

EAST COAST RAILWAY

NO: WTF/5/GMDA

Division: WAT

STATION WORKING RULES OF GUMADA STATION (BROAD GAUGE)

Date of Issue:

Date brought in to force:

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

1. STATION WORKING RULE DIAGRAM:

- (i) Station Working Rule diagram No. SI/WRD/23149 Alt- 'A'
- (ii) Signal Interlocking Plan No. SI/23149 Alt 'A'.
- (iii) Date up to which corrected:

2. DESCRIPTION OF THE STATION:**2.1 GENERAL LOCATION:**

a) Name of the station	GUMADA
b) Class of station	'SPL' class
c) Section	Rayagada - Vizianagaram
d) Double line/Single line	Double- line
e) Electrified/Non-Electrified	Electrified
f) Gauge BG/MG/NG	BG
g) Railway	East Coast Railway
h) Route	'D' Spl.
i) Situated at	Km 375.292 {375/11-13 (UP), 375/12-14 (DN)} F/Raipur
j) Reckoned from	Raipur

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

Sl no	Adjacent Block-Section	Distance	Direction
a	KUNERU (KNRT)	8.88 km	Raipur end
	PARVATIPURAM (PVP)	13.582 km	VZM end

- b. Provision of IBS: IBH signal is provided between GMDA & PVP stations on both UP & DN lines at Km: 383.700 & Km: 383.138 respectively. Details of working of IBH are given in appendix –'F'.
- c. Automatic signal: Nil
- d. DK station/Outlaying sidings: Nil
- e. Passenger halt : Nil
- f. Station limits:- UP Distant signal to DN Distant signal.
- g. Station section:-
UP Line:- Facing point 23A to UP Advanced starter.

DN Line:- BSLB to DN Advanced starter.

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

Between Stations	The Point from which the 'Block Section' Commences	The Point at which the 'Block Section' end
UP Line between GMDA-PVP	a) From UP Advance starter No 11 of GMDA. b) From UP IB Home signal no. 13 of GMDA.	a) To a point 400M beyond UP IB Home signal no.13 of GMDA at km 383.700. b) Up to the first facing point no.17A of PVP Station.
DN Line between GMDA-PVP	a) From DN Advance starter No.12 of PVP. b) From DN IB Home signal no. 14 of PVP.	a) To a point 400M beyond DN IB Home signal no. 14 of PVP at km 383.138. b) Up to BSLB of GMDA Station.
UP Line between GMDA-KNRT	UP Advanced starter signal no. 11 of KNRT	Facing point no.23A of GMDA.
DN Line between GMDA-KNRT	DN Advance starter No.12 of GMDA.	Facing point no.18A of KNRT.

2.4 GRADIENTS:

Towards KNRT on UP & DN. lines	Chainage in mtrs.		Stretch in Mtrs.	Gradient
	From	To		
DN line	000.000	400.000	400.000	1 in 2000 Raising
	400.000	686.000	286.000	1 in 2000 Falling
	686.000	856.000	170.000	1 in 660 Falling
	856.000	1106.000	250.000	1 in 362 Falling
	1106.000	1136.000	30.000	Level
	1136.000	1480.000	344.000	1 in 203 Raising
	1480.000	1620.000	140.000	1 in 200 Raising
	1620.000	1831.000	211.000	Level
	1831.000	2528.000	697.000	1 in 210 Falling
	2528.000	Into section	--	Level
UP line	000.000	400.000	400.000	1 in 2000 Raising
	400.000	686.000	286.000	1 in 2000 Falling
	686.000	701.000	15.000	1 in 400 Falling
	701.000	718.000	17.000	1 in 277 Falling
	718.000	988.000	270.000	1 in 300 Falling
	988.000	1106.000	118.000	Level
	1106.000	1694.000	588.000	1 in 200 Raising
	1694.000	1754.000	60.000	Level
	1754.000	2519.000	765.000	1 in 250 Falling
	2519.000	Into section	---	Level

Towards PVP on UP & DN. Lines	Chainage in mtrs.		Stretch in Mtrs.	Gradient
	From	To		
DN line	000.000	600.000	600.000	1 in 475 Falling
	600.000	1316.000	716.000	1 in 168.5 Falling
	1316.000	1893.000	577.000	Level
	1893.000	2275.000	382.000	1 in 178 Raising
	2275.000	2600.000	325.000	1 in 300 Raising
	2600.000	3208.000	608.000	1 in 388 Falling
	3208.000	Into section	--	Level
UP line	000.000	600.00	600.000	1 in 475 Falling
	600.00	1092.000	492.000	1 in 150 Falling
	1092.000	1970.000	878.000	Level
	1970.000	2288.000	318.000	1 in 150 Raising
	2288.000	2909.000	621.000	1 in 300 Raising
	2909.000	Into section	--	1 in 300 Raising

C) IBS ZONE :

i) TOWARDS PVP END (UP LINE):

From km	To km	Stretch	Gradient
From section	379.588	---	Level
379.588	380.345	420M	1 in 400 Falling.
380.345	381.006	700M	Level
381.006	382.486	1350M	1 in 166 Raising
382.486	382.552	66M	Level
382.552	382.768	216M	1 in 200 falling
382.768	382.857	89M	Level
382.857	383.467	610M	1 in 500 Raising
383.467	383.700	233M	Level
383.700	384.179	479M	1 in 125 Falling
384.179	385.602	1423M	Level
385.602	Into section	---	1 in 200 Falling

ii) TOWARDS GMDA END (DN LINE):

From km	To km	Stretch	Gradient
From section	385.484	---	1 in 200 Raising
385.484	383.917	821M	Level
383.917	383.717	687M	1 in 150 falling
383.717	383.442	1223M	1 in 400 falling
383.442	382.844	275M	1 in 700 Raising
382.844	382.742	102M	1 in 630 Raising
382.742	382.568	174M	Level
382.568	381.943	625M	1 in 300 falling
381.943	381.001	943M	1 in 250 Raising
381.001	380.271	730M	1 in 165 Raising
380.271	Into section	---	Level

2.5.

LAYOUT:

2.5.1

RUNNING LINES:

Sl no	Running/Non Running line	Electrified	Platform with length
1	Line No - 1 (UP Loop)	Electrified	Medium level P.F.(425M long)
2	Line No - 2 (UP Main)	Electrified	---
3	Line No - 3 (DN Main)	Electrified	---
4	Line No - 4 (Common Loop)(Long Haul loop)	Electrified	Medium level P.F(425M long)

2.5.2 **RUNNING LINES, DIRECTION OF MOVEMENT AND HOLDING CAPACITY:**

Sl no	Name of the line	Holding capacities on CSL
1	Line no-1(UP loop)	742M(STR-SB)
2	Line no-2(UP Main)	774M(STR-SB)
3	Line no-3(DN main)	764M(STR-SB)
4	Line no-4(Long haul loop)	739M (S7-S6)/ 1490M (S7 to S14)

Trains coming from KNRT and proceeds towards PVP are UP trains. Trains coming from PVP and proceeds towards KNRT are DN trains.

2.5.3 **NON RUNNING LINES AND THEIR CAPACITY IN CSL:**

NIL

2.6

LEVEL CROSSINGS:

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

SN	LC Gate No. with Classification and Dept	Between stations with Location Km.	Type	Normal position	Whether Interlocked	Provision of Telephone
1	RV-277 “SPL” Class Engineering	GMDA-PVP 380/19-20(UP) 380/20-22(DN)	Lifting barrier	Open to Road traffic	Interlocked	Provided
2	RV-274 “SPL” Class Traffic	GMDA-PVP 378/21-23(UP) 378/22-24(DN)	Lifting barrier	Open to Road traffic	Interlocked	Provided
3	RV-273 “C” Class Engineering	PVP-GMDA 377/23-25(UP) 377/24-26(DN)	Lifting barrier	Closed to Road traffic	Non-Interlocked	Provided
4	RV-270 “B” Class Engineering	GMDA-KNRT 373/13-14	Lifting barrier	Open to Road traffic	Interlocked	Provided
5.	RV-275 “C” Class Engineering	PVP-GMDA 379.343	Lifting barrier	Close to Road Traffic	Non-Interlocked	Provided

The detailed working of the L.C. Gates along with the particulars are mentioned in Appendix 'A'

3. **SYSTEM AND MEANS OF WORKING:**

- (i) System of working:- 'Absolute Block system'
- (ii) Block instruments:- 'SGE type' Double line block instruments are provided for block section GMDA-KNRT and GMDA-PVP.
- (iii) Co-operative/Non Co-operative: Non co-operative.
- (iv) Provision of Block Telephone attached to Block instruments connecting the adjacent Block stations concerned.
- (v) Custody of keys of block instrument: Block instrument is provided with double locking. One key will be with SM and other key will be with S&T maintainer. SM is responsible for operation of the Block instruments.

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

- 4.1 (a) Standard of Interlocking: This Station is provided with Standard-III R Panel Interlocking.
- b) Type of signals: Multiple Aspect Colour Light Signals. The aspects and indications of the MACLS is governed by GR.3.08 (4) (b).
- c) The Station is provided with central Panel Interlocking (PI). All signals and points are electrically operated central panel provided at SM's Office.
- d) Method of operation: Central panel is provided in the Station Master's office to electrically control all signals and points.
- e) Provision of Track circuits on running lines:

Track circuits are provided in the yard as 1AT, 19BT, 12T, 12AT, L₁T₁, L₁T₂, L₁T₃, UMT₁, UMT₂, UMT₃, DMT₁, DMT₂, DMT₃, L₄T₁, L₄T₂, L₄T₃, 20BT, 18/22T, 18/20T, 22BT, 11 AT, 11T, 2AT, 2T, 2T₁, 2T₂, 21T, 19AT, 17AT, 17BT, 32AT₁, 32AT, 25BT, 34AT₁, 34AT, 23BT, 1AT₁, 1AT₂, 25AT, 23AT, 31T₂, 31T₁, 31AT.

Entire block section on UP & DN lines between GMDA-KNRT & GMDA-PVP is provided with digital axle counter.

For section GMDA-KNRT (DN line):

A pair of digital axle counter is provided between GMDA-KNRT one just beyond DN advanced starter signal no. 12 of GMDA and another beyond DN Home signal of KNRT for last vehicle verification.

For section KNRT-GMDA (UP line):

A pair of digital axle counter is provided between KNRT-GMDA one just beyond UP advanced starter signal no. 11 of KNRT and another beyond UP Home signal of GMDA for last vehicle verification.

For section GMDA-PVP (UP line):

A pair of digital axle counter is provided between PVP-GMDA on UP line, one just beyond UP advanced starter No.11 of GMDA and another one just beyond 400mts from the UP IB Home signal No. 13 of GMDA for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of GMDA and another one just beyond first facing point no. 17A of PVP station for proving LVV section between GMDA-PVP.

For section PVP-GMDA (DN line):

A pair of digital axle counter is provided between **PVP-GMDA** on DN line, one just beyond DN advanced starter No.12 of PVP and another one just beyond 400mts from the DN IB Home signal No. 14 of PVP for proving IB section and another pair of digital axle counter near DN IB home signal no. 14 of PVP and another one just near BSLB of GMDA station for proving LVV section between PVP-GMDA.

When a signal is cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.

- f) Calling on signals: Calling-on signals are provided below Home signals Starter signal no.6,10, starter signal no.32&34 and inner home signal no.1 as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b).
- g) IBS is provided between GMDA-PVP sections for UP line at KM: 383.700 & for DN line at KM:383.138.
- h) The control Panel is provided with SM's key which shall always remain in the custody of the Station Master on duty for control of points, signals and crank handles control etc in terms of SR 3.36.03(a).
- i) **CRANK HANDLE:**

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 para-20.06.

CH-1	19A/B, 20A/B;
CH-2	21A/B, 22A/B;
CH-3	17A/B;
CH-4	18A/B,
CH5	23A/B,
CH6	25A/B
CH7	41.43.

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the EKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals are not

taken 'OFF' and the route is not locked for whatever reasons. Crank Handle can be released by pressing common 'TRANS' push button and concerned Crank handle control push button simultaneously. When the keys are taken out no signal can be taken 'OFF' over the particular route on the points nominated by the crank handle. This key can be electrically transmitted at both ends locations of the yard for manual operation of the defective points. The failure of motor operated points must be ensured by physical checking that there is no obstruction. SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SM on duty at the station as per Para 20.06(d) of the Operating Manual. Correct setting, clamping and padlocking of the points devolve on the SM on duty.

(Details of use of Crank Handle as per Appendix -'B').

The cases of failure of motor point, it should be promptly reported to the concerned signal maintainer/signal inspector for immediate rectification.

4.1.1 **TAKING OFF CALLING-ON SIGNAL:**

Miniature colour light Calling-on signal is provided below the Home signals in terms of GR.3.13 (6) (b). A Calling-on signal shows no light in the 'ON' position and Yellow light when taken "OFF". A calling-on signal, will be taken 'OFF' for reception of a train when the Home signal, Starter signals (towards KNRT end) above it cannot be taken 'OFF' due to failure or any other reason or for admission of train on blocked line. Before taking 'OFF' Calling on signal during failure of track circuit the route and clearance of the track over which the train will be admitted must be checked physically by SM on duty. (The detailed procedure is given in Appendix-B)

4.1.2 **SHUNT SIGNALS:**

Shunt back signals SH - 3 (A-B) and SH- 4 (A-D) are provided at KNRT end & PVP end respectively for shunt back facility. Independent Shunt signals – 39A/B, SH-37 & dependent shunt signals- SH6, SH10, SH-32 & SH-34 are provided at GMDA station.

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

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 with proper acknowledgement in the Relay room key register. On completion of the work, maintainer shall lock the relay room by using both the keys separately and designated key should be handed over to the Station Master. The details of the transaction is to be properly recorded in the

Relay room key register maintained at the station and duly signed by the SM and Maintainer respectively vide OM 2015 para no. 13.16.

(A) POWER SUPPLY:

- i) CLS Auto Change Over panel with rotary change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. Luminous indicator's are provided above the circuit breaker for each supply to indicate the availability of the supplies.
- ii) Normally the rotary switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, the on duty SM must ascertain the power is available on the other AT e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- iii) During the non-availability of both the AT supplies SM on duty shall keep the rotary change over switch towards the local supply to feed available local supply to the Installation.
- iv) In case of failure of one of the AT supply without any power block, on duty SM has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies, the local supplies shall be utilized by operating the switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.
- v) For IPS system that provides to PI.
- vi) 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% DOD (Depth of Discharge) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged with audio cut off.
- (b) 60% DOD (Depth of Discharge), which warns for emergency. The Alarm for this condition is same as for condition 1.
- (c) 70% DOD (Depth of Discharge), which signals system, shut down. In this condition Signal feed cut off and all DC-DC converters continue working. Audio alarm will continue till power supply restored.
- (d) Any of the Module fails, which calls for "Call S&T".
- (e) Whenever there is a failure of power supply in one AT, the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of power supply on both AT's and make an entry in station diary duly initiating action for rectification of failure, if any.

5.0 TELECOMMUNICATIONS:

- i) Telephone attached to SGE Type Lock and Block Instruments connected to adjacent stations on either side.
- ii) Hot line Telephone communication is provided between station and LC gates RV- 270, RV-273, RV-274, RV-275 & RV-277
- iii) Hot line Telephone communication is provided for sections GMDA-PVP & GMDA- KNRT.
- iv) Railway Auto telephone is provided.
- v) BSNL telephone is provided at this station.
- vi) The station is connected to VZM-Tie line 'B' cabin control Circuit.
- vii) VHF set is provided at the station for emergency communication.
- viii) Traction power control and Traction loco control of section RGDA-VZM.

5.1 **FAILURE OF COMMUNICATION: -**

- a. In the event of failure of communications between the adjacent block stations SR 6.02.06 shall be observed, for working the train.
- b. In the event of total failure of communications between the adjacent block stations SR 6.02.04 shall be observed, for working the train.

6. **SYSTEM OF TRAIN WORKING:**

6.1 **DUTIES OF TRAIN WORKING STAFF:**

The movement of trains is controlled by section controller on duty whose orders shall be complied with provided they do not contravene any provisions of General Rules, Subsidiary Rules, Station Working Rules, Block working manual and any other safe working instructions issued from time to time.

In the event of suspension of control working the Station Master on duty shall work independently in conjunction with the Station Master of adjoining Block Stations and shall be responsible to ensure that there is no undue delay to train operation in general.

- 6.1.1 **TRAIN WORKING STAFF IN EACH SHIFT:** The following is the complement of operating staff provided at the station in each shift for train passing duty.

Staff in each shift

Station Superintendent/SM	1
TPM/TP	1
Traffic Gateman	1

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

- 6.1.2 **RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF LINES AND ZONES OF RESPONSIBILITY:**

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

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

Any staff before taking of independent charge of duties connected to train working or any staff who is away from his duty for the period of 15 days or more shall sign in the Assurance Register which is token of having understood the contents. However, in the event of any corrections or modifications in the SWR is involved, the assurance of all the staff who even is entrusted the work of train passing duty shall be obtained afresh in the assurance register by the in-charge of the station before they are allowed to work vide SR 5.01.02.

6.2 **CONDITIONS FOR GRANTING LINE CLEAR:**

- a. The conditions laid in GR 8.03(2)(a) (b) (c) (ii) shall be complied with the SM on duty before line is considered clear and line clear is granted.
- b. Before granting a line clear for a train the SM on duty shall personally ensure that the reception signals pertaining to a train are in the 'ON' position and burning properly vide GR 3.49(4).
- c. Line shall not be considered clear and line clear shall not be granted to an UP train unless:
 - i) Whole of the last preceding UP train has arrived completely inside outer most facing point no. 17A.
 - ii) UP Home signal /calling-on signal No. 1A/B/C and/or C-1A/B/C is put back to 'ON' and
 - iii) Line is clear up to outer most facing point no. 17A.
- d. Line shall not be considered clear and line clear shall not be granted to a DN train unless:
 - i) Whole of the last preceding DN train has arrived completely inside the BSLB
 - ii) DN Home signal /calling-on signal No. 2A/B and/or C-2A/B is put back to 'ON' and
 - ii) Line is clear up to BSLB.

e. **ADEQUATE DISTANCE: (SIGNAL OVERLAP)**

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

Adequate Distance:

CLEARANCE OF ADEQUATE DISTANCE				
LINE NO.	UP TRAINS		DN TRAINS	
	FROM	TO	FROM	TO
Line no.1	UP starter	End of overrun line		

(UP loop)	No. 5.	or up to Advanced starter signal no.11.		
Line no.2 UP Main line	UP Main line starter No. 9.	UP advanced starter No. 11	--	----
Line no.3 DN Main line	---	---	DN starter signal no.10	DN Advanced starter signal no.12.
Line no.4 Long Haul Loop	Common loop starter no. 7	End of sand hump/ UP Advanced starter no. 11	starter signal No.6.	UP to DS.43
Long Haul Loop			LHL Starter signal no. 32	End of ORL or advance starter signal no. 12.

Remarks:

However when a route is set leading to the Main line the overlap beyond the starter in that particular direction shall extend up to the advanced starter of the station in that direction.

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

If line clear is granted simultaneously at both ends of the station, the 1st train shall be admitted on common loop line setting overlap towards Sand hump.

6.2.1.1 **SETTING OF POINTS AGAINST BLOCKED LINE:**

When a running line is blocked by stabled load wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points 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). Lever/block collars placed on the concerned lever/button of the blocked line vide SR 5.04.01 and SR 3.51.06 shall be followed.

Safety point alarm:

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.

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 A TRAIN ON BLOCKED LINE:**

The rules laid down in GR 5.09 and relevant SRs shall be followed.

6.2.1.3 **RECEPTION OF TRAIN ON NON-SIGNALLED LINE:**

Not Applicable

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

Not Applicable

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

NIL.

6.2.1.6 **ANY SPECIAL CONDITIONS:**

a) **SPECIAL INSTRUCTIONS:**

The speed over turnouts and loop lines for both UP & DN directions of GMDA station has been raised from 15Kmph to 30Kmph as per CPTM/BBS Notice no.29/2011 dated 30.03.2011.

b) **SPECIAL RESTRICTIONS:**

1. Shunting in the face of an approaching train is prohibited towards KNRT end as there is a falling gradient of 1 in 232 falling
2. Shunting shall not be permitted at KNRT end of the yard unless the engine in leading towards the falling gradient i.e 1 in 232 falling towards KNRT section as per GR 5.20 (b)
3. No run through movement is permitted via long haul loop and it is not permitted to be used as common loop.
4. No train shall be admitted in rear of a train stabled in front portion of the long loop.
5. If line clear is granted simultaneously at both ends of the station, the first train shall be admitted on long haul loop setting overlap towards over run line/sand hump.
6. Stabling of train on long haul loop is not permitted without live engine.

6.3 **CONDITIONS FOR TAKING “OFF” APPROACH SIGNALS:-**

- i) Conditions for taking off approach signals are governed by GR 3.40(1) (b), 3.40(2) (b), 3.40(3) (b)

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

6.3.1 **RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO“ON”:**

Station master should ensure that signal is put back to ‘ON’ after passage of the train as per GR 3.36 (2) (B), 14.01 and SR 4.17.01.

6.4 **SIMULTANEOUS RECEPTION/DESPATCH, CROSSING AND PRECEDANCE OF TRAINS:**

According to existing interlocking at this station, the simultaneous reception and dispatch of trains is permitted as stipulated below.

1	Reception of an UP train on line No.1 set to overrun line.	AND	Dispatch of another UP train from line no. 2 (UP Main) or from Line no.4 (LHL’ when line is set to DS-43 or over run line of LHL.).
2	Reception of a DN train on (LHL’ when line is set to DS-43 or over run line of LHL.). (Line no.4) when line is set to overrun line.	AND	Dispatch of another DN train from line no. 3(DN Main).
3	Reception of an UP train on (LHL’ when line is set to DS-43 or over run line of LHL.). (Line no.4) when line is set to sand hump.	AND	Dispatch of another UP train from line no. 1(UP loop) or Line no.2 (UP Main).

6.5 **COMPLETE ARRIVAL OF TRAINS:**

The entire block section between GMDA-PVP and GMDA-KNRT on both UP and DN Lines are monitored by axle counter system and the position of the block section whether ‘Occupied’ or ‘Clear’ is indicated on VDU at SM’s office. As soon as train enters in to that block section the RED indication appears on VDU. After whole train clears the block section GREEN indication appears on the VDU. This confirms the complete arrival of train and the SM on duty shall give ‘Train Out of Block Section’ report on seeing the section clear indication GREEN on the VDU.

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 SR 4.16.05 that the train arrived complete.

In case a train passes incomplete, action shall be taken as per SR.4.17.02, the “Train out of Block Section” report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number. Train passing on adjacent line shall be stopped and Guard and Loco pilot shall be issued with caution Order to proceed cautiously and stop short of any

obstruction as per SR. 4.17.03. 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 the 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 provision of GR 3.42 and SRs thereto, SR 3.36.04, SR 3.42.02(IV), SR 3.42.03, SR 3.42.04 and BWM 2.07(5) (a), (e), (f) & (g) and other relevant provision of G&SR, BWM and SWR. Before taking off DN departure signals, it is required to close the LC gate at km: 365.957 and key be released to panel.

6.6.1 PROCEDURE FOR ADMITTING LONG HAUL TRAINS:-

Whenever long haul train is to be admitted on L/4 by taking S31 for up direction with confirmation of DS 41 and 43 in reverse condition and cross over 23A and B in reverse condition and 25 A and B in reverse condition and 19B in normal condition. Long haul loop is to be treated as single loop and as “train loop” during normal train operation. No train shall be admitted in rear of a train stabled in the front portion of long loop i.e beyond DS.

6.7 TRAINS RUNNING THROUGH:

- i) In addition to procedure detailed in paras “Reception and Dispatch’ of trains, rules laid down in GR 4.17, 4.42, 3.36, 3.42 with relevant SRs shall be followed.
- ii) Reception and Dispatch signals shall be taken off for a through train as per the sequence given below vide SR 3.42.02(a) (iv), SR 3.42.03 and SR 3.42.04.
- iii) In every case in which trains are permitted to run through on non isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule GR 5.23 may be kept standing on a connected line which is not isolated from through line.
- iv) The Station Master shall see that the last vehicle of every train passing through station is provided with a tail board or a tail lamp or such other device in accordance with provision of GR 4.16 and SR 4.17.01(a).

6.7.1 TRAIN ENTERING BLOCK SECTION:

The SM on duty after verifying that the train has passed past the advanced starter signals shall send the Train Entering Block Section Signals vide BWM 2.07.5(a).

6.7.2 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 Kilometers and Speed at which train should run with reasons for taking such precautions shall be handed over to the Guard and Loco pilot in terms of GR 4.09 and SR thereto.

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

TRACK CIRCUITS:

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

a) **AXLE COUNTER:**

If the axle counter fails between the block sections, resetting procedure will be adopted as per Para 24.2 of SWR (APP-B) if the axle counter indication does not appear 'GREEN & continues to show 'RED' indication after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for rectification.

b) **BLOCK INSTRUMENTS:**

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

c) **RECEPTION OF A TRAIN ON BLOCKED LINE:**

In case of reception of a train on obstructed line the SM shall send the written permission in the for T/509 referred in 5.09.01[a] and shall enclose the reason for such admission, the line number and the nature of obstruction on that in setting and locking of points shall be done as per SR 3.69.03. A stop hand signal shall be exhibited by SM personally at a distance of not less than 45 M from the point of obstruction to indicate the loco pilot as to when the train shall be brought to a stand.

However the SM, whenever possible, shall intimate the loco pilot through the SM of station in rear and also by taking off calling ON signal.[Refer 5.09[1] & [2].

d) **RECEPTION OF A TRAIN ON NON-SIGNALLED LINE:**

NIL

e) **DEFECTIVE SIGNALS:**

Whenever signals become defective, the procedure laid down in GR & SR shall be

followed. [Refer GR 3.68 to 3.71, 3.80 and SR 3.68.01(C)] 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 relevant SRs.

[Refer GR 3.51, 3.69, 3.49(4), 3.68 to 3.77]

- f) Inspection of Points before declaring them defective :-

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Master irrespective of the position of the switches laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]

Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49(4) and 3.68, 3.77].

- g) **DEFECTIVE INTERLOCKING:**

When interlocking becomes defective the SS/SM on duty shall be responsible for correct setting, clamping, padlocking of points for admission of train. [Refer SR 3.69.03 (a) & (c).

- i) **DEFECTIVE / DAMAGED POINTS:**

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

Station Master on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency crank handle register shall be maintained by SM at the station as per para 20.06(d) of the Operating manual. Correct setting, clamping and padlocking of the points devolve on SM on duty. (Details of use of crank handle as per Appendix-‘B’). The cases of the failures of the point should be promptly reported to the concerned signal maintainer/JE/SE (signal) for immediate rectification.

6.9 **PROVISIONS FOR WORKING OF TROLRIES/ MOTOR TROLRIES/MATERIAL LORRIES ETC”:**

Motor trolleys shall be worked as per GR 15.25 & SR thereto and BWM 5.11(2), 5.12, 5.13 and 5.14(2)(b) and Circulars & Orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs thereto and BWM 5.11(2), 5.13.

7.0 **BLOCKING OF THE LINES:**

A clear remark in RED ink shall be made immediately in the Train Signal Register indicating time and number of running line blocked. A record there of shall be made in the Station diary also vide 3.36.03(b), 5.23.01(a), SR 3.51.06(a).

USE OF REMINDER COLLARS:

SM on duty shall place reminder collar on Home Signal buttons in the event of a running line is blocked vide SR 3.36.03[b].

7.1 LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES:

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

7.2 SECURING OF VEHICLES:

The rules laid down in 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).

7.3 DETACHING OF VEHICLES ON RUNNING LINES:

Detaching of vehicles on running lines is normally prohibited. Whenever any vehicle is detached on running lines under unavoidable circumstances such rolling stock shall be placed opposite to the Station Master's office as far as possible and shall be properly secured vide SR 5.23.01 and 5.19.01(d).

8 SHUNTING:**8.1 GENERAL PRECAUTIONS:**

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

For any non-signaled movement, the Dy. S.S/S.M. on duty shall ensure physical verification of the clearance of the crossover points.

(i) CUSTODY OF KEYS AND PAD LOCKS DURING SUCH MOVEMENT:

The key of the pad locks of such points shall be in the personal custody of the operating official vested with this responsibility till such time movements are completed. The operating official vested with the responsibility of supervising the Non-signaled movement of the engine/train/vehicle must return the key along with pad locks to the Station Master on duty, after completion of the said movement or alternatively when such a move is cancelled which fact should be properly documented.

(ii) AUTHORITY FOR SHUNTING OPERATIONS:

The SM on duty shall issue written shunting authority on from T/806 to the Loco pilot through guard of the train.

This memo shall be with down whenever shunting is to be suspended for reception and dispatch of train if the line on which shunting is performed is not isolated. After shunting is completed, the order shall be collected from the Loco pilot cancelled and pasted with the record foil as per SR 5.13.02.

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

(iii) NON-SIGNALLED MOVEMENTS:

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

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

Strictly prohibited.

8.3 PROHIBITION OF SHUNTING – ANY SPECIAL FEATURES:

Hand shunting /Fly shunting is prohibited at this station. Shunting in face of an approaching train is prohibited. Shunting is not permitted in the Yard unless the engine is leading towards the falling gradient.

8.4 SHUNTING ON SINGLE LINE: Not Applicable.

8.5 SHUNTING ON DOUBLE LINE:

ix) Block Back: Shunting outside the station section shall not be permitted in the Block section in rear unless it is clear and Blocked back vide GR 8.06(3).

(ii) Block Forward: Shunting in the Block section in advance shall not be permitted unless it is clear and Blocked forward vide GR 8.06(3).

(iv) Following a train travelling away shunting shall not be permitted in terms of GR 8.06(3).

(v) Up to IBS: Not Applicable.

(vi) Beyond IBS: Not Applicable.

(vii) During failure of Block instrument, shunting in the Block section in advance or Block section in rear may be permitted after exchanging Block forward or Block back as the case may be provided the Block instrument turned to TOL position if possible and/or keeping Line Blocked label is hung on Block instrument.

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

While shunting in the siding it should be authorized by issuing OP/P-79 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in

shunting. The relevant provisions of GR 5.14 and SRs thereto shall be meticulously followed for shunting operations in the siding.

9 **ABNORMAL CONDITIONS:**

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

i) PARTIAL FAILURE: -

In the event of suspension of Lock and Block Instrument and during partial failure of other available means of communication, the procedures shall be followed for working of trains in different situations. (Refer BWM 5.16, 5.23 & SR 6.02.06)

ii) THE AUTHORITY TO PROCEED IN OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT etc:-

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

iii) TRAINS DELAYED IN BLOCK SECTIONS:

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

(iv) Failure of Axle Counter Block/BPAC – Procedure to be followed as detailed in para 4.1(i).

(b) Procedure for emergency operation of points by Crank Handle:-

(i) The detailed Procedure for emergency operation of points by Crank Handle of motor operated points are given in Para No.6.8.I (Main body).

(ii) Procedure for emergency operation of points with point zone axle counter/Track circuits failure and emergency route release. [GR 3.39 and GR 3.77]

(iii) Certification of clearance of track before Calling – On Signal operation is initiated-

Before taking off Calling-On signal during failure of track circuit/axle counter, the route and the clearance of the track over which train would pass to be verified by SS/SM.

(iv) Reporting of failure of points, Track circuits/axle counter and interlocking- Whenever there is a failure of points Track circuits/axle counters 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 Signal Maintainer for rectification of the fault, SM should restore the normal working.

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

9.1 TOTAL FAILURE OF COMMUNICATION: -

(a) In the event of total failure of communication trains shall be worked in accordance with the provision of SR 6.02.05.

(b) During partial interruption of communication the rules laid down in SR 6.02.03 shall be followed.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION

During temporary single line working on one clear line when one line is obstructed either between KNRT-GMDA and KNRT-JMPT, trains shall be worked as per the procedure laid down in SR 6.02.01.

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

Rules and regulations for working trains on an obstructed line in case of obstruction or accident on the authority of block ticket (T/A-602) when communications are available shall be followed in accordance with the provisions of SR 6.02.05.

10.0 VISIBILITY TEST OBJECT:

The signal lights of UP starter signal No.7 of UP Loop line no.1 and DN Main Starter signal No.6 of line 4 are ear marked for the visibility test object during Day and Night vide GR 3.61(2)(b)(iii).

11.0 ESSENTIAL EQUIPMENT AT THE STATION:

Details are given in Appendix 'E', which shall be maintained in good working order vide O.M.20.04 (11).

12.0 PROCEDURE FOR WORKING TRAINS DURING FOGGY WHETHER:

During thick foggy weather, train shall be worked as per GR 3.61 and SR thereto.

Details are given in Appendix "F" to this Station Working Rules.

13.0 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 EQUIPMENTS PROVIDED AT THE STATION.

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

APPENDIX-G : RULES FOR WORKING OF 25 KV AC TRACTION.

14.0 CERTIFICATE:

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

DESCRIPTION OF THE LEVEL CROSSING GATE :

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

1.	Number of Level Crossing Gate:	RV- 277
2.	Engineering or Traffic Gate:	Engineering, SPL class gate
3.	Under control of Station Master/Permanent Way inspector:	SM /GMDA
4.	Location at KM:	380/19-21(UP),380/20-22(DN)
5.	At Station	GUMADA
6.	In between station	GMDA-PVP
7.	BG/MG/NG:	BG
8.	Signal line/Double line/Multiple line	Double Line
9.	Normal Position:	Open to Road Traffic.
10.	Inter Locked/Non-Interlocked:	Interlocked.
11.	Means of interlocking:	Electrical key transmission for taking off Stop Signals.
12.	Provision of Gate signal at KMs:	UP line: 380.774, DN line: 380.824.
13.	Signaling arrangement:	MA CLS.
14.	Means of communication- Telephone/Bell etc:	Telephone connected with GMDA Station.
15.	Width of level crossing gate:	9 Mtrs.
16.	Type of road {NH/SH/Other}:	SH.
17.	Name of road:	Samithiearthen.
18.	Metaled/Non-Metaled:	Non-Metaled.
19.	Approach road:	BT.
20.	Width of the road:	5.5 Mtrs.
21.	Angle of road crossing {In case of the skew gates}:	90°.
	Road gradients {If any} :	North/East side: 1 in 20 South/west side:1 in 20
	Road alignment {Straight/Curve}:	1. North/East side: Straight. 2. South/West side: Straight.
24.	Provision of height gauge:	Provided.
25.	Type of Barriers:	Lifting barrier.
26.	Length of check rail:	7.5 Mtrs.
27.	Road surface in L-Xing gate:	Plain.
28.	Length of Rumble strip /speed breakers:	Provided.
29.	Road signs:	Provided.
30.	Speed breaker indication board:	Provided.
31.	TVU:	88341 as on 12/2015
32.	Census next due on:	12/2018
33.	Demarcation for placement of detonators:	Provided.
34.	No. of Gate men working :	3

35. Nearest Railway Medical Assistance: Rayagada.
 36. Nearest Private Medical Assistance {If Any}: Parvatipuram.
 37. List of equipment available Yes/No..... Yes.

1.2 EQUIPMENT

ITEMS	QUANTITY/NUMBERS
1. LED based Tri Colour.hand Signal Lamp	3 Nos.
2. Hand Signal Flag Green.	1 No with mounted stick.
3. Hand Signal Flag Red.	3 Nos.
4. Banner Flag Red.	2 Nos.
5. Posts for exhibiting red banner flag	2 Nos
6. Spare chains with padlocks	2 with stop marker
7. Detonators	10 in tin case
8. Gate lamps	2 Nos.
9. Tommy Bar	1No
10. Mortar Pan	1No
11. Spade/Fowarh	1No
12. Rammer	1No [In case of asphalted rod this may not be provided.]
13. Pick Axe	1No [In case of asphalted rod this may not be provided.]
14. Tin case for flags	1 No
15. Can for Oil	1 No
16. Water Pot/Bucket	1 No
17. Canister for Muster Roll	1 No
18. Set of spare spectacles of gate man wearing glasses.	1 No
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1 No
20. Bucket	1 No
21. Whistle	1 No
22. Wall Clock	1 No
23. A small size chain in case of failure of Gate boom/lock	2 Nos

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.

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

10. Public Complaint Book.
11. Inspection Book.
12. S&T Register.

1.4 DUTIES OF GATEMAN :

1. 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.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/P-Way.

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 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 arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- (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, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- (vi) Gateman shall also be prepared to repeat any signal which guard 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 padlock for securing the gate against road traffic.

- (viii) Gateman shall report to the Station Master, Gang mate or Permanent way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective, the gateman shall maintain the signal in the 'ON' position.
- (x) At the gate whose signal have become defective, 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 the defect at the next station.
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- (xviii) 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.
- (xix) 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/guard of the passing train by showing red flags by day and red light by night.
- (ii) He shall simultaneously try to draw the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- (iii) If Loco pilot/guard falls to take notice, gateman shall immediately inform the Station Master if connected on telephone, to take appropriate action under exchange of private number.
- (iv) In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.
- (v) He shall endeavor to attract the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating and by raising both hands

vertically above, quickly parting them and bringing them together in repeated UP and DN motion as high and as low as possible.

- (vi) In case of trains 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 single line section:**

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

b) **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.
- c) **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 driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

6 **ENGINEERING ITEMS:**

Please Para 916, 918, 919 of IRPWM for visibility requirement at level crossings, provision of speed breakers on the approach roads of level crossing and census of traffic at level crossings.

7. **SPECIAL INSTRUCTIONS FOR DIFFERENT TYPES OF LEVEL CROSSINGS:**

Instructions for different types of manned level crossing gates are given in Annexure as follows:-

- Annexure-I Engineering level crossing gate, Inter locked with gate signals, Provided with telephone, with normal position 'Open to road traffic'.
- Annexure-II Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Open to road traffic'.
- Annexure-III Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Closed to road traffic'.
- Annexure-IV Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Open to road traffic'.
- Annexure- V Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Closed to road traffic'.
- Annexure-VI Engineering level Crossing Gate, non-inter locked, not provided with telephone, with normal position 'Closed to road traffic'

ANNEXURE – I

WORKING INSTRUCTIONS OF LC NO. RV-277**Mode of Operation:**

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

- (i) Key 'P' is obtained from winch after closing the level crossing gate and releases 1GF.
- (ii) Lever no.1GF reversed effects the level crossing boom locking and releases key 'Q'.
- (iii) Key 'Q' extracted is to be inserted in RKT and turned.
- (iv) Key IN contact of RKT along with reversal of switches 1GS or 2GS will clear concerned UP Gate stop signal (1GS) and DN Gate stop signal (2GS) respectively.
- (v) In case of emergency, signals can be put back to 'ON' by normalizing the signal switches.

2. Exchange of Private Number:

- (i) Immediately after departure of the train from the adjacent station, SS/Dy SS shall advise the Gateman through telephone, the number, description, direction and expected time of passage of the train at the gate.
- (ii) For DN trains receives out report from SM/PVP, he shall advice the gateman through telephone, the number, description, direction and expected time of passage of the train at the gate.
- (iii) 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 and excessive detention to road traffic.

3. Failure of Telephonic Communication:

- (i) When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adapted:
- (ii) 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.
- (iii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable then to take 'OFF' reception/departure signals.

- (iv) When sufficient time is not available because of greater frequency of train service. Station Master will issue written authority to the Loco pilot to pass the signal at 'ON' position.
- (v) In addition, Station Master also issue a caution order advising the Loco pilot to whistle continuously and approach the gate cautiously.
- (vi) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signaling 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).
- (vii) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, then the telephone at the gate has failing.
- (viii) The Station Master at the dispatching end shall then issue a caution order to the Loco pilot before dispatching a train in the block section from his end.
- (ix) He should also advice S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (x) Normal working will be resumed only after staff rectifies the telephone and issue reconnected/fit memo for the same.

4. Failure of Lifting Barriers:

- (i) When the lifting barrier gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, ensure the lifting barrier 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, gateman shall show green hand signal flag by day and green light by night to the Loco pilot of the approaching train.
- (v) Station Master on duty shall issue 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 maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- (vii) Normal working will be resumed only after the maintenance staff repair the lifting barrier at the earliest.

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 the winch gate, signal lever or key transmitter then gate man 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 produced for reception / Dispatch of trains as prescribed for non-inter locked gates should be adopted.
- (v) Station Master on duty shall issue caution order to the Loco pilot before dispatching a train.
- (vi) He shall also advise the Station Master at the dispatching end, exchange of private number, to similarly issue caution order the Loco pilot before dispatching a train in block section for his end.
- (vii) Station Master shall advice 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 re-communication / fit memo for the same.
- (ix) After rectification, the Emergency key shall be replaced in the emergency key box and re sealed 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 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 train 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 Loco pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end, under exchange of private number, to issues a caution order to the Loco pilot before dispatching a train in the block section from his end.

- (vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- (vii) After rectification, the Emergency Key Box to be resealed by the S&T Maintainer.

7. Defective Gate Signals:

- (i) The gate man shall treat the gate signal as defective and must not take off under following circumstances:
 - (a) If gate signal can be taken 'OFF' without closing the gate, or
 - (b) The key can be extracted from the operating winch when the gate is in open condition, or
 - (c) If the gate signal or the gate distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position.
- (ii) The gate man will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals.
- (iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch as prescribed for non-interlocked gates should be adopted.
- (iv) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- (v) Station Master on duty will 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 shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectifies the defective gate signal and issue reconnection /fit memo for the same.

8. Obstruction at the gate:

- [i] If gate is broken by a road vehicle which is fouling the track, or if Electrical lifting barriers foul the track, or if there is any other obstruction at the gate, the gate man shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gates, for this purpose.
- [ii] Immediately after this, the gate man shall advise the Station Master on duty regarding the defects/obstructions 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] Gate man shall then rush with detonators, 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 inspection 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 vehicle 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 Electrical 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 gate man shall inform the Station Master accordingly, under exchange of private number.
- [x] Station Master shall then issue a caution order to Loco pilots of all trains 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 Electrical lifting barriers to repair the same at the earliest.
- [xiii] Normal working will be resumed only after maintenance staff rectify the defective Electrical 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 a tree, fouling by road vehicle or derailment which is visible to the gateman, the gate man and Station Master will adopt the procedure given under itemNo.7 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

APPENDIX 'A' TO STATION WORKING RULES OF 'B' CLASS TRAFFIC INTERLOCKED LEVELCROSSING GATE AT GUMADA STATION AT KM: 373/23-25(UP), 373/24-26(DN)}, LC NO. RV- 270:

GENERAL:

DESCRIPTION OF THE LEVEL CROSSING GATE :

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

1.	Number of Level Crossing Gate:	RV- 270
2.	Engineering or Traffic Gate:	Traffic gate
3.	Under control of Station Master/Permanent Way inspector:	SSE/P/PVP
4.	Location at KM:	373/23-25(UP), 373/24-26(DN)
5.	At Station	GUMADA
6.	In between station	GMDA-KNRT
7.	BG/MG/NG:	BG
8.	Signal line/Double line/Multiple line	Double Line
9.	Normal Position:	Open to Road Traffic.
10.	Inter Locked/Non-Interlocked:	Interlocked.
11.	Means of interlocking:	Electrical key transmission
12.	Provision of Gate signal at KMs:	UP line: Station signals. DN line: Station signals.
13.	Signaling arrangement:	MACLS.
14.	Means of communication-Telephone/Bell etc:	Telephone connected with GMDA Station.
15.	Width of level crossing gate:	7.5Mtrs.
16.	Type of road {NH/SH/Other}:	Others
17.	Name of road:	Village Road
18.	Metaled/Non-Metaled:	CC Block.
19.	Approach road:	Metaled.
20.	Width of the road:	5.5 Mtrs.
21.	Angle of road crossing{In case of the skew gates}:	90 ⁰ .
22.	Road gradients {If any} :	North/East side: 1 in 30 South/west side:1 in 30
23.	Road alignment{ Straight/Curve}:	North/Eastside: Straight. South/Westside: Straight.
24.	Provision of height gauge:	Provided.
25.	Type of Barriers:	Electrical operated Lifting barrier.
26.	Length of check rail:	9.5 Mtrs.
27.	Road surface in L-Xing gate:	Level
28.	Length of Rumble strip /speed breakers:	5.5 Mtrs.
29.	Road signs:	Provided.
30.	Speed breaker indication board:	Provided.
31.	TVU:	1733 as on 11/2015

32.	Census next due on:	11/2018
33.	Demarcation for placement of detonators:	Provided.
34.	No. of Gate men working :	2
35.	Nearest Railway Medical Assistance:	Rayagada.
36.	Nearest Private Medical Assistance {If Any}:	Gumada
37.	List of equipment available Yes/No.....	Yes.

1.2. EQUIPMENT

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 banned 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	chains with 2 padlocks	2 chains with 2 padlocks	For securing gate against road traffic in case of gate book 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	padlocks	One	To lock the door of the gate lodge in case of necessity.
8	detonators	Ten (10) in a tin case	For use in case of obstruction of track
9	Tommy bar	One	For leveling the soil surface or to clean the channels of rails
10	bucket	One	To keep water
11	Whistle	One	For alerting road users on approach of train and LP/Guard to call their attention.
12	Wall clock	One	To note down the timings in PN/Log book.
13	A small size chain for use in case of failure of gate boom/leaf lock.	Two	For securing boom in closed condition in case of failure of boom lock.

Note: Where end cabins are also provided with block instruments, a set of green and red flag, LED tri colour touch is to be provided for SM/SS in addition to above equipment.

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 registers.
6. Certificate fir working as gateman.
7. Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp etc.,
8. Accident Register.
9. Records of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN :

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

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/P-Way.

3 POSITION DURING PASSAGE OF TRAINS:

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

- (a) Gate man will stand attentively in front of the gate lodge facing the approaching train.
- (b) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- (c) In nighttime, gateman shall hold lighted hand signal lamp with white light facing the track.
- (d) He shall keep the whistle slung around his neck from a cord.

4. 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 arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- (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, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- (vi) Gateman shall also be prepared to repeat any signal which guard 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 padlock for securing the gate against road traffic.
- (viii) Gateman shall report to the Station Master, Gang mate or Permanent way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective, the gateman shall maintain the signal in the 'ON' position.
- (x) At the gate whose signal have become defective, 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 the defect at the next station.
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvi) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- (xvii) 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/guard of the passing train by showing red flags by day and red light by night.

- (ii) He shall simultaneously try to draw the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- (iii) If Loco pilot/guard falls to take notice, gateman shall immediately inform the Station Master if connected on telephone, to take appropriate action under exchange of private number.
- (iv) In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.
- (v) He shall endeavor to attract the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated UP and DN motion as high and as low as possible.
- (vi) In case of trains 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:

- (a) In case of an obstruction at the level crossing gates, Gateman shall maintain the gate signals, if any in the 'ON' position.
- (b) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advice the Station Master on duty, if connected on telephone, regarding the defects/obstructions at the gate, under exchange of private number.
- (c) 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 the both lines are obstructed The Gateman shall plant a red banner flag by day and the 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 pant the other red banner flag by day and the 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 flags by day and red hand signal lamp by night.
- (iv) Gateman shall proceed exhibiting red flags by day and red light by night on the line on which a train is expected to arrive first, to a point 600 Mtrs and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs from the level crossing gate and place 3 detonators on the track 10 Mtrs apart. Having thus protected the line 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 the detonators as described in para (4) about 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 the distance as far away as he can go.
- (viii) Thereafter, he shall warn the Loco pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

[B] ON SINGLE LINE SECTION:

- (i) Gateman shall plant a red banner flag by day and a red light 5 meters away on posts duly provided for the purpose. He shall first protect the line in the direction from which a train is expected to arrive first.
- (ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- (iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- (iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters 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 towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- (vi) Having returned to this gate, he must then take steps to remove the obstruction mobilizing any assistance locally available and warn the loco pilot of any 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.

[C] OTHER ACTION TAKEN BY GATEMAN:

- (i) At night gate man shall light two hand signal lamps and take action to exhibit red light and protect the lines as per described in sub para [A] above.

- (ii) If the gate is broken by the road vehicle which is fouling by track, or if lifting barrier or any other part of the gate found on the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- (iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, 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 other means available.

1.6 ENGINEERING ITEMS:

Please Para 916, 918, 919 of IRPWM for visibility requirement at level crossings, provision of speed breakers on the approach roads of level crossing and census of traffic at level crossings.

7. SPECIAL INSTRUCTIONS FOR DIFFERENT TYPES OF LEVEL CROSSINGS:

Instructions for different types of manned level crossing gates are given in Annexure as follows:-

Annexure-I Engineering level crossing gate, Inter locked with gate signals, provided with telephone, with normal position 'Open to road traffic'.

Annexure-II Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Open to road traffic'.

Annexure-III Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Closed to road traffic'.

Annexure-IV Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Open to road traffic'.

Annexure- V Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Closed to road traffic'.

Annexure-VI Engineering level Crossing Gate, non-inter locked, not provided with telephone, with normal position 'Closed to road traffic'.

ANNEXURE – II

WORKING INSTRUCTIONS OF LC NO. RV-270.**1. Mode of Operation:**

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

- i) LC gate is normally open to road traffic.
- ii) Key 'E' released from the winch after closing the LC gate releases gate lever no. 1 GF.
- iii) Lever no. 1 GF thus reversed effects boom locking and releases key 'F' from lever no. 1 GF.
- iv) Key 'F' is transmitted electrically to SM in conjunction with lever no. 2 GF reversed to release control-29 to clear UP or DN concerned signal.
- v) Lever no. 2 GF provided in the gate lodge to put back the concerned signal to 'ON' in case of emergency.

2. Exchange of Private Number:

- (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.

2.1 Working of Emergency Key :

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 by exchanging private number with SS with the provision of RKT-3 and crank handle with chain arrangement by the side of EKT-3 in sealed box painted in 'RED'. Signals cannot be taken off on extraction of EKT-3 from sealed box and the gate is to be treated as non-interlocked. The operation is as follows.

- a) In case of power supply failure and in operative of Hand generator, gateman shall extract key from EKT-3 having crank handle with chain arrangement. One key and 'T' type handle is also provided in sealed box.
- b) For opening of the gate, GK shall extract key from EKT-3 with crank handle chain arrangement, gateman shall also take key and 'T' type handle and proceed to lock post at one end.
- c) 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.
- d) Gateman shall now proceed to pedestal, key inserted and turned clock wise and use crank handle for opening of the barriers of the gate as per requirement.
- e) For closing of the gate, gateman shall proceed to individual pedestal after extracting key from EKT-3 and with 'T' type handle, close the gate with crank handle and turned anti clock wise direction and proceeds to lock post to lock the gate with 'T' type handle.
- f) Similar operation shall also be done for other end of the gate.
- g) Extraction of key from EKT-3 is interlocked with signals.

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 adapted:

- (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 then 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 Loco pilot to pass the signal at 'ON' position.
- (iv) In addition Station Master also issue a caution order advising the Loco pilot to whistle continuously and approach the gate cautiously.
- (v) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signaling 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 dispatching end, under exchange of private number, then the telephone at the gate has failing.
- (vii) The Station Master at the dispatching end shall then issue a caution order to the Loco pilot before dispatching a train in the block section from his end.

(viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

Normal working will be resumed only after staff rectifies the telephone and issue reconnected/fit memo for the same.

4. Failure Electrical operated Lifting Barriers:

- (i) When the Electrical operated lifting barrier gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, ensure the lifting barrier 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.
- (iv) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (v) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light by night to the Loco pilot of the approaching train. 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 maintenance staff responsible for maintenance of Electrical operated lifting barriers to repair the defect at the earliest.
- (viii) Normal working will be resumed only after the maintenance staff repair the Electrical lifting barrier at the earliest.

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 'F' cannot be extracted from EKT-2, then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- [ii] In case of emergency, key 'F' (chained with boom crank handle) is extracted from EKT-3 Electromechanically free provided at gate lodge (in a locked and sealed red box) for manual operation of individual lifting barriers by crank handling.
- [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/dispatch of trains as prescribed for non-interlocking 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 maintenance of Electrical key transmitter to rectify the defect at the earliest.
- [viii] Normal working will be resumed only after S&T staff repair the Electrical 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 Electrical key transmitter after closing the gate, then gateman must immediately inform the Station Master on duty on telephone, under exchange of private.
- [ii] Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocking 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 dispatching 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 maintenance of Electrical key transmitter to rectify the defect at the earliest.
- [vii] Normal working will be resumed only after S&T staff repair the Electrical key transmitter and issue reconnection/fit memo for the same.
- [viii] After rectification, the Emergency key shall be replaced in the Emergency key Box if taken earlier and resealed by the S&T maintainer.

7. Obstruction at the gate:

- [i] If gate is broken by a road vehicle which is fouling the track, or if Electrical lifting barriers foul the track, or if there is any other obstruction at the gate, the gate man shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gates, for this purpose.
- [ii] Immediately after this, the gate man shall advise the Station Master on duty regarding the defects/obstructions 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] Gate man shall then rush with detonators, 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 inspection 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 vehicle 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 Electrical 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 gate man shall inform the Station Master accordingly, under exchange of private number.
- [x] Station Master shall then issue a caution order to Loco pilots of all trains 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 Electrical lifting barriers to repair the same at the earliest.
- [xiii] Normal working will be resumed only after maintenance staff rectifies the defective Electrical 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 falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gate man and Station Master will adopt the procedure given under item No.7 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

APPENDIX 'A' TO STATION WORKING RULES OF 'SPL' CLASS MID SECTION INTERLOCKED ENGINEERING LEVEL CROSSING GATE AT KM. 378/21-23

(UP), 378/22-24(DN)}, LC NO. RV-274 BETWEEN GMDA-PVP

1. GENERAL:

A.K.SAINI
(DSTE/P/VSKP)

CH.VISHNU MURTY
(Sr.DEN/N/WAT)

K.SIVA HARSHA
(DOM /WAT)

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE :

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

1.	Number of Level Crossing Gate:	RV 274
2.	Engineering or Traffic Gate:	Engineering ('SPL'-class)
3.	Under control of Station Master/Permanent Way inspector:	SM GMDA
4.	Location at KM:	378/21-23(UP) & 378/22-24(DN)
5.	At Station	GUMADA
6.	In between station	GMDA-PVP
7.	BG/MG/NG:	BG
8.	Signal line/Double line/Multiple line	Double Line
9.	Normal Position:	Open to Road Traffic.
10.	Inter Locked/Non-Interlocked:	Interlocked.
11.	Means of interlocked:	Gate signals
12.	Provision of Gate signal at KMs:	1. UP line: 378/4 2. DN line: 378/12
13.	Signaling arrangement:	MACLS
14.	Means of communication-Telephone/Bell etc:	Telephone connected with GMDA Station.
15.	Width of level crossing gate:	9 Mtrs.
16.	Type of road {NH/SH/Other}:	Others.
17.	Name of road:	Devupalli village Road
18.	Metaled/Non-Metaled:	Tar Road
19.	Approach road:	Metaled.
20.	Width of the road:	15 Mtrs.
21.	Angle of road crossing [In case of the skew gates]:	90°.
22.	Road gradients {If any}:	1. North/East : 1 in 30. 2. South/West: 1 in 30.
23.	Road alignment {Straight/Curve}:	1. North/East: Straight 2. South/West: Straight
24.	Provision of height gauge:	Provided.
25.	Type of Barriers:	Lifting barrier.
26.	Length of check rail:	11.5 Mtrs.
27.	Road surface in L-Xing gate:	Plain.
28.	Length of Rumble strip /speed breakers:	15Mtrs.
29.	Road signs:	Provided.
30.	Speed breaker indication board:	Provided.
31.	TVU:	88215 as on 12/2015
32.	Censer next due on:	12/2018
33.	Demarcation for placement of detonators:	Provided.
34.	No. of Gate men working :	3

35. Nearest Railway Medical Assistance: Vizayanagram.
 36. Nearest Private Medical Assistance {If Any}: Parvatipuram.
 37. List of equipment available Yes/No: Yes.

1.2. EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. LEDbased Tri Colour Hand Signal Lamp.	3Nos.
2. Hand Signal Flag Green.	1 No with mounted stick
3. Hand Signal Flag Red.	3 Nos.
4. Banner Flag Red.	2Nos.
5. posts for exhibiting red banner flag	2.Nos
6. spare chains with padlocks	2 with stop marker
7. Detonators	10 in tin case
8. Gate lamps	2 Nos.
9.Tommy Bar	1No
10.Mortan Pan	1No
11.Spade/Fowrah	1No
12.Rammer	1No[in case of asphalted rod this may not be provided.]
13.Pick Axe	1No[in case of asphalted rod this may not be provided.]
14.Tin case for flags	1No
15. Can for Oil	1No
16.Water Pot/Bucket	1No
17.Canister for Muster Roll	1No
18.Set of spare spectacles of gate man wearing glasses.	1No
19.Board demarcation protection of level crossing gate diagram in case of obstruction	1No
20.Bucket	1No
21.Whistle	1No
22.Wall Clock	1 No
23.A Small size chain in case of failure of gate boom/lock	2 Nos

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.

- Gate Working Instructions In Hindi/English.
- Gate Working Instructions in Local vernacular language.
- Gateman Rule Book in Local vernacular language.
- List for tools and books.
- Duty registers.
- Certificate fir working as gateman.
- Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp etc.,

8. Accident Register.
9. Records of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN :

1 ALERTNESS:

The gate man shall be alert and be prepared to take immediate action, should danger

be apprehended, Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/P-Way.

3 POSITION DURING PASSAGE OF TRAINS:

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

- a) Gate man will stand attentively in front of the gate lodge facing the approaching train.
- b) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- c) In nighttime, gateman shall hold lighted hand signal lamp with white light facing the track.
- d) He shall keep the whistle slung around his neck from a cord.

4 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 arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- (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, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

- (vi) Gateman shall also be prepared to repeat any signal which guard 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 padlock for securing the gate against road traffic.
- (viii) Gateman shall report to the Station Master, Gang mate or Permanent way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective, the gateman shall maintain the signal in the 'ON' position.
- (x) At the gate whose signal have become defective, 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 the defect at the next station
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- (xviii) 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.

3. 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/guard of the passing train by showing red flags by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

- iii) If Loco pilot/guard falls to take notice, gateman shall immediately inform the Station Master if connected on telephone, to take appropriate action under exchange of private number.
- (iv) In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.
- (v) He shall endeavor to attract the attention of the Loco pilot /guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated UP and DN motion as high and as low as possible.
- (vi) In case of trains 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 gates,. 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 advice the Station Master on duty, if connected on 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 the both lines are obstructed The Gateman shall plant a red banner flag by day and the 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 pant the other red banner flag by day and the 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 flags by day and red hand signal lamp by night.
- (iv) Gateman shall proceed exhibiting red flags by day and red light by night on the line on which a train is expected to arrive first, to a point 600 Mtrs and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs from the level crossing gate and place 3 detonators on the track 10 Mtrs apart. Having thus protected the line 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 the detonators as described in para (4) about 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 the distance as far away as he can go.

Thereafter, he shall warn the Loco pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

[B] ON SINGLE LINE SECTION:

- (i) Gateman shall plant a red banner flag by day and a red light 5 meters away on posts duly provided for the purpose. He shall first protect the line in the direction from which a train is expected to arrive first.
- (ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- (iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- (v) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters 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 towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- (vi) Having returned to this gate, he must then take steps to remove the obstruction mobilizing any assistance locally available and warn the loco pilot of any 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.

[C] OTHER ACTION TAKEN BY GATEMAN :

- (i) At night gate man shall light two hand signal lamps and take action to exhibit red light and protect the lines as per described in sub para [A] above.
- (ii) If the gate is broken by the road vehicle which is fouling by track, or if lifting barrier or any other part of the gate found on the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- (iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, 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 other means available.

6. ENGINEERING ITEMS:

Please Para 916, 918, 919 of IRPWM for visibility requirement at level crossings, provision of speed breakers on the approach roads of level crossing and census of traffic at level crossings.

7. SPECIAL INSTRUCTIONS FOR DIFFERENT TYPES OF LEVEL CROSSINGS:

Instructions for different types of manned level crossing gates are given in Annexures as follows:-

Annexure-I Engineering level crossing gate, Inter locked with gate signals, provided with telephone, with normal position 'Open to road traffic'.

Annexure-II Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Open to road traffic'.

Annexure-III Traffic Level Crossing Gate, Inter locked with stop signals of the station, provided with telephone, with normal position 'Closed to road traffic'.

Annexure-IV Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Open to road traffic'.

Annexure- V Engineering level Crossing Gate, non-inter locked, provided with telephone, with normal position 'Closed to road traffic'.

Annexure-VI Engineering level Crossing Gate, non-inter locked, not provided with telephone, with normal position 'Closed to road traffic'.

ANNEXURE – I

WORKING INSTRUCTIONS OF LC NO. RV-274**1. Mode of Operation:**

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

- i) Key 'G' is obtained from winch after closing the level crossing gate and releases Gate lever 2 GF.
- ii) Lever no. 2GF thus reversed effects boom locking and releases lever no. 3GF & 4GF to take off UP & DN Gate Home signals respectively.
- iii) In case of emergency, signals can be put back to 'ON' by normalizing the Gate Home signal levers.

2. Exchange of Private Number:

- (i) Immediately after departure of the train from the adjacent station, SS/Dy SS shall advise the Gateman through telephone, the number, description, direction and expected time of passage of the train at the gate.
- (ii) If the telephone is connected to the station at the receiving end, this advise shall be given by the SS/Dy SS 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, SS/Dy SS 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 and 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 adapted:

- 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 then 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 Loco pilot to pass the signal at 'ON' position.
- iv) In addition, Station Master also issue a caution order advising the Loco pilot to whistle continuously and approach the gate cautiously.
- v) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signaling 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 dispatching end, under exchange of private number, then the telephone at the gate has failing.
- vii) The Station Master at the dispatching end shall then issue a caution order to the Loco pilot before dispatching a train in the block section from his end.
- viii) He should also advice S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- viii) Normal working will be resumed only after staff rectifies the telephone and issue reconnected/fit memo for the same.

4. Failure of Lifting Barriers:

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

- i) 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.
- ii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- iii) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light by night to the Loco pilot of the approach.
- (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 maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.

- (vii) Normal working will be resumed only after the maintenance staff repair the lifting barrier at the earliest.

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 the winch gate, signal lever or key transmitter then gate man 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 produced for reception / Dispatch of trains as prescribed for non-inter locked gates should be adopted.
- (v) Station Master on duty shall issue caution order to the Loco pilot before dispatching a train.
- (vi) He shall also advise the Station Master at the dispatching end, exchange of private number, to similarly issue caution order the Loco pilot before dispatching a train in block section for his end.
- (vii) Station Master shall advice 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 re-communication / fit memo for the same.
- (ix) After rectification, the Emergency key shall be replaced in the emergency key box and re sealed 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 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 train 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 Loco pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end, under exchange of private number, to issues a caution order to the Loco pilot before dispatching a train in the block section from his end.
- (vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

- (vii) After rectification, the Emergency Key Box to be resealed by the S&T maintainer.

7. Defective Gate Signals:

- (i) The gate man shall treat the gate signal as defective and must not take off under following circumstances:
- (a) If gate signal can be taken 'OFF' without closing the gate, or
 - (b) The key can be extracted from the operating winch when the gate is in open condition, or
 - (c) If the gate signal or the gate distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position.
- (ii) The gate man will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals.
- (iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch as prescribed for non-interlocked gates should be adopted.
- (iv) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- (v) Station Master on duty will 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 shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.
- (viii) 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 gate is broken by a road vehicle which is fouling the track, or if Electrical lifting barriers foul the track, or if there is any other obstruction at the gate, the gate man shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gates, for this purpose.
- [ii] Immediately after this, the gate man shall advise the Station Master on duty regarding the defects/obstructions 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] Gate man shall then rush with detonators, 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 inspection 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 vehicle 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 Electrical 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 gate man shall inform the Station Master accordingly, under exchange of private number.
- [x] Station Master shall then issue a caution order to Loco pilots of all trains 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 Electrical lifting barriers to repair the same at the earliest.
- [xiii] Normal working will be resumed only after maintenance staff rectify the defective Electrical 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 a tree, fouling by road vehicle or derailment which is visible to the gateman, the gate man and Station Master will adopt the procedure given under itemNo.7 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

LEVEL CROSSING GATES

Following general instructions are meant for all types of Manned Level Crossing Gates
Specific Instructions for working of different types of Level Crossing Gates are attached as Annexures.

1 DESCRIPTION OF THE LEVEL CROSSING GATE: 1

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

1.	Number of Level Crossing Gate	RV-275
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PVP
4.	Location at KM.	380/19-21(UP)& 380/20-22 (DN)
5.	At Station	-
6.	In between stations	GMDA-PVP
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Double line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	Non-Interlocked
12.	Provision of Gate signal at Kms. (i) Up Line (ii) Dn Line	No No
13.	Signalling arrangements	Nil
14.	Means of Communication – Telephone / Bell etc.	GMDA station
15.	Width of level crossing gate	7.50m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	Village Road
18.	Metalled / non-metalled	CC Block
19.	Approach road	Metalled
20.	Width of the road	5.50m
21.	Angle of road crossing (in case of the skew gates)	90 ⁰
22.	Road gradient (if any) (i) North / East side (ii) South / West side	1in30 1in30
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	Straight Straight
24.	Provision of height gauges	Yes
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	9.50m
27.	Road surface in between L-Xing gates	Level

28.	Length of Rumble strip / speed breakers	5.50m
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	2806 12/2015
32.	Census next due on	12/2018
33.	Demarcation for placement of Detonators	Marked at appropriate distance
34.	No. of Gatemen working	Two
35.	Nearest Railway Medical Assistance	RGDA
36.	Nearest Private Medical Assistance available (if any)	GMDA
37.	List of equipment available Yes / No	YES

1.2 EQUIPMENT

Sl.No.	Items	Quantity /Numbers
1	LED based Tri Colour Hand Sgnal Lamp	3 (5on quadruple Line or twin single line)
2	Hand signal Lamp Green	1 Mounted on sticks
3	Hand Signal Flag Red	3(6on Quadruple line or twin single line and 7 in case Hexaple Section mounted on sticks)
4	Banner Flag Red	3(5 on quadruple line or twin single line)
5	Posts for exhibiting red banner flag	2 (4 on Q/Twin single line and 5 on Hexaple Section) 5 on Hexaple Section
6	Spare chains with Pad locks	2 with stop mark
7	Detonators	10 in tin case
8	Gate lamps	2
9	Tommy Bar	1
10	Mortar Pan	1
11	Spade/Fowrah	1
12	Rammer	1(in case of asphalted road this may not be provided)
13	Pick Axe	1(in case of asphalted road ths may not be provided)
14	Tin Case for Flags	1
15	Can for oil	1
16	Water pot /Bucket	1
17	Canister for Muster Roll	1
18	Set of spare spectacles of gateman wearing glasses	1
19	Board, demarcating protecting of level crossing gate diagram in case of obstruction on gate	1
20	Basket	1
21	Whistle	1

22	Wall Clock	1
23	A small size chain for use in case of failure of gate boom/leaf lock	2

1.3 RECORDS TO BE KEPT AT GATE LODGE:

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

1.4 DUTIES OF GATEMAN:

1 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.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/P-Way.

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 ROUTING 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 guard 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.
- xvii) 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 / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

- iii) If Loco Pilot / guard fail 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 endeavor to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

6 ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

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

The gateman shall protect the line as under:-

[A]. On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters 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 towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) On those Meter Gauge sections where trains run at more than 75 KMPH, detonators shall be placed at a distance to be specified under Special Instructions by the Administration.
- viii) 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.
- ix) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

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

7. ENGINEERING ITEMS:

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

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:

- (i) The normal position of the level crossing gate being “closed to Road Traffic” it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The station Master/Cabin Master before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number Whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master/cabin Master in assurance of gate being closed and locked against road traffic.
- (iii) The Station Master /cabin Master shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that
 - (1) He has not exchanged any private number with the station /cabin as per (d) above. Or
 - (2) If he has exchanged private number with the Station Master/Cabin Master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master /Cabin Master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent lines(s). Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at the distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag/red hand signal lamp ready in his hand to stop approaching train if any.

2 Failure of Telephonic Communication:

- i) 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.
- ii) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- iii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- iv) The driver shall be instructed to pass the gate cautiously, on being hand signaled 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 will give the all right signal and if the gate is not closed the Assistant Driver must close the gate and then give all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of Assistant Guard / Guard. 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 diver before dispatching a train in the block section from his end.
- vi) Station Master shall also advise the gateman through gang man / 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 same at the earliest.
- viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

3 Failure of Lifting Barriers or Leaf Gates:

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

4 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, fusee 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 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 drivers 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 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.

5 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.

LEVEL CROSSING GATES

Following general instructions are meant for all types of Manned Level Crossing Gates
Specific Instructions for working of different types of Level Crossing Gates are attached as Annexures.

1 DESCRIPTION OF THE LEVEL CROSSING GATE: 1

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

1.	Number of Level Crossing Gate	RV-273
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PVP
4.	Location at KM.	377/23-25(UP)& 377/24-26(DN)
5.	At Station	-
6.	In between stations	GMDA-PVP
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Double line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	Non-Interlocked
12.	Provision of Gate signal at Kms. (i) Up Line (ii) Dn Line	No No
13.	Signalling arrangements	Nil
14.	Means of Communication – Telephone / Bell etc.	GMDA station
15.	Width of level crossing gate	7.50m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	Village Road
18.	Metalled / non-metalled	CC Block
19.	Approach road	Metalled
20.	Width of the road	5.50m
21.	Angle of road crossing (in case of the skew gates)	90 ⁰
22.	Road gradient (if any) (i) North / East side (ii) South / West side	1 in 30 1 in 30
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	Straight Straight
24.	Provision of height gauges	Yes
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	9.50m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	5.50m

29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	2806 12/2015
32.	Census next due on	12/2018
33.	Demarcation for placement of Detonators	Marked at appropriate distance
34.	No. of Gatemen working	Two
35.	Nearest Railway Medical Assistance	RGDA
36.	Nearest Private Medical Assistance available (if any)	GMDA
37.	List of equipment available Yes / No	YES

1.2 EQUIPMENT

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

23	A small size chain for use in case of failure of gate boom/leaf lock	2
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1.5 RECORDS TO BE KEPT AT GATE LODGE:

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

1.6 DUTIES OF GATEMAN:

1 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.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/P-Way.

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

6. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

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

The gateman shall protect the line as under:-

[A]. On single line section:

- ii) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters 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 towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) On those Meter Gauge sections where trains run at more than 75 KMPH, detonators shall be placed at a distance to be specified under Special Instructions by the Administration.
- viii) 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.
- ix) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

[B] 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.

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

8. ENGINEERING ITEMS:

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

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:

- (i) The normal position of the level crossing gate being “closed to Road Traffic” it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The station Master/Cabin Master before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number Whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master/cabin Master in assurance of gate being closed and locked against road traffic.
- (iii) The Station Master /cabin Master shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that
 - (1) He has not exchanged any private number with the station /cabin as per (d) above. Or
 - (2) If he has exchanged private number with the Station Master/Cabin Master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master /Cabin Master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent lines(s). Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at the distance of 5 meters away from the gate. Then he shall open the gate for passing the road traffic, keeping a red flag/red hand signal lamp ready in his hand to stop approaching train if any.

2 Failure of Telephonic Communication:

- i) 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.
- ii) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- iii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- iv) The driver shall be instructed to pass the gate cautiously, on being hand signaled 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 will give the all right signal and if the gate is not closed the Assistant Driver must close the gate and then give all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of Assistant Guard / Guard. 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 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 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 same at the earliest.
- viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

3 Failure of Lifting Barriers or Leaf Gates:

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

4 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, fusee 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 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 drivers 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 thereafter 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.

5 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.

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APPENDIX – ‘B’ TO STATION WORKING RULES OF GUMADA STATION.**1.0 DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC, INCLUDING POWER SUPPLY ARRANGEMENTS.****1.1 BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATION:**

This is a “SPL” Class Station with standard-IIIR interlocking (with isolation). The points and signals are power operated from a composite ‘DOMINO TYPE’ full-fledged panel installed in the SM office. This station is equipped with panel operated MACLS. The SGE type double Line lock and Block Instruments are provided in the SMs panel room for section GMDA- KNRT and GMDA-PVP adjacent to the panel.

1.1.1 DESCRIPTION OF PANEL:

The yard layout is depicted in the panel board and is fixed parallel to the track so that when the SM on duty faces, 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 color) for individual operation of Points. For operation of point to 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 on Normal direction to indicate normal position of point, and a white steady strip on Reverse direction to indicate Reverse position of point.

1.4 When a point is set and locked correctly in normal 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 reverse point zone appears suggesting that the point is in Reverse position and locked in its position.

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

1.7 OPERATION OF POINTS:

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

- 1.8 All running line points are operated by Electric point machine.
- 2.0 The course for non-setting of the point in the desired position has to be checked up by the Station Master on duty according to G & SR 3.68.01(c) and if there is a defect other than obstruction the point has to be considered as defective and action shall be taken for clamping and pad locking these points in the desired position by the Station Master on duty himself for all trains according to SR 3.69.03(c).

2.1 **DESCRIPTION OF POINTS:**

Sl. No	Point Button No.	Color	Description
1	17	Black	Cross over point between UP & DN main line at Raipur end.
2	19	Black	Cross over point between DN main & common loop line at Raipur end.
3	21	Black	Cross over point between UP main & UP loop line at Raipur end.
4	18	Black	Cross over point between UP & DN main line at VZM end.
5	20	Black	Cross over point between DN main & common loop line at VZM end
6	25	Black	Cross over point between DN main line & LHL towards R end.
7	23	Black	Cross over point between UP main & DN Main towards R end.
8	41 & 43	Black	Provided for isolation to LHL.
9	Point group button (Normal)	Black with red dot.	Common button for normal operation of points.
10	Point Group Button (Reverse)	Black with Red dot.	Common button for Reverse operation of points.

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8.5. **SIGNAL BUTTONS:**

SL No	Button No.	Color	Description
1	C1	Red with white dot	UP Calling 'ON' signal for Line No. 1,2 &4.
2	S1	Red	UP Home signal for line No.1, 2&4.
3	C2	Red with white dot	DN calling 'ON' signal for line No. 3& 4.
4	S2	Red	DN Home signal for line No.3&4.
5	S5	Red	UP loop starter for line No.1
6	S6	Red	DN Inner starter signal for L-4 to LHL & DN M/L.
7	S7	Red	DN Common loop starter for line No. 4
8	S9	Red	UP main starter for line No. 2.
10	S10	Red	DN main starter for line No. 3
11	S11	Red	UP adv. Starter.
12	S12	Red	DN Advance starter
13	SH3	Yellow	Shunt signal for line No. 3 & 4.
14	SH4	Yellow	Shunt signal for line No. 1& 2, 3 & 4.
15	S13	Red	UP IB Home signal of GMDA Station .
16	S32	Red	Long Home loop starter for L-4 (LHL)
17	S34	Red	DN main line starter for L-3
18	S10	Red	DN main starter to be changed as DN inner starter for L/3.

3.1 **SIGNAL INDICATION:**

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

4.0 **ROUTE BUTTONS:**

Route buttons are provided separately on each running line on the panel for indication of route (viz L1UN, L1UN1, L2UN, L3UN, L4UN, and L4UN1). Common route buttons are also provided for taking off starters 11 AT UN, 12 AT UN. An individual route button is provided for taking off advance starter 12 UN, 11 UN. An individual route button is provided for taking off UP IB Home Signal 13 UN. For clearing the signal, it is necessary to operate the signal button and the concerned route button concurrently.

4.1 **DESCRIPTIONS OF ROUTE BUTTONS:**

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S.No	Button No.	Color	Description
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 Over run line and route button for DN. 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 DN shunt signal No. 4 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 DN shunt signal No. 3 and 4 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 DN Calling-On signal for line No. 4 setting overlap on sand hump/ over run line and common route button for UP & DN shunt signal No. 3 and 4 respectively for line No. 4.
7	12 UN	White	Route button for DN advanced starter.
8	11UN	White	Route button for UP advanced starter.
9	12AUN	White	Route button for DN starters 32 & 34.
10	32A1UN	White	Route button for Intermediate starter signal no.6 towards LHL.
11	32A2UN	White	Route button for Inner starter signal no.6 towards M/L.
12	34AUN	White	DN main line route button.
13	13 UN	White	Route button for UP IB Home signal of GMDA.
14	Group (Trans)	White with black dot	Common Trans button for crank handle and siding control.
15	Group Released	White with black dot.	Common release button for crank handle and siding control.
16	CH-1	Blue	Points No. 19&20
17	CH-2	Blue	Points No. 21& 22
18	CH-3	Blue	Points No. 17
19	CH-4	Blue	Points No. 18

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20	29 LXN	Chocolate	L.C.gate No. 29 control
21	30 LXN	Chocolate	L.C.gate No. 30 control
22	Emergency gate release 29 LXN	Chocolate with red dot	Emergency release of L.C.gate No. 29.
23	Emergency gate release 30 LXN	Chocolate with red dot	Emergency release of L.C.gate No. 30.
24	Signal lamp failure Ack.	Red with white dot	For acknowledge the signal lamp failure / point failure
25	Button Held Ack.	White with Red dot	To be pressed to stop the buzzer in case of any button held.
26	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
27	Emergency of Point Operation button	Black with red dot	For operation of points in the event of failure of Track circuit/Axle counter.

5.0 **A) POWER SUPPLY ARRANGEMENT FOR THE SIGNALLING INSTALLATION**

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

- i) Normally supply from UP AT/DN AT connected to OHE Traction distribution [230 V 50 Hz].
- ii) Stand by supply from Andhra Pradesh State Electricity Board (APSEB) [Single phase 230V-50Hz].
- iii) Normal power supply [Single phase 230V-50Hz] to the Signaling & Interlocking installation at the station is drawn from the traction power sources. Whenever traction power supply fails SS/Dy.SS on duty shall operate the Auto change over switch provided in the CLS power panel at SM's office connecting the power supply from the healthy sources to the installation.
- iv) The SS/Dy.SS on duty however maintain the record of power failures either of the traction supply or local supply and he must promptly report the failure of any one or both the power sources immediately through the section controller and to the concerned Electrical Staff and S&T maintenance staff.
 - a) Auto change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. The availability of the supply is indicated by luminous indicator above the circuit breaker for each supply.
 - b) Normally the switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, on duty SS/Dy.SS must ascertain the power is available on the other AT and change over the switch to desired position e.g if power block is to be given on the UP line, DN AT must

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be available and vice versa.

- c) In case of failure of one of the AT supply without any power block, on duty SS/Dy.SS has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies without any power block, the local supplies shall be utilized by operating the change over switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.
- d) Whenever there is a failure of power supply in one AT, the on duty SS/Dy.SS shall take prompt action to inform to all concerned for the rectification, The on duty SS/Dy.SS himself, during his daily checks, shall test the availability of power supplies on both AT's and make entry in station dairy duly initiating action for rectification of failure, if any.

5.0 (B) WORKING OF INTEGRATED POWER SUPPLY [IPS], INDICATIONS & ACTION TO BE TAKEN BY SS/DY.SS ON DUTY

- i) Power supply to the signaling installation is fed through IPS installed in the S&T power supply room. The IPS is normally fed through UP AT/DN AT traction power selected by SS/Dy.SS on duty. Standby power supply is through APSEB local supply. Auto Change over Switch is provided in the SM's room for selection of output of either of the traction power supplies or local power supply. The available traction/local supply is fed to the IPS.
- ii) Auto Change over Switch [which can be operated manually also keeping it in Manual mode] which has been provided in SM/SS's room will automatically switch over to the other power supply mode in the absence of any power supply i.e UP AT/DN AT /Local Power Supply.
- iii) The IPS system is connected with Battery as a back-up power source for safe working during transition of power, in case when there is no power supply of 230v AC supply due to any reason.
- iv) In the event of failure of all the sources of 230V, 50 Hz AC supply, the signalling system shall be fed by power generated by back-up battery Bank connected to IPS. The health of battery bank is monitored through IPS monitoring Panel provided in the SM's room which shall be display the voltage 110V DC [Battery bank provided as back-up for power supply]. Depending upon the health of the Battery Bank and the system, the following indication/alarm will appear on the Remote Monitoring Panel, their implications and action to be taken by SS/Dy.SS on duty is tabulated below.

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SN	Instruction	Healthy of Battery Bank /Equipment	Visual Indication	Audio Indication	Action to be taken by SS/Dy.SS on duty
A	-	50% DOD (Depth of Discharge)	Red	Alarm	Alarm shall be acknowledged by SS/ Dy.SS on duty. Then inform to S&T Staff.
B	-	60% DOD	Red	Alarm	-Do-
C	System Shutdown	70% DOD	Red	Alarm	Signal feed cut off and all DC-DC converters to work. Audio alarm will continue till power supply is restored. Then inform to S&T Staff.
D	Call S&T Staff.	Equipment fault	Red	Alarm	Failure of any module will give the alarm in SM's panel. Alarm shall be acknowledged by SS/Dy.SS on duty for audio cut-off. Then inform to S&T Staff.

On duty SS/Dy.SS in each shift shall check and record the readings, indications, etc in the station dairy duly informing to ESM/SM on duty for rectification of failures of IPS system, if any.

In the event of failure of remote monitoring ASM console due to any reason or when both traction power and local power failed, the SS/Dy.SS on duty shall inform concerned Electrical staff immediately. In case 'Call S&T staff' or 'System Shut Down' indication appear on the remote monitoring panel of IPS and/or mal-functioning of the remote monitoring panel SS/Dy.SS on duty shall inform the same to concerned S&T staff immediately.

NOTE: In case of failure of all AC supply sources IPS Battery Bank can provide power supply, before system shut down indication of IPS.

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

Whenever LED signal/point failed, a miniature flashing Red light indication appears along with an audible buzzer indicates Signa/pointl failure. Then Station Master on duty shall press the Ack button thereby the buzzer stops but the Red indication continues flashing till either the LED signal/point is rectified.

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

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

6.0 **TRACK CIRCUIT/AXLE COUNTER:**

Track circuits are provided in the yard as 1AT, 19BT, 12T, 12AT, L1T1, L1T2, L1T3, UMT1, UMT2, UMT3, DMT1, DMT2, DMT3, L4T1, L4T2, L4T3, 20BT, 21T, 18/22T, 18/20T, 22BT, 11 AT, 11T, 2AT, 2T, 2T1, 2T2, 19BT, 19AT, 17AT, 17BT, 32AT1, 32AT, 25BT, 34AT1, 34AT, 23AT, 23BT, 1AT1, 1AT2, 25AT, 25BT, 31T1, 31AT, 31T2. Axle counters are provided for section KNRT-GMDA as UP LVV and for section GMDA-KNRT as DN LVV. Axle counters are also provided for section GMDA-PVP for UP line as 11AXT & LVUDAXT and for section PVP-GMDA for DN line as 12AXT & LVDRAXT. When a signal is cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.

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 block section limits demarcated by the Advance Starter is clear of any obstruction (which includes point zones track circuits) before he takes off departure signals.

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

Crank handle is inter locked with the signaling and inter locking system at this station and the crank handle which is normally locked up in the RKT instrument at the East and West End locations 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, crank handle can be from the RKT through emergency operation by pressing crank handle button along with group Trans button. After the lapse of 120 second, the concerned Crank Handle gets released for emergency alteration of the locked route.

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

7.0 **STATION MASTER'S KEY:**

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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 OPERATIONS:**

The following are the instructions for Emergency operations.

8.1 **EMERGENCY ROUTE CANCELLATIONS:**

When the signals are taken off for one line and if it becomes necessary to cancel the route, the Station Master on duty shall cancel the signal first before emergency route cancellation is restored to.

For cancelling the signal, concerned signal button and signal cancellation button shall be pressed concurrently, there by signal puts back to 'ON'.

There after the Station Master on duty shall press the same signal button and emergency route cancellation button concurrently, there by a miniature yellow (JKE) flashing light indication appears below signal suggesting that timer for cancellation is started functioning. The yellow flashing lasts for 120 seconds and thereafter the route cancellation and JKE indication extinguishes. This operation is registered next higher consecutive number in the counter on the panel. Each such operation is recorded in the register maintained for the purpose by the SM on duty.

8.2 **EMERGENCY ROUTE CANCELLATION COUNTER:**

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

The numbers of the counter register the number of operations performed for such emergency cancellation and the Station Master on duty should specify the cause for such usage giving the particulars of the cause and the time of operation as related to a particular train etc., in the Train Signal Register. The detailed operation instructions are as follows.

8.3 **CANCELLATION OF UNINTENDED LOCKING OF POINTS:**

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

8.4 **CANCELLATION OF LOCKING OF ROUTE AND POINTS AFTER THE SIGNAL HAS BEEN PUT BACK TO 'ON':**

OR

THE SIGNAL HAS GONE BACK TO ON EITHER AFTER THE MOVEMENT OF THE TRAIN IS CANCELLED:

OR

THE TRAIN HAS COME TO A STOP OUTSIDE THE STOP SIGNAL:

In case the route is set and the signal is taken off and if it is warranted that the signal has to be put back to ON and cancel the route.

- (a) Firstly the signal has to be put back to the ON position
- (b) Emergency route cancellation operation must be initiated as detailed in para 8.1.

8.5 **EMERGENCY OPERATIONS:**

Cancellation of the locking of points not released after the passage of the train for any reason.

If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operation.

- (a) Firstly it must be ensured that the signal concerned to the route are in the normal position.
- (b) Operation as details in para 8.1 to be followed.

9. **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, 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 is pressed condition. Points will be set to Normal or Reverse position as per operation. During the initiation on RED

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indication will appear above the emergency operation button. This Operation will be registered in and emergency point operation counter placed about the emergency point operation button will increase in number by one.

10.0 INTER LOCKING OF SIGNALS:

- 10.1 All running line points are fitted with point machine and all are electrically detected by the relevant Home signals and starters.
- 10.2 Advanced starters are interlocked with respective double line block instrument in LINE CLEAR position.
- 10.3 Home signals are interlocked with respective Double Line block instrument. The Block instruments cannot be made to normal unless the respective Home signals are in Normal position.
- 10.4 Signals once taken OFF can be put back to Danger in case of emergency by pressing the concerned signal button in conjunction with signal cancellation button even when the panel is locked up with Station Master.

11 LOCKING OF RELAY ROOM:

- 11.1 Relay room at this station is provided with double locks (Two independent locks) as necessary vide OM 1.14 one key shall be kept with the Signal Maintainer of the section and the other with Station Master on duty. The relay room cannot be opened unless both keys are used.
- 11.2 The Station Master shall ensure that the Relay Room key is given to S&T maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by the S&T staff immediately after completion of their work and the documentation should be made in the Relay Room key register maintained at the Station according to SR 3.51.05 and OM 1.14.

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

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

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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 as also in the current and extent instructions/Circulars on the subject.

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

13.1 Whenever there is failure of Points, Track Circuits, Signals , Axle-counters or any other interlocking gear at the Station, the failure report should 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. INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

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

14.1 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 is satisfied that it is in good and proper working order. He shall resume the normal working of the said defective gear in terms of SR 3.68.04[c] and [d].

15.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORKS:

However any normal maintenance or special works for heavy renewals etc., are involved, These works should be pre-planned by the Signal and Telecom field staff and the SE/SSE 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:

Not with standing anything contained in the afore-said Para Nos. 14.1, 14.2 and 14.3 when a Gear is found to be defective and un-safe for passage of trains, the Signal & Telecom staff must at once suspend the working of that gear and the associated installations and issue a “Suspense Memo” explaining the seriousness of the defect or damage to the interlocking installation to the Station Master and take Station Masters acknowledgment. After this, the usual practice of exchange of disconnection memo and

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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 as contained in G R 3.77 and SR thereon.

17. SIGNAL LIGHTS:

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

18. CORRECTING TIME IN THE STATION CLOCK:

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:

The Station works on 230 Volts single-phase power supply. The normal power supply is from UP and DN ATs.

19.1 STANDBY POWER SUPPLY:

APSEB is available at the Station as stand by with auto changeover switch arrangement.

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

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

20. WORKING OF POINTS – POSITION OF POINTS:

The normal position of all points shown in the Station Working Rule Diagram No. SI/WRD-23149 Alt-‘A’ and also in the mimic indication panel provided in the Station Masters office.

- 20.1 All cross over points and independent points on the running lines are worked by Electric Point Machines. The point machines have in-built locking and detection arrangements.

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These points are remotely controlled from the panel situated in the Station Master's office.

- 20.2 The operation and indication on the points and their route locking over them is already explained in earlier parts of Appendix-B.
- 20.3 All siding entrance points (on the running lines) and the corresponding derailing switches on the siding are coupled and locally operated by hand levers provided at site. The entrance points are provided with hand plunger locks with key locking arrangements, the key being released from the RKT instruments. The siding entrance points controlling key is inter locked with the interlocking and signaling system through the RKT as explained in earlier parts of Appendix-B.

21.0 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 lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at the Station.
- 21.2 In case of failure of Signal or a Point and in case the Point can not be operated from the Panel, the emergency Crank Handle which is Interlocked with the system has to be extracted and the following procedure has to be observed.
- 21.3 One common emergency Crank Handle is provided for all the Motor operated Points. This is mechanically riveted to the Key of RKT. This Key along with Crank Handle can be released from the RKT by pressing the Common RKT Push Button after cutting the seal between RKT and the Crank Handle. The Station Master on duty in case of Point Motor failure will take out the Crank Handle set the Point manually by inserting Crank Handle on the Motor.
- 21.4 When the Crank Handle is removed from RKT for operation of the defective Motor Operated Points, the responsibility for its safe custody re-sets with the ASM/SM on duty till it is replaced back in RKT and sealed by Signal Maintainer.
- 21.5 The 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

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

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

21.7.1 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 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 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 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 ends before permitting any movement.

22.0 INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:**22.1 INTERLOCKING WITH HOME SIGNALS:**

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All the UP and DOWN HOME Signals are Electrically interlocked with the respective DLBI so that before the handle of the DLBI Instrument can be turned from TRAIN COMING FROM position to LINE CLOSED position, all the signal buttons controlling the Home Signals of UP or DOWN direction as the case may be must be in their NORMAL position.

22.2 **INTERLOCKING WITH ADVANCED STARTER:**

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 TRAIN GOING TO position.

22.3 **SUSPENSION OF LAST STOP SIGNALS:**

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

23.0 **BURNING OF SIGNAL LIGHTS:**

The Station Master on duty shall not grant LINE CLEAR unless he has ensured that the Lamps of fixed Signals that apply to the train are burning brightly. If the Signal Lights cannot Kept burning the Station Master on duty shall before giving LINE CLEAR initiate action in accordance with the procedure prescribed in GR 3.68 to 3.72 and relevant SR's vide GR 3.49 (4).

24.0 **LAST VEHICLE VERIFICATION (LVV) BY BLOCK PROVING THROUGH AXLE COUNTER:**

Single Section Digital Axle Counter has been provided between dispatching station's advanced starter signal and first stop signal of receiving station's i.e between GMDA-PVP and GMDA-KNRT sections on Up & Down lines. Complete arrival of trains at respective stations is proved by these devices (BPAC). The status of the block section that is occupied or clear is indicated by the indications provided on the domino panel and on reset box. The advanced starter is controlled by the Clearance of the LV Axle counter section (BPAC).

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

Whenever after complete arrival of train, the LVCD axle counter continue to show Red on the panel Board, the on duty SS/Dy.SS at GMDA station shall resort to the reset procedure of the axle counter.

For this purpose SS/Dy.SS at GMDA Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SS/Dy.SS shall obtain signature from the Guard of stopping train on the train intact register [vide GR & SR No.4.17, 4.17.01) or

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by exchanging alright signal with the Guard of through train, so that he can ensure that the train has arrived completely before resetting of LVCD axle counter. SS/Dy.SS of PVP for Up Block Section and KNRT for DN block section.

Before resorting to the resetting of the LV axle counter (BPAC) SS/Dy.SS of the receiving station shall ensure complete arrival of train by means of physical verification and as per the practice in vogue by deputing concerned operating official.

One reset box for each LV axle counter (BPAC) has been provided in the panel room. There are three indications on the reset box i.e Red, yellow and Green. The clearance or occupation of the block section is proved by the Green or Red indications respectively as on the panel. Yellow indication which is called “PPR” indication proves that resetting operation has been initiated. One reset key and one reset button are also provided on the reset box for resetting. After complete train arrival is ascertained SS/Dy.SS on duty at receiving end shall confirm the same to the dispatching end SS/Dy.SS supported by a PN and shall request for preparatory resetting of axle counter. SS/Dy.SS on duty at both ends shall adopt the following procedure simultaneously.

SS/Dy.SS on duty at both ends shall press the reset button, then turn and press the reset key, then first release the reset button and then release the reset key. After this operation is completed, at both ends of the station “PPR” indication (yellow) will appear on the reset box and one number will increase in the reset counter which is provided on the reset box at both stations. SS/Dy.SS shall record the counter number in the A/C reset register with reason for resetting.

Whenever LV axle counter (BPAC) fails first train has to be piloted out after completion of the resetting procedure. On arrival of the first piloted train, the LV axle counter section will show clear automatically by indicating Green on Reset panel and on operating panel.

Even after above resetting procedure, if the section is not shown clear, on duty SS/Dy.SS shall inform concerned S&T staff immediately. Till such time the system is rectified, the absolute block working shall be suspended and the trains shall be worked as per relevant para of G.SR & BWM.

All reset keys shall be kept in the personal custody of SS/Dy.SS on duty GMDA station, if the axle counter continue to show occupied of section GMDA-KNRT the DLBI cannot be turned to line closed position and the resetting of LVCD axle counter shall be resorted.

24.1 LAST VEHICLE CHECKING DEVICE:

Axle counters are provided on UP and DN lines between GMDA-KNRT and GMDA-PVP 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.

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’.

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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.

24.2 RESETTING OF LVCD AXLE COUNTER (DIGITAL):

After complete arrival of train, if the Last vehicle axle counter of the does not clear or Last vehicle Axle counter section free indication and Green does not appear in the panel, The receiving station SM shall apprise the sending station SM through telephone for resetting giving details of last train that has arrived complete at his station and the block section is clear.

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

The status of the section LVCD i.e. Clear (Green) occupied (RED), preparatory reset (Green) and power on the indications (white) are provided in the reset box.

The procedure to be followed for resetting by both of sending end and receiving end individually is as follows.

On being advised by SM of GMDA station, SM of PVP /KNRT station inserts the key in the Reset Box, turns right and presses both the key and the Push Button (RED) simultaneously with the SM of GMDA. The Counter on the Reset Box at GMDA station and PVP/KNRT station registers the next higher number and after five seconds miniature green preparatory Reset indication appears on the Reset Box both at GMDA and PVP/KNRT. The step by the step procedure shall be followed as given in “b” to “i”.

- a) SM GMDA station & SM /KNRT station shall then insert SM’s LV reset key and turn right.
- b) Press LV reset button provided on the panel.
- c) Release SM’s LV reset key and remove it.
- d) The system obtains preparatory reset state and preparatory reset indication (Green) glows on the panel. The counter reading increases by one count after a gap of 5 seconds approximately.
- e) The counter reading should be recorded.
- f) One train is to be piloted in the section to make the system normal.
- g) The SM on duty shall record it in the Trains Signal Register indicating the resetting operations in detail i.e. train number, time private number exchanged with SM of sending station and giving reasons for the resetting operations.
- h) If the axle counters functioning properly now, then block section cleared indication “G” will appear on the panel and the concerned Block working will normalized.
- i) If the LV axle counter section indication does not appear ‘Green’ and continues to show ‘RED’ indication, the concerned block section shall be suspended and failure intimation to be given to sectional signal Maintainer JE/SE/ (signal) for early rectification.

APPENDIX ‘C’ TO STATION WORKING RULES OF GUMADA STATION

WORKING INSTRUCTIONS OF ANTI COLLISION DEVICE (RAKSHA KAVACH)

NOT APPLICABLE

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

The following staffs are concerned with the movement of the trains whose duties are given below:

DUTIES TO BE PERFORMED BY THE STAFF AT GUMADA STATION.**1) STATION SUPERINTENDENT:**

- i) Station in charge is responsible for the efficient discharge of duties by different members of staff at his station. (General Rules 5.01) and OM Para No. 2.02.
- ii. Ensuring that the general working of the Station is being carried out in strict accordance with the current rules, procedures and instructions.
- iii. Providing prompt and courteous service with utmost safety and security of passengers and employees.
- iv. Availability, helpfulness and good conduct of station porters.
- v. He shall be responsible for general up-keep of the station.
- vi. He shall be responsible for keeping the safety and operating literature including circular pamphlets, gazette etc. up to date and these must be explained to the staff working under him and got noted by them.
- vii. He shall maintain complete and up to date record of Engg/S&T/TRD restrictions. He shall be responsible for bringing forward the caution order register every Monday.
- viii. He shall be responsible for maintaining Accident Register and Accident Charts and keeping these up to date.
- ix. He shall maintain figures in respect of the stock and get them relayed to the control time.
- x. He shall investigate all public complaints and send the extracts of the complaint with explanation of the staff and his own remarks to Divisional Office in time. In case of complaints concerning the other department, intimation may be given to the subordinate In-Charge of that department immediately so that action may be taken to avoid recurrence.

2. SM/ASM

- i) He shall come on duty after taking complete rest and shall not perform his duty under the influence of drugs or intoxicants.
- ii) When on duty or when called upon to do so, in case of emergency, he shall be responsible for obtaining and granting line clear to trains as per SWR & OM Para No. 2.02 (e).
- iii) He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate panel.
- iv) He shall keep the SM's control keys of control panel in his personal custody whenever he is required to leave his office even for a short duration.
- v) While coming on duty, he shall ensure that all points and signals are in good working order.

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order and all the registers, records, pertaining to train passage are completed in all respect before taking over the charge.

- vi) He shall personally ensure that conditions for taking ‘off’ the reception signals are fulfilled and the clearance of line is verified as per SWR before actually pressing the relevant button for taking off the signals.
- vii) He shall ensure from indications available in the panel that the signals are burning brightly and are giving correct indications.
- viii) He shall ensure that proper indications of points, signals, track circuits, crank handle, level crossing gate etc., are displayed at their proper places.
- ix) He shall ensure that all Shunting operations are carried out as per extant orders and GR 5.19 and SRs thereof.
- x) He shall inform the Technician/JE/SE(sig) in writing or through a written message, any failure of track/signals/points/keys or panels etc. and shall invariably enter these failures in Signals Failure Register.

3. TRAFFIC POINTSMAN/TOKEN PORTERS:

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

4. TRAFFIC GATE MAN:

He is responsible to operate L.C. Gate at his end. He shall attend to the call of the

APPENDIX – E TO SWR OF GUMADA (GMDA)

SS/Dy. SS on duty and do the work entrusted by the SS/Dy. SS on duty connected to gate operation. He shall promptly report any abnormality to SS/Dy. SS on duty. He shall also verify the complete arrival of train if visible from the gate and confirm it to the SS/Dy. SS on duty supported by private number vide SR.4.17.01[c][iv].He shall also protect the gate when required as given in gate working rules. He shall do all necessary functions related to gate working as stated in gate working rules.

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

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APPENDIX ‘E’**GUMADA STATION****ESSENTIAL EQUIPMENT**

A List of essential equipments is given below which shall be maintained in good working order.

SL.	EQUIPMENT	STATION
1.	Detonators	20
2.	LED based tri colour flashing torch	3 (1 Spare)
3.	Hand signal flags	3 (1 Spare) Sets
4.	Iron Skids	6 Nos
5.	Safety chains with padlocks	6
6.	Fire and sand buckets	5
7.	Minimax Fire Extinguishers	2
8.	Line block collars	8
9.	Motor trolley on line board	2
10.	Block suspension board	2

APPENDIX 'F' TO STATION WORKING RULES OF GUMADA STATION**RULES OF WORKING OF DK STATION, HALTS, IBH, AND OUTLYING SIDINGS****1. RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN PVP-GMDA:**

(i) The block section between GMDA-PVP has been split into two block sections by providing Intermediate block stop signals at km: 383.700 (controlled by GMDA station) for UP line and on DN line at km: 383.138 (controlled by PVP station). Intermediate block stop signals are controlled through Double line lock and block instruments at the respective receiving ends.

(a) The block working for section between PVP-GMDA on UP and DN lines is controlled by the provision of DLBI (SGE type) and are provided at GMDA and at PVP stations. The DN advanced starter signal no. 12 of PVP and UP advanced starter signal no. 11 of GMDA are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB home signals are controlled in turn through the line clear position of respective DLBIs at the receiving stations.

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

(c) Last stop signal to the intermediate block stop signal in both sides are controlled by Electronic axle counter and are worked under absolute block system in terms of G & SR 14.01, 14.13. Indications on panel are provided at GMDA station.

2. INDICATIONS PROVIDED ON PANEL FOR I.B. SECTION:

The indications of signals, IB and Block sections in both up and down directions are shown in the following table:

2.1 SECTION GMDA-PVP (UP DIRECTION):

Sl. No	Signal Aspect [S-11]	IB Section Indication [11 AXT]	IB Home Aspect [S-13]	Block Section Indication	Remarks.
1	Green	While Illuminated	-	-	Advance starter No: 11 is taken off to dispatch a train up to IB Home.

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2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	While illuminated	IB Home taken off for train up to home of GMDA.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.2 SECTION GMDA-PVP (DN DIRECTION):

Sl. No	Signal Aspect [S-12]	IB Section Indication [12 AXT]	IB Home Aspect [S-14]	Block Section Indication	Remarks.
1	Green.	While Illuminated.	-	-	Advance starter No: 12 is taken off to dispatch a train up to IB Home.
2	Red.	Red.	-	-	IB section occupied.
3	-	-	Green	While illuminated.	IB Home taken off for train up to home of PVP.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.5 Buzzer/Bell:-

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

Train Run-Away buzzer:

When a train passes IB signal at ON position SM/GMDA of dispatching station receives the train run away buzzer and displays flashing indication on the VDU. The SM/GMDA by acknowledging the train run away button, the buzzer stops and the indication

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remains steady and after train passes IB signal and beyond 400mts the indication also disappears.

b) In the event of failure of I.B. track circuit [i.e. track clear indication not available] which shall not permit taking 'OFF' last stop signal, it should be ensured by Dy. SS/SM on duty at the dispatching station through exchange of private number with the Dy. SS/SM of the receiving station that the last train that passed the last stop signal of his station has fully arrived at receiving station, before allowing the next train to enter in to the section, such permission to the next train shall be granted and the section GMDA-PVP shall be shall be treated as single section.

c) By issuing the pilot memo when normalization of the system is not possible, in such case, line clear has to be taken on lock and block instrument. Trains are to be dispatched from the station only after obtaining line clear till such time track circuit or last stop signal is restored to normal.

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

i] No train should be allowed to leave station in any particular direction unless I.B. track clear indication is available for the relevant track circuited portion of I.B. section and last stop signal cannot be taken off and provision stipulated in **Para g.III to be followed.**

ii] A Resetting arrangement for the resumption of I.B. Axle counter under failure condition through co-operative features of both the Dy. SS/SM on duty 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 Dy. SS/SM at the receiving station through exchange of private number.

iii] For monitoring of I.B. section working & re-setting of I.B. Axle counters, Track Indications and Re-setting arrangements are provided with button on the panel at GMDA and PVP stations. Counters are also provided for the purpose of recording the re-settings for the I.B. Axle Counters in case of failures in IB section. The Re-setting button and permission granting button on the panel at PVP should normally be kept sealed by the S&T staff and Dy.SS/SM will inform the Maintainer for resealing the same whenever the seal has been broken.

iv] The Dy.SS/SM on duty at GMDA station shall maintain a separate register for use of resetting at IB Axle Counters wherein every operation of the resetting button shall be recorded giving details of date of use, train, number, time, number registered in the counter on panel and reasons for resetting and initial each such entry.

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v] The procedure for resetting of the I.B. Axle counters in terms of clause g.II above shall be as follows:

2.4 SECTION PVP-GMDA ON DN LINE:

	DISPATCHING STATION [PVP]		RECEIVING STATION [GMDA]
1	Dy.SS/SM on duty shall call the attention of SS/Dy.SS of GMDA station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	SS/Dy. SS on duty at GMDA after verifying that the said dispatched train arrives fully, shall exchange private number with Dy.SS/SM on duty at PVP and gives permission to re-set by clicking the 'Permission Granting' button provided on the re-set panel.
2	On getting re-set permission on panel Dy. SS/SM on duty shall acknowledge by clicking on 'Permission received from GMDA' acknowledgement button icon. For each such operation the reset counter provided in panel shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.	2	SS/Dy. SS on duty at GMDA shall continue to press the 'Permission Granting' button.
3	Dy. SS/SM on duty then shall re-set the I.B. Axle counter by clicking on 'DN Re-set Key' and select 'Key In'. After which he shall click on the 'Re-set button', which will reset the Axle Counter.	3	SS/Dy. SS GMDA shall also press 'Re-set' button provided on re-set panel at GMDA station simultaneously at the same time for re-setting of I.B. Axle counter.

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4	On completion of re-setting process I.B. section clear indication will appear on panel.	4	The SS/Dy. SS on duty at GMDA shall record in his train register the re-setting operation giving train number, time and private number exchanged with the Dy. SS/SM of PVP station giving reasons for the re-setting operation.
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2.5 **SECTION GMDA-PVP ON UP INE:**

	DISPATCHING STATION [GMDA]		RECEIVING STATION [PVP]
1	SS/Dy .SS on duty shall call the attention of SS/Dy. SS of PVP station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	Dy. SS/SM on duty at PVP after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy. SS on duty at GMDA and gives permission to re-set by clicking the ‘Permission Grant’ push button [To GMDA] provided on the panel.
2	On getting re-set permission on re-set Panel SS/Dy.SS on duty shall acknowledge by pressing ‘Permission received from PVP’ acknowledgement button. For each such operation the reset counter provided in Operating Panel shall increase by one digit. SS/Dy. SS on duty shall make an entry of changed Reset counter number in re-setting register.	2	Dy. SS/SM on duty at PVP shall continue to click the ‘Permission Granting’ button’.

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3	SS/Dy. SS on duty then shall re-set the I.B. Axle counter by turning 'UP Re-set Key' and press the 'Re-set button' on the re-set panel, which will reset the Axle Counter.	3	Dy. SS/SM PVP shall also click 'Re-set' button provided on panel at PVP station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on re-set panel.	4	The /Dy. SS/SM on duty at PVP shall record in his train register the re-setting operation giving train number, time and private number exchanged with the SS/Dy. SS of GMDA station giving reasons for the re-setting operation.

2.6 DISPATCH OF TRAINS:

Dispatch of trains is governed by the provision of G & SR 3.42, 3.70 and Block working manual rules.

a) From GMDA towards PVP.

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

b) GMDA TO IBS ON UP LINE:

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

Advise the Station Master at the station in advance, of the train No. and description of such intended train to be dispatched and shall take his assent supported by Private Number and shall then set and lock the route and take off the Starter and Advanced Starter.

c) IBS SIGNAL TO THE STATION IN ADVANCE:

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The Dy. SS/SM on duty shall obtain line clear over lock & Block instruments from the station in advance to dispatch a train pass the IBS signal at the respective ends and shall take off the IBS signal by means of taking of signal No13 of GMDA.

After the train passes the intermediate Block Stop signal of GMDA a buzzer will ring in the panel. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by clicking train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the station master of the station in advance who in turn will turn commutator of the Double line Lock and Block Instrument from the line clear position to Train On Line position and acknowledge train entering section. After dispatch of a train from GMDA into the Block section between GMDA and intermediate Block Post in case when the intermediate stop signal is not taken 'off' but the buzzer has started ringing, this may be either due to the train passing intermediate Block stop signal at 'ON' position or due to failure of the track circuit in advance of that intermediate Block Signal and shall exchange Private Number with the station Master in advance indicating the occurrence and the number of the train. On getting the information from the Station Master/PVP, the Dy. SS/SM on duty at GMDA in turn will inform SCR on duty about this.

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

d)(i) Dispatch of trains towards PVP in case of failure of the UP Advanced Starter signal at GMDA Station due to failure of "Axle Counter" device or otherwise. If the failure of the Advanced starter of GMDA due to the failure of axle counting device or the indication lamp (repeated by indication lamp) showing 'Red' light either due to power failure or due to any other causes, the re-setting "Push Button" provided with counter at the Dy. SS/SM's office for resorting the normal function of the signal, should be operated accordingly to the following instruction whenever the Advance starter signal of GMDA is found defective by the Station Master and the following procedure shall be adopted.

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

If it is not possible to restore normal working of the counter by use of the resetting button, the ESM-in-charge of the section shall be served with a written memo to attend the defective signal and rectify the same. The ESM-in-charge of the section on being served with a memo by the Dy. SS/SM, shall attend the failure and rectify the fault. The ESM after ensuring that all S&T gears relating to defective signal have been attended to and are in working order except the axle counter which needs re-setting shall establish communication with Dy. SS/SM concerned and ask him to reset the axle counter by pressing the reset push button. Where after the Dy. SS/SM on duty, after ensuring that all

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the trains which had left his Block Station had arrived complete and intact at **PVP** (by exchanging of P.N with **SS/DY SS PVP** confirming this) shall press the resetting button provided in the panel at **GMDA** station and resume the normal working.

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

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

[b]If the Dy.SS/SM of GMDA station, on being contacted over Telephone by the driver, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorized the driver on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give Driver the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance.

The Loco pilot shall then sound one short, one long and one short whistle and, on receipt of Guard's signal shall proceed ahead duly exchanging signals with him.

The station Master on being contacted by the Loco pilot on signal post telephone if he is unable to obtain "Line Clear" for the train due to total interruption of communications, shall call for the Guard's through the Loco pilot and on being contacted by guard, he shall advise the guard of the circumstances and give a Private Number for the train to proceed up to the next block station.

The guard shall prepare a memo in duplicate authorizing the Loco pilot to proceed with the Private Number received from the Station Master. In such case the speed of the train shall be restricted as prescribed in GR 3.75(3).

[c]In such case the Loco pilot shall pass the IB signal at "ON" and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometers an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometers an hour and report the failure to the Station Master at the block station ahead.

While complying with the instructions contained in GR 3.75(3), when the Loco pilot has to pass IB signal at "ON" after waiting for 5 minute at the signal, he shall proceed cautiously preparing to stop short of any obstruction at a speed not exceeding 15KMPH when view ahead is clear and 8 KMPH when view ahead is not clear due to curve, obstruction, rain, fog or any other cause until he reaches the foot of the next stop signal and even the signal is "OFF" the Driver shall continue to look out for possible obstruction short of the same and will act upon its indication only after he has reached it. Before starting, the Loco pilot shall sound one long whistle which may be repeated as necessary and shall then start his train on receipt of Guard's signal. Thereafter he shall exchange signals with the Guard.

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On reaching the block station ahead the Loco pilot shall report the failure of the signal to the Station Master. If, the telephone is provided at the intermediate Block Stop signal Post is out of order the Loco pilot ck station ahead, the Loco pilot shall report the failure of the signal to the Dy. SS/SM, Following train shall not be allowed to leave **GMDA** unless the complete arrival of the receiving train is certified by the SM on duty at **PVP** under exchange of Private Numbers.

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

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

[d]However, if the DY.SS/SM on the Block station immediately in rear of an intermediate Block Signal is aware that UP/DN intermediate Block Signal is defective shall before Dispatching a train shall verify that all trains which had left his Block Station had arrived complete and intact at **PVP** station (by exchanging Private Number with SM-**PVP**) shall press the resetting button of Axle counter equipment. Thereafter Loco pilot shall be handed over the authority of T-369[3b] to pass IBS Signal at “ON” position where in, the Private Number and indication number obtained for line clear, shall also be written. The use of this re-setting push button is registered on the counter and DY.SS/SM should record this usage giving details of the occasion with timings in the Counter/register and also train registers.

(e) INDICATION CUM RESETTING PROVISION IN THE PANEL AT GMDA:

The Panel is provided for following light indications:

- (i) Two green indications for the track- circuited portion by Axle Counter, which remain normally lit to indicate that the track is clear. These lamps extinguish no sooner the train passes the last stop signal and their place two red indications are lit to indicate that the track is occupied.
- (ii) Two red indications for the last stop signal replacement track circuit which remain lit so long this track- circuit is occupied or in under failure condition.
- (iii) Two red indications ahead of the IBS Signal, which are lit if the train passes the said signal in “ON” Position. These indications continue to glow till such time the lock and block working is resumed through emergence re-setting feature.
- (iv) Two red indications just ahead of IBS Signal for the IBS signals replacement

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track circuit. These indications normally remain dark and are lit either during occupation by a train or during failure of this track circuit.

(v) Two red indications for the block section for receiving trains. These indications shall normally remain no indications and shall be lit only when the incoming train passes the IBS signal. It remains lit till such time train arrives fully and Block Instrument is normalized.

f) RE SETTING PROVISION IN THE PANEL AT GMDA STATION:

For resetting of I.B. Axle counter please refer Para No: 24.2 of Appendix 'B' of this SWR

g) SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBH AT 'ON' POSITION:

- i] In case train run away indication appears the Dy.SS/SM/Cabin Master receiving Station shall not turn the block instrument handle to line clear position and Dy.SS/SM at sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.
- ii] Every case of a train passing IB signal at 'ON' position without strictly following the provision of GR 3.75 should be treated as a breach of block rule by the Loco pilot and action to be taken accordingly.
- iii] When train run away indication appears at the Dispatching Station without any train in the section, the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after duly taking line clear treating entire section as one Block section as per GR 3.75(4).
- iv] Whenever a train after having obtained line clear passes IBS (when not taken off) in "ON" position the train run away indication appears at the Dispatching station and train entering section indication appears at the receiving station, under such circumstances no further train shall be allowed in the section till the said train arrives completely at the receiving station i.e., station in advance, and its complete arrival received at the receiving station i.e. station in rear supported by Private Number treating the entire block section as single section.
- v] If any train passes IB Signal at 'ON' position when there is a train in the Section between IBS and the station ahead, the train run away indication will appear at both receiving and Dispatching station. Under such circumstances the Dy.SS/SM in the receiving station shall not turn the Block instrument to Line Clear position and Dy.SS/SM at sending station shall not take action to dispatch the (3rd) train, unless the 2nd train which passes the IBS in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

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- vi] Permission button to be pressed for the runaway train by break opening the seal only after verifying that the last vehicle of the runaway train has arrived in -tact and ensured by exchange of private number with the Dy.SS/SM of the sending station. In case of failure of Axle Counter equipment at the sending station, permission button may also be pressed for normalizing the system only after verifying that there is no train in the section and after duly exchanging Private number with the Dy.SS/SM of the sending station.
- vii] Whenever a train run away indication appears when there is a train in the section, no further train should be allowed in the section till resetting is done as per item No.30.3 above.
- viii] Before any re-setting operation is done, the Dispatching station should advise the receiving station giving details of the last train that has entered the section and should ensure by exchanging of private number that the last train has arrived complete at receiving station.

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

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

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

x] Action to be taken when a train passes Intermediate Block Stop Signal at ‘ON’

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

- i] Shall not turn the Block Instrument commutator to “Line Closed” Position Unless the complete arrival of the train which passed IBS at “ON” position is ensured, without any exception even for such a train which leaves the rear station after obtaining line clear and passes IBS at “ON” position, since there is a

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chance of leaving a vehicle or vehicles in the Axle Counter area where the function of Axle Counter also fail when IBS is passed at “ON” position.

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

b] By the Dy.SS/SM/ASM of Block Station in rear of the intermediate Block Stop Signal must ensure that last stop signal controlling entry of trains into the section between the last stop signal and the intermediate Block Stop Signal is in its ‘ON’ position and shall under no circumstances take ‘OFF’ or attempt to take ‘OFF’ the said last Stop signal even if the Axle counter/Track circuit section from his block station up to and including the adequate distance beyond the Intermediate Block Stop signal shows ‘clear’ unless the train which had passed the intermediate Block Stop signal in the ‘ON’ position arrives complete the block station in advance and its complete arrival is verified, and intimate the Dy.SS/SM/ASM of the block station in advance the number, description and the departure time of the last train Dispatched from his block station under exchange of Private number.

c] By the Dy.SS/SM of both the block stations in rear and in advance of the intermediate Block Stop Signal:

i] After the complete arrival of the last train, according to the information received vide sub-para (b) above, the Dy. SS/SM of the block station in advance shall communicate the same to the Dy. SS/SM of the station in rear supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the Dy. SS/SM of the dispatching station and the Dy. SS/SM of the receiving station shall operate the ‘Resetting’ and ‘reset’ panel respectively in conjunction with the Dy. SS/SM of the Block Station in advance shall then take steps or authorized Dy. SS/SM of the receiving station supported by a Private Number to normalize the block instrument.

ii] Record of Private Number exchange and the number shown in the counters shall be maintained by the concerning Dy. SS/SM in the train signal (Cum log) Register/Trine Log Register.

It is to be noted that in terms of GR3.75 whenever intermediate block stop; signal is at ‘on’ the Loco pilot must stop his train in rear of the signal and contact the Dy.SS/SM of the block Station in rear on the telephone provided on the signal post who will authorize him to pass the signal in ‘ON’ position supported by Private Number and identification number which were taken for the line clear from the station in advance. If the telephone

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is not provided or is out of order, the Loco pilot, after waiting for 5 minutes shall pass it at “ON” but he must report the failure to the DY SS/SM at the Block Station ahead after following the provision in GR.3.75(3). This would mean that the Loco pilot shall either get an authority on telephone from the station master or must report at the station ahead about the failure of the telephone. If none of those provisions are complied with, it should be taken as breach of Block Rules.

iii] In the event of failure of IBS signal in the “OFF” position or cannot resume to “ON” position immediately after it has been passed by a train, the station master controlling the signal shall take steps to put back the IBS signal to “ON” position and treat IBS signal failed and train shall be dispatched treating entire section between his station and station in advance as one Block section.

2.7 RUNNING OF MOTOR TROLLEYS ON IBS ZONE:

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

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

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

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

2.8 SIGNAL POST TELEPHONE:

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

3. **NORMAL POWER SUPPLY TO IBS GOOMTY:**

Normal power supply to the Signaling and Interlocking installation at the IBS goomty is drawn from the traction power sources (230V-50 HZ, AT1 and AT2) with auto-change over arrangement in IB Goomty through a panel. Whenever any traction power supplies fails, the auto-change over unit will automatically connected to the other available ‘AT’ supply.

APPENDIX – F TO SWR OF GUMADA (GMDA)

EAST COAST RAILWAY

WALTAIR DIVISION

APPENDIX ‘G’

GUMADA STATION

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS

APPENDIX – H TO SWR OF GUMADA (GMDA)

EAST COAST RAILWAY

WALTAIR DIVISION

APPENDIX 'H'

GUMMADA STATION

RULES FOR WORKING OF PRIVATE SIDINGS

NOT APPLICABLE TO THIS STATION.

APPENDIX-G

STATION WORKING RULES FOR 25 KV A.C ELECTRIC TRACTION

GUMADA STATION YARD

1. GENERAL & SUBSIDIARY RULES:

- i) The rules applicable to Electrified Section have been given in Chapter XVII of the General Rules and in the Subsidiary rules made hereunder for Electric traction. The General principles governing operation and maintenance of Traction Overhead Equipment, Electric Locomotives, Signal & Telecommunications installations have been given in the A.C. Traction Manual. These rules books and an extract of the relevant paras of A.C. Traction Manual, shall be kept in each station and yard office and all the staff dealing with safe working shall make themselves thoroughly familiar with the same (GR 17.01).
- ii) Brief reference to important rules required to be followed by Station / Yard staff in their day to day work has been given in this Appendix. These are, however, illustrative and not exhaustive.

2. GENERAL SAFETY PRECAUTIONS :

- i) All staff are warned that contact with or very near (within 2 meters, unless protected by a screen as per rules) to live portion of the 25 KV Traction Overhead Equipment is dangerous and shall be strictly avoided.
- ii) No work on overhead lines or in the zones within two meters, of any live equipment shall be carried out unless a regular 'permit to work' is obtained from the authorized Traction staff and line is made dead and earthed as per rules (GR 17.04) ACTM 20600 to 20619 Vol.II Pt.I.

3. SECTIONING DIAGRAM(Station Working Rules Diagram for Electric Traction)

- i) A Diagram No. Drg. No. WAT/TRD/SWR/GMDA/337/17 indicating schematically the lines which have been equipped with for Electric traction is exhibited. The diagram also indicates different electrical stations (Sectors, Sub-Sectors or Elementary sections) the Controlling Switches (Isolator Switches or Interrupters) Insulated Over laps and Section Insulators where the over head equipment is electrically separated. The limits of an Electrical section (Sub-Sector or Elementary Section) and are indicated by relevant section. A copy of this diagram is also enclosed with these special working rules and will form part of the same.
- ii) For all purposes connected with train movements and power blocks, this diagram is the only authorized document to be referred to. The normal position of various switches is indicated on the diagram.

4. **UNWIRED TRACKS :** No electric locomotive with pantograph raised shall under any circumstances be taken to an un wired section.

5. OPERATION OF SWITCHES :

- I) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller except in respect of Switching operations for local blocks, which may be carried out by authorized traction staff, after they have been granted local block by the Station Master or Assistant Station Master accordance with SR 17.04.09 and ACTM 20600,20601, Vol.II Pt.I.

Sr. DOM (M) WAT

DEE (TRD) WAT

- II) "In case of emergency, Authorised and trained station staff may open Isolator switches under specific instructions of the Traction Power Controller (SR.17.04.14-B) with exchanging of Private Nos. to perform the operations of the following isolator switches as well as any other isolators within the station limits".

Sl. No.	Isolator No.	Loc. No.
1	SM/463	374/23
2	SM/464	374/22N
3	SS/521	375/28

6. POSITION OF SWITCH HANDLES :

When a switch is in the closed position, the operating handle of the Switch is at the top.

7. LOCATION OF KEYS OF SWITCHES : The keys for the padlocks of various isolator switches are kept in the ASM's Office in a box with a glass mounted cover (SR 17.04.13). The Station Master shall daily check the locks on switches within the station limits and report any defect or deficiency to the Traction Power Controller.

8. PROCEDURE AND PRECAUTIONS FOR OPERATING ISOLATORS :

The procedure for Operation of Isolator Switches have been given in and SR 17.04.15 and SR 17.04.14 (b) which must be rigidly observed.

Isolator switches may be opened only after ensuring : -

- A) If the Isolator switch is on the main line that the adjacent interrupters on either end of Isolators switch have been opened.
- B) If the Isolator switch is controlling supply to yard lines, that either the Elementary Section controlled by the Isolator switch is free of raised pantographs of Electric Locomotives, on the Interrupters controlling the supply to the yard lines in question are open (SR.17.04.15).

9. POWER BLOCKS :

- i) The detailed procedure for obtaining Power Block has been given in (SR.17.04.02, 17.04.03 & 17.04.04) ACTM 20603, 20604, 20611, 20612 & 20613 which must be rigidly followed except in case of emergency.
- ii) The sequence of switching operations for granting and canceling the Power block for particular section, are included in the Annexure. These shall be strictly followed by all staff. Failure to follow the sequence indicated, is likely to lead to dangerous consequences. When any isolator switch is changed from its normal position, for staff to work in over head equipment, a danger board shall be exhibited on the switch with the caption "DANGER MEN WORKING". An adequate number or such Danger Boards have been provided at each stations.

10. PROTECTION AT THE TIME OF POWER BLOCK :

- i) All sections over which a power block has been granted shall be protected against the entry of Electric Locomotives with pantograph raised from either end during the period (GR 17.04) and ACTM 20620, 20621 to 20627 Vol.II Pt.I strict enforcement of longitudinal and transverse, protection as per the Annexure attached shall be ensured before imposing power block. If there is / are locomotive on the section over which the power block to be given, the Loco Pilot of such, locomotives shall be given a memo by the Station Master on duty or authorised Traction staff to lower the pantograph and not to raise it until further instructions and an acknowledgement shall be obtained. The Loco Pilots shall not be given instructions to raise the pantograph still the power block is cancelled.
- ii) Station master or station staff conducting shunting operation with electric locomotive will ensure that under no circumstances any electric locomotive approaches near the traction structure limiting electrical sections power with the power block may be granted. Limits of each electrical section at a station are shown in the station sectioning diagram.

11. SECTION INSULATORS : In order to insulate main and loop lines on different grid in the yard, cross over / turn out connecting main and loop lines or different grids of the yard are provided with section insulators, so that, when one line / or grid is made electrically dead and there be any fault on the same, the other line / grid is not affected. The speed of the electric locomotives with pantograph raised over such section insulators shall not exceed 50 KMPH subject to an other speed restriction which may be in force. When one of two sections separated by a Section Insulator is dead, the pantograph of the electric locomotive on the live section shall not proceed closer than 30 feet (10 meters) towards the section insulator marking the end of the dead section.

12. BREAK DOWNS OF TRACTION OVER HEAD EQUIPMENTS : All the break downs or defects noted or reported on the Traction Overhead Equipment or any other traction equipment including bonding, shall immediately be reported to the Traction Power Controllers (SR 17.03.02) ACTM 20605 Vol.II Pt.I. Necessary caution order should be issued to the Loco Pilot concerned as directed by the Traction Power Controller observing the existing rules regarding issue of Caution Orders.

13. REGISTER OF MESSAGES : All messages relating to faults on the Traction over head equipment, operation of switches custody of keys of outdoor switches and other important communications in connection with the operation and maintenance of Traction Overhead Equipment shall be recorded serially in a register by both the sender and the receiver indicating the time at which the messages are received or exchanged (SR 17.04.12) ACTM 20610 Vol.II Pt.I.

14. MOVEMENT OF OTHER THAN ELECTRIC TRAINS

Goods or Passenger trains hauled by other than electric locomotives may be allowed to pass through the dead section subject to the following conditions:-

- (a) This has not been prohibited specifically in the power block message.
- (b) Other than Electric trains hauled by such engines shall be brought to a stand at the station preceding the station/section at which power block is granted and the Station Master or this station shall satisfy himself by personal inspection that there is no electric locomotive in the train.
- (c) He shall also give a Caution Order to the Loco Pilot of such engine or train, warning him of the power block ahead and instructing him to watch for hand signals and observe them.
- (d) No Station Master shall give line clear or lower signals for a train to run over a section under power block unless he has received an assurance (supported by Private Number) from the Station Master of the preceding station that there is no electric locomotive or Inspection Car with pantograph raised in the train. (ACTM 20627 Vol.II Pt.I.)

Note: For purpose of this Rule a Dead Electric Engine dispatched as a vehicle shall not be considered as a Electric Locomotive.

15. ELECTRIC LOCOMOTIVE : Provisions included in A.C. Traction Manual must be completed with in case of double heading or banking by electric locomotive and precautions indicated therein must be complied with when dispatching locomotive ACTM 30636 Vol.III.

16. ESM : Any direct contact or close proximity to 25 KV line conductors is dangerous, the station Lamp man/ESM climbing up the Signal post for removing or fixing or cleaning the signal lamp should not carry any long article which may accidentally touch or come in close proximity to live conductors. The ESM shall also be warned against bringing any part or body near live conductors.

17. WORK ON ROOF OF ROLLING STOCK :

No person shall climb on to the top of engine or tenders or on the roofs of carriages or wagons, when these vehicles are located beneath, overhead equipment except, when a regular 'permit to work' has been obtained from authorized traction staff and the overhead equipment is dead and earthed (GR 17.05 (02), at ACTM 10402 & 10403 Vol.I)

18.BLOCK INSTRUMENTS OR ANY OTHER ELECTRICAL, SIGNAL EQUIPMENT:

The Station Master or cabin man on duty must always watch for any unusual working in the Block Instrument or any other Signaling equipment which may arise due to voltage induced from the Traction system. The block instrument or the signaling equipment must be suspended whenever there is any signs of unusual working and the nearest Signal & Telecon Maintenance Inspector contacted to inspect and certify the same. In the event of break of catenary, the Station Master must immediately check up whether all block and Morse signaling equipment are working normal before permitting any train movement (ACTM 10430 Vol II).

19. TELECOMMUNICATION CIRCUITS :

The details of the Telecommunication facilities available on the electrified sections and the use of the same have been given to ACTM 10213, 10429 VolI, 20703 Vol .II Pt.I.

20. ELECTRIC SHOCK :

The Station Masters shall exhibit prominently the instructions issued regarding the treatment to persons suffering from Electric Shock. In the Station, he shall ensure that all class-III staff are familiar with these instructions.

21. FIRE : Regarding Fire on or adjacent to any Electrical equipment refer GR 6.10 & SR there to.

22. Nothing in these rules amends or supersedes any general or subsidiary Rules or instructions included in A.C. Traction Manual. These working rules shall be read as supplement to the aforesaid Rule books and also to the existing station working rules of the station.

23. AMENDMENTS FOR SUPPLEMENTARY CORRECTION SLIPS :

Any amendment to these working rules or any of the Annexure will be notified by Correction slip to the Station Working Rules. The correction slip will be serially numbered and it is the responsibility of SM in charge of a station to bring the contents to the notice of the staff concerned and take their acknowledgement.

24. CONTINUOUS WATCH BY INSPECTING STAFF : The inspecting staff of operating, Telecommunication and Traction Department , shall make regular checks at all points to which these special working rules are supplied to ensure that the rules corrected up to date and the staff concerned are fully conversant with the rules and abide by them.

NOTE: Whenever the codes "GR" and "SR" appear in these special working Rules please refer to the General and Subsidiary Rules for 25 KV A.C. Electric Traction, Chapter-XIX.

Sr. DOM (M) WAT

DEE (TRD) WAT

OPERATING STATION WORKING ON A.C. TRACTION AREA.
DO(s) AND DON'T(s)

A) FOR ALL STAFF :

(a) DO(s) :

1. In case of fire on Electric Traction equipment or wires
 - i) Inform Traction Power Controller.
 - ii) Extinguish Fire by Special extinguishers if available.
 - iii) Ensure no water jet is used under any circumstances.
2. Anything unusual on Traction wires or electric locomotives inform Traction Power Controller of nearest Station Master.
3. In any emergency speak to Traction Power Controller on emergency Telephone system (Sockets for connecting emergency Telephone) are provided at interval of approximately every Kilometer and defection to nearest socket is indicated on OHE Mast.

(b) DON'T(s) :

1. Do not approach within a range of 2 meters (Approx. 7 feet of any traction wires on line equipment)
2. Do not work on or near Traction wires or any line equipment unless they are made dead, earthed and 'Permit to Work' obtained from an authorized traction staff.
3. Do not permit unauthorized persons to operate any equipment even if it be for making it dead.
4. Do not disturb any earthing bonding or traction wires.
5. Do not enter any switching station or remote control center unless specially permitted and accompanied by authorized Traction staff.
6. Do not attempt to turn the person in contact with live traction wire either by touching him or with the help of wooden bamboo pole or by grabbing his clothing or with the help of rubber gloves if or any other means. Under such conditions contact the TPC switch off the power supply and remove the person in contact with the live traction wire by using wooden bamboo pole or by grabbing his clothes or with rubber gloves if available only after ensuring from TPC that the power supply has been switched off.
7. Do not forget to give artificial respiration to the victim.

B. FOR RUNNING STAFF:

(A) DO(s)

1. Avoid slipping of wheels
2. Load coal or oil in loose outside the electrified zone only.
3. Keep a safe distance of two meters (7 feet) from Traction wires while working on the locomotives.

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(B) DON'T (s) :

1. Do not lift or raise your tools towards traction wires, (keep the tools in their respective position immediately after use).
2. Do not load coal on the engine tender to a height more than 4 mtrs. above rail level.
3. Do not take electric locomotive with raised pantograph to any unwired line, power block working limit or near the section insulators at the end of section under power block.
4. Do not climb on the locomotive (of any type) on the engine tender for any purpose, while under traction wire unless power is cut-off and permit to work obtained (for watering, use the water column from the ground with the special device provided for this purpose and open tank over by the special devial device provided).
5. Do not place a steam locomotive with chimney directly opposite a traction mast or under any insulator or under bridge.
6. Do not allow long articles like fixing rod, shovel or any other thing to protrude above the engine while on electrified tracks.
7. Do not direct any jet or spray towards the traction wires (Jets of water, if necessary may be used horizontally of size the safety zone of 2 Mtrs (7 feet).

C) FOR STATION MASTER :

(A) DO (s) :

1. Ensure all staff are conversant with safety precautions.
2. Report defects in traction wires or any electric locomotives of Electric Multiple Unit promptly to the traction power controller.
3. Keep sufficient number of button collars and ensure safety understand their use.
4. Ensure fitting of button collars to the points and signal buttons which give access to selection under power block.
5. Observe procedure given in Station Working Rules for 25 KV A.C. Electric Traction while operating Isolator switches.
6. Ensure safe custody of isolator switch keys.
7. Ensure that traction power staff protect sections from all directions by banner flag during power block
8. Suspend working of block and signals if single of unusual working are noticed always check block instruments and signaling equipment seen by breakdown in traction wires occurs.

(B) DON'T (s) :

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

NOTE: This Appendix-G supersedes the previous appendix-G drawing No. VTRE/OHE/RE/GMDA/10.

EAST COAST RAILWAY
WALT AIR DIVISION

APPENDIX 'G'

TO

SWR

OF

GUMADA STATION

(IN CONNECTION WITH LONG HAUL LOOP)

(Drg. No. WAT/TRD/SWR/GMDA/337/17)

SWR of GMDA
EAST COAST RAILWAY

APPENDIX-G

STATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR *GUMADA* STATION

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

SI./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
A	B	C	D	E	F
Sector:					
1.	Sector between Gotlam/SP-Parvatipuram/TSS on both UP & DN lines.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram - Gumada on both UP & DN lines. ii) Line clear shall not be obtained/granted from/to Parvatipuram for Electric Trains/Locos on UP & DN lines. iii) Concerned reception and dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BX-289 is in open condition at Parvatipuram/TSS. ii) Ensure BM-268 & BM-269 are in open condition at Gotlam/SP. i) Open CB-119 at Parvatipuram/TSS.	i) Close CB-119 at Parvatipuram/TSS.
2.	Sector between Parvatipuram/TSS to Kureru/SP on both UP & DN lines.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram- Gumada- Kureru on both UP & DN lines. ii) Line clear shall not be granted to/obtained from Parvatipuram and Kureru for Electric Trains/Locos on UP & DN lines. iii) All reception and dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BX-289 is in open condition at Parvatipuram/TSS. ii) Ensure BM-296 and BM-297 is in open position at Kureru/SP. i) Open CB-121 at Parvatipuram/TSS.	i) Close CB-121 at Parvatipuram/TSS.
3.	Sector between Kureru/SP to Rayagada/TSS on both UP & DN lines.	i) Movement of Electric Trains/Locos shall not be permitted into Gumada-Kureru on both UP & DN lines. ii) Line clear shall not be granted to/obtained from Kureru for Electric Trains/Locos on UP & DN lines. iii) Concerned reception and dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BX-305 is in open position at Rayagada/TSS. ii) Ensure BM-296 and BM-297 is in open position at Kureru/SP. i) Open CB-124 at Rayagada/TSS.	i) Close CB-124 at Rayagada/TSS.

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A	B	C	D	E	F
Sub-Sector:					
4.	DN sub-sector between section Parvatipuram – Gumada on DN line. Location from Sitanagaram/SSP to Parvatipuram/TSS.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram - Gumada on DN line. ii) Line clear shall not be granted to Parvatipuram for Electric Trains/Locos on DN line. iii) DN reception signals shall be kept at 'ON'.	NIL	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. ii) Open BM-288 at Parvatipuram/TSS. ii) Open BM-286 at Sitanagaram/SSP.	i) Close BM-288 at Parvatipuram/TSS. ii) Close BM-286 at Sitanagaram/SSP.
5.	DN sub-sector between section Parvatipuram – Gumada on DN line. Location from Parvatipuram/TSS to Gumada/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram – Gumada on DN line. ii) Line clear shall not be granted to Parvatipuram for Electric Trains/Locos on DN line. iii) DN reception signals shall be kept at 'ON'. iv) Shunting of Electric Trains/Locos on DN line towards Parvatipuram end is not permitted.	NIL	i) Open BM-290 at Parvatipuram/TSS. ii) Open BM-294 at Gumada/SSP.	i) Close BM-294 at Gumada/SSP. ii) Close BM-290 at Parvatipuram/TSS.
6.	DN sub-sector between section Gumada – Kureru on DN line. Location from Gumada/SSP to Kureru/SP.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram - Gumada – Kureru on DN line. ii) Line clear shall not be granted to parvatipuram for Electric Trains/Locos on DN line. iii) Line clear shall not be obtained from Kureru for Electric Trains/Locos on DN line. iv) Ensure that no Electric Trains/Locos is standing with its panto raised condition on DN Main line (L/3) and Common loop line (L/4) at Gumada. v) Admission/dispatch of Electric Trains/Locos on L-3 & L-4 is prohibited from either end of yard. vi) DN reception and dispatch signals shall be kept at 'ON'.	Crossover point No. 18 at Parvatipuram end and point No. 17&23 at Kureru end shall be kept in normal position only.	i) Ensure BM-296 is in open position at Kureru/SP. ii) Open BM-294 and BM-292 at Gumada/SSP. ii) Open BM-295 at Kureru/SP.	i) Close BM-295 at Kureru/SP. ii) Close BM-294 and BM-292 at Gumada/SSP.

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A	B	C	D	E	F
7.	DN sub-sector between section Gumada-Kuneru on DN line. Location from Kuneru/SP to Ladda/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Gumada-Kuneru on DN line. ii) Line clear shall not be obtained from Kuneru for Electric Trains/Locos on DN line. iii) DN Electric Trains/Locos can be received on L-3 & L-4 from Parvatipuram. iv) DN dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BM-296 is in open position at Kuneru/SP. ii) Open BM-298 at Kuneru/SP. iii) Open BM-300 and BM-299 at Ladda/SSP.	i) Close BM-300 and BM-299 at Ladda/SSP. ii) Close BM-298 at Kuneru/SP.
8.	UP sub-sector between section Parvatipuram - Gumada on UP line. Location from Sitanagaram/SSP to Parvatipuram/TSS.	i) Movement of Electric Trains/Locos shall not be permitted into Gumada - Parvatipuram on UP line. ii) Line clear shall not be obtained from Parvatipuram for Electric Trains/Locos on UP line. iii) UP Electric Trains/Locos can be received on L-1, L-2 & L-4. iv) UP dispatch signals shall be kept at 'ON'.	NIL	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. ii) Open BM-287 at Parvatipuram/TSS. iii) Open BM-285 at Sitanagaram/SSP.	i) Close BM-287 at Parvatipuram/TSS. ii) Close BM-285 at Sitanagaram/SSP.
9.	UP sub-sector between section Gumada - Parvatipuram on UP line. Location from Parvatipuram/TSS to Gumada/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Gumada - Parvatipuram on UP line. ii) Line clear shall not be obtained from Parvatipuram for Electric Trains/Locos on UP line. iii) UP Electric Trains/Locos can be received on L-1, L-2 & L-4. iv) Shunting of Electric trains/Locos towards Parvatipuram end is not permitted. v) UP dispatch signals shall be kept at 'ON'.	NIL	iii) Open BM-291 at Parvatipuram/TSS. iv) Open BM-293 at Gumada/SSP.	iii) Close BM-293 at Gumada/SSP. iv) Close BM-291 at Parvatipuram/TSS.

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A	B	C	D	E	F
10.	UP sub-sector between section Kureru - Gumada on UP line. Location from Gumada/SSP to Kureru/SP.	i) Movement of Electric Trains/Locos shall not be permitted into section Kureru – Gumada - Parvatipuram on UP line. ii) Line clear shall not be granted to Kureru for Electric Trains/Locos on UP line. iii) Line clear shall not be obtained from Parvatipuram for Electric Trains/Locos on UP line. iv) Ensure that no Electric Trains/Locos is standing with its panto raised condition on UP Main line (L/2) and UP loop line (L/1) at Gumada. v) Admission/dispatch of Electric Trains/Locos on L-1 & L-2 is prohibited from either end of the yard. vi) UP reception and dispatch signals shall be kept at 'ON'.	Crossover point No. 18 at Parvatipuram end and point No. 17 & 23 at Kureru end shall be kept in normal position only.	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-292 and BM-293 at Gumada/SSP. iii) Open BM-295 at Kureru/SP.	i) Close BM-295 at Kureru/SP. ii) Close BM-292 and BM-293 at Gumada/SSP.
11.	UP sub-sector between section Kureru - Gumada on UP line. Location from Kureru/SP to Ladda/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Kureru - Gumada on UP line. ii) Line clear shall not be granted to Kureru for Electric Trains/Locos on UP line. iii) UP Electric Trains/Locos can be dispatched from L-1, L-2 & L-4 towards Paravatipuram end. iv) UP reception signals shall be kept at 'ON'.	NIL	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-298 at Kureru/SP. iii) Open BM-301 and BM-299 at Ladda/SSP.	i) Close BM-301 and BM-299 at Ladda/SSP. ii) Close BM-298 at Kureru/SP.

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A	B	C	D	E	F
ELEMENTARY SECTION					
1.	E/S No. 29006 on DN line between section Parvatipuram-Gumada Location from SM-462 of Parvatipuram at Loc. No. 386/14 to Gumada/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Parvatipuram - Gumada on DN line. ii) Line clear shall not be granted to Parvatipuram for Electric Trains/Locos on DN line. iii) Shunting of Electric Trains/Locos on DN line towards Parvatipuram end is not permitted. iv) Block back on DN line towards Parvatipuram end is not permitted. v) DN reception signals shall be kept at 'ON'.	NIL	i) Open BM-290 at Parvatipuram/TSS. ii) Open BM-294 at Gumada/SSP. iii) Open SM-462 of Parvatipuram at Loc. No.386/14. iv) Close BM-290 at Parvatipuram/TSS.	i) Close SM-462 of Parvatipuram at Loc. No.386/14. ii) Close BM-294 at Gumada/SSP.
2.	E/S No. 29402 on DN Main line (L-3) at Gumada. Location from Gumada/SSP to SM-464 of Gumada at Loc. No. 374/22N. [E/S No. X-521 on Common Loop Line (i.e. L-4/Long Haul Loop also gets blocked automatically)]	i) Movement of Electric Trains/Locos shall not be permitted into DN Main line (L-3) and Common Loop line (i.e. L-4/Long haul loop) in either direction at Gumada. ii) Line clear shall not be granted to Parvatipuram for Electric Trains/Locos on DN line. iii) Line clear shall not be obtained from Kureru for Electric Trains/Locos on DN line. iv) UP Electric Trains/Locos cannot be received on Common Loop line (i.e. L-4/Long haul loop) and also cannot be dispatched from L-4 towards Parvatipuram. v) Admission/dispatch of Electric Trains/Locos on L-3 & L-4 is prohibited from either end of yard. vi) Ensure that no Electric Trains/Locos is standing with its panto raised condition on DN Main line (L/3) and Common loop line (L/4) at Gumada. vii) DN reception and dispatch signals shall be kept at 'ON'.	Crossover point No. 18 at Parvatipuram end and point No. 17, 25 & 23 at Kureru end shall be kept in normal position only.	i) Ensure BM-296 is in open position at Kureru/SP. ii) Open BM-294 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-464 of Gumada at Loc. No. 374/22N. v) Close BM-295 at Kureru/SP.	i) Close SM-464 of Gumada at Loc. No.374/22N. ii) Close BM-294 and BM-292 at Gumada/SSP.

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3.	E/S No. 29404 on DN line between section Gumada - Kureru. Location from SM-464 of Gumada at Loc. No. 374/22N to SM-468 of Kureru at Loc. No. 368/20.	i) Movement of Electric Trains/Locos shall not be permitted into Gumada - Kureru on DN line. ii) Line clear shall not be obtained from Kureru for Electric Trains/Locos on DN line. iii) Shunting of Electric Trains/Locos towards Kureru is not permitted from L-3 & L-4 on down line. iv) DN Electric Trains/Locos cannot be received in DN Main line (i.e .L-3) but can be received on common loop line (i.e. L-4) setting line to overrun line. v) Up electric trains / locos cannot be received on common loop line L-4. vi) DN dispatch signals shall be kept at 'ON'. vii) Block forward is not permitted on DN line towards Kureru end.	Crossover point No. 25 & 23 at Kureru end shall be kept in normal position only.	i) Ensure BM-296 is in open position at Kureru/SP. ii) Open BM-294 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-464 of Gumada at Loc.No. 374/22N. v) Open SM-468 of Kureru at Loc. No. 368/20. vi) Close BM-294 and BM-292 at Gumada/SSP. vii) Close BM-295 at Kureru/SP.	i) Close SM-464 of Gumada at Loc.No. 374/22N. ii) Close SM-468 of Kureru at Loc. No. 368/20.
4.	E/S No. 29406 on DN line between section Gumada – Kureru. Location from SM-468 of Kureru at Loc. No. 368/20 to Kureru/SP.	i) Movement of Electric Trains/Locos shall not be permitted into Gumada - Kureru on DN line. ii) Line clear shall not be obtained from Kureru for Electric Trains/Locos on DN line. iii) Shunting of Electric Trains/Locos on DN line towards Kureru is permitted upto Advance starter. iv) DN dispatch signals shall be kept at 'ON'. v) Block forwards on DN line towards Kureru end is not permitted.	NIL	i) Ensure BM-296 is in open position at Kureru/SP. ii) Open BM-294 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-468 of Kureru at Loc. No. 368/20. v) Close BM-294 and BM-292 at Gumada/SSP.	i) Close SM-468 of Kureru at Loc. No. 368/20. ii) Close BM-295 at Kureru/SP.

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A	B	C	D	E	F
5.	E/S No. 30012 on DN line between section Gumada – Kureru. Location from Kureru/SP to SM-470 of Kureru at Loc. No. 368/4.	i) Movement of Electric Trains/Locos shall not be permitted into Gumada - Kureru on DN line. ii) Line clear shall not be obtained from Kureru for Electric Trains/Locos on DN line. iii) Shunting of Electric Trains/Locos on DN line towards Kureru is permitted upto Advance Starter. iv) DN dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BM-296 is in open position at Kureru/SP. ii) Open BM-298 at Kureru/SP. iii) Open SM-470 of Kureru at Loc. No. 368/4. iv) Close BM-299 and BM-300 at Ladda/SSP.	i) Close SM-470 of Kureru at Loc. No. 368/4. ii) Close BM-298 at Kureru/SP.
6.	E/S No. X-521 on Common Loop Line (i.e. L-4/Long Haul Loop) at Gumada. Location from SS-521 of Gumada at Loc. No. 375/28.	i) Movement of Electric Trains/Locos shall not be permitted into Common Loop line (i.e. L-4/Long haul loop) in either direction at Gumada. ii) Admission/dispatch of Electric Trains/Locos on Common Loop Line L-4 (i.e. Long haul loop) is prohibited from either end of yard. iii) Ensure that no Electric Trains/Locos is standing with its panto raised condition on Common loop line (L/4) at Gumada. iv) Concerned reception and dispatch signals shall be kept at 'ON'.	i) Crossover point No. 20 at Parvatipuram end and point No. 19, 25 & 23 at Kureru end shall be kept in normal position only.	i) Open SS-521 of Gumada at Loc.No. 375/28.	i) Close SS-521 of Gumada at Loc.No. 375/28.
7.	E/S No. 29105 on UP line between section Gumada - Parvatipuram Location from SM-461 of Parvatipuram at Loc. No. 386/11 to Gumada/SSP.	i) Movement of Electric Trains/Locos shall not be permitted into section Gumada - Parvatipuram on UP line. ii) Line clear shall not be obtained from Parvatipuram for Electric Trains/Locos on UP line. iii) Shunting of Electric Trains/Locos on UP line towards Parvatipuram end is prohibited. iv) UP dispatch signals shall be kept at 'ON'. v) Block forwards on UP line towards Parvatipuram end is not permitted. vi) Shunting on UP line along with DN line towards Kureru end from L-3 & L-4 is permitted.	NIL	i) Open BM-291 at Parvatipuram/TSS. ii) Open BM-293 at Gumada/SSP. iii) Open SM-461 of Parvatipuram at Loc. No.386/11. iv) Close BM-291 at Parvatipuram/TSS.	i) Close SM-461 of Parvatipuram at Loc. No.386/11. ii) Close BM-293 at Gumada/SSP.

SWR of GMDA

APPENDIX-G

A	B	C	D	E	F
8.	E/S No. 29301 on UP Main line (L-2) and UP Loop Line (L-1) at Gumada. Location from Gumada/SSP to SM-463 of Gumada at Loc. No. 374/23.	i) Movement of Electric Trains/Locos shall not be permitted into UP Main line (L-2) and UP Loop line (L-1) at Gumada. ii) Line clear shall not be obtained from Parvatipuram for Electric Trains/Locos on UP line. iii) UP Electric Trains/Locos from Kureru can be admitted but can not be dispatched on/from Common Loop line (L/4) at Gumada. iv) Ensure that no Electric Trains/Locos is standing with its panto raised condition on UP Main line (L/2) and UP loop line (L/1) at Gumada. v) Admission/dispatch of Electric Trains/Locos on L-1 & L-2 is prohibited for either end of yard. vi) UP dispatch signals shall be kept at 'ON'.	Crossover point No. 18 at Parvatipuram end shall be kept in normal position only.	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-293 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-463 of Gumada at Loc. No. 374/23. v) Close BM-295 at Kureru/SP.	i) Close SM-463 of Gumada at Loc. No. 374/23. ii) Close BM-293 and BM-292 at Gumada/SSP.
9.	E/S No. 29303 on UP line between section Kureru - Gumada. Location from SM-463 of Gumada at Loc. No. 374/23 to SM-469 of Kureru at Loc. No. 368/17.	i) Movement of Electric Trains/Locos shall not be permitted into Kureru - Gumada on UP line. ii) Line clear shall not be granted to Kureru for Electric Trains/Locos on UP line. iii) Shunting of Electric Trains/Locos on UP line towards Kureru end is prohibited. iv) UP reception signals shall be kept at 'ON'. v) Block back on UP line towards Kureru is not permitted.	Crossover point No. 17 & 23 at Kureru end shall be kept in normal position only.	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-293 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-463 of Gumada at Loc. No. 374/23. v) Open SM-469 of Kureru at Loc. No. 368/17. vi) Close BM-293 and BM-292 at Gumada/SSP. vii) Close BM-295 at Kureru/SP.	i) Close SM-463 of Gumada at Loc. No. 374/23. ii) Close SM-469 of Kureru at Loc. No. 368/17.

Sr.DOM(M)/WAT

DEE(TrD)/WAT

SWR of GMDA

APPENDIX-G

A	B	C	D	E	F
10.	E/S No. 29305 on UP line between section Kureru - Gumada. Location from SM-469 of Kureru at Loc. No. 368/17 to Kureru/SP.	i) Movement of Electric Trains/Locos shall not be permitted into Kureru - Gumada on UP line. ii) Line clear shall not be granted to Kureru for Electric Trains/Locos on UP line. iii) Shunting on UP line towards Kureru end is permitted upto Home signal. iv) UP reception signals shall be kept at 'ON'. v) Block back on UP line towards Kureru end is not permitted.	NIL	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-293 and BM-292 at Gumada/SSP. iii) Open BM-295 at Kureru/SP. iv) Open SM-469 of Kureru at Loc. No. 368/17. v) Close BM-293 and BM-292 at Gumada/SSP.	i) Close SM-469 of Kureru at Loc. No. 368/17. ii) Close BM-295 at Kureru/SP.
11.	E/S No. 30111 on UP line between section Kureru - Gumada. Location from Kureru/SP to SM-471 of Kureru at Loc. No. 368/1.	i) Movement of Electric Trains/Locos shall not be permitted into Kureru - Gumada on UP line. ii) Line clear shall not be granted to Kureru for Electric Trains/Locos on UP line. iii) Shunting on UP line towards Kureru end is permitted upto Home Signal. iv) UP reception signals shall be kept at 'ON'.	NIL	i) Ensure BM-297 is in open position at Kureru/SP. ii) Open BM-298 at Kureru/SP. iii) Open BM-301 and BM-299 at Ladda/SSP. iv) Open SM-471 of Kureru at Loc. No. 368/1. v) Close BM-301 and BM-299 at Ladda/SSP.	i) Close SM-471 of Kureru at Loc. No. 368/1. ii) Close BM-298 at Kureru/SP.

NOTE:

- i) For any unusual movement of Electric Locos, the Station Master on duty must refer to the working rule diagram from 25KV AC traction of his station and ensured that there is no chance of energizing the section where power block has been granted.
- ii) Points leading to unwired tracks shall not be used for the movement of Electric Loco with pantograph raised.
- iii) Refer drawing No. WAT/TRD/SWR/GMDA/337/17.

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