

**EAST COAST RAILWAY
WALTAIR DIVISION**

STATION WORKING RULES OF GAJAPATINAGARAM [GPI] STATION (B.G)

NO: WTF/5/SWR/GPI

Date of Issue: _____

Date brought into Force: _____

NOTE: The Station Working Rules must be read in conjunction with General and subsidiary Rules, Operating Manual and Block Working Manual. These rules do not in any way supersede any rules in the above Rule Books.

(1) STATION WORKING RULE DIAGRAM

- i) Station working diagram No: SI/WRD/11169 ALT 'I'.
- ii) CSTE/E.Co.Rly/ DRG No. SI/WRD/11169 ALT 'I'.
- iii) Date up to which corrected:-

(2) DESCRIPTION OF THE STATION:

2.1 a) GENERAL (LOCATION):

i)	Name of the Station	:	GAJAPATINAGARAM
ii)	Class of Station	:	'B' Class
iii)	Section	:	RAIPUR-VIZIANAGARAM
iv)	Double/Single line	:	Double Line
v)	Electrified/non electrified	:	Electrified
vi)	Guage BG/MG/NG	:	BG
vii)	Route	:	'D'.
viii)	Railway	:	East Coast Railway
ix)	Situated at KM	:	444/21-23 (UP), 444/22-24 (DN) (KM. 444.581)
x)	Reckoned From	:	RAIPUR
xi)	Operation	:	Centrally Operated domino type panel.
xii)	Standard of Interlocking	:	II-R

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

	Adjacent Block Station	Distance	Direction
A)	Komatipalli	9.846 KM	RGDA end
B)	Garudabilli	10.235 KM	VZM end
C)	Provision of IBS	Nil	
D)	Automatic Signals	Nil	
E)	DK Station & Out Lying Siding	Nil	

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

Between station	Direction	The point from which Block section commences From	The point at which Block section terminates at
GPI -KMX	UP	UP advanced starter signal no. 13 of KMX	BSLB of GPI.
	DN	DN Adv. Starter Signal No. 12 of GPI	Facing Point no. 22A of KMX

Between station	Direction	The point from which Block section commences From	The point at which Block section terminates at
GPI-GRBL	UP	UP Adv. Starter Signal No. S-11 of GPI.	Facing Point no. 17 B of GRBL.
	DN	From DN Adv. Starter signal No.12 of GRBL	Facing Point no. 18A of GPI.

2.4 GRADIENTS:

From centre of the Station building:

Section towards	Chainage		Stretch in mtrs.	Grade
	From	To		
GPI -KMX	000.000	450.942	450.942	1 in 480 Raising
	450.942	2226.000	1775.058	1 in 150 Raising
	2226.000	Into section	--	1 in 218 Raising
GPI-GRBL	000.00	503.000	503	1 in 480 Raising
	503.000	814.000	311	Level
	814.000	1000.000	186	1 in 744 Falling
	1000.000	1500.000	500	1 in 505 Raising
	1500.000	Into section	--	Level

2.5 LAYOUT:**(A) Running lines in the Main yard:**

SL.No.	Name of the line	Electrified/ Non Electrified.	Platforms /length
1	Line no. 1(Common Loop)	Electrified	Low level (350 M x 6.1 M)
2	Line No.2(UP Main Line)	Electrified	---
3	Line No. 3(DN Main Line)	Electrified	
4	Line No. 4(DN Loop Line)	Electrified	Low level (425 M x 6.1 M)

(B) SIDINGS:

Name of the Siding	Length	Description
Goods Siding	230 M [GJ-GJ]	Goods Siding takes-off from L/1 at GRBL end of the yard with both sides entry and isolated by derailing switches. The entrance points and corresponding Derailing Switches are operated by Arc levers provided at site with provision of successive key unlocking arrangement. When Control button no. 26 is transmitted from panel, a key R1 and Q1 will be released. Key R1 will be inserted in point and releases key R2. This Key R2 will be inserted in the other end of the point and point will be operated to reverse. Then Q1 will be inserted on other side of siding point and releases Q2. Key Q2 will be inserted on the other end of point and then point is operated to reverse and set to goods siding. After the movement is completed, point Q2 will be normalised and then key Q2 will be inserted in the other end and releases key Q1. Similarly After normalization of other end point key R2 will be released and then key Q2 will be inserted in the other end to release key Q1. Both keys R1 & Q1 will be transferred to back to SM with control 26. It is to be noted, whenever key transmitted through SM control button no. 26, signalling movements for reception &

		despatch on L/1 will be suspended.
Tie Tamping Machine	60 M [DS-DE]	Tie Tamping machine siding is taking off from over run line of Line No. 1 at KMX end of the yard with one side entry and is isolated by derailing switch. The derailing switch is operated by hand lever and hand lever is controlled by Button No. 25 of Control Panel. When Control button no. 25 is transmitted from panel, a key R3 will be released. Key R3 will be inserted in point operated to reverse and HPL is operated to lock the point.

2.5.1 RUNNING LINES, DIRECTION OF MOVEMENT AND HOLDING CAPACITY IN CSL:

Sl. No.	Running Lines	Name of the Line	CSL in Mts.	Direction of Movement
1	Line No. 1	Common loop	747 M (STR-STR)	a) Trains coming from KMX and proceeding towards GRBL are UP trains. b) Trains coming from GRBL and proceeding towards KMX are DN trains.
2	Line No.2	UP Main line	750 M (STR-SB)	
3	Line No. 3	DN Main line	750 M (STR-SB)	
4	Line No. 4	DN Loop line	733 M (STR-SB)	

2.5.2 NON-RUNNING LINES:

Name	Capacity in CSL
Goods siding	230 M [GJ-GJ]
Tie Tamping Machine Siding	60M [DS-DE]

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT: : Nil:**2.6. LEVEL CROSSINGS:**

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

(3) SYSTEM AND MEANS OF WORKING:

System of working in force	:	Absolute block system.
Double Line / Single Line	:	Double Line.
Block instruments	:	Double Line Lock & block instruments.
Co-operative/non-cooperative	:	Non co-operative.
Provision of Block telephone	:	Attached with block instruments.
Custody of keys of Block Instruments.	:	SM is responsible for operation of the Block instruments. The Station Master on duty is the only authorized person to operate the instruments and their keys shall be in the personal custody vide GR 5.08 and 14.12(a). Block instrument is provided with double locking. One key will be with SM and other key will be with S&T maintainer.

(4) SYSTEM OF SIGNALLING AND INTERLOCKING:

1.	Standard of Interlocking	Standard IIR
2.	Type of signalling.	Multiple aspect colour light signals.(MACLS)
3.	Mode of the operating the signals.	Central Panel.
4.	Provision of calling-on signals.	Calling-on signals are provided below Home signal (i.e. in both UP & DN lines) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b). To take off Calling-on signal the train must come to stop at the foot of the home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit, a RED light strip will appear on the Panel. The particular route on which the train is intended to be received shall be set by selecting and setting desired route through Panel by SS/SM on duty. After a lapse of 60 seconds, the Calling-

		<p>on signal clears i.e. white light glows at the concerned Calling-on signal on the Panel.</p> <p>NOTE: SS/SM on duty to ensure that no through signals are given while receiving a train on Calling-on.</p>
5.	Provision of shunt signals	Shunt signal SH-3A/B/C/D at KMX end and SH-4 A/B at GRBL end are provided.
6.	Emergency cross over	NIL
7.	Track circuits	<p>Entire yard is track circuited from Home signal to Advanced starter on either direction. The following track circuits are provided in this yard. 1AT, 1T, 1T₁, 14AT, 17/21 AT, 17BT, 19AT, 19 BT, 21AT, 21BT, 12AT, 12T, L1T1, L1T2, L1T3, UMT1, UMT2, UMT3, DMT1, DMT2, DMT3, L4T1, L4T2, L4T3, 22AT, 22BT, 18AT, 18BT, 20T, 11AT, 11T, 2T1, 2T and 2AT.</p>
8.	Axle counters	<p>Entire Block Section between GPI-GRBL and GPI-KMX are provided with Digital Axle Counters.</p> <p>For section: GPI-KMX: A pair Single Section Digital Axle counter is provided between KMX-GPI one just beyond UP advanced starter signal No. 13 on 13T Track Circuit portion of KMX and another beyond UP Home signal of GPI on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GPI -KMX one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GPI and another beyond DN Home signal of KMX on 2T2 Track Circuit portion for last vehicle verification.</p> <p>For section GPI-GRBL: A pair of Single Section Digital Axle counter is provided between GPI-GRBL one just beyond UP advanced starter signal No. 11 on 11T Track Circuit portion of GPI and another beyond UP Home signal of GRBL on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GRBL-GPI one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GRBL and another beyond DN Home signal of GPI on 2T1 Track Circuit portion for last vehicle verification.</p> <p>The position of the block section whether 'clear' or 'occupied' is reflected on the axle counter reset box provided in the Station Master's office which shows 'GREEN' when the block section is clear and 'RED' when block section is occupied. Whenever a train enters into the block section "Block section clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.</p> <p>After complete arrival of the train the 'RED' indication disappears and 'GREEN' indication appears. If after complete arrival of the train 'RED' indication does not change to 'GREEN' it should be assumed as Block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal cannot be taken off for next train and the concerned instrument shall remain locked in last operated position.</p> <p>A resetting arrangement is provided in the SM office to reset the system to normal position in case of failure of axle counter. The resetting is to be initiated by the SM at the receiving station only after physical verification of</p>

		<p>complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the block section. If a train passes through the station without confirming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched.</p> <p>In case of failure of Axle counter the 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 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.</p> <p>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 SM on duty shall take action in terms of SR.15.25.03 (b) (vi).</p> <p><u>NOTE:</u> Before taking off reception and dispatch signals for UP or DN directions the SM on duty shall ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication.</p>								
9.	Crank handle	<p>When any point fails to operate normally by the Route Setting operation through Panel, it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per Operating Manual 2.19 and Para- 2.0 6.2 and from 21.1 to 21.7.1 of Appendix-'B'.</p> <table><tr><td>CH 1</td><td>19A/B, 20A/B</td></tr><tr><td>CH 2</td><td>21A/B, 22A/B</td></tr><tr><td>CH 3</td><td>17 A/B</td></tr><tr><td>CH 4</td><td>18 A/B</td></tr></table>	CH 1	19A/B, 20A/B	CH 2	21A/B, 22A/B	CH 3	17 A/B	CH 4	18 A/B
CH 1	19A/B, 20A/B									
CH 2	21A/B, 22A/B									
CH 3	17 A/B									
CH 4	18 A/B									
10	Emergency operation Point	<p>Emergency point operation facility is provided to operate the point from the Panel in case of failure of point controlling track circuit. Detail procedure for Emergency operation of point shall be followed as per Para No. 9.0 of Appendix-B. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose.</p>								

11	Block Instruments	<p>SGE type Double line Lock & Block instruments are provided for Block section GPI-GRBL and GPI-KMX vide GR 14.01.</p> <p>Telephone attached to Block instruments connecting the adjoining block stations concerned.</p> <p>'ON' aspect of UP/DN Home & UP/DN Adv.str signals are proved in respective block instruments.</p> <p>Custody of block instrument keys: One key will be with SM on duty and the other with S&T maintainer.</p>
12	Emergency route release indication	<p>This panel interlocking is based on the principle of 'DEAD APPROACH LOCKING'. As such, when a route is set and signal is taken off on the route, the route gets locked. Normally the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken off vide SR 3.36.02 (a), the concerned signal must be put back to danger by pressing the Signal cancellation button and the concerned signal button. Then the emergency route release button (white with red dot) positioned in the top of panel is to be pressed by breaking the seal and subsequently the concerned signal button pertaining to the route is to be pressed. A white light will flash (Up or Down) indicating that the timer is working. After 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 emergency cancellation of route has to be resorted to. The concerned S&T staff should be advised immediately to get the emergency route release button resealed after rectification of fault if any. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary and in the train signal register.</p>
13	Emergency crank handle release.	<p>Emergency crank handle release operation facility is provided to operate the point by using the crank handle in case of Route locked condition. Procedure as per Para 6.2 and Para from 21.1 to 21.7.1 of Appendix 'B' to be followed. Each operation of emergency crank handle operation shall be recorded in the station diary and in the register meant for this purpose.</p>
14	Emergency Gate Release:	<p>L.C. Gate control can be released and the gate can be opened by this operation when LC gate control remains in locked condition due to setting of any of the signal routes over it or otherwise. For releasing the gate by the Emergency operation, the SM on duty has to cancel the signal by signal cancellation control of the relevant signal. Then he has to operate the Emergency Gate release control. Now the 'LOCKED' (Red) indication will flash for 120 seconds & after the time has elapsed the 'LOCKED' (Red) indication will vanish. Now the SM on duty shall transmit the 'GATE CONTROL' in this condition and 'KEY IN' indication starts flashing. Now the KEY can be extracted from the RKT at Gate Lodge and gate can be opened. This action will be recorded in a counter. The counter will increment the number for each and every such action and also, this number should be recorded by the SM manually in a register.</p>

		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 Emergency Gate Operation along with the latest counter no. in a register.
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4.2 CUSTODY OF RELAY ROOM KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T MAINTENANCE STAFF:-

Custody of Relay room key and procedure for its handover and taking over between SM 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. Relay room is provided with two independent locks. The key of one lock shall be in the personnel custody of Station Master on duty and the key of other lock shall be in the custody of S&T Maintainer. In the event of necessity such as for attending failure, or regular maintenance, on being requisitioned by S&T maintainer, SM shall hand over the key to the Maintainer. On completion of the work, maintainer shall lock the relay room and shall return the key to SM. The particulars of such transactions shall be entered by the SM in the relay room key register vide OM 2015 Para No.13.16.

4.3 (A) POWER SUPPLY:

Normal: UP AT & DN AT.

Stand by: - Andhra Pradesh State Electricity Board.

- A changeover switch is provided in the Station Master's Office with the three power supplies viz., UP AT, DN AT and Local for changing the switch to the required supply position. A luminous indicator above the circuit breaker for each supply indicates the availability of the supply.
- For IPS system that provides to EI, selection output of power supply is taken.
- There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

(B) REMOTE MONITORING ASM BOX:

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

- 50% depth of discharge (DOD) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.
- 60% DOD, which warns for emergency. The alarm for this condition is same as for condition 1.
- 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.
- Any of the module fails, which calls for 'call S&T'.
- 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:

- Telephone attached to Double line Block Instruments is connected to adjacent stations on either side.
- Hot line communication is provided between adjacent stations i.e., GRBL and KMX Stations.
- The station is connected to VZM-Tie line 'B' cabin control Circuit.
- Railway Auto telephone provided at the station is connected to Divisional Exchange at WAT.
- The station is connected to LC No. RV-326, RV-329, RV-331, RV-332 & RV-333.
- 25w VHF set is provided at the station for emergency communication.
- Provision of Traction Power Control of section VSKP-RGDA.
- Telephone communications are provided between SM on duty and UP & DN CH location.
- CUG/BSNL telephone provided at station.

(6) SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF:

The duties of train working operating staff are detailed in the Appendix 'D' of this SWR.

TRAIN WORKING STAFF IN EACH SHIFT: Following is the complement of staff at GPI **Staff in Each Shift**

SS/SM	01
TPM	01
TRAFFIC GATE KEEPER	02

Note: 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 and in Gate lodge for traffic gate man (details duties are given in APPENDIX-'D').

6.1.2 RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF THE LINE AND ZONES OF RESPONSIBILITY:

Station Master is solely responsible to ascertain clearance of line from Home Signal up to Adv. Starter Signal on concerned lines by indication on panel.

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

6.1.3 ASSURANCE OF STAFF IN ASSURANCE REGISTER:

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

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

The station superintendent is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The declaration shall be renewed in the following cases: -

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

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

- a) The trains are worked under Absolute block system of working with Double line between GRBL-GPI and GRBL-GPI and MACLS signaling vide GR 8.03.
- b) Adequate distances for reception of trains at GPI.

LINE NO.	UP TRANS		DOWN TRAINS	
	FROM	TO		FROM
LINE NO. 1	UP Starter No. 5	Up to the end of ORL or up to the Up Advanced starter No 11	DN Starter No. 8	Up to the end of Over run line or Advanced starter No 12.
LINE NO. 2	UP Starter No. 9	Up to Advanced starter No 11	---	---
LINE NO. 3	---	---	DN Starter No. 10	Advanced starter No. 12
LINE NO.4	---	---	DN Starter No. 6	Up to the end of Over run or Advanced starter No 12.

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

- a) DN Gate Distant of LC RV-324 is combined with DN Adv. Starter Signal No. S-12.
- b) UP distant signal combined with UP gate stop signal of RV-329.
- c) Proceed aspect of Distant Signal is allowed during run through only.

6.2.1.1 SETTING OF POINTS AGAINST BLOCK 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 in rear should be immediately set against the blocked line except when shunting or any other movement is required to be done immediately in that direction on that line vide GR 3.38(2). Block reminder collars placed on the concerned button of the blocked line vide SR 3.51.06 shall be followed.

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

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

6.2.1.2 RECEPTION OF TRAIN ON BLOCKED LINE:-

Whenever trains are to be admitted on blocked line it is necessary that the train is Piloted-in by a written authority T/509 given by SM on duty and delivered by a competent Railway servant to the Loco Pilot of the train. Calling-On signal may be taken off. (Refer GR 5.09 & SRs thereto.)

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:- -Nil-**6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:** -Nil-**6.2.1.5 DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL: -**
Nil-**6.2.1.6 ANY OTHER SPECIAL CONDITIONS SHOULD BE MENTIONED GIVING REFERENCE TO THE G&SR:-**

(A) **SPECIAL RESTRICTIONS:** Nil

(B) **SPECIAL INSTRUCTIONS:** Nil

6.3 CONDITIONS FOR TAKING 'OFF' APPROACH SIGNALS:

The SM on duty shall nominate a clear line not only up to the Starter Signal but also adequate distance beyond it for reception of trains. Conditions for taking 'OFF' approach signals are governed by GR. 3.36, 3.40, 4.17 and SR 3.36.01, 3.36.02, 3.40.01, 3.47.01, 4.17.02 and BWM.

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

Station Master should ensure that the signal is put back to 'ON' after passage of train as per GR 3.36(2) (b).

6.4 SIMULTANEOUS RECEPTION/DESPATCH, CROSSING AND PRECEDENCE OF TRAINS:

According to the existing inter locking at this station the simultaneous reception and dispatch of trains are permitted as stipulated below.

A	Reception of an Up train on line No.1 by setting overlap up to overrun line.	A N D	Dispatch of another UP train from line No.2
B	Reception of a DN train on line No. 4 setting by overlap up to overrun line.		Dispatch of another DN train either from line No.3 or 1.
C	Reception of a DN train on line No.1 common loop by setting overlap to Over Run Line.		Dispatch of another DN train either from line No.3 or 4.

6.5 COMPLETE ARRIVAL OF TRAINS:

Entire Block Section between GPI-GRBL and GPI-KMX are provided with Digital Axle Counters.

For section: GPI-KMX:

A pair Single Section Digital Axle counter is provided between KMX-GPI one just beyond UP advanced starter signal No. 13 on 13T Track Circuit portion of KMX and another beyond UP Home signal of GPI on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GPI -KMX one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GPI and another beyond DN Home signal of KMX on 2T2 Track Circuit portion for last vehicle verification.

For section GPI-GRBL:

A pair of Single Section Digital Axle counter is provided between GPI-GRBL one just beyond UP advanced starter signal No. 11 on 11T Track Circuit portion of GPI and another beyond UP Home signal of GRBL on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GRBL-GPI one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GRBL and another beyond DN Home signal of GPI on 2T1 Track Circuit portion for last vehicle verification.

The position of the block section whether 'clear' or 'occupied' is reflected on the axle counter reset box provided in the Station Master's office which shows 'GREEN' when the block section is clear and 'RED' when block section is occupied. Whenever a train enters into the block section "Block section clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication disappears and 'GREEN' indication appears. If after complete arrival of the train 'RED' indication does not change to 'GREEN' it should be assumed as Block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal cannot be taken off for next train and the concerned instrument shall remain locked in last operated position.

A resetting arrangement is provided in the SM office to reset the system to normal position in case of failure of axle counter. The resetting is to be initiated by the SM at the receiving station only after physical verification of complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the block section.

If a train passes through the station without confirming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched.

In case of failure of Axle counter the SM on duty shall obtain complete arrival certificate from the guard of the train in the complete arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide GR 4.17 (1) that the train had arrived completely. In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number.

Train passing on adjacent line shall be stopped and 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 SM on duty shall take action in terms of SR.15.25.03 (b) (vi).

NOTE:

Before taking off reception and dispatch signals for UP or DN directions the SM on duty shall ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication..

6.6 DISPATCH OF TRAINS:

Dispatch of trains is governed by the provisions of GR. 3.36, 3.38, 3.42, 5.11, 14.08, SRs 3.36.04 (b), 3.42.04. and BWM 2.07(5)(a) (c) (d) & (e) and other relevant provisions of G & SR, BWM and SWR.

a) DESPATCH OF TRAINS FROM NON-SIGNALLED LINE:

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

b) ISSUE OF CAUTION ORDERS:

Whenever in consequence of the line being under repairs or for any other reasons special precautions are necessary a Caution Order detailing the Kilometres and Speed at which train should run with reasons for taking such precautions shall be handed over to the Guard and LP in terms of GR 4.09 and SR thereto.

6.7 TRAINS RUNNING THROUGH:

In addition to the procedure detailed in paras "Reception and Dispatch of trains" rules laid down in GR 3.40, 4.17, 4.42 with relevant SRs 3.42.02 (a) (iii) and other relevant provisions of G&SR, BWM, OM shall be followed. (Refer GR 4.1, 4.11(2)).

6.8 WORKING IN CASE OF FAILURE:

Track Circuits	In case of failure of track circuits, the clearance of the concerned line should be ensured physically verified before a train is piloted.
Axle Counters	If the axle counter fails between the block sections, resetting procedure should be adopted as per Para 23.1 & 23.2 of SWR (APP-B). If the axle counter indication does not appear 'GREEN' & continues to show 'RED' condition after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for their rectification.
Block Instruments	SGE type Lock and block instruments are provided for GPI-GRBL and GPI-KMX section. 'ON' aspect of UP/DN Home & UP/DN Adv.str signals are proved in respective block instruments. Custody of block instrument keys: One key will be with SM on duty and the other with S&T maintainer.
Reception of a train on obstructed line	When a train is to be dispatched from the station yard on signals, the Station Master on Duty must ensure that the route between the starter signal and the Advance Starter is clear of any obstruction (which includes point zones track circuits) before he takes off departure signals.
Reception of a train on non-sigaled line	NIL
Defective Signals	Whenever signals become defective, the procedure laid down in GR 3.68 to 3.71, 3.80 and SR 3.68.01 (c) shall be followed. In case of disconnection of signal and interlocking for repairs and maintenance procedure laid down in GR and relevant SRs shall be followed. In the event of signal showing no lights, station master on duty shall before giving line clear initiate action in accordance with the procedure laid down in GR and the relevant SRs (Refer 3.57, 3.69, 3.49 (4), 3.68 to 3.77).
Defective Interlocking	When interlocking becomes defective the SS/SM on duty shall be responsible and personally supervise the setting, clamping and pad locking of all required facing and trailing points for

	admission or dispatch of trains and procedure laid in GR 3.68 to 3.71 and SRs there to shall be followed.
Defective/Damaged Points	When any point fails to operate normally by the route setting operation or individually through Panel it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the Route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for the use of crank handle shall be followed. Procedure prescribed in G&SR 3.68.01(e) and relevant SR shall be followed
Defective IBS signal	NIL

6.9 PROVISIONS FOR WORKING OF MOTOR TROLRIES / MATERIAL TROLRIES:

Motor trolleys are to run in accordance with rules laid down in GR 15.25 and SRs thereto. Material Lorries will work in accordance with SR 15.27 and SRs thereto. [Rules laid down in BWM. Refer SR 15.25.03 to 15.25.07, 5.11(2), 5.12, 5.13 of BWM]

- The section where Axle Counters are provided in Lieu of track Circuits, trolleys, Motor trolleys, Lorries etc., which are not insulated, shall not be allowed to run except on Line clear.
- Motor trolleys shall be worked as per GR 15.25 and SR thereto, BWM 5.39, 5.40, 5.41, 6.11(1) (2), 6.12, 6.13, 6.14(2) and circulars and orders issued from time to time.
- Material Lorries shall be worked as per GR 15.27 and SRs thereto and in accordance with the provisions of Block Working Manual.
- Tower Wagon/OHE cars shall be worked as per GR 17.08 and SR thereto and BWM 6.11.

(7) BLOCKING OF THE LINE:

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. Whenever a running line is blocked, the 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]. SS/SM on duty shall place reminder collar on concerned route buttons in the event of a running line is blocked vide SR 3.36.03(b).

Loading / unloading of goods from the vehicles on running lines is prohibited unless specially permitted by DOM vide SR 5.19.01 Securing of vehicles is governed by GR 5.23, SR 5.23.01 and OM 7.08 shall be followed.

Note: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding on running lines vide SR 5.23.01(b). Whenever any vehicle is to be detached on running line under unavoidable circumstances, it is to be secured properly as per G & SR 5.23 and 5.19.

(8) SHUNTING:

8.1 GENERAL PRECAUTIONS :

The rules laid down in 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.

All shunt movements shall be supervised by Guard/SM on duty or by a competent Railway servant deputed by SM on duty as the case may be. The authority for shunting shall be the taken off of shunt Signal or on form T/806 when non-signalling movements. The limit up to which shunting is permitted and the line involved must write on the shunting authority.

8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approaching train is strictly prohibited.

8.3 PROHIBITION OF SHUNTING - SPECIAL FEATURES:

- a) Hand shunting is prohibited at both ends of the yard.
- b) Fly shunting is prohibited at both ends of the yard.

8.4 SHUNTING ON SINGLE LINE: Not applicable.**8.5 SHUNTING ON DOUBL LINE:**

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

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

The shunting in the Goods siding shall be authorised by observing rules laid down in SR 5.13.02. Since, movement in Goods Siding is a non-signalling hence T/806 to be issued for shunting operations in the siding.

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

- i) During partial interruption/failure of electrical communication instruments SR 6.02.06 shall be followed.
- ii) The authority to proceed in the occupied block section in case of obstruction of line or accident etc is T/A-602 and SR 6.02.05 shall be followed.
- iii) Trains delayed in the block section: GR 6.04 and relevant SRs shall be followed.
- iv) Failure/ passing of IBS signed in ON position: Nil.
- v) Failure of Axle Counter Block/BPAC: As per Appendix-'B'.
- vi) Failure of MTRC: Nil.

b) PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE:-

The detailed Procedure for emergency operation of points in case of failure of Point Zone track section is mentioned in Para No.4 item no. 9 of General portion and Para No. 9 of Appendix-'B' of this SWR. 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 or 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.

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

The detailed Procedure for emergency operation of points in case of failure of Point zone Track Circuit is mentioned in Para No.8.1 and 9.0 of Appendix-'B' of this SWR.

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

d) 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 including fouling track showing Red also to be verified by SM on duty.

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

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

- (ii) The entries in failure register to be done with message to the section controller.

9.1 TOTAL FAILURE OF COMMUNICATION:

- a) In the event of total failure of communications on double line, train shall run on the authority to proceed without line clear laid down in SR 6.02.03 shall be followed.
- b) During partial failure of communications, trains shall be worked in accordance with the provisions of GR 6.02.06.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

During temporary single line working on double line either between GPI-KMX and GPI-GRBL, trains shall be worked as per the procedure of SR 6.02.01.

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

- i). In the event of total failure of 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 UP Starter signal No.5 for UP direction and DN Starter Signal No.8 of common loop are earmarked to serve as visibility test object during day and night vide GR 3.61 (2) (b) (iii).

(11) ESSENTIAL EQUIPMENT AT THE STATION: Details are given in Appendix-E.**(12) FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG:**

- (i) During thick, foggy or tempestuous weather impairing visibility of the Signals the SM on duty shall initiate action to depute Fog signal man with detonators vide GR 3.61 in order to indicate the location of the station approach signals to the Loco pilot of an approaching train.
- (ii) The fog signal man shall proceed to the 1st stop signal of the station and place one detonator at a distance of 270M from the 1st approaching stop signal towards the approaching train and another detonator at a distance of 10M from the 1st one and he shall stand 45M away from the detonator.
- (iii) The fog signal man shall be permanent employee, no temporary or casual labour shall be deployed as fog signal man.
- (iv) The assurance of fog signal man available at the station (including engineering branch if available) shall be obtained in the fog signal register every year in the month of "OCTOBER".
- (v) Details of supply of detonators available stock, use and testing etc., shall be maintained in the fog signal register of the station as per GR 3.64 and SRs there to.

Note: Names of fog signal man available at the station shall be exhibited in SM's office.

LIST OF APPENDICES

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

APPENDIX-'A'**APPENDIX 'A' TO STATION WORKING RULES OF GAJAPATINAGARAM STATION
LEVEL CROSSING GATES**

1.	GENERAL:		
1.1	DESCRIPTION OF THE LEVEL CROSSING GATE:		
	Following details shall be maintained at all manned level crossing gates:		
1	Level Crossing Gate No. and class	:	RV-332/ B-Class
2	Engineering or Traffic gate	:	Traffic Gate
3	Under control of station master or permanent way inspector.	:	SS/GPI
4	Location at Km.	:	KM 445/33-35(UP), 445/34-36(DN)
5	At station	:	GAJAPATINAGARAM
6	In between station	:	GPI & GRBL
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	:	Interlocked
11	Means of Interlocking	:	Station with Stop Signals
12	Provision of gate signal at Km.	:	i) Up Line: UP Gate Home 3 GF at KM. 445/25-27 ii) DN Line: DN Gate Home 4 GF 445/40-42
13	Signaling arrangement	:	MACL
14	Means of communication Telephone.	:	Telephone
15	Width of the level crossing gate	:	7.9 M
16	Type of road	:	Other
17	Name of road	:	Andra Village
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	BT
	Width of the road	:	7.5 M
	Angle of road crossing (in case of the SKEW gates)	:	75°
22	Road gradients (if any)	:	[a]North/East Side: 1 in 20 [b]South/West Side: 1 in 20
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Plain
28	Length of rumble strip/ speed breakers.	:	7.5 M
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU:	:	99812/Oct-21
32	Census next due on	:	Oct-2024
33	Demarcation for placement of detonators.	:	Provided
34	No. of gateman working	:	3
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest Private Medical Assistance available (if any)	:	Gajapatinagaram
37	List of equipment available (Yes/No)	:	Yes

1.2 EQUIPMENT TO BE AVAILABLE AT THE GATE LODGE:

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

1.3 **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 Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.
12. Signal Failure and Inspection Register.

1.4 **MODE OF OPERATION**

1. L.C. Gate is normally open to road traffic
2. Key 'E' extracted from the winch after closing the L.C. Gate releases gate lever No.2
3. Lever No.2 thus reversed effects boom locking and releases lever No.3 & 4 and key 'F'.
4. After insertion Key 'F' in EKT1, lever 3 & 4 control the UP & DN stop signal respectively.
5. Key 'F' is transmitted electrically from EKT1 along with lever No. 3 reversed to SM to release control 30 to clear UP Adv. Starter Sig No. 11.

1.5 **DUTIES OF GATEMAN:**

1. **COMPETENCY:**

Gatemen working at this Gate should have competency certificate applicable to perform duty at this gate issued by the Sectional Ch. TI or SS (I/C)/GPI.

2. **ALERTNESS:**

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

3. POSITION DURING PASSAGE OF TRAINS:

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

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, 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 from sunset to sunrise.
- ii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iii) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- iv) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- v) Gateman shall also prepared to repeat any signal which Train Manager 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 padlocks for securing the gate against road traffic.
- vii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- viii) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xi) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiii) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xiv) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xv) 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.
- xvi) Gateman shall prevent tress passing by persons or cattle to the maximum extent

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- i) He shall take prompt action to warn the Loco Pilot / Train Manager of the passing train by showing red flag by day and red light by night.

- ii) He shall simultaneously try to draw the attention of the Loco Pilot / Train Manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / Train Manager 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 / Train Manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

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 a red light by night on the other line 5 meters away from the site of obstruction.
 - iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
 - iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
 - v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
 - vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
 - vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
 - viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.
- b) **Other action to be taken by Gateman:**
 - 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 LP, 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.

ANNEXURE II**WORKING INSTRUCTIONS FOR TRAFFIC LEVEL CROSSING GATES INTERLOCKED WITH STOP SIGNALS OF THE STATION, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC" at KM 445/33-35(UP), 445/34-36(DN)****1. Mode of Operation:**

1. L.C. Gate is normally open to road traffic
2. Key 'E' extracted from the winch after closing the L.C. Gate releases gate lever No.2
3. Lever No.2 thus reversed effects boom locking and releases lever No.3 & 4 and key 'F'.
4. After insertion Key 'F' in EKT1, lever 3 & 4 control the UP & DN stop signal respectively.
5. Key 'F' is transmitted electrically from EKT1 along with lever No. 3 reversed to SM to release control 30 to clear UP Adv. Starter Sig No. 11.

2. Intimation to Gate Keeper:

- (i) Before taking off reception / departure signals Station Master shall inform the gateman, the number, description and direction of the train.
- (ii) The gateman shall close the gate and transfer the key to the Station Master.
- (iii) The reception / departure signals will then be taken 'OFF'.
- (iv) In order to ensure that road traffic is not held up for a long time, the Station Master must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.
- (v) If the gate is operated from the cabin itself, Station Master shall ensure that the gate is closed against road traffic, before taking 'OFF' reception / departure signals.
- (vi) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

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 on duty shall send written advice to the gateman through the porter with full details of number, description and direction of the train.
- (ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable them to take 'OFF' reception / departure signals.
- (iii) When sufficient time is not available because of greater frequency of train service Station Master will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- (iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.
- (v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b).
- (vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of private number, that the telephone at the gate has failed.
- (vii) The Station Master at the despatching end shall then issue a caution order to the LP before despatching a train in the block section from his end.
- (viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Working of Sliding boom barriers in case failure/defectiveness of Lifting Barriers:

In the event of failure lifting barriers to operate by any means or damage of lifting barriers, the Gate man shall inform the SM on duty and seek permission to operate the

Sliding barriers. These emergency sliding booms can be used as auxiliary gate without Piloting In & Out of train. This emergency sliding boom should not be used during normal working condition of main boom. The gate man shall adopt the following procedure for procedure for closing the Sliding Barriers.

- (i) Key 'S4' when extracted from lock free EKT-3 makes road signals danger and actuates road hooter key 'S4' unlock the sliding barrier-1.
- (ii) Sliding Barrier-1 to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-6. When Key SB-6 extracted from lock, it lock the sliding barrier-1.
- (iii) Similarly, Sliding Barrier No. 2 after unlocking the padlock, to be rolled across the road up to the lock post key (Chained with barrier) along with key SB-6 inserted releases the lock plunger and key SB-7. Key SB-7 when extracted, lock the Sliding Barrier-2 and key SB-6.
- (iv) Finally released key SB-7 is to be transmitted electrically through EKT-2 to clear UP & DN signals. After operation of concerned switches 3 GF & 4 GF for UP & DN signals respectively.

In the event of failure of reception and despatch signals or during non-interlocking working, the traffic gate man shall be informed and the train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of LC gate. During this period the LC gate shall be opened only when necessary and safe to do so.

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

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

- (i) If the gate key cannot be extracted from EKT-2 the gateman must immediately inform the SM on duty on telephone under exchange of private number.
- (ii) If Emergency Key is available at the gate lodge / cabin, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.
- (iii) The record of the date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons.
- (iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- (v) Station Master on duty shall issue a 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 the block section from his end.
- (vii) Station master will advise S&T staff responsible for electrical key transmitter to rectify the defect at the earliest.
- (viii) Normal working will be resumed only after S&T staff repairs the electrical key transmitter and reconnection/fit memo for the same.
- (ix) After rectification, the Emergency Key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

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

- (i) If the gate key cannot be extracted from EKT-1 the gateman must immediately inform the SM on duty on telephone under exchange of private number.
- (ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / dispatch of trains as prescribed for non-interlocked gates should be adopted.
- (iii) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.
- (iv) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end under exchange of private

number to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.

- (vi) Station master will advise S&T staff responsible for electrical key transmitter to rectify the defect at the earliest.
- (vii) Normal working will be resumed only after S&T staff repairs the electrical key transmitter and reconnection/fit memo for the same.
- (viii) After rectification, the Emergency Key shall be replaced in the Emergency Key Box and released by the S&T maintainer.

7. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the 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 defects / 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 two or 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(5).
- (vi) There he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the LP, owner and relay these details to the Station Master who shall not start the train unless he has been assured 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 obstructions.
- (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 all train to proceed cautiously, and pass the reception / departure signal at 'ON' position on green hand signal of the gateman, of 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 same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

8. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to failing of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.7 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 'A'

APPENDIX 'A' TO STATION WORKING RULES OF GAJAPATHINAGARAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1	No. of Level Crossing Gate	:	RV-333/ C- Class
2	Engineering or Traffic gate	:	Engineering Gate
3	Under control of station master or permanent way inspector.	:	SSE(P)/GPI
4	Location at Km.	:	446/27-29(UP), 446/28-30(DN)
5	At station	:	Mid Section
6	In between station	:	GPI-GRBL
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Closed to Road Traffic
10	Interlocked/ Non-Interlocked	:	Non - Interlocked
11	Means of Interlocking	:	-
12	Provision of gate signal at Km.	:	i) Up Line : Nil ii) DN Line : Nil
13	Signaling arrangement	:	Nil
14	Means of communication Telephone.	:	Telephone with GPI Station
15	Width of the level crossing gate	:	9.5 M
16	Type of road	:	Village Road
17	Name of road	:	Dewalapeta Road
18	Metalled /Non-Metalled	:	Non-metalled
19	Approach road	:	WBM
	Width of the road	:	7.50 M
	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side: level
		:	[b]South/West Side: level
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight (Track Curve)
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers.	:	7.5 M
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	15875, Oct-2021
32	Census next due on	:	Oct-2024
33	Demarcation for placement of detonators.	:	Provided
34	No. of gateman working	:	Two
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest Private Medical Assistance available (if any)	:	Gajapatinagaram
37	List of equipment available (Yes/No)	:	Yes

1.2

EQUIPMENT:

Items	Quantity / Numbers
1. LED based flashing Tri Colour hand signal lamp	5 Nos.
2. Hand Signal Flag Green	1 No with mounted stick
3. Hand Signal Flag Red	6 Nos.
4. Banner Flag Red	3 Nos.

5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	2 No.s

1.3 **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 Roster.
- 6 Certificate for working as gateman.
- 7 Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
- 8 Accident Register.
- 9 Record of last census of road traffic at level crossing gate.
- 10 Public Complaint Book.
- 11 Inspection Book.

1.4 **DUTIES OF GATEMAN:**

1. **COMPETENCY:**

Gatemen working at this Gate should have competency certificate applicable to perform duty at this gate issued by the SSE (P/Way).

2. **ALERTNESS:**

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

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

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

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, 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.

3. ROUTINE DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which Train Manager may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- x) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xi) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xv) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvi) 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.
- xviii) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- i) He shall take prompt action to warn the Loco Pilot / Train Manager of the passing train by showing red flag by day and red light by night.

- ii) He shall simultaneously try to draw the attention of the Loco Pilot / Train Manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / Train Manager 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 / Train Manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. 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 a 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.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) Other action to be taken by Gateman:

- 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 Para (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 LP, 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.

ANNEXURE-V

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "CLOSED TO ROAD TRAFFIC"

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

1. Mode of Operation:

When level crossing gate is required to be opened for passage of road traffic, the gateman should place Banner flags across the track on each direction since the gate is non-interlocked and normal position is open to road traffic. Detail mode of operation for opening and closing of LC gate are as mentioned below:

2. Exchange of Private Number:

- (a) When Gate is connected with the station at the dispatching end:
 - (i) Station Master at the dispatching end shall advise the gateman the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
 - (ii) Such advice shall be given before taking 'OFF' departure signals or giving an authority to proceed to the Loco pilot.
 - (iii) The gateman on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
 - (iv) Station Master will lower the departure signals after getting the private number of the gateman.
 - (v) Gate once closed for road traffic must on no account be opened unless this is authorised by the Station Master, under exchange of private number.
 - (vi) Gate man shall be authorized to open the level crossing after complete passage of the train from the gate by observing tail board/ tail lamp. The gateman before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from the other direction. Gateman should place banner flags across the track before opening of the Gate.
- (b) **WHEN GATE IS CONNECTED WITH THE STATION AT THE RECEIVING END:**
 - (i) Station Master at the dispatching end shall advise the Station Master at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
 - (ii) Such advice shall be given before obtaining line clear.
 - (iii) Station Master at the receiving end shall in turn convey the same advice to the gateman, under exchange of private number.
 - (iv) Gateman shall close the gate and thereafter give his private number to the Station Master.
 - (v) Only then shall the Station Master at the receiving end grant line clear to the Station Master at the dispatching end.
 - (vi) Gate once closed for road traffic must on no account be opened unless this is authorised by the Station Master, under exchange of private number.

Such advice
Station Master
gateman, u

- (vii) Gate man shall be authorized to open the level crossing after complete passage of the train from the gate by observing tail board/ tail lamp. The gateman before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from the other direction. Gateman should place banner flags across the track before opening of the Gate.

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 driver before dispatching a train in the block section from his end.
- (ii) The caution order should advise the drive to whistle continuously and approach the gate cautiously.
- (iii) The driver should be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, driver should be prepared to stop short of the gate and depute his Assistant Driver to see the condition of the gate. If the gate is closed, the Assistant Driver must close the gate and then give the all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of the Assistant Guard / Guard and shall stop clear of the level crossing to pick up the Assistant Driver who will reopen the gate for passage of road traffic.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, which the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the drive before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or driver 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 defect 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 / leaf gates, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers or leaf gates 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 drive of the approaching train.
- (v) Station Master on duty shall issue caution order to the LP 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 drive before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers / leaf gates to rectify the same at the earliest.

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

5. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately 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 defects / 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 two or three attempts, he shall first protect the gate and then inform on phone.
- (v) He 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(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the LP, 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 / leaf gates 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 LPs of all trains to proceed cautiously, and pass the gate on green hand signal 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 cabins and padlocks and there after exhibit green hand signal of the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers / leaf gates to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers / leaf gates 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 he must keep the gates closed against road traffic till the track is cleared of the obstruction.

APPENDIX-'A'**APPENDIX 'A' TO STATION WORKING RULES OF GAJAPATINAGARAM STATION
LEVEL CROSSING GATES****1. GENERAL:****1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:**

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

1	No. of Level Crossing Gate/Class	:	RV-331/B-Class
2	Engineering or Traffic gate	:	Traffic Gate
3	Under control of station master or permanent way inspector.	:	SS/SM-GPI
4	Location at Km.	:	443/29-33(UP), 443/32-34(DN)
5	At station	:	GAJAPATINAGARAM
6	In between station	:	KMX- GPI
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	:	Interlocked
11	Means of Interlocking	:	CP at GPI station
12	Provision of gate signal at Km.	:	i) Up Line : Station Signals ii) DN Line : Station Signals
13	Signaling arrangement	:	MACL
14	Means of communication Telephone.	:	Telephone connected with SS/SM GPI
15	Width of the level crossing gate	:	9.5 M
16	Type of road	:	Other
17	Name of road	:	Railway Colony Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	WBM
	Width of the road	:	7.5 M
	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side: level [b]South/West Side: level
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Electrical Operated Lifting Barrier.
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers.	:	7.5 M
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU:	:	3657 on Oct-2021
32	Census next due on	:	Oct-2024
33	Demarcation for placement of detonators.	:	Provided
34	No. of gateman working	:	2
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest Private Medical Assistance available (if any)	:	Gajapatinagaram
37	List of equipment available (Yes/No)	:	Yes

1.2 EQUIPMENT TO BE AVAILABLE AT THE GATE LODGE:

SN	Description	Requirement	To be used as
1	LED Tri colour hand signal lamps	Two	One for use and another for spare
2	Green Hand Signal Flag	One flag mounted on sticks	To hold in furled condition while passing train.
3	Red Hand Signal Flag	Two flags mounted on sticks	One to hold in furled condition and another for spare.
4	Red Banner Flag mounted with sticks	Single line-2 Double line-2 Multiple lines-3	In case of obstruction, one flag is to be displayed on each line except on single line it is to be placed on either side of the line
5	Spare chains with Padlocks	2 chains with 2 Padlocks	For securing gate against road traffic in case of gate boom cannot be closed.
6	Stop Boards	2 retro reflective stop boards with stands	To display towards road traffic when gate is secured by gate chains due to failure of booms.
7	Padlock	one	To lock the door of the gate lodge in case of necessity
8	Detonators	Ten(10) in a tin case	For use in case of obstruction of track
9	Tommy Bar	one	For levelling the soil surface or to clean the channels of rails
10	Bucket	one	To keep water
11	Whistle	one	For alerting road users on approach of train and LP/Train Manager to call their attention.
12	Wall clock	one	To note down the timing in PN/Log book
13	A small size chain for use in case of failure of gate boom/Leaf Lock	Two	For securing boom in closed condition in case of failure of boom lock.

1.3 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 Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 MODE OF OPERATION:

Gate shall normally be kept open to road traffic whenever it is required to close the gate, Station Master on duty shall inform the Gateman on duty about the direction and description of the train intended to receive/dispatch. Gateman on duty shall ensure clearance of road traffic, close and lock the gate. Thereafter transmit the key to the Station Master on duty as per following procedure.

- a) Barrier-1 & Barrier-2 Switches are provided for individual operations of barriers required.

- b) Red and Green buttons are provided on gate panel for closing and opening of L.C gate respectively.
- c) The push button 'Red' is pressed till the gate is closed and locked,
- d) Key 'H' is extracted from EKT-1 after gate is closed & locked.
- e) Key 'H' thus extracted from EKT-1 is inserted in EKT-2 & transmitted electrically to SM in conjunction with switch 'GS' reversed to take off concerned signals.
- f) For opening the gate, SM transmits control-29 to extract key-H from Ekt-2 & inserts in EKT-1, the push button Green is pressed till the gate is opened.
- g) Switch GS is provided in gate lodge to put back concerned signals in case of emergency.
- h) In case of Emergency Key 'M' is extracted from EKT-3 electro mechanically free provided at Gate lodge (in a locked and sealed red box) for manual operation of lifting barriers by crank handling in case of emergency.
- i) Only in case of input power failure, GK should operate the gate with the help of hand generator unit which is attached to gate panel for closing/opening of LC gate. There will be no indications on gate panel for closing/opening of the LC gate and hence signals cannot be taken-off.
- j) In case of input power supply is available but cable/hand generator failed, arrangement for direct mechanical hand cracking is also available individually at the two pedestals. In this case also, no indications on panel are available and hence signals cannot be taken-off.

1.5 CRANK HANDLE OPERATION OF ELECTRICAL LIFTING BARRIER:

Facility has been provided for closing/opening of LC gate in case of failure of power supply and hand generator of electrically operated lifting barrier with the provision of RKT-3 and crank handle with chain arrangement by the side of RKT-3 in sealed box painted in Red. The operation is as follows.

- i) In case of failure of power supply and inoperative of Hand Generator, Gateman shall extract key from RKT-3 having crank handle with chain arrangement. One key and 'T' type handle is also provided in sealed box.
- ii) For opening the gate GK shall extract the key from RKT-3 with crank handle chain arrangement. Gateman shall also take key & 'T' type handle and proceeds to lock post at one end.
- iii) Key is to be inserted and turned on lock post. Then Gateman shall insert 'T' type handle for unlocking the Boom lock when the barrier is in locked condition.
- iv) Gateman shall now proceeds to pedestal, key inserted and turned clockwise and use crank handle for opening/closing of Barriers of the gate as per requirement.
- v) For closing the gate, GK shall proceed to individual pedestal after extracting the key from RKT-3 and with T-type handle, close the gate with crank handle and proceeds to lock post to lock the gate with T-type handle.
- vi) Same operation shall also be done for other end of the gate.
- vii) Extraction of key from RKT-3 is interlocked with signals.

1.6 DUTIES OF GATEMAN:

1. COMPETANCY:

Gatemen working at this Gate should have competency certificate applicable to perform duty at this gate issued by the Ch.TI or SS/GPI.

2. ALERTNESS:

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

3. POSITION DURING PASSAGE OF TRAINS:

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

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, 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 from sunset to sunrise.
- ii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iii) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- iv) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi Gateman shall also prepared to repeat any signal which Train Manager 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 padlocks for securing the gate against road traffic.
- vii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- viii) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xii Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
Gateman shall see that the channel for the flange of the wheel is kept clean.
- xiii) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- 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.

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

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- i) He shall take prompt action to warn the Loco Pilot / Train Manager of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / Train Manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / Train Manager 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 / Train Manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

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 a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.
- b) **Other action to be taken by Gateman:**
 - 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 LP, 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.

ANEXURE-II

WORKING INSTRUCTIONS FOR TRAFFIC LEVEL CROSSING GATES INTERLOCKED WITH STOP SIGNALS OF THE STATION, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC" at KM 443/29-33(UP),443/32-34(DN)

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

1. Mode of Operation:

- Gate shall normally be kept open to road traffic whenever it is required to close the gate, Station Master on duty shall inform the Gateman on duty about the direction and description of the train intended to receive/dispatch. Gateman on duty shall ensure clearance of road traffic, close and lock the gate. Thereafter transmit the key to the Station Master on duty as per following procedure.
- a) Barrier-1 & Barrier-2 Switches are provided for individual operations of barriers required.
 - b) Red and Green buttons are provided on gate panel for closing and opening of L.C gate respectively.
 - c) The push button 'Red' is pressed till the gate is closed and locked,
 - d) Key 'H' is extracted from EKT-1 after gate is closed & locked.
 - e) Key 'H' thus extracted from EKT-1 is inserted in EKT-2 & transmitted electrically to SM in conjunction with switch 'GS' reversed to take off concerned signals.
 - f) For opening the gate, SM transmits control-29 to extract key-H from Ekt-2 & inserts in EKT-1, the push button Green is pressed till the gate is opened.
 - g) Switch GS is provided in gate lodge to put back concerned signals in case of emergency.
 - h) Only in case of input power failure, GK should operate the gate with the help of hand generator unit which is attached to gate panel for closing/opening of LC gate. There will be no indications on gate panel for closing/opening of the LC gate and hence signals cannot be taken-off.
 - i) In case of input power supply is available but cable/hand generator failed, arrangement for direct mechanical hand cracking is also available individually at the two pedestals. In this case also, no indications on panel are available and hence signals cannot be taken-off.

2. Intimation to Gate Keeper:

- (i) Before taking off reception / departure signals Station Master shall inform the gateman, the number, description and direction of the train.
- (ii) The gateman shall close the gate and transfer the key to the Station Master.
- (iii) The reception / departure signals will then be taken 'OFF'.
- (iv) In order to ensure that road traffic is not held up for a long time, the Station Master must ensure that the train is ready for departure in all respects before he advises the gateman for

closing the gate.

- (v) If the gate is operated from the cabin itself, Station Master shall ensure that the gate is closed against road traffic, before taking 'OFF' reception / departure signals.
- (vi) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

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 on duty shall send written advice to the gateman through the porter with full details of number, description and direction of the train.
- (ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable them to take 'OFF' reception / departure signals.
- (iii) When sufficient time is not available because of greater frequency of train service Station Master will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- (iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.
- (v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b).
- (vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of private number, that the telephone at the gate has failed.
- (vii) The Station Master at the despatching end shall then issue a caution order to the driver before despatching a train in the block section from his end.
- (viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Working of Sliding boom barriers in case failure/defectiveness of Lifting Barriers :

In the event of failure lifting barriers to operate by any means or damage of lifting barriers, the Gate man shall inform the SM on duty and seek permission to operate the Sliding barriers. These emergency sliding booms can be used as auxiliary gate without Piloting In & Out of train. This emergency sliding boom should not be used during normal working condition of main boom. The gate man shall adopt the following procedure for procedure for closing the Sliding Barriers.

- (i) Key 'S3' when extracted from lock free EKT-5 makes road signals danger and actuates road hooter key 'S3' unlock the sliding barrier-1.
- (ii) Sliding Barrier-1 to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-4. When Key SB-4 extracted from lock, it lock the sliding barrier-1.
- (iii) After unlocking the padlock of Sliding Barrier 2 with key SB-4, barrier to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-5. When Key SB-5 extracted from lock, it lock the sliding barrier-2 and key SB-4.
- (iv) Finally released key SB-5 is to be transmitted electrically through EKT-4 in conjunction with Switch GS reversed for taking-off concerned signals.

In the event of failure of reception and despatch signals or during non-interlocking working, the traffic gate man shall be informed and the train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of LC gate. During this period the LC gate shall be opened only when necessary and safe to do so.

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

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

- (i) If the gate key cannot be extracted from EKT-2 the gateman must immediately inform the SM on duty on telephone under exchange of private number.
- (ii) If Emergency Key is available at the gate lodge / cabin, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.
- (iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- (iv) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) Station master will advise S&T staff responsible for electrical key transmitter to rectify the defect at the earliest.

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

- (i) If the gate key cannot be extracted from EKT-1 the gateman must immediately inform the SM on duty on telephone under exchange of private number.
- (ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / dispatch of trains as prescribed for non-interlocked gates should be adopted.
- (iii) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.
- (iv) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end under exchange of private number to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) station master will advise S&T staff responsible for electrical key transmitter to rectify the defect at the earliest.
- (vii) Normal working will be resumed only after S&T staff repairs the electrical key transmitter and reconnection/fit memo for the same.
- (viii) After rectification, the Emergency Key shall be replaced in the Emergency Key Box and released by the S&T maintainer.

7. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the 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 defects / 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 two or 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(5).
- (vi) There he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the LP, owner and relay

these details to the Station Master who shall not start the train unless he has been assured 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 obstructions.
- (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 all train to proceed cautiously, and pass the reception / departure signal at 'ON' position on green hand signal 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 same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

8. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to failing of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.7 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 'A'**APPENDIX 'A' TO STATION WORKING RULES OF GAJAPATHINAGARAM STATION
LEVEL CROSSING GATES****1. GENERAL:****1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:**

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

1	No. and class of Level Crossing Gate	: RV-326/ B2-Class
2	Engineering or Traffic gate	: Engg. Gate
3	Under control of station master or permanent way inspector.	: SSE(P-Way)
4	Location at Km.	: 439/15-17 (UP) 439/16-18 (DN)
5	At station	: GAJAPATHINAGARAM
6	In between station	: KMX- GPI
7	BG/MG/NG	: BG
8	Single line/double line/multiple line	: Double line
9	Normal position	: Opened to Road traffic
10	Interlocked/ Non-Interlocked	: Interlocked
11	Means of Interlocking	:
12	Provision of gate signal at Km.	: i) Up Line : GS-1 at KM. 439/7-9 ii) DN Line : GS-2 at KM. 439/24-26
13	Signaling arrangement	: No
14	Means of communication Telephone	: Telephone connected with SS/SM-GPI
15	Width of the level crossing gate	: 10.5 M
16	Type of road	: Village Road
17	Name of road	: Kallam NH-43
18	Metalled /Non-Metalled	: Metalled
19	Approach road	: BT
	Width of the road	: 7.5 M
	Angle of road crossing (in case of the SKEW gates)	: 90°
22	Road gradients (if any)	: [a]North/East Side: level [b]South/West Side: level
23	Road alignment (straight/Curve)	: [a] North/East Side : Straight [b] South/East Side : Track Curve
24	Provision of height gauges	: Provided
25	Type of barriers	: Electrical Lifting Barriers
26	Length of check rails	: 12.5 M
27	Road surface in between level crossing gates.	: Plain(C.C.Block)
28	Length of rumble strip/ speed breakers.	: 7.5 M
29	Road signs	: Provided
30	Speed breakers indication board	: Provided
31	TVU:	: 34262; Oct-2021
32	Census next due on	: Oct-2024
33	Demarcation for placement of detonators.	: Provided
34	No. of gateman working	: 2
35	Nearest Railway Medical Assistance	: VZM
36	Nearest Private Medical Assistance available (if any)	: Gajapatinagaram
37	List of equipment available (Yes/No)	: Yes

1.2 EQUIPMENT:

Items	Quantity / Numbers
1. Hand Signal Lamp Tri Colour	5 Nos.
2. Hand Signal Flag Green	1 No with mounted stick
3. Hand Signal Flag Red	6 Nos.
4. Banner Flag Red	5 Nos.
5. Posts for exhibiting red banner flag	4 Nos.
6. Spare chains with padlocks	2 with stop marker
7. Detonators	10 in each case
8. Gate lamps	2 Nos.
9. Tommy Bar	1 No.
10. Mortar Pan	1 No.
11. Spade / Fowrah	1 No.
12. Rammer	1 No (In case of asphalted road this may not be provided)
13. Pick Axe	1 No (In case of asphalted road this may not be provided)
14. Tin case for flags	1 No.
15. Can for oil	1 No.
16. Water port / Bucket	1 No.
17. Canister for Muster Roll	1 No.
18. Set of spare spectacles of gateman wearing glasses	1 No.
19. Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20. Basket	1 No.
21. Whistle	1 No.
22. Wall Clock	1 No.
23. A small size chain for use in case of failure of gate boom/Leaf Lock	2 No.

1.3 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 Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.
12. S&T failure and inspection register.

1.4 DUTIES OF GATEMAN:**1. COMPETENCY:**

Gatemen working at this Gate should have competency certificate applicable to perform duty at this gate issued by the SSE (P/Way).

2. ALERTNESS:

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

3. POSITION DURING PASSAGE OF TRAINS:

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

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, 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.

3. ROUTINE DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency; he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which Train Manager may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xi) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiii) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xiv) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xv) 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.
- xvi) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- i) He shall take prompt action to warn the Loco Pilot / Train Manager of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / Train Manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / Train Manager 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 / Train Manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. 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 a 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 precede on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) Other action to be taken by Gateman:

- 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 LP, 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.

ANNEXURE – I
WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATE, INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION 'OPEN TO ROAD TRAFFIC' AT KM 439/17-19(UP), 439-20-18(DN)

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

1. Mode of Operation:

Gate shall normally be kept open to road traffic, whenever it is required to close Gatemmen on duty shall ensure clearance of road traffic, operate the Electrical lifting as per the following procedure:

- (i) For closing and opening of LC gate barriers, Gate working rule (based on User's manual to be followed).
- (ii) With push button operation, gate is closed and locked, Then key-P is extracted from EKT-1.
- (iii) Key-P, thus extracted is inserted in EKT-2 and turned key-in contact of EKT-2 along with switch GS-1 and GS-2 reversed will clear UP gate stop signal GS-1 and DN gate stop signal GS-2 respectively.
- (iv) Dead approach locking of 60seconds with back locking is provided key "P" when in EKT-2
- (v) For opening of LC gate switch GS-1 and GS-2 is put back to normal, then key "P" is extracted from EKT-2 and instead back EKT-1 for operation of LC gate.
- (vi) In case of emergency, gate man will inform SM with P.No. then Key-Q (Chained with crank handle) is extracted from EKT-3 (Electro mechanically free) provided at gate lodge (In a locked and sealed red box with glass cover) for manual operation of lifting barriers by crank handling.
- (vii) Extraction of Key-Q shall put back the gate stop signals at "on".
- viii) Gate should ensure that no road vehicle is trapped in between UP and DN lines while closing the LC gate barriers.

2. Intimation to Gate Keeper:

- (i) Before taking off reception / departure signals Station Master shall inform the gateman, the number, description and direction of the train.
- (ii) The gateman shall close the gate and transfer the key to the Station Master.
- (iii) The reception / departure signals will then be taken 'OFF'.
- (iv) In order to ensure that road traffic is not held up for a long time, the Station Master must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.
- (v) If the gate is operated from the cabin itself, Station Master shall ensure that the gate is closed against road traffic, before taking 'OFF' reception / departure signals.
- (vi) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

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 LP before dispatching a train in the block section from his end.
- (ii) The caution order should advise the LP to whistle continuously and approach the gate cautiously.

- (iii) The LP should be instructed to pass the gate cautiously, on being hand signaled by the gateman. If hand signal is not seen, LP should be prepared to stop short of the gate and depute his ALP to see the condition of the gate. If the gate is closed, the ALP must close the gate and then give the all right signal. In the absence of the ALP, the LP may take the assistance of the Assistant Train Manager / Train Manager and shall stop clear of the level crossing to pick up the ALP who will reopen the gate for passage of road traffic.
- (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 LP before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or LP of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect 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 Working of Sliding boom barriers in case failure/defectiveness of Lifting Barriers :

In the event of failure lifting barriers to operate by any means or damage of lifting barriers, the Gate man shall inform the SM on duty and seek permission to operate the Sliding barriers. These emergency sliding booms can be used as auxiliary gate without Piloting In & Out of train. This emergency sliding boom should not be used during normal working condition of main boom. The gate man shall adopt the following procedure for procedure for closing the Sliding Barriers.

- i) Key 'S' when extracted from lock free EKT-5 makes road signals danger and actuates road hooter key 'S' unlock the sliding barrier-1.
- ii) Sliding Barrier-1 to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-1. When Key SB-1 extracted from lock, it lock the sliding barrier-1.
- iii) After unlocking the padlock of Sliding Barrier 2 with key SB-2 barrier to be rolled across the road up to the lock post. Key (Chained with barrier) along with Key SB-1 inserted releases the lock plunger and Key SB-2. When Key SB-2 extracted from lock, it lock the sliding barrier-2 and Key SB-1.
- iv) Finally released key SB-2 is to be transmitted electrically through EKT-4 to clear UP & DN signals after operation concerned Switch (GS-1 and GS-2) reversed for taking-off concerned signals.

In the event of failure of reception and despatch signals or during non-interlocking working, the traffic gate man shall be informed and the train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of LC gate. During this period the LC gate shall be opened only when necessary and safe to do so.

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

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

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) If Emergency Key is available at the gate lodge, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.
- iii) The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.
- iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- v) Station Master on duty shall issue caution order to the driver 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 driver before despatching a train in the block section from his end.
- vii) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- viii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- ix) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6 Failure of the Gate Key with the gate in open condition:

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

7. Defective Gate Signals:

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

8. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the 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(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the LP, 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 LP 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 rectify the defective lifting barriers and issue reconnection / fit memo for the same.

9. 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.8 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 'A'

**APPENDIX 'A' TO STATION WORKING RULES OF GAJAPATHINAGARAM STATION
LEVEL CROSSING GATES**

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

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

1	No. and Class of Level Crossing Gate	:	RV-329/C-Class
2	Engineering or Traffic gate	:	Engineering Gate
3	Under control of station master or permanent way inspector.	:	SSE(P)/GPI
4	Location at Km.	:	442/8-9, {442/15-17(UP), 442/16-18(DN)}
5	At station	:	Mid Section
6	In between station	:	KMX-GPI
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Opened to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	
12	Provision of gate signal at Km.	:	i) Up Line : Gate Stop Signal GS-1 at KM. 442/9-11 ii) DN Line : Gate Stop Signal GS-2 at KM. 442/24-26
13	Signaling arrangement	:	Nil
14	Means of communication Telephone	:	Telephone with GPI Station
15	Width of the level crossing gate	:	9.5 M
16	Type of road	:	Other
17	Name of road	:	Bodevpeta Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	BT
	Width of the road	:	5.50 M
	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side: Level [b]South/West Side: Level
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Electrical Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers.	:	7.5 M
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU:	:	34828, Nov-2021
32	Census next due on	:	Nov-2024
33	Demarcation for placement of detonators.	:	Provided
34	No. of gateman working	:	Two
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest Private Medical Assistance available (if any)	:	Gajapatinagaram
37	List of equipment available (Yes/No)	:	Yes

1.2 EQUIPMENT:

Items	Quantity / Numbers
1. Hand Signal Lamp Tri Colour	5 Nos.
2. Hand Signal Flag Green	1 No with mounted stick
3. Hand Signal Flag Red	6 Nos.
4. Banner Flag Red	5 Nos.
5. Posts for exhibiting red banner flag	4 Nos.

6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	2 No.

1.3 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 Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.
12. S&T failure and Inspection Register

1.4 DUTIES OF GATEMAN:

1. COMPETENCY:

Gatemen working at this Gate should have competency certificate applicable to perform duty at this gate issued by the SSE (P/Way).

2. ALERTNESS:

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

3. POSITION DURING PASSAGE OF TRAINS:

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

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, 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 from sunset to sunrise.
- ii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iii) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- iv) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- v) Gateman shall also prepared to repeat any signal which Train Manager 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 padlocks for securing the gate against road traffic.
- vii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- viii) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- x) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xi) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiii) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xiv) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xv) 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.
- xvi) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- i) He shall take prompt action to warn the Loco Pilot / Train Manager of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / Train Manager by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / Train Manager 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 / Train Manager by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

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 a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) Other action to be taken by Gateman:

- 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 LP, 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.

ANNEXURE-I**WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATE, INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "OPENED TO ROAD TRAFFIC" AT KM 442/15-17(UP), 442/16-18(DN)**

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

1. Mode of Operation:

Gate shall normally be kept open to road traffic, whenever it is required to close Gate men on duty shall ensure clearance of road traffic, operate the Electrical lifting as per the following procedure:

- (i) For closing and opening of LC gate barriers, Gate working rule (based on User's manual to be followed).
- (ii) With push button operation, gate is closed and locked, Then key-P is extracted from EKT-1.
- (iii) Key-P, thus extracted is inserted in EKT-2 and turned key-in contact of EKT-2 along with switch GS-1 and GS-2 reversed will clear UP gate stop signal GS-1 and DN gate stop signal GS-2 respectively.
- (iv) Dead approach locking of 60seconds with back locking is provided on key "P" when in EKT-2
- (V) For opening of LC gate switch GS-1 and GS-2 is put back to normal, then key "P" is extracted from EKT-2 and instead back EKT-1 for operation of LC gate.
- (VI) In case of emergency, gate man will inform SM with P.No. then Key-Q (Chained with crank handle) is extracted from EKT-3 (Electromechanically free) provided at gate lodge (In a locked and sealed red box with glass cover) for manual operation of lifting barriers by crank handling.
- (VII) Extraction of Key-Q shall put back the gate stop signals at "ON".

2. Intimation to Gate Keeper:

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

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 driver of the departing train.
- (ii) The caution order shall advise the LP to whistle continuously and approach the gate cautiously.
- (iii) The LP shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, LP should be prepared to stop short of the gate and depute his Assistant LP to see the condition of the gate. If the gate is closed, the Assistant LP will give the all right signal and if the gate is not closed the Assistant LP must close the gate and then give all right signal. In the absence of the Assistant LP, the LP may take the assistance of Train Manager.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, inform that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gang man / patrolman or LP of the

first train that the telephone has become defective.

- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers or Leaf Gates:

- i) When the gate cannot be closed due to failure of lifting barriers or leaf gates, the gateman shall immediately inform the Station Master on duty under exchange of private number, and ensure that lifting of barriers or leaf gates 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 that gate against road traffic by means of safety chains and padlocks.
- iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the driver of the approaching train.
- v) Station Master on duty shall issue caution order to the driver 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 driver before despatching a train in the block section.
- vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier / leaf gates to rectify the same at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the lifting barrier / leaf gates and issue reconnection / fit memo for the same.

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

In the event of failure lifting barriers to operate by any means or damage of lifting barriers, the Gate man shall inform the SM on duty and seek permission to operate the Sliding barriers. These emergency sliding booms can be used as auxiliary gate without Piloting In & Out of train. This emergency sliding boom should not be used during normal working condition of main boom. The gate man shall adopt the following procedure for procedure for closing the Sliding Barriers.

- (i) Key 'S' when extracted from lock free EKT-5 makes road signals danger and actuates road hooter key 'S' unlock the sliding barrier-1.
- (ii) Sliding Barrier-1 to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-1. When Key SB-1 extracted from lock, it lock the sliding barrier-1.
- (iii) After unlocking the padlock of Sliding Barrier 2 with key SB-1, barrier to be rolled across the road up to the lock post key (Chained with barrier) releases the lock plunger and Key SB-2. When Key SB-2 extracted from lock, it lock the sliding barrier-2 and key SB-1.
- (iv) Finally released key SB-2 is to be transmitted through electrically through EKT-4 to clear UP/DN signals after operation of concerned switches (GS-1 & GS-2), for UP & DN signals respectively.

In the event of failure of reception and despatch signals or during non-interlocking working, the traffic gate man shall be informed and the train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of LC gate. During this period the LC gate shall be opened only when necessary and safe to do so.

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

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

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

- iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.
- iv) Station Master on duty shall issue a caution order to the driver of a departing train.
- v) He shall also advise the Station Master at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.
- vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

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

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

8. Defective Gate Signals:

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

9. Obstruction at the Gate:

- i) If the gate is broken by road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position.
- ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose.
- iii) Immediately after this, the gateman shall advise the Station Master on duty regarding the defects / obstructions at the gate, under exchange of private number.
- iv) 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.
- 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(5).
- vi) Thereafter he shall protect the gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers / leaf gates are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of private number, asking him not to despatch 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 drivers of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- 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 / leaf gates to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers / leaf gates and issue reconnection / fit memo for the same.

10. 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.9 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

EAST COAST RAILWAY
WALTAIR DIVISION

SYSTEM OF SIGNALLING AND INTERLOCKING AND TELECOMMUNICATIONS
GAJAPATINAGARAM STATION

Details of Signaling and Interlocking installations, telecommunication instructions for working them normally and in emergencies etc., including the power supply arrangements.

1.1 BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTLLATION:

This is a 'B' Class Station with Standard-IIR interlocking (with isolation). The points and signals are power operated from a composite "DOMINO TYPE" panel installed in the SM's office. This station is equipped with panel operated MACLS. The SGE type Double line Lock and Block instruments are provided in the SMs panel room for section GPI-GRBL and GPI-KMX adjacent to the panel.

1.2 DESCRIPTION OF PANNEL:

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

1.3 POINT BUTTONS:

Each point is provided with push buttons (Black in colour) for individual operation of points. For operation of point of normal/reverse position, point group push buttons (black with red dot) are provided. Point button and point group button normal/reverse shall be pressed at the same time for operation of point to required position. To indicate the position of point, a white steady strip in Normal direction to indicate normal position of point, and a white steady strip in Reverse direction to indicate Reverse position of point.

1.4 When a point is set and locked correctly in reverse position, a white steady strip indication on normal point zone appears suggesting that the point is in normal position and locked in its position.

1.5 When a point is set and locked correctly in reverse position, a white steady strip indication on normal point zone appears suggesting that the point is in reverse position and locked in its position.

1.6 When a point is operated form reverse to normal position, a white strip indication on normal point zone will start flashing till the concerned point is set and locked in normal position. When a point is operated form normal to reverse position, a white strip indication on reverse point zone will start flashing till the concerned point is set and locked in normal position.

1.7 OPERATION OF POINTS:

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

1.8 All running line points are operated by Elect Point machine.

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

2.1 DESCRIPTION OF POINTS

Sl. No.	Point Button No.	Colour	Description
1	17	Black	Cross over point between UP & DN main line at Raipur end.
2	19	Black	Cross over point between DN main & DN loop line at Raipur end.
3	21	Black	Cross over point between UP main & UP common loop line at Raipur end.
4	18	Black	Cross over point between UP & DN main line at GRBL end.
5	20	Black	Cross over point between DN main & DN loop line at GRBL end.
6	22	Black	Cross over point between UP main & UP common loop line at GRBL end.
7	Point group button (normal)	Black with Red dot	Common button for normal position of points.
8	Point group button (reverse)	Black with Red dot	Common button for reverse position of points.

3.1 **SIGNAL BUTTONS:**

Sl. No.	Point Button No.	Colour	Description
1	C1	Red with White dot	UP calling on signal for line No. 1 & 2.
2	S1	Red	UP Home signal for line No. 1 & 2.
3	C2	Red with White dot	DN calling on signal for line No. 1, 3 & 4.
4	S2	Red	DN Home signal for line No. 1, 3 & 4.
5	S5	Red	UP loop starter for Line No. 1
6	S6	Red	DN starter signal for Line No. 4
7	S8	Red	DN Common loop starter for Line No. 1.
8	S9	Red	UP Main starter for Line No. 2
9	S10	Red	DN Main starter for Line No. 3
10	S11	Red	UP Adv. Starter
11	S12	Red	DN Adv. Starter
12	SH3	Yellow	Shunt signal for line No. 1,2,3 & 4
13	SH4	Yellow	Shunt signal for line No. 1 & 2

3.2 **SIGNAL INDICATION:**

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

4.0 **ROUTE BUTTONS:**

Route buttons are provided separately on each running line on the panel for indication of route (viz.L1UN, L1UN1, L2UN, L3UN, L4UN, L4UN1). Common route buttons are also provided for taking off starters 11 AT UN, 12 AT UN. An individual route buttons is provided for taking off advanced starter 11 UN, 12 UN. For clearing the signal, it is necessary to operate the signal button and the concerned route buttons concurrently.

4.1 DESCRIPTIONS OF ROUTE BUTTONS:

1.	L1 UN	White	Common route button for Up Home signal and UP Calling-On signal for Line No.1 setting overlap on UP main Line.
2.	L1 UN1	White with black dot.	Common route button for Up Home signal and UP Calling-On signal for Line No.1 setting overlap to overrun line of DN main and route button for shunt signal No. 4 for Line No.1.
3.	L2 UN	White	Common route button for UP Home signal and Calling-On signal for Line No.2 setting overlap on UP main line and route button for shunt signal No. 3 for Line No.2.
4.	L3 UN	White.	Common route button for DN Home signal and Calling-On signal for Line No.3 setting overlap on DN main line and common route button for UP & DN shunt signal No. 3 & 4 respectively for Line NO.3
5.	L4 UN	White	Common route button for DN Home signal and DN Calling-On signal for Line No.4 setting overlap on DN main line respectively.
6.	L4 UN1	White with black dot	Common route button for DN Home signal and Calling-On signal for Line No.4 setting overlap on ORL and common route button for DN shunt signal No.3 & 4 respectively for line No. 4.
7.	12 UN	White	Route button for DN advanced Starter.
8.	11 UN	White	Route button for UP advanced Starter.
9.	11 AT UN	White	Route button for UP Starter 5 and 9.
10.	12 AT UN	White	Common route button for DN starters 6, 8 and 10.
11.	Group (Trans)	White with black dot	Common Trans button for crank handles and siding control.
12.	Group Released	White with black dot	Common release button for crank handles and siding control.
13.	CH-1	Blue	Points No. 19 and 20.
14.	CH-2	Blue	Points No. 21 and 22.
15.	CH-3	Blue	Points No. 17.
16.	CH-4	Blue	Points No. 18.
17.	29 LXN	Chocolate	LC Gate No. 29 control.
18.	30 LXN	Chocolate	LC Gate No. 30 control.
19.	Emergency gate release 29 ELXN	Chocolate with Red dot	Emergency release of LC Gate No. 29
20.	Emergency gate release 30 ELXN	Chocolate with Red dot	Emergency release of LC Gate No. 30.
21.	Signal lamp failure Ack.	Red with white dot	For acknowledge the signal lamp failure/point failure.
22.	Button held Ack.	White with Red dot.	To be passed to stop the buzzer in case of any button held.
23.	Signal Cancellation.	Red.	For cancellation of signal this is a common button to be pressed in conjunction with the intended signal button for which cancellation is required.
24.	Emergency of Point operation button.	Black with Red dot.	For operation of points in the event of failure of Track circuit/Axle counter.

25 & 26.	Siding Controls Button.	Black.	For release of key from RKT for siding point No.25. For release of key from RKT for siding point No.26.
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5.0 POWER SUPPLY ARRANGEMENT FOR THE SIGNALLING INSTALLATION

(A) POWER SUPPLY:

Normal: UP AT & DN AT.

Stand by: - Andhra Pradesh State Electricity Board.

- (i) A changeover switch is provided in the Station Master's Office with the three power supplies viz., UP AT, DN AT and Local for changing the switch to the required supply position. A luminous indicator above the circuit breaker for each supply indicates the availability of the supply.
- (ii) For IPS system that provides to Panel, selection output of power supply is taken.
- (iii) There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

(B) REMOTE MONITORING ASM BOX:

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

- (a) 50% 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.

5.1 LED SIGNAL FAILURE INDICATION (RED WITH WHITE DOT):

Whenever LED signal goes blank a miniature flashing Red indication appears along with an audio buzzer indicates Signal lamp failure. The 'SM' on duty shall press the Signal Lamp/point failure Acknowledgement button, there by the buzzer stops but the Red indication becomes steady which continues till either LED signal is replaced/rectified or signal assumes other aspect.

5.2 BUTTON HELD BUZZER WHITE WITH RED DOT:

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

6.0 TRACK CIRCUIT:

Track circuits are provided between Home and Adv.Str on both UP & DN lines including berthing track circuits on all four running lines as follows.

Entire yard is track circuited from Home signal to Advanced starter on either direction. The following track circuits are provided in this yard. 1AT, 1T, 1T₁, 14AT, 17/21 AT, 17BT, 19AT, 19 BT, 21AT, 21BT, 12AT, 12T, L1T1, L1T2, L1T3, UMT1, UMT2, UMT3, DMT1, DMT2, DMT3, L4T1, L4T2, L4T3, 22AT, 22BT, 18AT, 18BT, 20T, 11AT, 11T, 2T1, 2T and 2AT.

6.2 CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS:

Crank handle is inter locked with the signaling and interlocking system at this station and the crank handle which is normally locked up in the RKT instrument at the East and West goomties can be taken out when the signals, given for the connected route, are in the normal position and the route is not locked for any reason.

Even when the route is locked the crank handle can be extracted from the RKT through emergency operation by pressing crank handle button along with Group Trans button. After the lapse of 120 secs. The concern crank handle keys get released for emergency operation of the locked route.

6.4 GOODS SIDING:

Goods Siding takes-off from L/1 at GRBL end of the yard with both sides entry and isolated by derailing switches. The entrance points and corresponding Derailing Switches are operated by Arc levers provided at site with provision of successive key unlocking arrangement. When Control button no. 26 is transmitted from panel, a key R1 and Q1 will be released. Key R1 will be inserted in point and releases key R2. This Key R2 will be inserted in the other end of the point and point will be operated to reverse. Then Q1 will be inserted on other side of siding point and releases Q2. Key Q2 will be inserted on the other end of point and then point is operated to reverse and set to goods siding. After the movement is completed, point Q2 will be normalized and then key Q2 will be inserted in the other end and releases key Q1. Similarly After normalization of other end point key R2 will be released and then key Q2 will be inserted in the other end to release key Q1. Both keys R1 & Q1 will be transferred to back to SM with control 26. It is to be noted, whenever key transmitted through SM control button no. 26, signaling movements for reception & dispatch on L/1 will be suspended.

6.5 Tie Tamping Machine

Tie Tamping machine siding is taking off from over run line of Line No. 1 at KMX end of the yard with one side entry and is isolated by derailing switch. The derailing switch is operated by hand lever and hand lever is controlled by Button No. 25 of Control Panel. When Control button no. 25 is transmitted from panel, a key R3 will be released. Key R3 will be inserted in point and then by pulling the lever, the point will be operated to reverse.

7.0 STATION MASTER'S KEY:

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

8.0 EMERGENCY OPERATION:

The following are the instructions for Emergency operations.

8.1 EMERGENCY ROUTE RELEASE INDICATION (WHITE) EMERGENCY ROUTE RELEASE BUTTON (WHITE WITH RED DOT):

The panel interlocking is based on the principle of 'DEAD APPROACH LOCKING'. As such when a route is set and signal is taken 'OFF' on the route, the route gets locked. Normally the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken 'OFF' vide SR 3.36.02(a), the concerned signal must be put back to Danger by simultaneously pressing the signal cancellation button and concerned signal button.

After this, first the emergency route release button (White with Red Dot) positioned on the top of the panel to be pressed after breaking seal and subsequently the concerned signal button is to be pressed. A white light will be lit indicating that the timer is working. After a lapse of 120 seconds, the white light along with the White strip of light will disappear suggesting that the route has been released.

In case the route illumination (White strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case the concerned S&T staff should be advised immediately to release by rectifying the fault. It is to be ensured that after every emergency route release operation, S&T staff shall seal the emergency route release button.

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

8.2 CANCELLATION OF UNINTENDED LOCKING OF POINTS:

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

9.0 EMERGENCY OPERATION OF POINTS IN CASE OF POINT ZONE TRACK CIRCUIT FAILURE:

The station Master on duty can operate points from panel in case of point zone track circuit fails. The Station Master on duty after physical verification of the track circuit insert the SM's emergency point key and turn into get the key 'N' position keeping the Emergency point key in that position the Station Master on duty must press the individual point button along with emergency point operation button (Black with Red dot). He shall then release the emergency point operation button only and press the point group Normal or reverse button as per requirement keeping the individual point button in pressed condition. Points will be set to Normal or Reverse position as per operation button. During the initiation RED indication will appear above the emergency point operation counter placed about the emergency point operation button will increase in number by one.

10. INTERLOCKING OF SIGNALS:

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10.1 All running line points are fitted with point machine and are electrically detected by the relevant Home signals. Calling on signals, shunt signals and starter.

10.2 Advanced starters are interlocked with respective double line block instrument in LINE CLEAR position.

10.3 Home signals are interlocked with respective Double line lock and block instrument. The Block instruments cannot be made to normal unless the respective Home signals and calling on signals are in Normal position.

10.4 Signals once taken OFF can be put back to Danger in Case of emergency by pressing the concerned signal button in conjunction with signal cancellation button even when the panel is locked up with Station Master.

11.0 LOCKING OF RELAY ROOM:

11.1 Relay room at this station is provided with double locks (Two independent locks) as necessary vide OM 1.14 one key shall be kept with the Signal Maintainer of the section and the other with Station Master on duty. Unless both the locks are unlocked, relay room cannot be-opened.

11.2 The Station Master shall ensure that the relay room key is given to S&T maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by the S&T staff immediately after completion of their work and the documentation should be made in the Relay Room key register maintained at the Station according to SR 3.51.05 and OM 1.14. Reasons for taking key from SM shall be recorded in the relay room key register. It shall also re-mention whether interlocking would be interfered or not.

12.0 MAINTANANCE OF S&T INSTALLATION AND ADHERENCE TO MAINTENANCE SCHEDULES:

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

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

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

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

14.0 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

However, before declaring a points defective the setting of the point on the route to which it applies shall be inspected by the Station Master on duty irrespective of the position of the switches on the Panel in terms of SR 3.68.04(c).

14.1 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

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

15. PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORKS:**0**

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

16. EMERGENCIES:**0**

Notwithstanding anything contained in the afore-said Para Nos. 14.1, 14.2 and 14.3 when a Gear is found to be defective and un-safe for passage of trains, the Signal & Telecom staff must at once suspend the working of that gear and the associated installations and issue a 'Suspension Memo' explaining the seriousness of the defect or Damage to the interlocking installation to the Station Master and take disconnection memo and re-connection Memo can follow and the Station Master must promptly act on such messages and take adequate precautions treating the S&T installation as defective and pass trains over the effected interlocking gears according to extent instructions are contained in GR 3.77 and SR thereon.

17. SIGNAL LIGHTS:**0**

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

18. CORRECTING TIME IN THE STATION CLOCKS:**0**

The Station Master shall set the time on his clock according to the time signal given by the Section Controller on duty at 16.00 Hours. every day according to G&SR 4.01.01 and 4.01.02.

19. NORMAL POWER SUPPLY:**0**

The Station works on Three-phase power supply. The normal power supply is from the AT supplies.

19. STAND BY POWER SUPPLY:**1**

APSEB supply is available at the station as stand by, with Auto Changeover switch arrangement.

19. NORMAL POWER SUPPLY-MAINTENANCE OF POWER SUPPLY, POWER FAILURE AND REPORTING SUCH FAILURES:**2**

Normal power supply to the signalling and interlocking installations at this station is drawn from the AT Supply source. The Station Master must however, maintain the record of the power failure of the ATs and he must promptly report the failure immediately to the Section Controller and to the concerned Electrical and S&T maintenance staff.

20. WORKING OF POINTS – POSITION OF POINTS**0**

The normal position of all points showing the Station Working Rule diagram No. SI/WRD 11169 ALT "I" and also in the mimic indication panel provided in the Station Master Office.

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

- 21.1** Whenever a signal or a point become defective, any movements over the Points on the running line should be made after clamping and padlocking both the facing and trailing points by Station Master on duty personally for all trains at Station.
- 21.2** In case of failure of Signal or a point i.e. in case the Point cannot be operated from the Panel, the Point Machine Key, which is interlocked with the system, has to be extracted and the following procedure has to be observed.
- 21.3** This key of Point Machine can be released from the RKT by pressing the Common RKT Push Button after cutting the seal between RKT and the Point Machine. The Station Master on duty in case of Point Motor failure will take out the Point Machine, set the Point manually by inserting Crank Handle on the Motor.
- 21.4** When the Point Machine key is removed from RKT for operation of the defective Motor Operated Points, the responsibility for its safe custody re-sets with the Dy.SS/SM on duty till it is replaced back in RKT and sealed by Signal Maintainer.
- 21.5** In case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.
- 21.6** Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle register and then handover to him the emergency Crank Handle for the Points concerned. All the Points will be treated as Non-Interlocked till the emergency Crank Handle is returned back to Station Master on duty.
- 21.7** Before releasing the Emergency crank handle either for attending failure or for maintenance work by signal Maintenance officials, the Station Master on duty will ensure that the reception and departure signals are put back to 'ON' position. The Points of all the lines should be treated as Non-Interlocked and the Station Master on duty is responsible for introduction of non- Interlocked working and the trains will be piloted IN and OUT duly clamping and Padlocking the points, both in facing and trailing directions over which the train is to pass, asp per GR 3.69 and 3.70 with relevant SRs, the Station Master on duty will be personally responsible for setting and locking of points for reception and dispatch of all trains.
- 21.7.1** The Emergency Crank Handle Register is to be maintained in the following proforma by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded:
- 1) Date:
 - 2) Point Number, which failed or required to be tested.
 - 3) Time of failure
 - 4) Disconnection memo number received from S&T staff.
 - 5) Signature of SM/Signal Official to whom the Emergency Crank Handle is handed over:
 - 6) Time of Emergency Crank handle is sent out:
 - 7) Individual Point numbers, and line number nominated for admission of dispatch for which points are set, clamped and padlocked:
 - 8) Train number to be admitted or dispatched.
 - 9) Signature of the Station Master on duty to ensure correct setting, clamping and padlocking of the points.
 - 10) Date and Time of fault rectified.
 - 11) Time of emergency Crank handle received back by SM on duty.
 - 12) Signature and Designation of the Signal Official who rectified the fault.

IMPORTANT NOTE:

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

22. INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

0

22. INTERLOCKING WITH HOME SIGNALS:

1

All the UP and DOWN HOME Signals are Electrically Interlocked with the respective Double Line lock and Block instrument (DLBI) so that before the handle of DLBI instrument can be turned from train coming from position to line closed position, all the switches controlling the home signals of UP or DN direction as the case may be must be in their normal position.

22. 2 The UP and DOWN Advanced Starter Signals are Electrically Interlocked with respective DLBI so that these signals cannot be taken OFF until the Handle of the concerned Block Instrument is in Line clear Position.

22. SUSPENSION OF LAST STOP SIGNALS:

3

When the Double line block Instrument is suspended with its handle in any position for whatever reason the concerned Last Stop Signals controlled by the DLBI must be treated as suspended and trains shall be Piloted Out.

23. LAST VEHICLE VERIFICATION (LVV) BY BLOCK PROVING THROUGH AXLE COUNTER:

0

Entire Block Section between GPI-GRBL and GPI-KMX are provided with Digital Axle Counters.

For section: GPI-KMX:

A pair Single Section Digital Axle counter is provided between KMX-GPI one just beyond UP advanced starter signal No. 13 on 13T Track Circuit portion of KMX and another beyond UP Home signal of GPI on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GPI -KMX one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GPI and another beyond DN Home signal of KMX on 2T2 Track Circuit portion for last vehicle verification.

For section GPI-GRBL:

A pair of Single Section Digital Axle counter is provided between GPI-GRBL one just beyond UP advanced starter signal No. 11 on 11T Track Circuit portion of GPI and another beyond UP Home signal of GRBL on 1T1 Track Circuit portion for last vehicle verification. Another pair of Digital Axle counter is provided between GRBL-GPI one just beyond DN advanced starter signal No. 12 on 12T Track Circuit portion of GRBL and another beyond DN Home signal of GPI on 2T1 Track Circuit portion for last vehicle verification.

The position of the block section whether 'clear' or 'occupied' is reflected on the axle counter reset box provided in the Station Master's office which shows 'GREEN' when the block section is clear and 'RED' when block section is occupied. Whenever a train enters into the block section "Block section clear" indication 'GREEN' for the particular block

section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication disappears and 'GREEN' indication appears. If after complete arrival of the train 'RED' indication does not change to 'GREEN' it should be assumed as Block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal cannot be taken off for next train and the concerned instrument shall remain locked in last operated position.

A resetting arrangement is provided in the SM office to reset the system to normal position in case of failure of axle counter. The resetting is to be initiated by the SM at the receiving station only after physical verification of complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the block section.

If a train passes through the station without confirming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched.

In case of failure of Axle counter the SM on duty shall obtain complete arrival certificate from the guard of the train in the complete arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide GR 4.17 (1) that the train had arrived completely. In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number.

Train passing on adjacent line shall be stopped and 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 SM on duty shall take action in terms of SR.15.25.03 (b) (vi).

NOTE:

Before taking off reception and dispatch signals for UP or DN directions the SM on duty shall ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication.

LAST VEHICLE CHECKING DEVICE:

**23.
1**

Axle counters are provided on UP and DN lines between **GPI-GRBL** and **GPI-KMX** Double line section for block proving of Last Vehicle Checking device.

The occupation and clearance of the axle counter section are indicated on panel by 'Red' and 'Green' lights.

If any Block proving Axle counter 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 both the station's.

Even after completion of reset operation, LVCD Axle counter will show clear only if next train is passed. The next train is to be piloted.

No train should be allowed on signal to leave a station in any particular direction unless:-

Track clear indication is available for the relevant axle counter track circuited portion

and Last stop signal is not taken 'OFF'.

A resetting arrangement for the resumption of the track circuit by means of axle counter under failure condition at either end station of the Block section is provided, which should only be resorted to after the train that was lastly sent, arrives fully at the receiving station and is certified in this respect by the SM at the receiving station through exchange of Private Number.

Reset arrangements are provided in the SM's room for sections **GPI-GRBL** and **GPI-KMX**. The key for the Reset Box should normally be kept with SM and for every such operation of the resetting the Axle Counter, the SM on duty shall record giving details of the date of use, train number, time, number registered on the counter and reasons for resetting and initial each such entry.

23. RESETTING OF LVCD AXLE COUNTER (DIGITAL):

2

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

SS/SM at receiving end then sends an operating person to verify that the last vehicle is clear of block Section. After verifying the clearance of last vehicle of concerned block section, the operating person exchanges private number.

On exchanging private number the SS/SM at both ends will insert the reset key for corresponding section and shall press the nominated reset button. By this operation LVV axle counter will reset and associated counter will change to next higher number at both ends.

SS/SM at both ends shall record the higher number so changed due to reset of axle counter in the reset register and also in the train signal register mentioning the purpose of reset. After the reset operation is completed, preparatory reset indication will appear on panel at both ends which suggests that the reset operation is successfully completed and the first train has to be Piloted-out. On arrival of the piloted train the axle counter track cct zone of the section shows clear and Normal working shall be resumed. Even after arrival of piloted train, LVV axle counter zone does not show clear indication S&T staff to be informed for getting it rectified.

It is mandatory that for every reset operation of LVV Axle counter first train after reset process shall have to be piloted out.

24. FAILURE OF COMMUNICATIONS-FAILURE OF BLOCK INSTRUMENTS:

0

24.1 In the event of suspension/failure of SGE lock and block instruments for sections GPI-GRBL or GPI-KMX the SS/SM on duty shall endorse.

Block instrument suspended at _____ for _____ (cause) in the train signal register and draw a RED line below the entry. When the Block instrument is resumed, the SM on duty will make suitable endorsement showing the time when the normal working is restored and thereafter will maintain the train Signal Register as usual.

24.2 In the event of failure/suspension of SGE type double line lock and Block instruments, line clear must be obtained on Block phones exchanging identification number and supported by a private number as per the provisions of SR 6.02.05(1)(a)

24.3 In the event of failure/suspension of SGE type double line lock and Block instruments and Block telephone, line clear must be obtained from Station to Station on magneto phone by exchanging identification number and supported by a private number vide SR 6.02.06(i)(c)

- 24.4** In the event of failure of SGE double line lock and block instruments, Magneto phone and Block telephone and line clear must be obtained over Train Control Telephone vide SR 6.02.06(1)(c).
- 24.5** In the event of total failure of communications train shall be worked in terms of SR 6.02.03.
- 24.6** In the event of failure of communication between SM'S office and LC Gate SM shall advise the Gateman about the description of the train, direction of the train etc. through a memo advising to clear the road traffic and transmit the gate key. Such memo shall be sent in duplicate to the Gateman. Gateman shall retain one copy and send back the other copy to SM with signature thereon.

25 WORKING OF AUTOMATIC FIRE ALARM DETECTION SYSTEM:

- In case of any alarm in any particular area due to fire or dust-Zone number on the LCD display can be seen.
- Note down the zone No. and panel display name, by referring display chart.
- Once you find the zone number rush to that particular area where the detector gives alarm.
- The moment the smoke detector detects any smoke particles, the RED LED will blink along with the alarm.
- Once you reach the area where the detector is giving the alarm, check whether the alarm is due to the fire or for any other reason.
- To alert the people in case of emergency press "*" sign which is present inside the key pad together for few seconds. This will enable you to hear the panel alarm.
- To reset the panel press "OFF" button and enter the code 1111 (1 digit four times).
- The control panel will get reset and siren muted.
- If the power fails on this will enable us to see the red indicator on the panel.
- In case of failure in power and if the battery is fully charged, the panel can function effectively as long as the charge in the battery is present.

AUTO DIALLING:

If you hear alarm from the panel, this system will dial the Railway Auto telephone as assign to all concerned.

**APPENDIX 'C' TO STATION WORKING RULES OF
GAJAPATHINAGARAM STATION**

ANTI COLLISION DEVICE [RAKSHA KAVACH]

Not applicable to this Station.

APPENDIX-‘D’ TO STATION WORKING RULES OF GAJAPATHINAGARAM STATION

Following staff are concerned with the movement of the trains whose duties are given below:

COMPLEMENT OF STAFF	STAFF IN EACH SHIFT
STATION SUPERINTENDENT/STATION MASTER	01
TRAFFIC POINTS MAN	01
TRAFFIC GATE KEEPER	01

1.0 STATION SUPERINTENDENT/MASTER (INCHARGE):

1. Station in-charge is responsible for the efficient discharge of duties by different members of staff at his station.
2. He shall ensure that the general working of the station is being carried out in strict accordance with the current rules, procedures and instructions.
3. He is responsible for trains passing during his shift.
4. 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.
5. He shall be responsible for maintaining Accident Register and Accident Charts and keeping these up to date.
6. He shall maintain figures in respect of the stock and get them relayed to the control in time.
7. He is responsible for the general and satisfactory working of the station and for the efficient discharge of duties by staff working under him.
8. He shall keep all Rule books, Registers, Files and documents neat and up to date.
9. He shall ensure that all equipment, apparatus, and instruments including signaling and interlocking gears and fittings are kept clean and oiled by S&T officials.
10. He shall follow the instructions laid down in SR.3.68.01 (c) and (d) and SR 14.07.01 and B.W.M.2.09 (e).
11. He shall promptly attend to accidents and report them.
12. He shall ensure that firefighting equipments at the station such as fire extinguisher, fire buckets etc. are in good fettle and ready for use.
13. 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.
14. He shall see that TSR, SM's Diary, Inspection Note Book, Reference Books and other station record is properly maintained and preserved for a minimum period as prescribed in this Operating Manual.
15. He shall ensure that all correction slips of Manuals and SWR are posted and changes are made in respective pages.
16. He shall supervise the work of safe working staff and conduct night inspections and report lapses of staff working under him.
17. His special attention is drawn to Chapter-II of G&SR and GR 5.01 to 5.08 with relevant SRs and O.M. Chapter-2.

2.0 STATION SUPERINTENDENT/ STATION MASTER:

1. He is responsible for trains passing during his shift.
2. He shall promptly bring to the notice of SM in-charge all irregularities and accidents in course of his shift duties.
3. During the absence of SM I/C, the duties of the Station Master will devolve on him.
4. His special attention is drawn to Chapter-2 of G&SR 1976 and GR 5.01 to 5.08 with relevant SRs.
5. He shall not consider himself relieved of duty unless he has completed transactions of trains for which he has given/obtained line clear till the complete arrival of such trains.
6. He shall always obey the lawful orders of his superiors so long as they do not contravene

any of the extant rules in force.

7. He shall keep the Station Master's control keys of block instruments/Control Panel in his personal custody whenever, he is required to leave his office even for a short duration.
8. He shall be responsible for correct issuance of caution order, whenever required.
9. As an assistant to SM I/C, he shall carry out the instructions given from time to time.
10. He shall keep the Station Master's control keys of block instruments/Control Panel in his personal custody whenever, he is required to leave his office even for a short duration.
11. He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate the panel.
12. He shall ensure that proper indications of points, signals, track circuits, crank handle, level crossing gate etc., are displayed at their proper places.
13. He shall issue shunting order for shunting operations as per extant rules and keep a watch on the working of shunting staff.
14. In case of abnormal working he shall be responsible for correct setting, pad locking of points and piloting of trains.
15. He shall follow SR 3.68.01(c) and (d) SR 14.07.01 and OM Chapter-2.

RAFFIC POINTS MAN :

1. He shall work under the orders SM on duty.
2. He shall be in proper neat and clean uniform while on duty.
3. He shall always commence his duty equipped with hand signal lamps during night and flags during day.
4. 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.
5. He shall watch and guard the packages and other Railway property lying in the Station premises.
6. Neither shall he absent himself from duty nor shall he exchange his duty without prior permission of his superiors.
7. In case of track failure he shall assist the SM to ascertain the clearance of line.
8. He shall report any irregularities coming to his notice.
9. He shall do loading and unloading of parcels, smalls and Guard's boxes. He shall do piloting IN and OUT.
10. He shall deliver any official message to the proper person/office. He shall carry out any other duties entrusted to him by the SM on duty.
11. He shall not leave his duty unless properly relieved or authorized by his superiors.
12. He shall verify the correct setting of route before delivering required papers to the Loco Pilot either through taking 'OFF' the relevant shunt signal or by personal observation.
13. He shall exhibit danger signal to the official supervising the shunting if vehicles are fouled during the shunting operation.
14. He shall be responsible to see that fouling marks are kept clear after completion of shunting.
15. He shall follow OM Chapter-2.

4. TRAFFIC GATE KEEPER:

1. He shall be responsible for proper operation of the gate as per GWRs for the passage of trains.
2. He shall ensure that no train suffers any detention on account of late closing of the gate.
3. He shall ensure that road traffic is not unnecessarily held up at the gate.
4. He shall be polite and courteous in his behavior towards the public.
5. He shall attend to the call of SM on duty and do the work entrusted by the SM on duty connected to gate operation.
6. He shall promptly report any abnormality to SM on duty.
7. He shall also protect the gate when required as given in gate working rules.
8. He shall do all necessary functions related to gate working as stated in gate working rules.
9. He shall close the gate on sighting a train if not informed earlier or when ordered by the Station Master on duty.
10. He shall obey all lawful orders of the SM on duty.

11. He shall attract the attention of the Loco pilots and guards by shouting and gesticulating instead of showing danger signal in case of train parting.
12. He shall stand in attention near the gate lodge facing the track and be prepared to repeat any signal which the guard may intend to convey to the loco pilot or show caution or danger signal should anything appear to be wrong with the train itself as it passes.
13. He shall follow OM Chapter-2(g).

: - All staff should be in uniform while on duty and follow their rosters issued by DPO/WAT from time to time.

APPENDIX 'E' TO STATION WORKING RULES OF GAJAPATHINAGARAM STATION**SENTIAL EQUIPMENT**

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

Sl.No	Description	Station
1	Detonators	30
2	Hand Signal lamps	5(1 Spare)
3	Hand Signal Flags	5(1 Spare)
4	Clamps with Padlocks	14
5	Safety chains with Pad locks	6
6	Fire & Sand buckets	5
7	DCPT Fire Extinguishers	2
8	Reminder collars	6
9	First Aid Box	1
10	Stretcher	1
11	Blanket	1
12	Iron Skids	6

APPENDIX "F" TO STATION WORKING RULES

OF GAJAPATHINAGARAM STATION

**RULES FOR WORKING OF DK STATIONS. HALTS IBH AND
OUTLYING SIDINGS.**

Nil

APPENDIX- 'G'

GAJAPATINAGARAM

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS: