting movement on line-3 (SH3C Route) is restricted. SS/SM should ensure the same.

b) SPECIAL INSTRUCTIONS:

NIL

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(2) (b), 3.40(3) (b) for section AGB-KPRR, AGB-AGZ.

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 SIGNAL AT "ON" POSITION.

Station master should ensure that signal is put back to 'ON' after passage of the train as per GR 3.36 (2) (B), 14.01 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 a DN train on Line No.4 setting overlap to Overrun line (DN Loop).	AND	Reception of an UP train on Line No.1 or 2. OR Dispatch of another DN train from Line No.3.
2.	Reception of an UP train on Line	AND	Dispatch of another UP train from

	No.1 setting overlap to sand hump (Common Loop).		line No.2. OR Receive DN train on line No. 3 or 4
3.	Reception of DN train on line no. 1 setting overlap to sand hump (Common Loop).	AND	Dispatch of another DN train from Line no. 3 OR 4.

ADEQUATE DISTANCE: (SIGNAL OVERLAP)

To take off the Home signals for admission of a train, the adequate distance (overlap) as mentioned below shall be kept clear. [Refer GR.3.40 (3) (b) and SR thereto]

CLEARANCE OF ADEQUATE DISTANCE (SIGNAL OVERLAP)

FOR UP TRAINS		
Line No.	**From**	**To**
1	UP starter Signal No.11	The end of Sand Hump or UP Advanced starter signal No.25.
2	UP starter Signal No.13	UP Advanced Starter Signal No.25.

FOR DOWN TRAINS		
Line No.	**From**	**To**
1	DN starter Signal No.12	The end of over run line or DN Advanced starter signal No.26.
2	DN starter Signal No.14	The end of over run line or DN Advanced starter signal No.26.
4	DN starter Signal No.18	The end of Sand Hump or DN Advanced starter signal No.26.

6.5. COMPLETE ARRIVAL OF TRAINS:

The entire block section between AGB-AGZ and AGB-KPRR are double line section on both UP and DN Lines are monitored by axle counter system and the position of the block section whether 'Occupied' or 'Clear' is indicated on VDU at SM's office. As soon as train enters in to that block section the RED indication appears on VDU. After whole train clears the block section GREEN indication appears on the VDU. This confirms the complete arrival of train and the SS/SM on duty shall give 'Train out of Block Section' report to the sending end station on seeing the section clear indication GREEN on the VDU.

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 SS/SM on duty shall obtain complete arrival certificate from the guard of the train in the complete arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SS/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 Guard & 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 SS/SM on duty shall take action in terms of SR.15.25.03 (b) (vi).

6.6. DESPATCH OF TRAINS:

a) To dispatch a train, the Station master on duty shall obtain line clear for that train, shall set the route for the outgoing train correctly and satisfy himself by observing the visual indication on the VDU. He shall suspend all non-isolated shunting and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the advanced starter is the authority to proceed into the block section. As soon as the train passes the advanced starter signal, Train entering section indication will appear on the VDU. The SS/SM will then send the train entering given section signal to the station in advance.
[Refer GR 3.38, 3.42, SR 3.36.04(b), 3.42.04 and BWM 2.07.5(a)]

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. After the train passes the advanced starter complete he shall send the train entering block section signal to the station in advance. If a train worked without guard or break van the instruction laid down in Subsidiary rules shall be followed.

ISSUE OF CAUTION ORDERS:

b) 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 Guard and Loco pilot in terms of GR 4.09 and SRs thereto.

6.7. TRAINS RUNNING THROUGH:

The procedure detailed in Para 6.4, 6.5 shall be observed. The Station Master is responsible to observe/watch the condition of the vehicles on a passing train and shall wave green hand signal horizontally until anything wrong is noticed on train. For this purpose the Station Master on duty shall stand in such a position that he sees a clear view of the passing train and that his hand signals can clearly be seen by the Loco Pilot and Guard of the train. He shall also depute the TPM on duty to the other side, for passing the train. The TPM on duty shall wave Green hand signal horizontally. He shall show danger hand signal if he notices anything is wrong and reports the same to the SS/SM on duty.

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 3.40,3.42, 4.17, 4.42, & SR 4.42.02 (b) (i), (ii), (iii), (c) & (d)]

6.8. WORKING IN CASE OF FAILURE:

PROCEDURE TO BE FOLLOWED FOR WORKING OF TRAINS DURING FAILURE /SUSPENSION OF INTERLOCKING /SIGNALS/ POINTS:

1	Track Circuit	In case of failure of track circuits, the clearance of the concerned line should be ensured physically on the track zone. Track sections monitored by HASSDAC, the resetting procedure should be adopted as per Para 6.1 of this SWR page No. 52 (Appendix-B). If the track section continues to show 'RED' condition even after resetting, failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for their rectification. Then the clearance of the concerned line should be ensured physically by SS/SM on duty before a train is piloted
2	Axle Counter	If both the axle counter with dual detection fail 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
3	Block Instrument	In the event of failure of block instrument, the concerned block instrument shall be suspended till its rectification and trains shall work as per GR (Refer SR 6.02.03, 6.02.04, 6.02.06, & 14.13 BWM 4.27, 4.35, 4.37, & 4.38) During this period of time the authority will be T/369(3b) with identification number and private number issued from the station in advance written both in figure and words.
4	Reception of a train on obstructed 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 as per GR 5.09(2)(C)(3)(4) (5) and SR 5.09.01
5	Reception of a train on non signaled Line.	Before receiving a train on Non-Signaled line, the SM shall ensure that- 1. The train is brought to a stand at the first stop signal. 2. The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand. 3. All the points over which the train has to pass are correctly set, the facing and trailing points are clamped and padlocked and 4. The Loco Pilot is authorized to pass the approach stop signals at ON through a written authority [Refer GR 5.10].

6	Defective signals/ Block Panel	Whenever signals become defective, the procedure laid down in GR & SR shall be followed. A signal in the OFF position is the final indication that the points are correctly set for the route for which it applies and if it is found impossible to take OFF a signal, the setting of points on the route to which it applies shall be inspected by the station master on duty before the signal is declared as defective irrespective of what is indicated by the position of the route. [Refer GR 3.68 to 3.71, 3.80 and SR 3.68.01 (c)]. In case of disconnection of signal and interlocking for repairs and maintenance procedure laid down in GR and relevant SRs shall be followed. In the event of signal showing no lights, station master on duty shall before giving line clear initiate action in accordance with the procedure laid down in GR 3.74.
7	Defective Inter Locking	When interlocking becomes defective the SS/SM on duty shall be responsible for correct setting, clamping, padlocking of points for admission of train. [Refer SR 3.69.03 (c) & 3.69.01 3.71] and SR there to.
8	Defective /Damaged Points	When any point fails to operate normally by route setting operation through VDU, it is inevitable to operate the points with crank handle. The SS/SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle shall be followed as per operating manual para 20.06.Station master on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency crank handle register shall be maintained by SM at the station as per para 20.06(d) of the Operating manual. Correct setting, clamping and padlocking of the points devolve on SM on duty. (Details of use of crank handle as per Appendix-'B'). The cases of the failures of the point should be promptly reported to the concerned signal maintainer/JE/SE (signal) for their immediate rectification
9	Defective IB signal	Not Applicable

6.9. PROVISIONS FOR WORKING OF TROLLIES/ MOTOR TROLLIES/ MATERIAL LORRIES ETC":

a) Motor trolleys shall be worked as per GR 15.25 and SRs there to, BWM 5.11(1) (2), 5.12, 5.13, 5.14(2) (a) and circulars and orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs there to and in accordance with the provisions of Block Working Manual.

b) Tower wagons shall be worked as per GR 17.08 and SRs there to and BWM 4.39 and other circulars and orders issued from time to time.

c) Push trolley shall run under block protection only vide SR 15.25.09(e).

d) Trolleys, Motor Trolleys, Lorries which are not insulated shall not be allowed to run except on line clear.

e) Motor Trolleys/Tower Wagon/Material Lorries are not likely to actuate the Axle Counter correctly.

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

Note: Trolleys which are to be run on track circuit area shall be insulated as per SR 15.20.02.

7. BLOCKING OF THE LINES:

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. 'Line Block' is to be activated on VDU by SM on duty following procedure laid in para No.5.4.1 & 5.4.2 of Appendix-B. A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23 and SR 5.23.01]

A) SECURING OF VEHICLES: -

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

Note: Special care should be taken to secure special type vehicles fitted with roller bearing while standing in siding or in running lines. [Refer GR 5.23 & SR 5.23.01]

B) REMINDER FOR BLOCKING LINES:

Whenever any running line is blocked or when a train is stopped to cross another train or detained for any other reason, even for a short while or during shunting operations, 'Line Block' is to be activated on VDU by SM on duty following procedure laid down in para No.5.4.1 & 5.4.2 of Appendix-B. [Refer SR 3.36.03 (b)].

C) ALTERATION OF POINTS TO A CLEAR LINE WHENEVER A RUNNING LINE IS BLOCKED:

When a running line is blocked by stable load, Wagon, vehicles or by a train which is to cross or to give precedence to another train or immediately after the arrival of a train at the station etc. the points at either end should immediately be set against the blocked line except when any shunting or any other movement is required to be done immediately in that direction on that line.

If all the lines at a station happen to be blocked when "Line Clear" has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order, so that in case of any mishap the chances of causalities are minimized. In case all the lines are occupied by passenger carrying trains, points should be set for a loop line to negotiate of which the speed of the incoming train would be reduced, which in turn would minimize the consequences/causalities. While doing so points may be set for a loop occupied by a train, if any, whose engine is facing the direction of approach of the incoming train rather than for a loop occupied by a train whose passenger coach will in case of collision receive the impact.

D) LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES:

Except small loading and unloading of vehicles on running line is prohibited unless permitted by DOM vide SR 5.19.01.

8. 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 7.01,7.07,7.08,5.15(1)(B)and 5.1(2)(B) shall be followed]. The SS/SM on duty, TMR is authorized to supervise shunting operation. Normally back shunt, shunt below starters and starter signals shall be used for shunting operations. The official supervising the shunting shall ensure the correct setting, clamping and padlocking of points in case of Non-Signaled movements.

The SS/SM on duty and the official supervising shunting shall cooperate with each other regarding shunting operations. Neither reception signals nor departure signals shall be taken 'OFF' unless the shunting is isolated and the path of incoming or outgoing train is free from obstructions. The overrun line may be used as shunting neck.

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

a) CUSTODY OF KEYS AND PAD LOCKS DURING SUCH MOVEMENT:

The key of the pad locks of such points shall be in the personal custody of the operating official vested with this responsibility till such time movements are completed. The operating official vested with the responsibility of supervising the Non-Signaled movement of the

engine/train/vehicle must return the key along with pad locks to the SS/SM on duty after completion of the said movement or alternatively when such a move is cancelled.

b) AUTHORITY FOR SHUNTING OPERATIONS:

Shunt signals are provided. The SS/SM on duty shall issue written shunting authority on form T/806 to the Loco pilot through guard of the train when the non-signaled shunting is resorted to. This memo shall be withdrawn whenever shunting is to be suspended for reception and dispatch of train if the line on which shunting is performed is not isolated. After shunting is completed the order shall be collected from the driver cancelled and pasted with the record foil as per SR 5.13.02.

Note: Points both facing and trailing are to be clamped and padlocked for all non-signaled movements. Further it must be ensured that the entrance and exit track circuit are clear as also the intervening track of the cross over is clear of any obstruction and certified so by the operating official (who is responsible for shunting supervision) before the SM on duty resumes normal working either for reception or dispatch of trains in the station yard or through the station yard.

c) NON-SIGNALLED MOVEMENTS:

All signaled movements in the yard either of train or of an engine with or without vehicles shall be from one stop signal to next stop signal or stop board and no half way movements are permitted and if such movements are permitted in unavoidable situations it should be considered as non-signaled movement and precautionary measures should be taken such as clamping and pad locking of points en-route both interlocked and non-interlocked points including derailing switches according to SR 5.3.05 and 5.14.03.

8.2. SHUNTING IN FACE OF AN APPROACHING TRAIN:

Shunting in face of an approaching train is governed as per GR. 8.09.02(ii)(a) & SR thereto.

8.3. PROHIBITION OF SHUNTING, 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:

NIL

8.5. SHUNTING ON DOUBLE LINE:

i) ***Within station section*:** Shunting within station shall be permitted provided the necessary Reception Signals are kept at ON vide GR 8.05 (2). But this shall be done only when there is no approaching train since shunting in the face of an approaching train is prohibited at this station

ii) ***Outside the station section*:**

a) Shunting shall not be permitted in block section in rear unless it is clear and is blocked back. [Vide GR 8.06. (2)]

b) Shunting shall not be permitted in block section in advance unless it is clear and is block forward.
c) Shunting may permitted behind the train provided that when the block section in advance is occupied by a train travelling away from the station and under special instructions taking into consideration the speed, weight and brake power of trains and the gradients on the section and as soon as intimation has received that the train has arrived at the block station in advance, the line shall be blocked forward if it is still obstructed. [Vide GR 8.06. (3)]

iii) ***During failure of Block instrument*:** Block back messages shall be exchanged between Station master at either end of the section which is intended to be obstructed supported by private number. Both the Station Masters shall fix line block collars on respective Block Instruments and shall continue shunting provided the Block section is clear.

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

While performing shunting in the siding it should be authorized by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in shunting. The relevant provisions of GR 5.14 and SR thereto shall be meticulously followed.

9. ABNORMAL CONDITION:-

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

i). ***Partial interruption/Failure:***

In the event of suspension of Block instrument and during partial failure of other available means of communication, the procedures detailed below shall be followed for working of trains in different situations.

1) Failure/Suspension of Block Instrument or track circuit or Axle Counters-
Line clear shall be obtained on the Telephone attached to the block instrument or station telephone exchanged ID number and supported by Private Number.
2) Failure/Suspension of Block Instrument or Track Circuit or Axle Counters or Telephone attached to the Block instruments or station fixed telephones-
Line clear shall be obtained on Railway auto Phone or CUG phone by exchanging identification number supported by a private number.
3) Failure/Suspension of Block Instrument or Track Circuit or Axle Counters or Telephone attached to the Block instruments or station fixed telephones or Railway auto Phone or CUG phone –
Line clear shall be obtained on control phone by exchanging identification number supported by a private number.
4) Failure/Suspension of Block Instrument or Track Circuit or Axle Counters or Telephone attached to the Block instruments or station fixed telephones or Railway auto Phone or CUG phone or control phone –
Line clear shall be obtained on the VHF set by exchanging identification number supported by a private number.

The authority to proceed for the Loco pilot is T/369(3b) bearing identification number and private number received from the station in advance written both in figure and words. [Refer SR 6.02.06 & Chapter-V of BWM].

ii). ***The authority to proceed in occupied block section in case of obstruction of line or accident:***

Rules and regulations for working of trains on obstructed line in case of obstructions or accident on the authority of Block Ticket T/A 602 when communications are available shall be followed in accordance with the provisions of SR 6.02.02 and 06.02.05.

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**: Not applicable.**

v). Failure of Axle counter Block/BPAC: Procedure to be followed vide GR 14.13.

vi). Failure of MTRC: Not applicable.

b) 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. To Transmit or Release control of the Crank Handle, click on the crank handle control button, a pop-up menu will appear. The appearing pop-up menu gives details of the possible commands on the Crank Handle, which are transmit control and Receive control. Crank Handle can be released by clicking the Transmit control the key can be extracted from the concerned RKT. 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.

PROCEDURE FOR EMERGENCY OPERATION OF POINTS WITH POINT ZONE TRACK CIRCUIT/AXLE COUNTER FAILURE AND EMERGENCY ROUTE RELEASE:

Emergency point operation facility is provided to operate the point from the VDU in case of failure of point controlling track circuit.

For doing the Emergency Point Operation click on the Emergency Point Key. Now track the mouse pointer over the KEY IN option. By doing this a Password window appears. Enter the User name and Password. The user name is ECOR and the password of this station is AGB. Then the red colour Emergency point key indication will be changed as Green colour

indication. Now the Emergency point operation can be carried out by the following steps. Track the pointer to the corresponding Point which is intended to operate and then click the mouse button. After doing so, a pop-up menu will appear consisting point normal, point reverse, Emergency normal and Emergency reverse options. Normally Emergency normal and Emergency reverse options are in disable mode and these are in enable mode only when the Emergency point Key is in condition. By left click on Emergency normal or Emergency reverse as the case may be, point gets operated and flashing indication will appear the indication will be steady after the point is set to Normal or reverse as the case may be. After the completion of Emergency point operation, the key is to be KEY OUT by clicking KEY OUT menu. The user name and password is to be given for KEY OUT also.

After the Emergency point operation a specific veeder counter will change to its next higher digit and this number should be recorded in the register provided for this purpose by the SS/SM.

Rules regarding locking of points and damaged points vide GR 3.39 and GR 3.77 to be followed.

c) CERTIFICATION OF CLEARANCE OF TRACK BEFORE CALLING-ON SIGNAL OPERATION IS INITIATED:-

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 SS/SM on duty.

d) REPORTING OF FAILURE OF POINTS, TRACK CIRCUITS/AXLE COUNTER AND INTERLOCKING:-

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. The entries in failure register to be done with message to the section controller.

9.1. TOTAL FAILURE OF COMMUNICATION:

In the event of total failure of communication on double line, trains shall run on the authority to proceed without line clear in terms of SR 6.02.03.

9.2. TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

GR 6.01,6.02 and SR 6.02.01, 6.02.02 shall be followed.

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 communication, 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.

10. VISIBILITY TEST OBJECT:

The signals lights of DN Starter Signal No.18 and UP Starter Signal No.11 of Line No.1 are earmarked to serve as visibility test object during day and night vide GR 3.61.02 (b) (iii) & SR's thereto.

11. ESSENTIAL EQUIPMENT AT THE STATION:

(Details are given in Appendix-'E')

12. 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:

a) 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.

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

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

13. APPENDICES:

APPENDIX-A	:	WORKING OF LEVEL CROSSING GATES
APPENDIX-B	:	SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
APPENDIX-C	:	ANTI COLLISION DEVICE (RAKSHA KAVACH)
APPENDIX-D	:	DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.
APPENDIX-E	:	LIST OF ESSENTIAL EQUIPMENT PROVIDED AT THE STATION.

APPENDIX-F : RULES FOR WORKING OF DK STATIONS, HALTS, IBH, IBS AND OUTLYING SIDINGS.

APPENDIX-G : RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

CERTIFICATE

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

APPENDIX 'A'
WORKING OF LEVEL CROSSING GATES AT AMBAGAON STATION

1. GENERAL:
1.1. DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of Level Crossing Gate :	KK-71
2.	Engineering or Traffic Gate :	Engineering gate ('C' class)
3.	Under control of Station Master / Permanent Way Inspector:	SSE [P.Way]/JYP
4.	Location at KM:	273.350(273/7-8)
5.	At Station:	--
6.	In between stations:	AGB-AGZ
7.	BG / MG / NG :	BG
8.	Single line / Double line / Multiple line:	Double Line
9.	Normal Position:	Open to Road Traffic.
10.	Interlocked / Non-Interlocked:	Non-Inter locked.
11.	Means of Interlocking	---
12.	Provision of Gate signal at Kms.	i) Up Line: --- No ii) DN Line: --- No
13.	Signaling arrangements:	--
14.	Means of Communication – Telephone / Bell etc	Telephone to AGB
15.	Width of level crossing gate:	7.50m
16.	Type of road (NH / SH / Others) :	Others.
17.	Name of Road :	Dhanpunji - Gulmi Road
18.	Metalled / non-metalled :	Metalled
19.	Approach road :	BT
20.	Width of the road :	3.8m
21.	Angle of road crossing (in case of the skew gates):	63^{o}
22.	Road gradient (if any)	(i) North/East side: 1 in 30 (ii) South/West side: 1 in 30
23.	Road alignment (straight/curve)	(i) North/East side: Straight (ii) South/West side: Straight
24.	Provision of height gauges:	Yes
25.	Type of Barriers:	Coupled Lifting Barrier.
26.	Length of Check rails :	10.50M
27.	Road surface in between L-Xing gates:	Level
28.	Length of Rumble strip / speed breakers:	7.0m
29.	Road signs:	Provided
30.	Speed breaker indication board:	Provided
31.	TVU:/ done	18913/ October-2021.
32.	Census next due on :	October/2024.
33.	Demarcation for placement of Detonators:	Provided
34.	No. of Gatemen working:	2 (Two)
35.	Nearest Railway Medical Assistance	JDB.
36.	Nearest Private Medical Assistance available (if any)	Chandhili
37.	List of equipment available Yes / No:	Yes

1.1. EQUIPMENTS:

SN	Items	Quantity / Numbers
1.	LED Tri colour hand signal lamps	2Nos
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	3 Nos
4.	Banner Flag Red	3 Nos
5.	Posts for exhibiting red banner flag	2 Nos
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2Nos
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 rod this may not be provided]
14.	Tin case for flags	1No
15.	Can for oil	1No
16.	Water port / Bucket	1No
17.	Canister for Muster Roll	1No
18.	Set of spare spectacles of gateman wearing glasses	1No
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1No
20.	Basket	1No
21.	Whistle	1No
22.	Wall Clock	1No
23.	A Small size chain for use in case of failure of gate boom lock	2No

1.2. RECORDS TO BE KEPT AT GATE LODGE:

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

1. Gate Working Instructions in Hindi/English.
2. Gate Working Instructions in Local vernacular language
3. Gateman Rule Book in Local vernacular language.
4. List for tools and books.
5. Duty registers.
6. Certificate of Competency for working as gateman.
7. Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp etc.
8. Accident Register.
9. Records of last census of road traffic at level crossing gate.

10. Public Complaint Book.
11. Inspection Book.

1.3. DUTIES OF GATEMEN:

1. **COMPETENCY:** Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/SE (P.Way).

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

3. **POSITION DURING PASSAGE OF TRAINS:**

During passage of trains, gate man will stand in the manner indicated below: -

i. Gate man will stand attentively in front of the gate-lodge facing the approaching train.

ii. In daytime, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.

iii. In night time, gateman shall hold lighted hand signal lamp with white light facing the track.

iv. He shall keep the whistle slung around his neck from a cord.

4. **ROUTINE DUTIES OF GATEMAN**:

i. Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously.

ii. Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

iii. He shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

iv. Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

v. Gateman shall also be prepared to repeat any signal which guard may give to Loco pilot on walkie-talkie or in any other way.

vi. If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

vii. Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.

viii. Gateman shall ensure that he is having competency certificate in his possession while on duty.

ix. Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.

x. Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xi. Gateman shall see that the channel for the flange of the wheel is kept clean.

xii. Gateman shall keep the road surface well-watered and rammed in case of unmetalled roads.

xiii. Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xiv. 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.

xv. Gateman shall prevent tress passing by persons or cattle to the maximum extent.

xvi. He should note down the registration number of vehicle which damage the gate.

xvii. Locking arrangement of gate should be checked daily.

5. 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 / guard of the passing train by showing red flag by day and red light by night.

ii). He shall simultaneously try to draw the attention of the Loco pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

iii). If Loco pilot / guard fails 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 / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.

vi). In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

6. ACTION IN AN 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.

The gateman shall protect the line as under:-

a) On Double line section:

i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

ii) 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 mobilizing any assistance locally available 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.

[B] ON SINGLE LINE SECTION:

i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.

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

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

iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters 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 towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

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

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

viii) Thereafter, he shall light up and fix the fusee to warn the driver and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) <u>Other action to be taken by Gateman:</u>

i). At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.

ii). If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

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

1.4. <u>ENGINEERING ITEMS:</u>

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

<u>ANNEXURE-V</u>

WORKING INSTRUCTIONS FOR "C" CLASS NON-INTERLOCKED LEVEL CROSSING GATE SITUATED AT KM 273/7-8 (KK-71) BETWEEN AGB-AGZ.

(General Instructions are common for all types of Manned Level Crossing Gates)

1. **Mode of Operation:**

Detailed mode of operation for opening and closing the level crossing gate shall be provide in the respective Station Working Rules and Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the gateman will operate the winch after following the instructions given in para 2 item No. (ii) to (vi) below.

2. **Exchange of Private Number:**

i). The normal position of the level crossing gate being "closed to road traffic", it should always be in closed condition against road traffic except when it is opened for passage of road traffic over the level crossing subject to condition prescribed below.

ii). The station master before permitting each train to enter into the block section shall ask gateman on the telephone by giving private number whether the gate is closed against road traffic for the passage of the train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a private number to the station master in assurance of gate being closed and locked against road traffic.

iii). The station master shall not permit any train to enter into the block section unless he is assured of the closure/locking of the gate by gateman supported by a private number.

iv). When the gateman desires to open the gate for passage of road traffic, he should ensure that:-

a) He has not exchanged any private number with the station as per (ii) above or
b) If he has exchanged private number with the station master, the whole of the train with the last vehicle indicator has passed over the level crossing gate and the station master has not exchanged private number with him for any other movement with immediately in rear of the train or on adjacent line(s).

Before opening the gate for road traffic, he shall display a banner flag/ danger signal at either side of the track at a distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag/red hand signal lamp ready in his hand to stop approaching train, if any.
Note:- whenever LC gate is in open condition at night the gate man shall place LED based flashing red light across the track instead of banner flag.

v). In case gateman is not responding on telephone or in case the telephone becomes defective or private number is not received from the gateman, the station master shall adhere to the procedure prescribed in SR 16.03.04.

vi). In the event of failure, if the gate is required to be opened for the passage of road traffic approaching from either end. He shall then plant a banner flag during day and hand signal lamp with red light during night, 5meters away from the gate on the track on either side. He

will thereafter, open the gate for passing the road traffic keeping a red flag/red hand signal lamp ready in his hand, stopping approaching train, if any.

3. Failure of Telephonic Communication:

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

i). Station Master at the dispatching end shall issue a caution order to the Loco pilot before dispatching a train in the block section from his end.

ii). The caution order should advise the Loco Pilot to whistle continuously and approach the gate cautiously.

iii). The Loco pilot should be instructed to pass the gate cautiously, on being hand signal by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot to see the condition of the gate. If the gate is closed the Assistant Loco pilot give the all right signal, if the gate is not closed the Assistant Loco pilot must close the gate and then give the all right signal. The Loco pilot shall stop clear of the level crossing to pick up the Assistant Loco pilot who will reopen the gate for passage of road traffic. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of the Assistant Guard / Guard.

iv). In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number that the telephone at the gate has failed.

v). The Station Master at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.

vi). Station Master shall also advise the gateman through gang man / patrolman or Loco pilot of the first train that the telephone has become defective.

vii). He should also advise S&T staff responsible for maintenance of the telephone to rectify the defective Telephone at the earliest.

viii). Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers:

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

ii). He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.

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

iv). After securing the gate against road traffic, he shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching train.

v). Station Master on duty shall issue caution order to the Loco pilot of a departing train.

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

vii). He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the defect at the earliest.

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

5. <u>Obstruction at the Gate:</u>

i). If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.

ii). Immediately after this, the gateman shall advise the Station Master on duty, regarding the defect / obstruction at the gate, under exchange of private number.

iii). Station Master on duty shall be advised to put the reception / departure signals back to 'ON' position, if taken 'OFF' for a train.

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

v). Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(6).

vi). Thereafter he shall protect the gate from the other direction also.

vii). He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.

viii). 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.

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

x). Station Master shall then issue a caution order to Loco pilot of the gateman, if the gate is broken, but is clear of any obstruction.

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

xii). Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.

xiii). Normal working will be resumed only after maintenance staff rectifies the defective lifting barriers and issue reconnection / fit memo for the same.

6. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of 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.

APPENDIX-B

APPENDIX –B TO STATION WORKING RULES OF AMBAGAON

(Detail description of signaling and interlocking installations, instructions for working them normally and in emergencies etc., including power supply arrangements)

1.BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATIONS:

AMBAGAON is a class 'B' station provided with standard-II (R) interlocking. The station is provided with route setting type electronic interlocking between points, signals, track circuits and other signaling gears. The station is equipped with multi aspect colour light signaling. All points and signals are power operated through a central **Visual Display Unit (VDU)** installed in the SM's office.

2.DESCRIPTION OF OPERATOR CONSOLE CUM VISUAL DISPLAY UNIT (VDU):

The operator cum visual display unit (VDU) is provided for operation of signals, points, crank handles and controls etc., A mimic yard diagram based on SI plan no. SI-23196 will be displayed on the VDU. The VDU is used for controlling and monitoring the station. Indications on the station yard mimic diagram of VDU will be dynamically updated.

3.SYSTEM OVERVIEW:

The PC-based (**operator VDU**) for the operation of Signals, Points, L.C Gates, Crank Handles and Siding Controls, etc. The SS/SM of a station (*hereinafter referred as* **operator**) required to be familiar on the specific station's SWR (station working rules).

Operator VDUs consists of CPU with a color monitor, keyboard and pointing device (mouse). Through communication the exchange of control and indication messages takes place with operator VDU. The Software is installed to display the Station Yard Mimic Panel diagram on the operator VDU and it allows access to all functions by selecting menus with a right click of mouse on the corresponding function icon. By selecting the menu, the function (Signal clear and cancellation, Route release, Point operation, Gate release etc.,) can be executed.

The operator VDU is used for controlling and monitoring the station, however, indications on the Station yard mimic diagram of operator VDU will be dynamically updated.

3.1. DUAL VDUs – MODE OF SELECTION:

The privilege has been given with the operator to control the station through VDU by selection through VDU-1 or VDU-2 by selection through switch provided on the SS/SM's table. The operator VDU is having controls to operate the field gears from the Mimic panel diagram. A Mimic panel diagram displayed on the operator VDU will be an exact replica of yard suits SI plan.

4.CONTROLS AND INDICATIONS:

4.1 ICONS AND INDICATIONS PROVIDED ON THE VDU:

In addition to mimic yard diagram including signal, point, track circuit, axle counter, LC gate, siding as indicated in the WRD, various other icons and indications have been provided on the VDU. A brief description of the same is described below.

Sl no	Icons	Indications	Functions	Remarks
1	PC Control	Yellow light when key is 'IN'	Ensures operation of VDU by authorized person.	Protected by password.
2	----	Emergency route release- UP & DN	Flashing indication appears when emergency route release operation is initiated.	---
3	Emergency point operation key	Yellow light when key is 'IN'	Ensures emergency point operation by authorized person.	For each operation, concerned counter shall register one counter higher.
4	Point failure Acknowledge button	Red	Flashing indication appears when any point fails. SS/SM has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledgement, buzzer stops. After verification at siGte, inform S&T staff immediately.
5	Signal failure Acknowledge button	Red	Flashing indication appears when any signal fails. SS/SM has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledgement, buzzer stops. After verification at site, inform S&T staff immediately.
6	CH-1, CH-2, CH-3—buttons	Yellow lamp indicates 'Key in'.	In normal condition, yellow lamp will be lit.	---

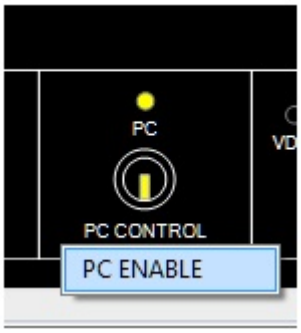
		Red lamp indicates CH locked.	Whenever the crank handle is locked in route or otherwise, red indication will glow.	
7	Siding control	Yellow lamp indicates 'Key in'. Red lamp indicates CH locked.	In normal condition, yellow lamp will be lit. Whenever the siding control key is locked in route or otherwise, red indication will glow.	---
8	DN train entering section muting button	Yellow	On getting alarm/buzzer, SS/SM shall left click on the button icon to acknowledge it.	---
9	UP train entering section muting button	Yellow	On getting alarm/buzzer, SS/SM shall left click on the button icon to acknowledge it.	---
10	UP Block release button	Yellow— Prepared for block release.	On getting indication, SS/SM shall left click on the button icon which shall release block handle.	After complete arrival of the train, this will be activated.
11	DN Block release button	Yellow— Prepared for block release.		
12	Line block button	Red when blocked	SS/SM shall point the curser on the icons provided on the berthing track and right click. One drop menu will appear indicating line blocked; SS/SM has to select the required menu.	When 'line block' Is selected, the concerned berthing portion of the track will appear as thick red line.

4.2 <u>SM KEY</u>:

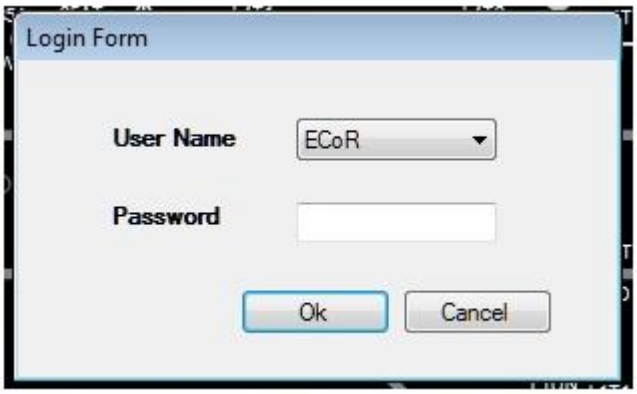
SM key is physically provided on VDU changeover panel, outside the VDU on SM's table. This key when inserted in the lock (provided on VDU changeover panel) and turned right, the VDU becomes operative. The key when inserted in the lock and either turned to left or extracted out from the lock renders the VDU inoperative except for putting back the signals to 'ON' position in case of emergencies. When SM's key is inserted and turned to right, a red indication lit above the SM's key.

PC CONTROL:

If any one of VDU has shut down for maintenance or incase of failure, after resumed to normal working or rectification, for getting the operations from the VDU, first enable the PC which is virtual SM's key. To enable the PC, right click on the PC icon which enables the PC enable option.



Then click on the PC enable option which will enable the password window to appear. After the valid entry of user name and password, the PC will be enabled.



4.3 ELECTRONIC INTERLOCKING (E.I) SYSTEM INDICATIONS:

a) VITAL INTERLOCKING COMPUTER STATUS:

In EI, two vital interlocking computer cards are available normally. The status of each of the VIC is provided on VDU as following.

VIC – A Indications

VIC-A is Active

VIC-A is Stand by

VIC–A is Not Available

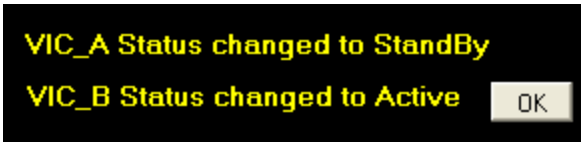
VIC –B Indications

VIC–B is Active

VIC–B is Stand By

VIC–B is Not Available

If there is any change in VIC's status, its changed status will be displayed along with OK button and a buzzer is turned on to alert the operator. The Buzzer stops and the indication message disappear when the OK button is pressed by the Operator.



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

b) Link Status Indication:

The EI VDU receives the data from EI Room through two OFC channels. The Link Status Indication for the same is provided on the VDU.

When Channel – A or Channel – B link is healthy, corresponding yellow indication will be flashing continuously. When Channel – A or Channel – B link is faulty, corresponding red indication will be shown steady.

Channel –A Link Status is Healthy

Channel – A Link Status is Faulty

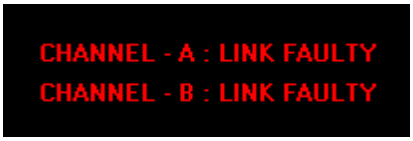
Channel – B Link Status is Healthy

Channel – B Link Status is Faulty

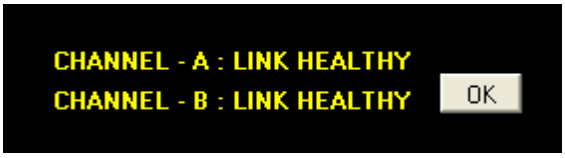
Buzzer and Acknowledgment:

When Channel A link or Channel B Link fails, a Buzzer is turned on to alert the operator. To acknowledge the fault, right click on this control, a pop- up menu is displayed and then click on the Acknowledge menu option. The Buzzer stops when the fault is acknowledged by the Operator.

When any of the channels link fails, an indication is shown in red color.



When any of the links is recovered, the indication is shown in yellow color along with one OK button. The indication message disappears if OK button is pressed.



Action by SS/SM: If at least one of the Communication Channels is Healthy, EI VDU shall continue to provide Indications. On observing any communication channel faulty indication, SS/SM shall acknowledge the fault and immediately inform the EI Maintainer.

C) EI Equipment Critical Fault:

If EI is shutdown due to any critical fault, a message is displayed in red color along with OK button and a buzzer is turned on to alert the operator. The Buzzer stops and the indication message disappear when the Operator presses the OK button.

Action by SS/SM: SS/SM shall acknowledge the fault, inform the EI Maintainer.

4.4 Function Lock & Unlock Operation Details:

Lock/Unlock Operation and Indication:

Lock Operation allows disabling of operation for the selected functions. The operations can be enabled again by unlocking the locked function operation.

Lock Indication:

Default Indication (When nothing is locked or no menu item is checked)

Lock Indication (When any one item is locked or menu item is checked)

Lock or Unlock Operation:

Right Click on this image, a pop- up menu is displayed this menu is called Button

Lock/Unlock Menu. To Lock or Unlock the required button go to the required menu and click on it. This shall be explained in detail below.

Lock/Unlock Menu:

OPERATION
Main Signal
Shunt signal
Calling-on signal
Point
Route

- Click on this menu option to lock /unlock all the items in the menu.
- When a menu option is clicked, it will be checked i.e. a tick mark will be shown if it is previously unchecked or else it will be unchecked if it is previously checked.

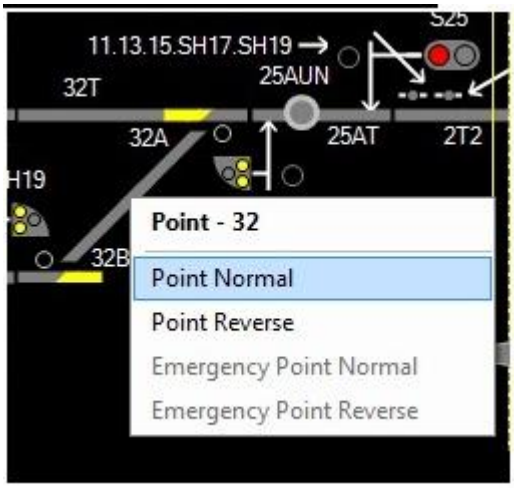
- If a menu item is checked its main menu or parent menu will also be checked as shown below and color of Lock/Unlock image will be changed to yellow.

4.5 VDU ACTIVE INDICATIONS:

Whenever the VDU is in active condition a RBG sequence will be running in the bottom left corner of the screen. That is in a flashing sequence in the screen.

4.6 OPERATION AND INDICATION OF POINT:

To operate the point, the operator needs to track the mouse on to the concerned points. Then click the right button on the mouse. After clicking by the right button on the mouse, a pop-up menu will appear. Then select the Normal/Reverse option on the menu appearing at the point in the operator VDU.



4.6.1 <u>REVERSE TO NORMAL OPERATION</u>:

Click on the **NORMAL** in the menu appearing at the point in the operator VDU, Normal flashing indication will appear, the indication will be steady after the point is set to Normal.

4.6.2 <u>NORMAL TO REVERSE OPERATION</u>:

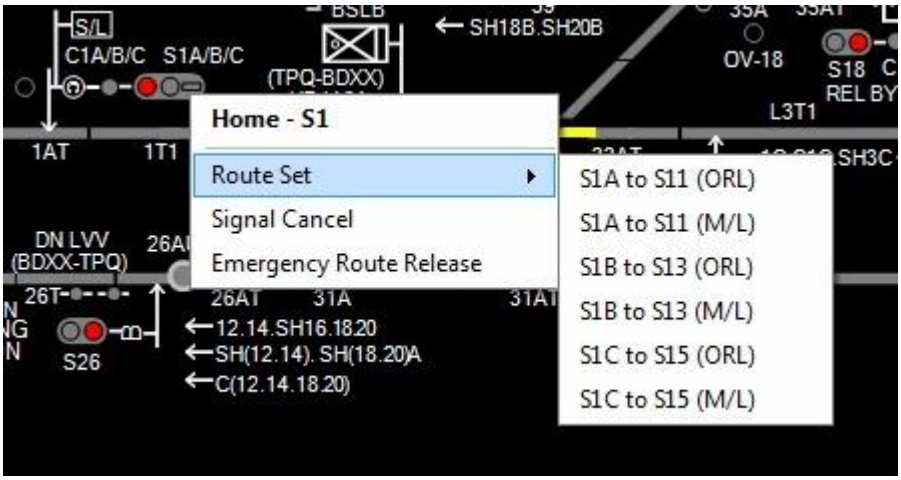
Click on the **REVERSE** in the menu appearing at the point in the operator VDU, a Reverse flashing indication will appear, The indication will be steady after the point is set to Reverse.

4.6.3 <u>POINT INDICATIONS</u>:

When the point is free, a steady yellow strip of light will appear either in the normal portion of the point zone (in case of cross over at both ends) or in the reverse portion of point zone depending upon the position of the point, indicating that the point is set. When the point is operated from normal to reverse the strip of light in normal portion disappears and start flashing in the reverse portion and becomes steady when the point is set and detected. Similarly, when the point is operated from reverse to normal, the strip of light in reverse portion disappears and starts flashing in normal portion and becomes steady when the point is set and detected. When the point is engaged in a route, a yellow light will appear near the point and red indication appears in the point lock indication indicating that the point is locked and cannot be operated now.

4. 7 <u>SIGNAL OPERATION:</u>

To take-off a signal with the desired route the operator needs to click the mouse on the concerned signal on the operator VDU. After clicking the Signal, the menu will appear for route set, signal cancellation and route cancellation operations.



4.7.1 <u>SETTING A ROUTE</u>:

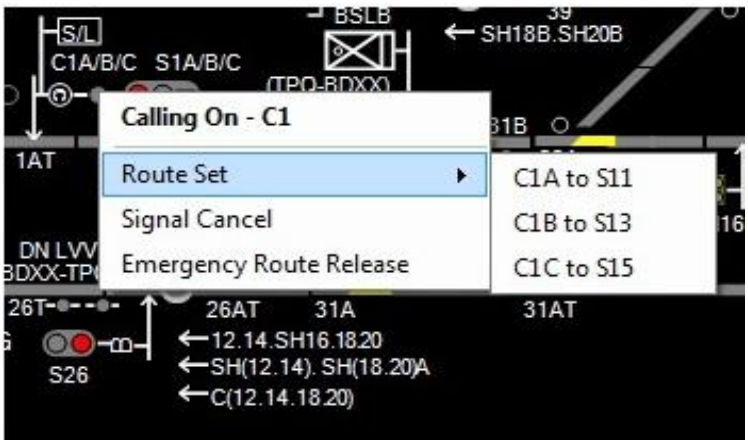
To set a route, select the required route on route set sub menu. The route initiated indication will appear over the route. All the relevant points Normal/ Reverse set indications will start flashing if it is not available in the required position. After setting of point in the route required condition (flashing indication will be steady) a complete yellow route set indication will appear over the route. Also the point lock indication will appear through yellow indication. Finally a route lock yellow steady indication will appear on just below the signal. The signal will be taken-off now. The yellow route set indication will turn to red when the train occupies the concerned track circuit.

4.7.2 <u>SHUNT SIGNAL OPERATION</u>:

To set a route of a shunt signal, the same procedure as main signal has to be followed as explained above. To set the signal route for shunt signals, SS/SM on duty shall put the pointing device on the shunt signal icon and right click on the same. After clicking on the signal, a pop-up menu will appear as above for route set, signal cancellation and route cancellation operations. Track the mouse on the 'Route set' sub menu which displays all possible routes of the signal, then click the left button of mouse on the required route on route set sub menu. After doing so, desired route will be initiated and the shunt signal will be taken off.

4.7.3 <u>CALLING-ON SIGNAL OPERATION</u>:

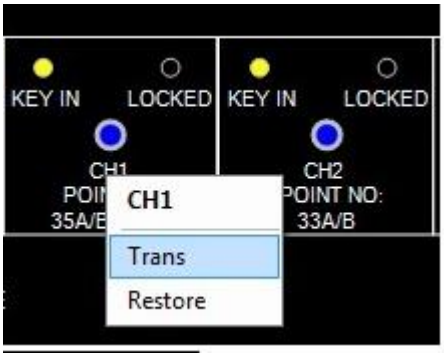
Calling-on signal route set operation follows the same procedure as mentioned for the main signal. For calling-on signal, route is set after a train occupies the approach track circuit in immediate rear of the stop signal. The calling-on signal is cleared after a lapse of 60 seconds provided other conditions are fulfilled.



To take off calling-on signal, the train must come to a stop at the foot of the Home signal, occupying the track circuit (1AT or 2AT as the case may be) in rear of the signal. When a train occupies the track circuit, a red light strip will appear on the VDU. The particular route on which train is intended to be received shall be set by tracking the pointer in VDU on to the signal below which the calling-on signal is provided. Right click on the calling-on signal which will appear a pop-up menu.
Then SM must drag the pointer and click over the 'route set' sub menu which displays all possible routes. Then click over the particular calling-on route amongst the various options displayed in the sub menu by the left button of the mouse, as a result of which the calling-on signal will blink for 60 seconds, the calling-on signal clears i.e. a white light glows at the concerned calling-on signal on the VDU. This action will be recorded in a respective counter of the counter box provided on SM's table. Every such operation shall be recorded by the SS/SM on duty along with the reasons to do so. The calling-on signal route can be released after complete arrival of the train by signal cancellation only.

4.8. CRANK HANDLE CONTROL OPERATION:

Normally a 'KEY IN' (yellow) indication will appear on the VDU indicating that the crank handle is free. To transmit or release control of the crank handle, right click on the concerned crank handle control button provided on the operator VDU.

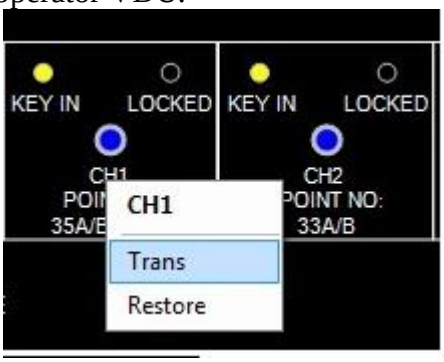


For Transmitting the Crank Handle KEY to the field personnel, right click on the Crank Handle and select the **Transmit control** in the menu appeared. After transmission, the KEY IN indication will start flashing; now the KEY can be extracted from the EKT. After extracting the key from the EKT, the key IN indication will disappear. This action will be recorded in a respective counter of the counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/SM on duty who shall record the details of the crank handle operation along with the latest counter number in a register.

When the Manual point operation is completed, after putting the KEY in the EKT, corresponding Crank Handle KEY IN flashing indication will appear on the VDU. Now the operator has to Release the control for the steady indication, for that right click on the Crank Handle and select the **Release control** in the menu appeared.
A Crank handle locked indication (Red) will appear, when the particular point is locked through respective possible signal route set over it or engaged on route setting in any other way.

4.9 SIDING CONTROL OPERATION:

Normally a 'KEY IN' (yellow) indication will appear on the VDU indicating that the siding point is free. To transmit or release control of the siding point, right click on the concerned siding control button provided on the operator VDU.



For Transmitting the siding control KEY to the field personnel, right click on the siding control and select the **Transmit control** in the menu appeared. After transmission, the KEY IN indication will start flashing; now the KEY can be extracted from the EKT. After extracting the key from the EKT, the key IN indication will disappear. This action will be recorded in a respective counter of the counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be recorded by the SM on duty who shall record the details of the siding point operation along with the latest counter number in a register.

When the Manual point operation is completed, after putting the KEY in the EKT, corresponding siding control KEY IN flashing indication will appear on the VDU. Now the operator has to Release the control for the steady indication, for that right click on the siding control and select the **Release control** in the menu appeared.

A siding control locked indication (Red) will appear, when the particular point is locked through respective possible signal route set over it or engaged on route setting in any other way.

4.10 OVERLAP TIME RELEASE:

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

5. EMERGENCY OPERATIONS:

To carryout different emergency operations, the following procedures are to be followed.

5.1 CANCELLING A ROUTE/EMERGENCY ROUTE RELEASE:

To cancel a signal route when the route is set and the signal is taken off, click on the signal. After clicking by the right button on the mouse, a pop-up menu will appear. Click on the signal cancel menu (Main/calling-on) of the concerned signal, the signal will immediately go to 'ON' aspect, after doing so, click on the emergency route release menu a pop-menu will be displayed for confirmation. By clicking on 'YES' the route locked indication starts flashing for 120 seconds and the emergency route release indication (UP/DN as the case may be) will flash for the entire time interval. After completion of 120 seconds time delay, the locked route will be released. This action will be recorded in a respective counter of the counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be

recorded by SM on duty who shall record the details of the route cancellation along with the latest counter number in a register.

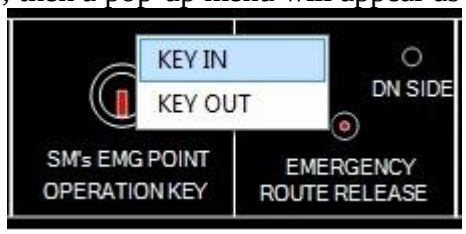
5.2 EMEGENCY POINT OPERATION:

When the point zone track circuit failed without any point lock condition through respective signal route(s), a point can be operated by the emergency point operation.

NOTE:

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

Before doing the emergency operation, SM on duty shall made the emergency point operation key is to be 'KEY IN' to 'KEY IN' the emergency point operation key, right click on the SM's emergency point operation key, then a pop-up menu will appear as follows.

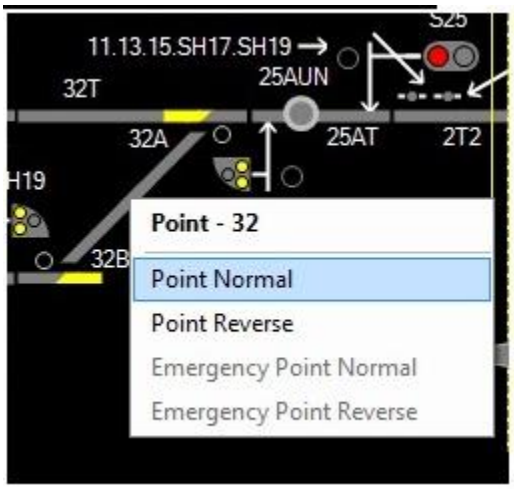


Click on the 'KEY IN' in the menu appeared and shall provide user name and password for the same.

The user name of this station is 'ECOR' and password of this station is KRPU. Then point operation can be done to either Normal or Reverse as per requirement.

5.2.1 EMERGENCY NORMAL OPERATION:

Right click on the point, so that a pop-up menu will appear as follows.



Click on the emergency point operation from the menu then normal flashing indication will appear at the point. Flashing will stop and steady indication will appear after the point is set to Normal. This action will be recorded in a respective counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/SM on duty who shall record the details of the emergency point operation along with the latest counter number in a register.

5.2.2 <u>EMERGENCY REVERSE OPERATION</u>:

Right click on the point, so that a pop-up menu will appear as follows.

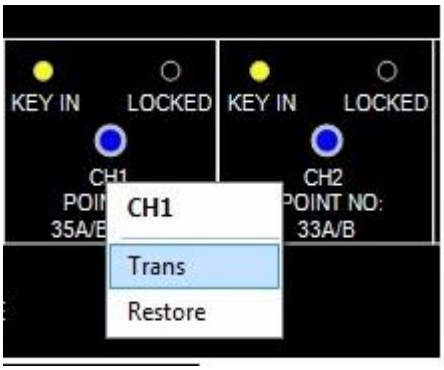
Click on the emergency point operation from the menu then reverse flashing indication will appear at the point. Flashing will stop and steady indication will appear after the point is set to Reverse. This action will be recorded in a respective counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/SM on duty who shall record the details of the emergency point operation along with the latest counter number in a register.

After the completion of the emergency point operation, the key to be 'KEY OUT'. Same procedure as mentioned for 'KEY IN' shall be followed for 'KEY OUT'. To make 'KEY OUT' for the emergency point operation key, right click on the SM's point operation key, a pop-up menu appears. Click on the 'KEY OUT' option in the menu appeared which shall provide user name and password. The user name of the station is 'ECOR' and password of this station is AGB.

<u>NOTE</u>: the emergency point normal and emergency point reverse options are normally in disable mode. These enabled only when the emergency key is 'IN' position.

5.3 <u>EMERGENCY CRANK HANDLE RELEASE OPERATION</u>:

When a crank handle is locked due to route set earlier is not released or otherwise. To transmit or release control of the crank handle, SS/SM on duty shall cancel the relevant signal first and then right click on the crank handle control button icon provided. On clicking, the pop-up menu gives details of the possible commands of the crank handle.



For transmitting the crank handle key to the field personal, SM on duty has to click on 'TRANS' menu. After transmission the 'KEY LOCKED' (Red) indication will start flashing for 120 seconds & 'KEY IN' remains steady. After a lapse of 120 seconds the 'KEY LOCKED' indication will vanish & 'KEY IN' indication will start to flash. After extracting the key from RKT, flashing 'KEY IN' indication will disappear. When the manual point operation is over, after putting the crank handle key in the RKT, flashing 'KEY IN' indication will appear on the VDU. Now the SS/SM on duty shall release the control for the steady indication by clicking 'RESTORE' menu.

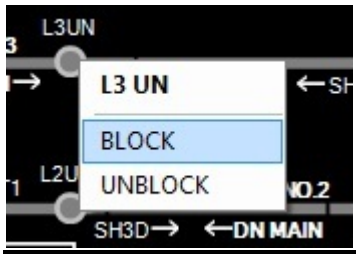
This action will be recorded in a respective counter of the counter box provided on SM's table. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/SM on duty who shall record the details of the emergency crank handle operation along with the latest counter number in a register.

5.4 LINE BLOCK AND UN BLOCK (REMINDER COLLAR):

When SS/SM on duty requires demarcating a line as Blocked/free, he should adopt the following procedure.

5.4.1 LINE BLOCK:

To Block/unblock a particular line, right click on the route button on concerned line displays 'BLOCK' and 'UNBLOCK' options on the menu.



Then select the Line block option. After selecting the Line block option that particular line will be blocked for berthing portion on that particular line. The Line block 'RED' colour indication will be displayed after the successful application of such a blocking process on the VDU, during which no signal will be taken off for that line.

6. DIGITAL AXLE COUNTER:

Digital Axle Counters are provided as a Last Vehicle Checking Device (LVCD) for Both UP and DN block sections between AGB-AGZ and single line block section between AGB-KPRR.
For high reliability, High Availability Digital Axle Counters (HASSDAC) with dual detections are installed in AGB and AGZ section to ensure the working of at least on system at a time.
The position of the block section whether cleared or occupied are reflected on the VDU provided in the SM's office which shows 'GREEN' when the block section is clear and 'RED' when

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 will disappear and 'GREEN' indication will appear. If after the complete arrival of a train the 'RED' indication does not change to 'GREEN' it should be assumed as block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal shall not come to 'OFF' and the concerned instrument shall remain locked in last operated position for that section.
In case of a failure of digital axle counter failure, the SS/SM on duty should resort to resetting of the same along with the SS/SM on duty of adjacent station after confirming that the whole train sent by the sending station has arrived completely at the receiving station. The resetting of the LVCD shall be initiated as mentioned below at both the stations after exchanging the private number vide G & SR 4.17, 4.17.01.
A reset box is provided on SM's table for each LVCD section to reset the axle counter in case of failure of LVCD. Reset box gives the status of the block section i.e. clear (GREEN), occupied (RED), preparatory reset (YELLOW) and power ON indication (WHITE). It is also having the reset key, push button for resetting the LVCD and a counter provided for recording the operations.

6.1 RESETTING OPERATION FOR HIGH AVILABILITY OF SINGLE SECTION DIGITAL AXLE COUNTER (HASSDAC):

After complete arrival of train, if the Last vehicle axle counter of the section does not clear or Last vehicle Axle counter section free indication (Green) does not appear in the panel, The receiving station SS/SM shall apprise the sending station SS/SM through telephone for resetting giving details of last train that has arrived complete at his station and the block section is clear.
The receiving station shall inform the sending station as to whether the last train that entered into the section has arrived or not. And, if arrived fully shall so intimate authenticated by exchanging Private number with the sending station.
The status of the section LVCD i.e. Clear (GREEN), occupied (RED), preparatory reset (GREEN) and power on indications (WHITE) are provided in the reset box.
The procedure to be followed for re-setting by both of sending end and receiving end individually is as follows:-
a) On being advised by SS/SM of AMBAGAON Station, SS/SM of KOTAPAR ROAD/AMAGURA Station inserts the key in the Reset Box, turns right and presses both the key and the Push Button (Red) simultaneously with the SM of AMBAGAON. The Counter on the Reset Box at AMBAGAON Station and KOTAPAR ROAD/AMAGURA Station registers the next higher number and after five seconds miniature green Preparatory Reset indication appears on the Reset Box both at AMBAGAON and KOTAPAR ROAD/AMAGURA Station. The step by step procedure shall be followed as given in "b" to "i".

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

i) The SS/SM on duty shall record it in the Train Signal Register indicating the resetting operations in detail i.e. train number, time, Private Number exchanged with SS/SM of sending station and giving reasons for the resetting operation.
j) If the axle counters functioning properly now, then Block Section cleared indication 'G' will appear on the panel and the concerned Block working will be normalized.
k) If the LV axle counter section indication does not appear 'Green' and continues to show 'RED' indication, the concerned Block section shall be suspended and failure intimation to be given to sectional signal Maintainer/JE/SE (Signal) for early rectification.

7. SIGNAL LAMP FAILURE INDICATION AND BUZZER ACKNOWLEDGEMENT:

LED signals have been used for all signals at this station. In case of failure of the same LED signal, will be indicated by showing 'RED' light on VDU along with audible buzzer, which can be acknowledged and muted by pressing the 'SIGNAL FAILURE ACK' button icon. However the 'RED' light will continue to glow until defective LED is replaced by new one. For rectification of failure SM on duty should inform the concerned S&T staff.

8. POINT FAILURE INDICATION (RED), POINT FAILURE BUZZER AND POINT FAILURE ACKNOWLEDGEMENT:

Whenever there is a failure of point due to non-setting, point failure indication flashing light appears near the point button icon along with the point failure buzzer. The buzzer stops when the point failure acknowledgement button icon is pressed, but the flashing light above the ACK button shall continue to glow. The flashing light at the concerned point zone shows the defective point. After the failure is rectified, the flashing light above the 'POINT FAILURE ACK' button will disappear.

9. COUNTERS:

The following counters are provided in the counter box of SM's table for recording the actions such as emergency point operation, emergency route release etc.
i) Emergency route release counter.
ii) Emergency point operation counter.
iii) Emergency crank handle release counter.
iv) UP calling-on counter.
v) DN calling-on counter.
The increment in counter number for each and every such action should be recorded by the SS/SM on duty who shall record the details of the operation along with the latest counter number in a register.

10. TRACK CIRCUITS:

DN Loop, DN main line, UP main & Common loop lines and all the point zones are track circuited as 31AT, 31BT, 33AT, 33BT, 35AT, 35AT1, 35BT, L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L4T1, L4T2, L4T3, 40AT, 40BT, 38T, 34BT, 32AT, 32BT,
Approach track circuits 1AT & 2AT of 5 Rail length for Calling on Signal are provided in rear of the Up and DN Home signals respectively. In addition there are short length track circuits 2T1 &

2T2 in advance of DN Home Signal and 1T in advance of UP Home Signal are also provided. Similarly there are 5 Rail length track circuits 25T beyond UP Advanced Starter Signal for replacement of Last Stop Signal. From the last trailing point/fouling mark in either side of yard to Advanced Starter Signals are also track Circuited i.e 26AT and 25AT in DN and UP directions respectively.
Indications for the above track circuits are available on VDU. Yellow strip on VDU indicates route is set and track is clear and red strip indicates track is in occupied condition.
On account of doubtful operation of any track circuit by a light vehicle including self propelled vehicle such as motor trolley or light engine or tower wagon etc., indicating the occupancy/clearance of track, it is necessary that the SM on duty satisfy himself that the said vehicle has cleared the point zone track circuits by observing the track indications of the track either side of the cross-overs by positively checking the entrance and exit track circuits are showing occupancy and clearance in accordance with the train movement.

11.RELEASE/ CANCELLATION OF ROUTE:

Normally when a train is received or dispatch from any route, the route illumination will disappear automatically after passage of the train suggesting that the route is released. When the route is not released automatically after passage of train over it or when SM on duty intends to cancel the route set by him shall follow the procedure for cancellation of route described in para no. 5.1 of Appendix-B above.

NOTE:
UP & DN calling-on signals and advanced starter signals are to be manually cancelled after passage of the train to release the route. In both the cases after passage of the train, cancel the signal to release the route.

12.REPLACEMENT OF SIGNALS TO 'ON':

Signals are replaced to 'ON' automatically by passage of the train beyond the signal. It will not be possible to re-clear the signal unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the SM on duty shall follow the para no. 5.1 of Appendix-B.

13.PILOTING OF TRAINS IN TO STATION YARD:

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

NOTE:

(a)The SM on duty shall personally supervise the correct setting, clamping of the facing points, if any and ensure clearance on the nominated route vide SR 3.69.03(c).
(b)The keys of padlock of the clamps put on to the points on the route for piloting in or piloting out shall be in the personal custody of the SM on duty or any other authorized operating officials till such time the train/engine /vehicle has utilized the route or alternatively such movement is cancelled.

14.PILOTING OF TRAINS – OUT OF STATION YARD:

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

15. SHUNTING:

a) T.M. siding:

TM Siding of CSL 350 mtrs (SH to DE) takes off from line no. 4 at KRDL end and it has entry and exit at one ends. The siding is isolated by point no. 38A/B at KRDL end the points are operated from the operating panel. Independent shunt signal No. 19 at KRDL end have been provided for shunt movement from the siding. T.M. can be directly dispatched from the siding by taking off the signal SH-6A. at KRDL end have been provided for reception of train into the T.M. siding.

b) SHUNTING NECK:

Shunting Neck of CSL 71 mtrs (SH to DE) takes off from line no. 4 at KRDL end and it has entry and exit at one ends. The siding is isolated by DS point no. 36 at KRDL end the DS points is operated from the operating panel. Independent shunt signal No. 6A/B at KRDL end have been provided for shunt movement for reception of train from the shunting neck. Independent shunt signal No. SH19 & SH 17 at KTV end have been provided for shunt movement to dispatch train to the shunting neck.

16. VERIFICATION OF LINE CLEARANCE BY STATION MASTER ON DUTY FOR RECEPTION OF TRAIN IN TO STATION YARD:

In the station yard, a route on the running line comprises of entrance, berthing and dispatch portion of the yard shall be kept clear of any obstruction for the passage of any train or for any other movements. The clearance of the route including overlap must be ensured by the SS/SM on duty personally through VDU indications and/or physical verification of track before any movement of trains are permitted on the concerned route subject to the other conditions such as locking of points etc.,

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

When a train is stabled on a running line for a duration exceeding 10 hrs, the use of the said running line for passing the trains 'IN', THROUGH' or 'OUT' at the station shall be done with a lot of care and diligence. SM on duty shall meticulously observe the proper functioning of the relevant track circuits (occupancy/clearance) while admitting a train. Such observance should continue for a minimum of four to five trains thereafter. If the SM on duty is not satisfied with proper functioning of the track circuits on which the train was earlier stabled, the signals leading on the line shall be suspended and the S&T maintenance staff be informed to attend.

18. MAINTENANCE OF S&T INSTALLATION AND OTHER ADHERENCE TO MAINTENANCE SCHEDULES:

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

The tests, checks and replacements etc., shall confirm to the schedules of maintenance as indicated in the Signal Engineering Manual as per the current and extant instructions/circulars on the subject.

19. RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

After receipt of the failure information, the sectional maintainer shall attend to the failure after giving a 'Disconnection memo'. After rectification of the fault, the sectional maintainer shall give 'Reconnection memo' detailing the rectification. Thereafter the SM on duty shall personally check this defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR 3.68.04 (C) and (D).

20. PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:

Whenever any normal maintenance work or special works for major renewals etc., are involved, the Signal and Telecom department should pre plan these works. Field staff and the inspector of the section should give to the SM in writing 'Advance intimation' about this work in terms of G & SR 15.08.01.

21. EMERGENCIES:

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

22.PROCEDURE TO BE FOLLOWED IN CASE OFF FAILURE OF SIGNAL OR POINT AND USE OF EMERGENCY CRANK HANDLE:

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 SM on duty personally for all trains at the station.

2. In case off failure or a point and in case the point cannot 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.
3. One common emergency crank handle is provided for all the motor operated points. This is mechanically riveted to the key of RKT. This key along with the crank handle can be released from the RKT by pressing the common RKT push button after cutting the seal between RKT and crank handle. The SM on duty in case of point motor failure will take out the crank handle, set the point manually by inserting crank handle on the motor.
4. When the crank handle is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody rests with the SM on duty till it is replaced back in RKT and sealed by signal maintainer.
5. The case of failure of motor operated points should be promptly reported to the concerned SSE/JE/Signal maintainer for its immediate rectification.
6. Whenever an emergency crank handle is required to be use by a signal official for maintenance of work attending to failure, the signal official will give a disconnection memo to the SM on duty and after making necessary entries in the emergency crank handle register, the SM 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 SM on duty.
7. Before parting with the emergency crank handle either for attending failure or for maintenance work by signal maintenance officials, the SM on duty will ensure that the reception and dispatch signals are put back to 'ON' position. The points of all the lines should be treated as non interlocked and the SM on duty is responsible for introduction of non interlocked working and the trains will be 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 SRs. The SM on duty will be personally responsible for proper setting and locking of points for reception and dispatch of all trains.
8. The emergency crank handle register is to be maintained in the following proforma by the SM on duty where in the particulars of usage of the emergency crank handle must be recoded.
a) Date:
b) Point number which failed or required to be tested:
c) Time of failure:
d) Disconnection memo number received from S&T staff:
e) Signature of SM/signal official to whom the emergency crank handle is handed over:
f) Time emergency crank handle sent out:
g) Individual point numbers and Line number nominated for admission of dispatch for which points are set, clamped and pad locked:
h) Train number to be admitted or dispatched:
i) Signature of the SM on duty to ensure correct setting, clamping and pad locking of the points:
j) Date and time fault rectified:
k) Time of emergency crank handle received back by SM on duty:
l) Signature and designation of the Signal official who rectified the fault:

23. INTERLCOKING OF SIGNALS WITH BLOCK INSTRUMENTS:

23.1 INTERLCOKING WITH HOME SIGNALS:

All UP & DN home signals are electrically interlocked with the respective TLBI so that the handle of the TLBI instrument cannot be turned from TRAIN COMING FROM position to LINE CLOSED position of UP or DN direction as the case may be unless the respective Home signal is

put back to NORMAL position and the respective block section monitored by axle counter is clear of trains.

23.2 INTERLOCKING WITH ADVANCED STARTER SIGNALS:

The UP Advanced Starter Signals No.25 is electrically interlocked with respective DLBI of section AGB-AGZ so that this Signal cannot be taken OFF until the Handle of the concerned Block Instrument is in' LINE CLEAR' position.

The DN advanced starter signal No.26 is interlocked with TLBI of section AGB-KPRR so that this Signal cannot be taken OFF until the Handle of the concerned Block Instrument is in' TRAIN GOING TO' position.

23.3 SUSPENSION OF LAST STOP SIGNALS:

When the Double line block instrument for section AGB-AGZ 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.

When the TLBI instrument for section AGB-KPRR is suspended with its handle in any position for whatever reason the concerned Last Stop Signals controlled by the TLBI must be treated as suspended and trains shall be Piloted Out.

24. NORMALIZATION OF THE BLOCK SECTION AXLE COUNTER AND OF BLOCK WORKING BY RESETTING FEATURE:

1. High availability Digital Axle Counters (HASSDAC) are provided on Up and Down Block Sections between AGB-AGZ and SSDAC on single line between AGB-KPRR.

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

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

4. No train shall be allowed on signal to leave a station in any particular direction unless:
   Block Section clear indication is available for the relevant Axle Counter section portion and Last Stop Signal is taken OFF. [Refer Para No: 6.1 of appendix 'B' for procedure of resetting of LVCD Axle counter].

25. POWER SUPPLY ARRANGEMENT FOR SIGNALLING INSTALLATIONS:

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

Normal: Odisha State Electricity Board Supply.

Stand by:- 1st standby power supply: AT Supply-230v, 50Hz

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Normal power supply (single phase 230v, 50HZ) to the signaling and interlocking installation at the station is drawn from Odisha State Electricity Board Supply. Whenever Odisha supply fails, the SS/SM on duty shall operate the changeover switch provided in the SM's office connecting the power supply from the healthy sources to the installation in case the knob is not in Auto mode.

The SS/SM on duty however maintain the record of power failures either on the local power supply or traction supply and he must promptly report the failures of any one or both the power sources immediately through the section controller and to the concerned electrical staff and S&T maintenance staff.

i) An auto change-over switch is provided in the SM's office with the two power supplies viz., Local and AT for changing the switch automatically to the available supply. The availability if supply is indicated by luminous indicator above the circuit breaker for each supply.

ii) Normally the switch is kept in Auto mode. If the switch is kept towards AT mode position, whenever power block is to be given on the line, the SM on duty must ascertain that power is available on local and change-over the switch to the desired position.

iii) The on duty SM during each shift shall check and test the availability of power supply and make an entry in the station diary duly initiating for rectification of failure if any.

iv) For IPS system that provides supply to EI , a manual change-over switch is provided at SM's office with two power supplies viz., selected supply from CLS panel and DG supply for changing the switch to required supply position manually.

v) Normally manual change-over switch is kept in selected supply from CLS panel position, if in case any emergency change-over switch is changed to DG supply position.

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

26. <u>WORKING OF INTEGRATED POWER SUPPLY (IPS), INDICATIONS & ACTION TO BE TAKEN BY SM ON DUTY</u>:

Power supply to the signaling installation is fed through Integrated Power Supply system (IPS) installed in the S&T power supply room. For IPS system, a manual change-over switch is provided at SM's office with the two power supplies viz., selected supply from CLS panel and DG supply for changing the switch to required supply position. Normally manual change-over switch is kept in selected supply from

CLS panel position, if in case of emergency, change-over switch is changed to DG supply position. There is remote monitoring ASM box provided at the station to monitor the health of IPS. The IPS system is connected with battery as a back-up power source for safe working during transition of power and in case no 230V ac supply is available due to any reason.

In the event of failures of all sources of AC 230V, 50 HZ power supply, the signaling system shall be fed by power generated by back-up battery bank connected to IPS for a limited power of 8 to 10 hours. The health of the battery bank is monitored through one IPS monitoring panel provided in SM's room which shall display the voltage of 110v DC. Depending upon the health of the battery bank and the system the following indications/alarms will appear on the remote monitoring panel. The indications/alarms their implications and action to be taken by SM on duty is tabulated below:

Sl.No.	Instruction	Health of Battery bank/equipment	Visual indication	Audio indication	Action to be taken by SM on duty
A	--	50% DoD	RED	Alarm	Alarm shall be acknowledged by SS/SM on duty
B	---	60% DoD	RED	Alarm	Alarm shall be acknowledged by SS/SM on duty

C	System shu down	70 % DoD	RED	Alarm	Signal feed is cut-off and all DC-DC converters to work. Audio alarm will continue till power supply is restored.
D	Call S&T staff	Equipment fault	RED	Alarm	Failure of any module will give the alarm in ASM's panel. Alarm shall be acknowledged by SS/SM on duty for audio cut-off.

On duty SS/SM in each shift shall check and record the readings, indications, etc., in the station diary duly initiating rectification of failures of IPS system, if any. In the event of failure of remote monitoring ASM console due to any reason when both traction power and local power failed, the SM on duty shall inform concerned electrical staff immediately. In case 'Call S&T staff' or 'System shut down' indication appears 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.

NOTE:

DoD indicated depth of discharge of battery bank of IPS. In case of failure of all AC supply sources, IPS battery bank can provide power supply maximum up to 3 to 4 hours before system shut down indication of IPS.

27. WORKING OF AUTOMATIC FIRE DETECTION ALARAM SYSTEM

A. In case of any Alarm Zone Number on the LCD Display chart can be seen.
B. Note down the Zone number and Panel Display name by referring display chart.
C. Then open the keypad and press the 'Off' button and enter the code 1111 (1 digit Four times).
D. Automatically it will get reset.
E. Once you find the Zone number rush to the particular area where the detector gives alarm.
F. The moment the detection detects any smoke particles, the RED Led will blink along with the Alarm.
G. 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.
H. To alert the people in case of emergency, press * sign which is present inside the keypad together for few seconds. This will enable you to hear the panel alarm.
I. To rest the panel, press 'Off' button and enter the code 1111 (1 digit Four times)
J. If the power fails on this will enable us to see the Red indicator on the panel.
K. 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'

TO STATION WORKING RULES OF AMBAGAON STATION

ANTI COLLISION DEVICE [RAKSHA KAVACH]:

-NIL-

APPENDIX 'D'

DUTIES TO BE PERFORMED BY THE STAFF AT AMBAGAON STATION:

STATION SUPERINTENDENT (IN CHARGE):

i. Station Superintendent/Station Master is responsible for the efficient discharge of duties by different members of staff at his Station. (General Rules 5.01)

ii. Ensuring that the general working of the Station is being carried out in strict accordance with the current rules, procedures and instructions.

iii. Providing prompt and courteous service with utmost safety and security of passengers and employees.

iv. Availability, helpfulness and good conduct of station porters.

v. He shall be responsible for general up-keep of the station.

vi. He shall be responsible for keeping the safety and operating literature including circulars, pamphlets, gazette etc. up to date and these must be explained to the staff working under him and got noted by them.

vii He shall maintain complete and up to date record of Engg/S&T/TRD restrictions. He shall be responsible for bringing forward the caution order register every Monday.

viii. He shall be responsible for maintaining Accident Register and Accident Charts and keeping these up to date.

ix. He shall maintain figures in respect of the stock and get them relayed to the control in time.

x. He shall investigate all public complaints and send the extracts of the complaint with explanation of the staff and his own remarks to Divisional Office in time. In case of complaints concerning the other department, intimation may be given to the subordinate In-Charge of that department immediately so that action may be taken to avoid recurrence.

xi. Being the In-Charge of the station, he shall promptly attend all accidents, assume charge of the site and assist in relief measures ensuring prompt evacuation of injured & stranded passengers. He shall take note of all the information available and protect the clues/evidence, which may be helpful in the enquiry. He shall intimate the control office at regular interval for current information and ask for the required assistance i.e., Relief Train, Medical van etc. He shall investigate yard accidents, obtain statements of the staff responsible and submit his report with conclusions and joint note to the Divisional office. In case of controlling station, he shall do the same in his beat.(The list of controlling stations of each division in E.Co.Railway is appended in Accident Manual.

xii. He shall ensure that fire fighting equipments at the station such as fire extinguisher, fire buckets etc. are in fine fettle and ready for use.

xiii. The Station Master should regularly test and record in the charge book, the working of Points, Signals and Track Circuit to ensure that:

- The Signals are back to 'ON' position when the relevant slide/button/ lever is put back or intended train movement has been completed.
- It is not possible to take 'OFF' conflicting signals at the same time.
- Signals are not taken 'OFF' until all points are correctly set and facing points locked (both facing and trailing points in case of motor operated points)
- Any other manner of testing prescribed by the Authorized Officer.
- Panel testing: Normal/Abnormal by Station Master.
- At stations provided with continuous track circuits or at stations having solid state interlocking the method of testing shall be prescribed jointly by Signaling and Operating Branch which shall be described in the Station Working Rules to be followed by Station Masters.

xiv. He must ensure that the essential Safety equipments at his station are the same complete and in good condition. If there is any deficiency it should be made good without delay.

xv. He shall conduct night and surprise inspections to check the alertness of staff and working of signals, points and visibility of the signals.

SS/SM/VDU:

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

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 VDU himself when on duty and shall not permit any unauthorized person to manipulate panel.

iv) He shall keep the SM's control VDU 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.

xi) 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.

xii) He shall keep the station master's control keys of block instrument in his personal custody whenever, he is required to leave his office even for a short duration.

xiii) He shall maintain TSR and other connected record/documents in good shape and ensure that all entries are completed and are up to date.

xiv) He shall attend the control and give arrival departure of trains promptly and shall carry out instruction given by supervisors provided these do not violate safety rules & procedures.

xv) 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.

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 SS/SM 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) 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/SM 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 SS/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 ensures that these are burning brightly at night.

APPENDIX 'E'

TO STATION WORKING RULES OF AMBAGAON STATION:

ESSENTIAL EQUIPMENT:

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

Sl. No	Description	Station
1	Detonators	20
2	Battery operated LED based flashing Hand Signal lamps	3(1 spare)
3	Hand Signal Flags	3(1spare)sets
4	Safety chains with Pad locks	6
5	Clamps with Padlocks	8
6	Fire Extinguishers DCPT	2
7	Fire & Sand buckets	5
8	First Aid Box	1
9	Stretcher	1
10	Blanket	1
11	Iron skids	6

APPENDIX 'F'

TO STATION WORKING RULES OF AMBAGAON

WORKIG OF D.K.STATIONS, HALTS, IBS AND OUTLYING SIDINGS:

---NIL----