

EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF DONKINAVALASA [BROAD GAUGE]

Date of Issue: -

Date brought in force:

NOTE: -

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

1. **STATION WORKING RULE DIAGRAM:**

- (i) The Station Working Rule diagram no: SI/WRD/23081ALT 'B'
- (ii) CSTE/East Coast Railway Signal Interlocking Plan No. SI/23081ALT 'B'
- (iii) Date up to which is corrected:

2. **DESCRIPTION OF STATION**

2.1 **GENERAL : LOCATION:**

a	Name of the station	:	DONKINAVALASA
b	Class of station	:	'B' class
c	Section	:	RAIPUR-VIZIANAGARAM
d	Double line/Single line	:	Double line
e	Electrified/Non Electrified	:	Electrified
f	Railway	:	East Coast Railway
g	Route	:	'D' Special
h	Situated at Km	:	424/43-45(UP),424/44-46(DN)
i	Reckoned from	:	Raipur
j	Number of cabins	:	Centrally operated Domino type full fledged panel along with VDU

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

2.2.1 **BLOCK STATIONS, IBH. IBS ON EITHER SIDE AND THEIR DISTANCES:-**

Block section	Distance	Direction
Komatipalli	9.819km	South-west
Bobbili	11.958km	North-east

2.2.2. **OUT LYING SIDINGS/D.K.STATION :-**
NIL

2.2.3. **PASSENGER HALT :-**
NIL

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

Between Stations	The Point from which the 'Block Section' Commences	The Point at which the 'Block Section' ends
DNV-KMX UP Direction	From UP advanced starter signal no. 13 of DNV	Up to BSLB of KMX.
DNV-VBL DN Direction	From DN advanced starter signal no.12 of DNV	Up to point No. 30A of VBL.

2.4 **GRADIENTS**

(a) From the centre of the station building towards Komatipalli:

Chainage in Mtrs. From CSB		Stretch	
From	To		Gradient
0.000	CH: 540.736	540.736	1 in 400 falling on both UP&DN lines
CH: 540.736	CH: 1375.25	834.514	1 in 150 falling on both UP & DN lines
CH: 1375.25	CH: 1525	149.75	Level on DN line
CH: 1375.25	CH: 1500	124.75	1 in 170 falling on UP line
CH: 1500	CH: 1800.25	300.25	1 in 390 falling on UP line
CH:1800.25	Into section	----	1 in 640 falling on UP line
CH: 1525	CH:1800.25	300.25	1 in 183 falling on DN line
CH:1800.25	CH:2299.45`	499.20	1 in 640 falling on DN line
CH:2299.45	CH:2649.25	349.80	1in 1750 falling on DN line
CH:2649.25	Into section	-----	1 in 550 falling on DN line

b) From the centre of the station building towards Bobbili:

Chainage in Mtrs. From CSB		Stretch	
From	To		Gradient
0.000	CH: 197.56	197.56	1 in 10894 falling on both UP & DN lines
CH: 197.56	CH: 400	202.44	1 in 3200 falling on both UP & DN lines
CH: 400	CH: 846.317	446.317	1 in 450 raising on both UP DN lines
CH: 846.317	CH:2299.6	1453.283	1 in 150 raising on both UP & DN lines
CH:2299.6	CH:2357.56	57.96	Level on both UP & DN lines
CH:2357.56	CH:2807.56	450	1 in 215 falling on both UP&DN lines
CH:2807.56	Into section	-----	1 in 150 falling on both UP&DN lines

2.5(A).LAY OUT:

Running line/Non running line	Electrified/Non Electrified
Route-1 (UP loop)	Electrified
Route-2 (UP main)	Electrified
Route-3 (DN Main)	Electrified
Route-4 (common loop)	Electrified
Goods siding	Electrified

(B).GOODS SIDING:

Goods siding takes off from line no.1 at VBL end of the yard and is isolated by derailing switch and Motor loading ramp. The entrance points and derailing switches are operated individually by arc levers in succession. Hand plunger locks fitted at the entrance point unlocked by key 'P' released from RKT provided in location box through control no. 29 from panel. When control 29 is transmitted from panel S1/C1, SH4 and SH-5 signals of line no.1 will be locked in their normal position.

(c) PLATFORMS:

- One low level passenger platform on line no1 is provided with a measurement of 288.09M long.
- One island passenger platform between Line No.3 & Line No.4 is provided with measurement of 350M X 10.7M.
- One Goods loading platform takes off from line No.1 is provided with a measurement of 119.80Mx 15.50M.

2.5.1RUNNING LINES,DIRECTION OF MOVEMENT & HOLDING CAPACITY**(a) DIRECTION OF TRAFFIC:-**

The trains coming from Bobbili end are UP trains and the trains coming from Komatipalli end are DN trains.

(b) HOLDING CAPACITIES:

Line No 1	UP loop	817 Meters	Electrified	From Starter to SH-14
Line No 2	UP Main line	834 Meters	Electrified	From Starter to SB
Line No 3	DN Main line	833 Meters	Electrified	From Starter to SB
Line No 4	Common loop line	806 Meters	Electrified	From Starter to Starter

2.5.2NON RUNNING LINES AND THEIR CAPACITY:

1	Goods Siding	292.8MMeters	Electrified	From Glued joint to Glued joint
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2.5.3 (a) ANY SPECIAL FEATURES IN THE LAYOUT:

Nil

2.6 LEVEL CROSSINGS:

- i) One 'C' class East cabin operated LC gate (manned) is situated at km 425/15-17(UP) 425/16-18(DN) (LC No. RV-316) between DNV-KMX.
- ii) One 'B' class LC gate is situated at km 427/31-33(UP) 427/32-34(DN) (LC No. RV-318) between DNV-KMX.
- iii) One 'C' class LC gate is situated at Km.427/5-7(UP) 427/6-8(DN) (LC No. RV-317) between DNV-KMX.
- iv) One 'C' class LC gate is situated at Km.423/17-19(UP) 423/18-20(DN) (LC. RV-314) between DNV-VBL.
- v) One 'C' class LC gate is situated at Km.417/1-3(UP) 415/2-4(DN) (LC. RV-309) between DNV-VBL.

Details of LC gates are given in APPENDIX-A

3.0 SYSTEM AND MEANS OF WORKING:-

- i) System of working: Absolute block system:

Trains are worked under Absolute block system in accordance with GR 7.01(1) (a), 8.01(1) (a) & (c), 8.01(2) (b), 8.03(2) (a), (b), (c) (ii), 14.01 to 14.07, 14.08(b) (iv), 14.09 to 14.13 and BWM chapter-IV part I.

- ii) Block instruments:

Double line Block instruments are provided for Block section DNV-KMX and DNV-VBL vide GR 14.01(a) and the 'OFF' aspect of the last stop signal is the authority for the Loco pilots of all trains to enter into the block section vide GR 14.08(b) (IV). The Station Master on duty is responsible of the Block instruments and the keys of the instruments must be under personal custody of the SM on duty vide GR 5.01(4), 14.12(1) 9A) (1) and GR 5.08.

- iii) Co-operative/Non Co-operative: Non Co-operative.

- iv) Provision of block telephone: Telephone attached to block instrument 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.

4.0 SYSTEM OF SIGNALLING AND INTERLOCKING:

- 4.1.0 a) Standard of Interlocking: This Station is provided with Standard-III Electronic 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 Electronic Interlocking (EI) and having no end cabins. All signals and points are electrically operated from the central Panel / VDU provided at SM's Office.

d) Method of operation: Central Panel/VDU is provided in the Station Master's office to electrically control all signals and points.

- e) Provision of axle counter/Track circuits on running lines:

Track circuits are provided in the yard as 1AT, 1T₁, 1T₂, 12AT, 12T, 21AT, 21BT, 23AT, 23BT, 25AT, 25BT, 29T, L1T₁, L1T₂, L1T₃, L2T₁, L2T₂, L2T₃, L3T₁, L3T₂, L3T₃, L4T₁, L4T₂, L4T₃, 22AT, 22BT, 24BT, 26AT, 26BT, 13AT, 13T, 2T₁, 2T₂ and 2AT. Axle counters are provided for DNV- KMX on UP line as UDAXT, DN line as DRAXT and DNV-VBL on UP line as URAXT, DN line as DDAXT. Normally the panel is blank except point and Block section indications for the above track circuits/ Axle counters are available on Panel/VDU at SM's office. When a signal is cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.

f) Calling-on signals/IBS: Calling-on signals are provided below Home signals (i.e. in both Up & Down directions) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b). IBS is not applicable to this station.

g) 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).

h) A two position switch is provided on the control panel through which SM on duty can select the mode of operation (i.e. from Panel or VDU). The position of all points, signals and running lines are available in the Panel/VDU. Remainder Block collars are provided for use on push button which shall be placed on the point button and /or route button to prevent operation of the button in case of concerned line is blocked. The VDU is provided with SM's key user name and password which shall always remain with the personal memory of the Station Master on duty.

i) CRANK HANDLE

When any point fails to operate normally by the Route Setting operation through Panel/VDU it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual para-20.06. CH1 controls 21A/B, CH2 controls 22A/B, CH3 controls 23A/B, 26A/B and 27 & CH4 controls 24A/B and 25A/B.

(The details of standby operation from VDU is given under Appendix-'B')

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when 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 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 VBL end and KMX end respectively for back shunting purpose.

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

The Relay room is provided with two independent locks. The key of one lock shall be in the personnel custody of Station Master on duty and the key of other lock shall be in the custody of S&T maintainer. In the event of necessity such as for attending failure, or regular maintenance, on being requisitioned by S&T maintainer SM shall hand over the key to the maintainer. On completion of the work, maintainer shall lock the relay room and shall return the key to the SM. The particulars of such transactions shall be entered by the SM in the relay room key register vide OM 1.14.

4.3 (A)POWER SUPPLY

- i) CLS Auto Change Over panel with Auto change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. Luminous indicators are provided above the circuit breaker for each supply to indicate the availability of the supplies.
- ii) Normally the rotary switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, the on duty SM must ascertain the power is available on the other AT e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- iii) During the non-availability of both the AT supplies SM on duty shall keep the rotary change over switch towards the local supply to feed available local supply to the Installation.
- iv) In case of failure of one of the AT supply without any power block, on duty SM has to check whether the Miniature Circuit Breaker has tripped. (Three MiniatureCircuit 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 MiniatureCircuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEEE/GEN and CTFO/GEN for prompt rectification.
- v) For IPS system that provides power supply/backup to the signaling system of EI.
- 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. TELECOMMUNICATIONS :

- (a) Telephone attached to Double line Block Instruments is connected to adjacent stations on either side.
- (b) Telephone communication is provided between adjacent stations i.e., KMX and VBL Stations.
- (c) The station is connected to VZM-Raipur control Circuit.
- (d) Telephone communication is provided between Station Master on duty to Up CH location.
- (e) The station is connected to Goomties at either end of the yard.
- (f) The station is connected with BSNL telephone.
- (g) The station is connected to 'B' class LC gate at km 427/31-33 (UP) 427/32-34 (DN) (LC No. RV-318).
- (h) The station is connected to 'C' class LC gate at km 425/15-17 (UP) 425/16-18 (DN) (LC No. RV-316) at East cabin.
- (i) The station is connected to 'C' class LC gate at Km.427/5-7(UP) 427/6-8(DN) (LC No.RV-317)
- (j) This station is connected to 'C' class LC gate at Km 417//1-3(UP) 415/2-4(DN) (LC gate No. RV 309))
- (k) This station is connected to
- (l) The station is connected to 'C' class LC gate at Km. 423/17-19(UP) 423/18-20(DN) (LC gate RV-314).
- (m) 25w VHF set is provided at the station.
- (n) Provision of Traction Power Control & Traction Loco Control of section VSKP-RGDA

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.

Station Superintendent	1
Station Master	3
TPM/TP	3
SCLM	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 Supdt's office and in Gate lodge for traffic gate man.

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

The SM on duty is responsible to ascertain the clearance of the nominated line between first facing point and advanced starter signal in each direction.

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 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.
 - ii) UP Home signal /calling-on signal No. 1A/B/C and/or C-1A/B/C is put back to 'ON' and
 - iv) Line is clear up to facing point No. 21A.
- 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.
 - ii) DN Home signal /calling-on signal No. 2A/B and/or C-2A/B is put back to 'ON' and
 - iii) Line is clear up to BSLB.

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

Nil

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE

When a running line is blocked by stabled load wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points at either end should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line. If all the lines at a station happen to be blocked, when line clear has been granted to a train, the point 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. In case of all the lines are occupied by passenger train, points should be set for a loop line to negotiate which the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities .

6.2.1.2 RECEPTION OF A TRAIN ON BLOCKED LINE

Whenever trains are to be admitted on an obstructed line it is necessary that the train is piloted in on a written authority given by the SM on duty and delivered by a competent Railway servant to the Loco Pilot of the train. [Refer GR 5.09 & SRs there to]

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 SHOULD BE MENTIONED GIVING REFERENCE TO G & SR**a. Special restrictions**

NIL

b. Special instructions

NIL

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:-

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

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

a) ADEQUATE DISTANCE: (SIGNAL OVERLAP)

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

CLEARANCE OF ADEQUATE DISTANCE (SIGNAL OVERLAP)

FOR UP TRAINS		
Line Number	From	To
1.	Up loop starter Signal No.7	Up advanced starter signal No.13 or up to the end of the Sand Hump.
2.	UP Main line starter signal No.11	Up advanced starter signal No.13.
3.	UP common loop starter signal No.9	Up advanced starter signal No.13 or up to the end of the Sand Hump.

FOR DOWN TRAINS		
1.	DN common loop starter Signal No.8	DN advanced starter signal No.12 or up to the end of the sand hump.
2.	DN Main line starter signal No.10	DN advanced 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.

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

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

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

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

1.	Reception of an Up train on line No.1 setting overlap to Sand Hump.	AND	Dispatch of another UP train either from line No.2 or line No.4
2.	Reception of a DN train on line No. 4 setting overlap to sand hump.	AND	Dispatch of another DN train from line No.3
3	Reception of an UP train on line No.4 common loop setting overlap to sand hump.	AND	Dispatch of another UP train either from line No.1 or 2.

6.5 COMPLETE ARRIVAL OF TRAINS:

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

If a train passes through the station without conforming the last vehicle indicator, the Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He

shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched.

In case of failure of Axle counter the SM on duty shall obtain Complete Arrival Certificate from the guard of the train in the Complete Arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide SR 4.16.05 that the train arrived complete.

In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until complete arrival Certificate is received from the station in advance supported by a private number.

6.6 DESPATCH OF TRAINS:

- a) To dispatch a train, the Station master on duty having obtained line clear for that train, shall set the route for the outgoing train correctly and satisfy himself by observing the visual indication on the Panel Board/VDU. He shall suspend all non-isolated shunting and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the advanced starter is the authority to proceed into the block section. As soon as the train passes the advanced starter signal, the SM will then send the train entering given section signal to the station in advance.

[Refer GR 3.38, 3.42, SR 3.36.04(b), 3.42.04 and BWM 2.07.5(a)]

b) ISSUE OF CAUTION ORDERS:

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

6.7 TRAINS RUNNING THROUGH:

The procedure detailed in Para 6.4, 6.5 shall be observed. The Station Master is responsible to observe/watch the condition of the vehicles on a passing train and shall wave green hand signal horizontally until anything wrong is noticed on train. For this purpose the Station Master on duty shall stand in such a position that he sees a clear view of the passing train and that his hand signals can clearly be seen by the Loco Pilot and Guard of the train.

He shall also depute the TPM on duty to the other side, for passing the train. The TPM on duty shall wave Green hand signal horizontally. He shall show danger hand signal if he notices anything is wrong and reports the same to the SM on duty.

The Station Master on duty is responsible to see that a train passes complete with its last vehicle indicator. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General and Subsidiary Rule.

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

6.8 WORKING IN CASE OF FAILURE:

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

a. TRACK CIRCUITS:

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

b. DEFECTIVE POINTS:

[A.K.BEHERA]
DSTE/RE/BBS

[CH.B.SRINIVAS]
DSTE/WAT

[K.V.S.R.K.KISHORE]
Sr.DOM/(M)/WAT

Procedure prescribed in GR3.77 and relevant SRs shall be followed.

C. FAILURE OF SIGNALS AND INTERLOCKING:

In the event of failure of approach stop signals, GR 3.70 and SRs thereto shall be followed.

d. AXLE COUNTER:

If the axle counter fails between the block sections, resetting procedure will be adopted as per Para 14.0 of SWR (APP-B) if the axle counter indication does not appear 'GREEN' & continues to show 'RED' condition after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for rectification.

6.9 PROVISIONS FOR WORKING OF TROLRIES/MOTOR TROLRIES/MATERIAL LORRIES ETC"

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

- i) Trolleys, Motor Trolleys, Lorries which are not insulated shall not be allowed to run except on Line clear.
- ii) Motor Trolleys/Tower Wagon/material Lorries are not likely to actuate the Axle Counter correctly.
- iii) In all other respects the Working of a light motor trolley shall confirm to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley.

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

7. BLOCKING OF THE LINES:

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

A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained.

The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23 and SR 5.23.01]

A. SECURING OF VEHICLES: -

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

NOTE

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

B. USE OF REMINDER BLOCK COLLARS :-

Whenever any running line is blocked or when a train is stopped to cross another train or detained for any other reason, even for a short while or during shunting operations, reminder collars shall be used by the SM on duty on the push buttons concerned.

8.0 SHUNTING**8.1 GENERAL PRECAUTIONS.**

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

NOTE:

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

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

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

8.3 PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY:

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

8.4 SHUNTING ON SINGLE LINE:

Not applicable.

8.5 SHUNTING ON DOUBLE LINE:

SHUNTING OUT SIDE THE HOME SIGNAL:

The procedure of block back/block forward given in BWM 5.15(1) (b) shall be followed. When line clear has been given, no shunting shall be permitted in the block section in rear. Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and it blocked back vide GR 8.06.

Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and block forward vide GR 8.06(3).

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

Not applicable to this station

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

- (i) During partial interruption of communication between the adjacent block station, SR 6.02.06 shall be observed.
- (ii) In the event of occupation of block section due to accident or obstruction SR 6.02.05 shall be observed.
- (iii) In the event of trains delayed in the block section, GR 6.04 and relevant SRs shall be followed.
- (iv) Failure/passing of Intermediate block stop signal at 'ON' position:
Not applicable.
- (iii) Failure of Axle counter block/BPAC: Procedure to be followed vide GR 14.13 & 14.14.
- (iv) Failure of MTRC: Not applicable.

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

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

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

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

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

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

c) Certification of clearance of track before Calling –On Signal operation in 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 SM on duty.

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

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

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

9.1 TOTAL FAILURE OF COMMUNICATION:

Rules and regulations for working of trains during total interruption of communication on single line section shall be followed vide SR 6.02.04 and instructions laid down in BWM.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

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

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

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

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

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

10. VISIBILITY TEST OBJECT:

The signal lights of UP loop starter signal No.7 of line No.1 and DN common loop starter signal No.8 of Line No.4 are earmarked to serve as visibility test object during day and night vide GR 3.61.2(b)(iii)

11. ESSENTIAL EQUIPMENT AT THE STATION:

(Details are given in Appendix-'E')

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

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

Fog signalmen shall be detailed for duty at stations being recruited partly from the station traffic staff and partly from Engineering Gang man and must not be substitutes or casual labor but regular employees of the railway.

12.1 STATION DETONATOR REGISTER (OPT/124)

A Register regarding detonator is maintained at the station.

12.2 INSTRUCTIONS:

This register contains the following parts.

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

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

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

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

- a. In charge of the station shall ensure that the information maintained in the register is kept up to date and is accurate in all respects.
- b. Transportation inspectors shall check the registers and also the stock of detonators on hand each time they visit the station and initial with date as an indication having done so.

APPENDICES:

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

- APPENDIX-F : RULES OF WORKING OF DK STATION, HALTS, IBH, IBS AND OUTLYING SIDINGS.
- APPENDIX-G : RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

CERTIFICATE

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

EAST COAST RAILWAY**WALTAIR DIVISION****APPENDIX 'A'****LEVEL CROSSING GATES**

These instructions should be read together with provisions in General & subsidiary Rules. Railways shall ensure that all safety requirements are covered while modifying these instructions based on local conditions and requirements.

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

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

- | | | | |
|----|---|---|---|
| 1 | Number of Level Crossing Gate | : | RV-318 |
| 2 | Engineering or Traffic Gate | : | Engineering gate |
| 3 | Under control of Station Master/
Permanent Way inspector | : | SSE [P]/GPI |
| 4 | Location at KM | : | 427/31-33(UP), 427/32-34(DN) |
| 5 | At Station | : | Mid-Section |
| 6 | In between station | : | DNV-KMX |
| 7 | BG/MG/NG | : | BG |
| 8 | Single line/Double line/Multiple
line | : | Double Line |
| 9 | Normal Position | : | Open to Road Traffic |
| 10 | Inter Locked/Non-Interlocked | : | Non-Interlocked |
| 11 | Means of interlocked | : | Non-interlocked |
| 12 | Provision of Gate signal at KMs | : | Nil |
| 13 | Signaling arrangement | : | Nil |
| 14 | Means of communication-
Telephone/ Bell etc | : | Telephone connected with DNV
station |
| 15 | Width of level crossing gate | : | 7.5 Mtrs |
| 16 | Type of road {NH/SH/Other} | : | Others |

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17	Name of road	:	Municipal Road
18	Metalled/Non-Metalled	:	Non-Metalled
19	Approach road	:	Non-Metalled
20	Width of the road	:	5 Mtrs
21	Angle of road crossing [In case of the skew gates]	:	90°
22	Road gradients {if any}	:	
	(a) North-East side		1 in 30
	(b) South-West side		1 in 30
23	Road alignment {Straight/Curve}	:	curve
24	Provision of height gauge	:	Provided
25	Type of Barriers	:	Lifting Barriers
26	Length of check rail	:	9.5Mtrs
27	Road surface in L-Xing gate	:	Tar road
28	Length of Rumble strip /speed breakers	:	5 Mtrs
29	Road signs	:	Provided
30	Speed breaker indication board	:	Provided
31	TVU	:	5169 in May' 2015
32	Censes next due on	:	May' 2018
33	Demarcation for placement of detonators	:	Provided
34	No. of Gate men working	:	TWO
35	Nearest Railway Medical Assistance	:	VBL
36	Nearest private Medical Assistance {If Any}	:	Bobbili
37	List of equipment available Yes/No	:	Yes

1.2 EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	3
2. Hand Signal Flag Green.	1
3. Hand Signal Flag Red.	3.
4. Banner Flag Red.	3
5. Posts for exhibiting red banner flag	2
6. Spare chains with padlocks	2
7. Detonators	12
8. Gate lamps	2
9. Tommy Bar	1
10. Mortar Pan	1
11. Spade/Fowarh	1
12. Rammer	1
13. Pick Axe	1
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 gate man wearing glasses.	1
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1
20 .Bucket	1
21. Whistle	1
22. Wall Clock	1
23. A small chain in case of failure of gate boom	1

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

1.4 DUTIES OF GATEMEN:**[1] ALERTNESS:**

- 1) 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.

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2) 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.

[2] POSITION DURING PASSAGE OF TRAINS:

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

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

[3] ROUTINE DUTIES OF GATEMAN:

- [i] Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunshine.
- [ii] Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- [iii] Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- [iv] Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- [v] Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie-talkie or in any other way.

- [vi] If lifting barriers get damages or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier/leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Driver report the defect at the next station.
- [ix] Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.
- [x] Gateman shall ensure that he is having competency certificate in his possession While on duty.
- [xi] Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- [xii] Gateman shall ensure that equipment supplies at the gate is in good order and ready for immediate use.
- [xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.
- [xiv] Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- [xv] Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- [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 trees 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 fails to take notice, gateman shall not stop, 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, gate man shall immediately inform the station master/switchman/cabin man, 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 advise the station master/switchman/cabin man 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 man 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 plant the other red banner flag by day and the red light by night 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 on BG and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs on BG from the level crossing gate and place 3 detonators on the track 10 Mtrs 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 the detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- [vi] Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.
- [vii] In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at the distance as far away as he can go.
- [viii] Thereafter, he shall light up 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 GATE MAN:

- [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 the track, or if lifting barrier by leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- [iii] He shall note down the particulars of the road vehicle, vehicle number, name of the Loco pilot, 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 senses of traffic at level crossings.

ANNEXURE – IV

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

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

1. Mode of Operation:

Detailed mode of operation for opening and closing the level crossing gate shall be provide in the respective Station Working Rules and Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of Private Number:

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

- (i) Station Master at the dispatching end shall advise the gateman the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
- (ii) Such advice shall be given before taking 'OFF' departure signals or giving an authority to proceed to the driver.
- (iii) The gateman on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
- (iv) Station Master will lower the departure signals after getting the private number of the gateman.
- (v) Gate once closed for road traffic must on no account be opened unless this is authorised by the Station Master under exchange of private number.

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

- (i) Station Master at the dispatching end shall advise the Station Master at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
- (ii) Such advice shall be given before obtaining line clear.
- (iii) Station Master at the receiving end shall in turn convey the same advice to the gateman, under exchange of private number.

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- (iv) Gateman shall close the gate and thereafter give his private number to the Station Master
- (v) Only then shall the Station Master at the receiving end grant line clear to the Station Master at the dispatching end.
- (vi) Gate once closed for road traffic must on no account be opened unless this is authorised by the Station Master, under exchange of private number.

3. Failure of Telephonic Communication:

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

- (i) Station Master at the dispatching end shall issue a caution order to the driver before dispatching a train in the block section from his end.
- (ii) The caution order should advise the driver to whistle continuously and approach the gate cautiously.
- (iii) The driver should 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 must close the gate and then give the all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of the Assistant Guard / Guard and shall stop clear of the level crossing to pick up the Assistant Driver who will reopen the gate for passage of road traffic.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, 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 gangman / patrolman or driver of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers or Leaf Gates:

- (i) When the gate cannot be closed due to failure of lifting barriers or 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 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 defect at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers / leaf gates and issue reconnection / fit memo for the same.

5. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defect / obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception / departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after three attempts, he shall first protect the gate and then inform on phone.
- (v) Gateman shall then rush with detonators,, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the 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 driver of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers / leaf gates to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers / leaf gates and issue reconnection / fit memo for the same.

6. Obstruction on the Track near Level Crossing:

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

EAST COAST RAILWAY**WALTAIR DIVISION****APPENDIX 'A'****WORKING OF LEVEL CROSSING GATES AT DONKINAVALASA STATION :****GATE WORKING RULES:**

Working rule for 'C' Class interlocked level crossing gate situated at KM 425/15-17(UP), 425/16-18(DN) at East cabin.

1. GENERAL**1.2 DESCRIPTION OF THE LEVEL CROSSING GATE:**

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

1	Number of Level Crossing Gate	:	RV 316
2	Engineering or Traffic Gate	:	Traffic Gate
3	Under control of Station Master/ Permanent Way inspector	:	SS/DNV
4	Location at KM	:	425/15-17(UP), 425/16-18(DN)
5	At Station	:	DONKINAVALASA
6	In between station	:	----
7	BG/MG/NG	:	BG
8	Single line/Double line/Multiple line	:	Double Line
9	Normal Position	:	Open to Road Traffic
10	Inter Locked/Non-Interlocked	:	Interlocked
11	Means of interlocked	:	MACLS
12	Provision of Gate signal at KMs	:	Up Line : Station Signals Dn Line : Station Signals
13	Signaling arrangement	:	-----
14	Means of communication- Telephone/ Bell etc	:	Telephone
15	Width of level crossing gate	:	6 Mtrs

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16	Type of road {NH/SH/Other}	:	Others
17	Name of road	:	Municipal Road
18	Metalled/Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	3.5 M.
21	Angle of road crossing [In case of the skew gates]	:	----
22	Road gradients {if any}	:	
	(a) North-East side		Level.
	(b) South-West side		Level.
23	Road alignment {Straight/Curve}	:	
	(c) North-East side		Straight
	(d) South-West side		Straight
24	Provision of height gauge	:	Provided.
25	Type of Barriers	:	Coupled Lifting Barrier
26	Length of check rail	:	9 Mtrs
27	Road surface in L-Xing gate	:	Mooram
28	Length of Rumble strip /speed breakers	:	3.5 Mtrs
29	Road signs	:	Available
30	Speed breaker indication board	:	Provided
31	TVU	:	6684 in July 2015
32	Census next due on	:	July' 2018
33	Demarcation for placement of Detonators	:	<u>Available</u>
34	No. of Gatemen working	:	3
35	Nearest Medical Assistance	:	VBL
36	Nearest Private Medical Assistance available (if any)	:	Bobbili
37	List of equipment available Yes/No	:	<u>Yes</u>

1.2. EQUIPMENT TO BE AVAILABLE AT THE GATE LODGE:

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

1.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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

1.4 DUTIES OF GATE MAN:**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 POSITION DURING PASSAGE OF TRAINS:

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

- i) Gateman will stand attentively 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 with white light facing the track.
- iv) He shall keep the whistle slung around in his neck from a cord.

3 ROUTINE DUTIES OF GATE MAN:

- i) Gateman shall ensure that red banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- 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, 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, and vehicle/wagon/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 be prepared to repeat any signal which guard may give to Loco pilot on Walkie-talkie or in 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, 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 even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the Gateman shall close and lock the lifting barriers/leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the driver to report 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 these instructions.
- 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 clear.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unhealed 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 gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

4 ACTION IN CASE OF UNSUAL OCCURRENCE ON TRAINS:

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

- i) He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco pilot/guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco pilot/guard fails to take notice, Gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

- iv) In case of train parting, Gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavor to attract the attention of the driver/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 low as possible.
- vi) In case the train does not stop, he shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5 ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- i) In case of an obstruction at the level crossing gate, Gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master, on duty, if connected on telephone, to take appropriate action, 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 the phone.

The Gateman shall protect the line as under:

a) On Double Line Section

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fusees and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600meters, on BG and 400 meters on MG/NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 800 meters on MG/NG 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 intermediated 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 driver of the approaching train.
- vii) Thereafter, he shall light up and stop the approaching train by waving this 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/leaf gates or 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 Loco pilot, owner and relay these details to the Station master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

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ANNEXURE-II**WORKING OF LEVEL CROSSING GATES**

WORKING INSTRUCTIONS FOR TRAFFIC LEVEL CROSSING GATES INTERLOCKED WITH STOP SIGNALS OF THE STATION PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC"- IT IS A 'C' CLASS GATE AT KM 425/15-17(UP),425/16-18(DN):

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

1. MODE OF OPERATION:

Gate is normally opened to road traffic. As soon as the advice received from SM on duty, the Gate Man after ensuring clearance of road traffic, shall close and lock the gate and transmit the Key 'N' to Panel. Thereafter SM on duty shall take off concerned signals. The detailed mode of operation is given below

1. Key 'M' is obtained after closing the Level crossing gate at West cabin and releases GF-2
2. GF-2 when reversed Locks the Level crossing Boom and releases Key 'N' and GF-1.
3. Key 'N' is transmitted electrically to Panel in conjunction with GF-1 reversed, controls concerned UP and DN signals.
4. GF-1 provided in the East cabin to put back the concerned signals to 'ON' in case of Emergency.

On completion of the Train movement SS on duty shall transmit back the Key 'N' through RKT to open the L.C.Gate.

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, under exchange of private number.
- 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.

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3. FAILURE OF TELEPHONIC COMMUNICATION:

When Telephone 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 after receipt of such advice shall close the gate and transmit the key to the Station Master, which will enable them to take 'OFF' reception/departure signals.
- iii) When sufficient time is not available because of greater frequency of train service, Station Master shall issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.
- v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the Gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b)
- vi) In case of an approaching train, the Station Master Shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- 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.
- ix) Normal working will be resumed only after staff rectifies the telephone and issue reconnection/fit memo for the same.

4. FAILURE OF LIFTING BARRIERS :

- i) When the gate cannot be closed due to failure of lifting barriers the Gateman will immediately inform the Station Master on duty, under exchange of private number, end ensure the lifting barriers or leaf 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 advice 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 this end.
- vii) Station Master will advice maintenance staff responsible for maintenance of lifting barriers/leaf gates to repair the defect at the earliest.
- viii) Normal working will be resumed only after the maintenance staff repairs the barrier/leaf gates to repair the defect at the earliest.

NOTE:

- a) In case of failure of lifting barriers worked from the cabin, Station Master will send station porter to secure the gate against road traffic by safety channels and padlocks.
- b) Authority to pass signals at 'ON' position as per rules shall also be issued to the Loco Pilots of both departing and arriving trains.

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5. FAILURE OF GATE KEY WITH THE GATE IN CLOSED POSITION WHEN GATE KEY CANNOT BE EXTRACTED FOR OPENING THE GATE:

- i) If the gate key cannot be extracted from the winch, the gate lever or the key transmitter, then Gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) If emergency key is available at the gate lodge the key will be taken out from the sealed box by breaking the seal and open the gate for road traffic. Provision of Emergency key is not available at this gate.
- iii) The record of the data 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-interlocked gates should be adopted.
- v) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching the train in the block section from his end.
- vii) Station Master will advise S&T staff responsible for maintenance of winch/gate levers/key transmitter to rectify the defect at the earliest.
- viii) Normal working will be resumed only after S&T staff repairs the winch/gate leaves/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 GATE KEY WITH THE GATE IN OPEN POSITION:

- i) If the gate key cannot be extracted from the winch, the gate lever or the 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 trains as prescribed for non-interlocked gate 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 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 the train in the block section from his end.
- vi) Station Master will advise S&T staff responsible for maintenance of winch/gate levers/key transmitter to rectify the defect at the earliest.
- vii) Normal working will resume only after S&T staff repairs the winch/gate leaves/key transmitter and issue reconnection/fit memo for the same.
- viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

7. 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 gates, for this purpose.
- ii) Immediately after this, the Gateman shall advise the Station Master on duty, regarding the defects/obstruction at the gate, under exchange of private number.

- iii) Station Master, on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, 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 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, vehicle number, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the Gateman that the road vehicle or the lifting barriers/leaf gates are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstructions.
- ix) After the track has been cleared of all obstructions the Gateman shall inform the Station Master accordingly, under exchange of private number.
- x) Station Master shall then issue a caution order to Loco 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 obstructions.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.
- 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 after maintenance staff rectify the defective lifting barriers gates 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 Gateman and Station Master will adopt the procedure given under Item No.7 above. If the obstruction fouls the Level Crossing Gate, Gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING OF LEVEL CROSSING GATES AT DONKINAVALASA STATION

These instructions should be read together with provisions in General & subsidiary Rules. Railways shall ensure that all Safety requirements are covered while modifying this instructions based on local conditions and requirements.

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

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

1	Number of Level Crossing Gate	:	RV-314
2	Engineering or Traffic Gate	:	Engineering gate
3	Under control of Station Master/ Permanent Way inspector	:	SSE [P]/VBL
4	Location at KM	:	427/31-33(UP), 427/32-34(DN)
5	At Station	:	DNV
6	In between station	:	DNV-VBL
7	BG/MG/NG	:	BG
8	Single line/Double line/Multiple line	:	Double Line
9	Normal Position	:	Closed to Road Traffic
10	Inter Locked/Non-Interlocked	:	Non-Interlocked
11	Means of interlocked	:	Non-interlocked
12	Provision of Gate signal at KMs	:	Nil
13	Signaling arrangement	:	Nil
14	Means of communication- Telephone/ Bell etc	:	Telephone connected with DNV station
15	Width of level crossing gate	:	7.50 Mtrs
16	Type of road {NH/SH/Other}	:	Others
17	Name of road	:	village
18	Metalled/Non-Metalled	:	C.C. Block

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19	Approach road	:	Metal
20	Width of the road	:	5.50 Mtrs
21	Angle of road crossing [In case of the skew gates]	:	90 ⁰
22	Road gradients {if any}	:	
	(e) North-East side		1 in 30
	(f) South-West side		1 in 30
23	Road alignment {Straight/Curve}	:	straight
24	Provision of height gauge	:	straight
25	Type of Barriers	:	Lifting Barriers
26	Length of check rail	:	9.5Mtrs
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	:	1711 in Nov'2012
32	Censes next due on	:	Nov. 2015
33	Demarcation for placement of detonators	:	Provided
34	No. of Gate men working	:	TWO
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest private Medical Assistance {If Any}	:	VBL
37	List of equipment available Yes/No	:	Yes

1.2 EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	3
2. Hand Signal Flag Green.	1
3. Hand Signal Flag Red.	3
4. Banner Flag Red.	3
5. Posts for exhibiting red banner flag	2
6. Spare chains with padlocks	2
7. Detonators	12
8. Gate lamps	3
9. Tommy Bar	2
10. Mortar Pan	1
11. Spade/Fowarh	1
12. Rammer	1
13. Pick Axe	1
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 gate man wearing glasses.	1
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1
20 .Bucket	1
21. Whistle	1
22. Wall Clock	1
23. A small chain in case of failure of gate boom	1

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

1.4 DUTIES OF GATEMEN:**[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] POSITION DURING PASSAGE OF TRAINS:

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

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

[3] ROUTINE DUTIES OF GATEMAN:

- [i] Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunshine.
- [ii] Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- [iii] Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- [iv] Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- [v] Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie-talkie or in any other way.
- [vi] If lifting barriers get damages or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier/leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Driver report the defect at the next station.

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- [ix] Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.
- [x] Gateman shall ensure that he is having competency certificate in his possession While on duty.
- [xi] Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- [xii] Gateman shall ensure that equipment supplies at the gate is in good order and ready for immediate use.
- [xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.
- [xiv] Gateman shall keep the road surface well-watered and rammed in case of unmetalled roads.
- [xv] Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- [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 trees 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 fails to take notice, gateman shall not stop, 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, gate man shall immediately inform the station master/switchman/cabin man, 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 advise the station master/switchman/cabin man 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 man 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 plant the other red banner flag by day and the red light by night 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 on BG and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs on BG from the level crossing gate and place 3 detonators on the track 10 Mtrs 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 the detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- [vi] Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.
- [vii] In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at the distance as far away as he can go.
- [viii] Thereafter, he shall light up 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 GATE MAN:

- [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 the track, or if lifting barrier by leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- [iii] He shall note down the particulars of the road vehicle, vehicle number, name of the Loco pilot, 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 senses 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:

Detailed mode of operation for opening and closing the level crossing gate shall be provided in the respective Station Working Rules and Gate Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of Private Number:

- (i) Gateman must seek permission from Station Master / Switchman / Cabinman for opening the gate.

At L.C gates with normal position closed to road traffic, if the gate is required to be opened to pass the road traffic, the gate man shall exchange private number with S.M. and confirm that the train has passed completely from his gate, thereafter, the S. M may allow the gate man to open the gate. In such situation the S.M before dispatching or giving line clear for any other train in the block section in question shall ensure that the level crossing gate is closed for road traffic and assurance of the gate man is taken through exchange of private number.

- (ii) Suitable entries shall be made by the Station Master / Switchman / Cabinman in the Train Signal Register / Cabin Operation Register, Private Number Book and Log Book in red ink.
- (iii) After passage of road traffic, the gateman shall close the gate and confirm this to Station Master / Switchman / Cabinman, under exchange of private number.
- (iv) Before any train is allowed to enter the block section again, the Station Master / Switchman / Cabinman must ensure that private number from the gateman has been received in token of his having closed the gate.
- (v) Gate once closed for road traffic must on no account be opened unless this is authorized by the Station Master / Switchman / Cabinman, under exchange of private number.

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3. Failure of Telephonic Communication:

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

- (i) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- (ii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- (iii) 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.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or driver of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers or Leaf Gates:

- (i) When the gate cannot be closed due to failure of lifting barriers / 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.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers / leaf gates and issue reconnection / fit memo for the same.

5. Obstruction at the Gate:

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

6. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

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WORKING OF LEVEL CROSSING GATES AT DONKINAVALASA STATION

These instructions should be read together with provisions in General & subsidiary Rules. Railways shall ensure that all Safety requirements are covered while modifying these instructions based on local conditions and requirements.

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. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1	Number of Level Crossing Gate	: RV-317
2	Engineering or Traffic Gate	: Engineering gate
3	Under control of Station Master/ Permanent Way inspector	: SSE [P]/VBL
4	Location at KM	: 427/31-33(UP), 427/32-34(DN)
5	At Station	: DNV
6	In between station	: KMX-DNV
7	BG/MG/NG	: BG
8	Single line/Double line/Multiple line	: Double Line
9	Normal Position	: Closed to Road Traffic
10	Inter Locked/Non-Interlocked	: Non-Interlocked
11	Means of interlocked	: Non-interlocked
12	Provision of Gate signal at KMs	: NO
13	Signaling arrangement	: NO
14	Means of communication- Telephone/ Bell etc	: Telephone connected with DNV station
15	Width of level crossing gate	: 7.50 Mtrs
16	Type of road {NH/SH/Other}	: Others
17	Name of road	: village
18	Metalled/Non-Metalled	: C.C. Block

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19	Approach road	:	Metal
20	Width of the road	:	5.50 Mtrs
21	Angle of road crossing [In case of the skew gates]	:	90 ⁰
22	Road gradients {if any}	:	
	(g) North-East side		1 in 30
	(h) South-West side		1 in 30
23	Road alignment {Straight/Curve}	:	straight
24	Provision of height gauge	:	straight
25	Type of Barriers	:	Lifting Barriers
26	Length of check rail	:	9.5Mtrs
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	:	1985 in Mar 2014
32	Censes next due on	:	Mar 2017
33	Demarcation for placement of detonators	:	Provided
34	No. of Gate men working	:	TWO
35	Nearest Railway Medical Assistance	:	VZM
36	Nearest private Medical Assistance {If Any}	:	DNV
37	List of equipment available Yes/No	:	Yes

1.2 EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	3
2. Hand Signal Flag Green.	1
3. Hand Signal Flag Red.	3
4. Banner Flag Red.	3
5. Posts for exhibiting red banner flag	2
6. Spare chains with padlocks	2
7. Detonators	12
8. Gate lamps	3
9. Tommy Bar	2
10. Mortar Pan	1
11. Spade/Fowarh	1
12. Rammer	1
13. Pick Axe	1
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 gate man wearing glasses.	1
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1
20 .Bucket	1
21. Whistle	1
22. Wall Clock	1
23. A small chain in case of failure of gate boom	1

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

1.4 DUTIES OF GATEMEN:**[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] POSITION DURING PASSAGE OF TRAINS:

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

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

[3] ROUTINE DUTIES OF GATEMAN:

- [i] Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunshine.
- [ii] Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- [iii] Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- [iv] Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- [v] Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie-talkie or in any other way.
- [vi] If lifting barriers get damages or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier/leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Driver report the defect at the next station.

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- [ix] Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.
- [x] Gateman shall ensure that he is having competency certificate in his possession While on duty.
- [xi] Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- [xii] Gateman shall ensure that equipment supplies at the gate is in good order and ready for immediate use.
- [xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.
- [xiv] Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- [xv] Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- [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 trees 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 fails to take notice, gateman shall not stop, 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, gate man shall immediately inform the station master/switchman/cabin man, 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 advise the station master/switchman/cabin man 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 man 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 plant the other red banner flag by day and the red light by night 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 on BG and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs on BG from the level crossing gate and place 3 detonators on the track 10 Mtrs 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 the detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- [vi] Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.
- [vii] In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at the distance as far away as he can go.
- [viii] Thereafter, he shall light up and 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 GATE MAN:

- [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 the track, or if lifting barrier by leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- [iii] He shall note down the particulars of the road vehicle, vehicle number, name of the Loco pilot, 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 senses 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:

Detailed mode of operation for opening and closing the level crossing gate shall be provided in the respective Station Working Rules and Gate Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of Private Number:

- (i) Gateman must seek permission from Station Master / Switchman / Cabinman for opening the gate.

At L.C gates with normal position closed to road traffic, if the gate is required to be opened to pass the road traffic, the gate man shall exchange private number with S.M. and confirm that the train has passed completely from his gate, thereafter, the S. M may allow the gate man to open the gate. In such situation the S.M before dispatching or giving line clear for any other train in the block section in question shall ensure that the level crossing gate is closed for road traffic and assurance of the gate man is taken through exchange of private number.

- (ii) Suitable entries shall be made by the Station Master / Switchman / Cabinman in the Train Signal Register / Cabin Operation Register, Private Number Book and Log Book in red ink.
- (iii) After passage of road traffic, the gateman shall close the gate and confirm this to Station Master / Switchman / Cabinman, under exchange of private number.
- (iv) Before any train is allowed to enter the block section again, the Station Master / Switchman / Cabinman must ensure that private number from the gateman has been received in token of his having closed the gate.
- (v) Gate once closed for road traffic must on no account be opened unless this is authorized by the Station Master / Switchman / Cabinman, under exchange of private number.

3. Failure of Telephonic Communication:

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

- (i) Station Master at the dispatching end shall issue a caution order to the drive

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of the departing train.

- (ii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- (iii) 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.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or driver of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers or Leaf Gates:

- (i) When the gate cannot be closed due to failure of lifting barriers / 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.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers / leaf gates and issue reconnection / fit memo for the same.

5. Obstruction at the Gate:

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

6. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

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WORKING OF LEVEL CROSSING GATES AT DONKINAVALASA STATION

These instructions should be read together with provisions in General & subsidiary Rules. Railways shall ensure that all Safety requirements are covered while modifying these instructions based on local conditions and requirements.

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. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1	Number of Level Crossing Gate	: RV-308
2	Engineering or Traffic Gate	: Engineering gate
3	Under control of Station Master/ Permanent Way inspector	: SSE [P]/VBL
4	Location at KM	: 415/29-31(UP), 415/30-32(DN)
5	At Station	: DNV
6	In between station	: DNV-VBL
7	BG/MG/NG	: BG
8	Single line/Double line/Multiple line	: Double Line
9	Normal Position	: Closed to Road Traffic
10	Inter Locked/Non-Interlocked	: Non-Interlocked
11	Means of interlocked	: Non-interlocked
12	Provision of Gate signal at KMs	: Nil
13	Signaling arrangement	: Nil
14	Means of communication- Telephone/ Bell etc	: Telephone connected with DNV station
15	Width of level crossing gate	: 7.50 Mtrs
16	Type of road {NH/SH/Other}	: Others
17	Name of road	: village

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18	Metalled/Non-Metalled	: C.C. Block
19	Approach road	: Metal
20	Width of the road	: 5.50 Mtrs
21	Angle of road crossing [In case of the skew gates]	: 90 ⁰
22	Road gradients {if any}	:
	(i) North-East side	1 in 30
	(j) South-West side	1 in 30
23	Road alignment {Straight/Curve}	: straight
24	Provision of height gauge	: straight
25	Type of Barriers	: Lifting Barriers
26	Length of check rail	: 9.5Mtrs
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	: 5204 in Nov 2012
32	Censes next due on	: Nov' 2015
33	Demarcation for placement of detonators	: Provided
34	No. of Gate men working	: TWO
35	Nearest Railway Medical Assistance	: VZM
36	Nearest private Medical Assistance {If Any}	: VBL
37	List of equipment available Yes/No	: Yes

1.2 EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	3
2. Hand Signal Flag Green.	1
3. Hand Signal Flag Red.	3
4. Banner Flag Red.	3
5. Posts for exhibiting red banner flag	2
6. Spare chains with padlocks	2
7. Detonators	12
8. Gate lamps	3
9. Tommy Bar	2
10. Mortar Pan	1
11. Spade/Fowarh	1
12. Rammer	1
13. Pick Axe	1
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 gate man wearing glasses.	1
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1
20 .Bucket	1
21. Whistle	1
22. Wall Clock	1
23. A small chain in case of failure of gate boom	1

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

1.4 DUTIES OF GATEMEN:**[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] POSITION DURING PASSAGE OF TRAINS:

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

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

[3] ROUTINE DUTIES OF GATEMAN:

- [i] Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunshine.
- [ii] Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- [iii] Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- [iv] Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- [v] Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie-talkie or in any other way.
- [vi] If lifting barriers get damages or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier/leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Driver report the defect at the next station.

- [ix] Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.
- [x] Gateman shall ensure that he is having competency certificate in his possession While on duty.
- [xi] Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- [xii] Gateman shall ensure that equipment supplies at the gate is in good order and ready for immediate use.
- [xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.
- [xiv] Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- [xv] Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- [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 trees 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 fails to take notice, gateman shall not stop, 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, gate man shall immediately inform the station master/switchman/cabin man, 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 advise the station master/switchman/cabin man 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 man 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 plant the other red banner flag by day and the red light by night 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 on BG and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs on BG from the level crossing gate and place 3 detonators on the track 10 Mtrs 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 the detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- [vi] Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.
- [vii] In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at the distance as far away as he can go.
- [viii] Thereafter, he shall light up 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 GATE MAN:

- [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 the track, or if lifting barrier by leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gate man shall take immediate action.
- [iii] He shall note down the particulars of the road vehicle, vehicle number, name of the Loco pilot, 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 senses 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:

Detailed mode of operation for opening and closing the level crossing gate shall be provided in the respective Station Working Rules and Gate Working Instructions incorporating local operational requirements. When level crossing gate is required to be opened for passage of road traffic, the gateman must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic.

2. Exchange of Private Number:

- (i) Gateman must seek permission from Station Master / Switchman / Cabinman for opening the gate.

At L.C gates with normal position closed to road traffic, if the gate is required to be opened to pass the road traffic, the gate man shall exchange private number with S.M. and confirm that the train has passed completely from his gate, thereafter, the S. M may allow the gate man to open the gate. In such situation the S.M before dispatching or giving line clear for any other train in the block section in question shall ensure that the level crossing gate is closed for road traffic and assurance of the gate man is taken through exchange of private number.

- (ii) Suitable entries shall be made by the Station Master / Switchman / Cabinman in the Train Signal Register / Cabin Operation Register, Private Number Book and Log Book in red ink.
- (iii) After passage of road traffic, the gateman shall close the gate and confirm this to Station Master / Switchman / Cabinman, under exchange of private number.
- (iv) Before any train is allowed to enter the block section again, the Station Master / Switchman / Cabinman must ensure that private number from the gateman has been received in token of his having closed the gate.
- (v) Gate once closed for road traffic must on no account be opened unless this is authorized by the Station Master / Switchman / Cabinman, under exchange of private number.

3. Failure of Telephonic Communication:

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

- (i) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.

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- (ii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- (iii) 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.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or driver of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers or Leaf Gates:

- (i) When the gate cannot be closed due to failure of lifting barriers / 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.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers / leaf gates and issue reconnection / fit memo for the same.

5. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master / Switchman / Cabinman on duty, regarding defects / obstruction at the gate, under exchange of private number.
- (iii) Station Master / Switchman / Cabinman 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 / Switchman / Cabinman 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 of the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers / leaf gates to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers / leaf gates and issue reconnection / fit memo for the same.

6. Obstruction on the Track near Level Crossing:

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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'**DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATION AND COMMUNICATION ARRANGEMENTS AT THE DONKINAVALASA STATION****1. BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALATION:**

This is a 'B' Class Station with Standard-III interlocking (with isolation) with route setting type panel. The points and signals etc are power operated from a composite miniature 'DOMINO TYPE' full-fledged central panel or VDU installed in the station master's office. This Station is equipped with multi aspect colour light signaling. The SGE type Double Line block instruments are provided in the SM panel room for section DNV-KMX & DNV-VBL.

1.1. DESCRIPTION OF PANEL:

The yard layout is depicted on the panel and the panel is fixed parallel to the track so that when the Station Master faces the panel, the yard drawing on the panel corresponds to the actual field lay out. A Visual Display Unit (Computer) is provided in the SM's office as a standby option.

(The description and the function of Visual Display Unit is given in APPENDIX-'B1')

1.2. POINT PUSH BUTTONS:

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

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

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

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

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

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

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

1.2.7 DESCRIPTION OF POINT PUSH BUTTON:

SN	POINT BUTTON NO.	COLOUR	DESCRIPTION
1	21 A/B	Black	Emergency Cross over point between UP & DN Main lines at VBL end.
2	22 A/B	Black	Emergency Cross over point between UP & DN Main lines at KMX end.
3	23 A/B	Black	Cross over point between UP Main Line and UP loop line no.1 at VBL end.
4	24 A/B	Black	Cross over point between DN Main line and Common loop line No.4 at KMX end.
5	25	Black	Cross over point between DN Main line and Common loop line No.4 at VBL end.
6	26	Black	Cross over point between UP Main line and UP loop line No.1 at KMX end.
7	27	Black	Isolation point (DS) for UP loop line and shunting neck at VBL end.
7	Point Group button (Normal)	Black with Red dot	Common button for normal operation of points
8	Point Group button (Reverse)	Black with Red dot	Common button for reverse operation of points

1.2.8 DESCRIPTION OF POINT GROUP BUTTON:

There are two point group buttons (Black with red dot) at the top of panel one for Normal and one for Reverse operation of points. The button is operated in conjunction with point button to operate the concerned point to the required setting.

1.3 SIGNAL PUSH BUTTON:

These are Red coloured push buttons on the panel near that stop signals on the panel. These are operated in conjunction with Route button (White coloured) to take 'OFF' the signal.

1.3.1 DESCRIPTION OF SIGNAL BUTTONS:

SN	BUTTON NO.	COLOUR	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	SH3	Yellow	Shunt Signal for line no. 3 & 4.
6	SH4	Yellow	Shunt Signal for Line No.1, 2 3 & 4.
7	SH5	Yellow	Shunt signal for Line No.1.
8	S-7	Red	UP starter signal for Line no.1
9	S-8	Red	DN common loop starter signal for line no.4
10	S-9	Red	UP common loop starter signal for line no.4
11	S-10	Red	Down Main line starter signal for line no.3
12	S-11	Red	UP Main line starter signal for line no.2
13	S-12	Red	Down advanced starter signal
14	S-13	Red	UP advanced starter signal
15	SH-14	Yellow	Shunt signal for shunting neck.

1.3.2 SIGNAL INDICATION:

The aspects of the signals as obtained at any time are shown on the panel on the signal indication along side of the track. The ON aspect indications of stop signals are RED and OFF aspect indications GREEN on panel. The ON aspect of distant signal is yellow and OFF aspect is Green on the panel.

1.4 ROUTE BUTTONS:

- 1.4.1 Route buttons are provided separately on each running line on the panel for initiation of route. Common route buttons are also provided for taking off starters. An individual route button is provided for taking 'OFF' advanced starter for clearing the signal. It is necessary to operate the signal button and the concerned route button simultaneously for taking OFF concerned signal.

1.4.2 DESCRIPTION OF ROUTE BUTTONS:

SN	BUTTON NO.	COLOUR	DESCRIPTION
1	L1/1 UN	White with Black dot	Common route button for UP Home signals, UP Calling-on signals shunt signals SH-4 & SH-5 for line No.1 setting overlap on sand hump.
2	L1/2 UN	White	Route button for UP Home signal for line No.1 setting overlap on Main line.
3	L-2 UN	White	Common Route button for UP Home signal, Calling-On signal and shunt signal SH-4 for line No. 2 UP Main line.
4	L3 UN	White	Common route button for DN Home signal, Calling-On signal and shunt signal SH-4 for line No. 3 DN Main line.
5	L4/1 UN	White with Black dot	Common route button for UP & DN Home signal, UP & DN calling on signal, UP & DN shunt signal for line no. 4 setting overlap on sand hump.
6	L4/2 UN	White	Common route button for UP & DN Home signal, DN calling on signal for line no. 4 setting overlap on DN main line.
7	12A-UN	White	Common route button for DN starters 8, 10.
8	13A-UN	White	Common route button for UP starters 9, 11, 7.
9	12UN	White	Route button for DN advanced starter no.12
10	13UN	White	Route button for UP advanced starter no.13

1.5 CRANK HANDLE PUSH BUTTONS

SN	Button No	Color	CONTROL POINTS
1	CH-1	Blue	To be pressed to extract Crank Handle Key for operation of point No 21A/B.
2	CH-2	Blue	To be pressed to extract Crank Handle Key for operation of point No 22A/B.
3	CH-3	Blue	To be pressed to extract Crank Handle Key for operation of point No 23A/B, 26A/B, 27.
4	CH-4	Blue	To be pressed to extract Crank Handle Key for operation of point No 24A/B, 25A/B.

1.6 MISCELLANEOUS PUSH BUTTONS

SN	Button No	Color	Description
1	SM's EMERGENCY POINT OPERATION KEY	---	This key is to be inserted and operated in the event of Emergency point operation
2	SM's PANEL KEY	---	To lock the control panel to prevent unauthorized operation
3	PANEL PC SWITCH	---	To give control of operation from panel to PC and vice versa
4	ACK FOR SYSTEM FAILURE	GREEN WITH RED DOT	To be pressed to silence system failure buzzer
5	GROUP TRANS PUSH BUTTON	WHITE WITH BLACK DOT	To be pressed to initiate slot of crank handle or LC gate operation along with concerned slot/Crank Handle/L.C.Gate button.
6	GROUP RELEASE PUSH BUTTON	WHITE WITH BLACK DOT	To be pressed to withdraw/Normalize the control of slot of crank handle or LC gate operation along with concerned slot/Crank Handle/L.C.Gate push button.
7	POINT GROUP NORMAL PUSH BUTTON	BLACK WITH RED DOT	To be pressed to initiate 'NORMAL' setting of point along with concerned point push button
8	POINT GROUP REVERSE PUSH BUTTON	BLACK WITH RED DOT	To be pressed to initiate 'REVERSE' setting of point along with concerned point push button
9	EMERGENCY ROUTE RELEASE PUSH BUTTON	WHITE WITH RED DOT	To be pressed for emergency Route Release
10	SIGNAL CANCELLATION PUSH BUTTON	RED	To be pressed for canceling a signal which is already taken 'OFF' or to release a route after passage of a train.
11	SIGNAL LAMPFAILURE /POINT FAILURE ACKNOWLEDGEMENT	RED WITH WHITE DOT	To be pressed for acknowledging signal lamp/point failure
12	EMERGENCY POINT OPERATION	BLACK WITH RED DOT	To be pressed to operate the point when concerned point zone track circuit failed.
13	BUTTON HELD ACKNOWLEDGEMENT PUSH BUTTON	WHITE WITH RED DOT	To be pressed for silencing button held buzzer in case of any push button remains pressed after the button is released.
14	UP BLOCK RELEASE PUSH BUTTON	CHOCOLATE WITH WHITE DOT	To be pressed for normalizing the Block instrument for section VBL-DNV.
15	DN BLOCK RELEASE PUSH BUTTON	CHOCOLATE WITH WHITE DOT	To be pressed for normalizing the Block instrument for section KMX-DNV.

1.7 A) POWER SUPPLY ARRANGEMENT FOR THE SIGNALLING INSTALLATION:

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

- Normally supply from UP AT/DN AT connected to OHE Traction distribution [230 V 50 Hz].
- Stand by supply from Andhra Pradesh State Electricity Board (APSEB) [Single phase 230V-50Hz].

- iii) Normal power supply [Single phase 230V-50Hz] to the Signalling & Interlocking installation at the station is drawn from the traction power sources. Whenever traction power supply fails SS/SM on duty shall operate the Auto change over switch provided in the CLS power panel at SM's room connecting the power supply from the healthy sources to the installation.

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

- 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/SM must ascertain the power is available on the other AT and change over the switch to desired position e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- c) In case of failure of one of the AT supply without any power block, on duty SS/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 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/SM 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.

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

- i) Power supply to the signalling installation is fed through IPS installed in the S&T power supply room. The IPS is normally fed through UP AT/DN AT traction power selected by SS/SM on duty. Standby power supply is through 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 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.

SN	Instructi on	Healthy of Battery Bank /Equipment	Visual Indicati on	Audio Indication	Action to be taken by SS/SM on duty
A	-	50% DOD (Depth of Discharge)	Red	Alarm	Alarm shall be acknowledged by SS/ SM 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/SM on duty for audio cut-off. Then inform to S&T Staff.

On duty SS/SM 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/SM 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/SM on duty shall inform the same to concerned S&T staff immediately.

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

1.7.1 LED SIGNAL FAILURE INDICATION (RED SIGNAL LAMP MUTING BUTTON: RED WITH WHITE DOT)

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

1.7.2 VHLC INDICATION:

A VHLC (Vital Harmonic Logic Controller) indication is provided on the top of the panel for indicating which system of VHLC is working. This EI unit is consisting of two VHLC systems called system 'A' and system 'B'. These two systems status (ON/OFF) will be indicated separately on the panel. If the VHLC indication is ON 'GREEN' indication will appear and if OFF 'RED' indication appears. If any one of the 'ON' line system fails automatically OFF line system will change to ON line with a gap of 180 seconds. A system failure buzzer is provided on the panel board to stop the VHLC unit buzzer. SM on duty has to press the system failure acknowledgement button provided on the top of the panel and intimate the same to ESM/SE/JE in charge for rectification of the failure. Whenever the system changes from A to B or B to A SM on duty has to release all crank handle, L C Gate controls.

1.8 POINT FAILURE INDICATION (RED)/POINT FAILURE BUZZER/POINTS FAILURE MUTING BUTTON (RED WITH WHITE DOT)

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

1.9 EMERGENCY ROUTE RELEASE COUNTER

This counter is provided to register the number of operations made for emergency cancellation of route. The Station Master must record the last number registered on the counter while taking over/handing over duty.

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

The Electronic interlocking is based on the principle of 'DEAD APPROACH LOCKING'. As such when a route is set and signal is taken 'OFF' on the route, the route gets locked. Normally the route is released by the passage of the train over the route.

When it becomes necessary to alter the route after the signal has been taken 'OFF' vide SR 3.36.02(a), the concerned signal must be put back to Danger by simultaneously pressing the signal cancellation button and concerned signal button. After this, first the emergency route release button (White with Red Dot) positioned on the top of the panel to be pressed after breaking seal and subsequently the concerned signal button is to be pressed. A white light will be lit indicating that the timer is working. After a lapse of 120 seconds the white light along with the white strip of light will disappear suggesting that the route has been released. In case the route illumination (white strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case the concerned S&T staff should be advised immediately to release by rectifying the fault. It is to be ensured that after every emergency route release operation S&T staff shall seal the emergency route release button.

Each operation of emergency cancellation of route should be recorded in the emergency route release counter register by registering the next higher number. SM on duty shall ensure sealing of emergency route release button by S&T staff after completion of the work.

3.0 EMERGENCY POINT OPERATION (BLACK WITH RED DOT):

Emergency point operation facility is provided to operate the point from the panel in case of failure of point controlling track circuit. A push button (Black with Red dot) for emergency point operation is provided on the top of the Panel. If such operation is necessary, the SM on duty, after ensuring that SM's point Key is 'IN' and no vehicle is standing on the concerned point zone shall press the emergency point operation button (by breaking the seal) along with relevant point button simultaneously. Then keeping point button pressed, emergency point button to be released and the point group normal button or point group reverse button is to be pressed for operating the point to 'NORMAL or REVERSE.

Each emergency point operation should be recorded in the emergency point operation counter by registering the next higher number. All such operations and the new number should be recorded in the station diary counter register and in the train signal register. SM shall ensure sealing of Emergency point operation button by S&T staff after completion of such operation.

4.0 BUTTON HELD ACKNOWLEDGEMENT(WHITE WITH RED DOT)

All push buttons are self restoring type. A button held acknowledgement push button along with a white light is positioned at the top of the panel. When any point, route or signal button gets stuck up in pressed condition, a buzzer will sound along with flashing white light indication. The station master shall stop the buzzer by pressing the button held acknowledgement button (white with Red dot). The buzzer will stop but the flashing white indication of each point; route or signal will continue to glow until the pressed button is normalized. SM on duty shall try to find out the pressed button for normalization or otherwise inform the maintenance staff to rectify.

5.0 OVER LAP TIME RELEASE(WHITE LIGHT)

Separate indications (white light) for each overlap is provided near the starter signal to indicate the free or locked condition of the overlap. This indication light will glow when overlap is locked by any Home signal route and there will be no light when the overlap is free.

The locked indication starts flashing when the approaching train clears the rear end point zone track and occupies the berthing track. After a time lapse of 120 sec the white flashing light will disappear indicating concerned over lap is free.

6.0 TRACK CIRCUIT:

Line No.1 to 4 are track circuited.

In addition there are short length track circuits in advance of Advanced Starter Signals and Home signal in both the directions are also provided. For Calling-on signals (7M Rail length) track circuits are also provided in rear of the Home signals in both directions. From last trailing point/fouling mark in either side of Yard to Advanced Starter Signals are also track circuited. Indications for the above track circuits are available on Panel / VDU at SM's office. Normally the panel is blank except point and Block section indications for the above track circuits/ Axle counters are available on Panel/VDU at SM's office. When a signal is cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.

7.0 AXLE COUNTER:

Entire Block Section between DNV- KMX and DNV-VBL are provided with Electronic Axle counters.

For SEC: DNV- KMX:- A pair of digital axle counter is provided between DNV- KMX on UP line, one just beyond UP advanced starter no. 13 of KMX and another one on 2T₂ track circuit of DNV.

FOR SEC:DNV-VBL: A pair of Digital axle counter is provided between DNV-VBL on DN line one just beyond DN Advanced starter signal no.12 of VBL and another on 1T₂ track circuit of DNV.

The position of the Block section whether cleared or occupied are reflected in the Panel/VDU provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters in to the Block Section, "Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as Block Instrument failure for the particular section and necessary action as per GR.14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, Advanced Starter signal shall not come to OFF and the concerned instrument shall remain locked in last operated position.

A resetting arrangement for resumption of the system in case of failure of axle counter has been provided in the SM office of the adjacent Block stations after being assured by both the SM that the last vehicle has arrived complete at the receiving station by exchanging Private Number, then resetting to be complied with.

(Details of resetting procedure given in APPENDIX-'B'.

NOTE:

Before taking off reception and dispatch signals for UP or Down directions the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication. The indication of track will exhibit Red Light when track is occupied and White light when track is clear. There will be no track indication when any route is not set.

8. STATION MASTER'S PANEL CONTROL KEY:

The panel is fitted with Station Master's lock up key to prevent any unauthorized operation of the panel. The Station Master on duty is the only authorized person to operate the panel and the panel key must always remain in his custody vide SR 3.36.02 and GR 5.08. The key locks the panel board and no operations are possible. In case of emergency, signals can be put back to danger by operating concerned signal button and signal cancellation button without ASM's key also. However the provisions of SR 3.36.02 shall be followed while replacing signals also.

9. CRANK HANDLES:

When any point fails to operate normally by the route setting operation or through the concerned point button through panel, it is inevitable to operate the points with crank handle. Station Master on duty shall personally ensure clamping and padlocking all facing and trailing points en-route. Crank handles are interlocked with signals and interlocking system. The CH push button (Blue) and group button (White with Black dot) is provided at the top of the panel board. This button has two indications viz., WHITE and RED. The White indication suggests that the crank handle key is in its interlocked position of the panel. This is called "Crank Handle Key 'IN' indication.

The Red indication suggests that the crank handle key is locked and not free for extraction from RKT. This is called 'Crank handle key locked' indication.

For extracting CH key from RKT SM has to press relevant crank handle push button and group TRANS button simultaneously. The light white light besides the CH button starts flashing. After extraction of CH key from RKT at location box flashing white light disappears. On extraction of CH key from RKT, the points in that particular group cannot be operated from the panel. After completion of point operation, the CH key will be retransmitted to the station electrically by inserting the CH key in RKT in location box and turned. The white flashing indication appears on the Panel board. The flashing will be stopped and steady indication appears on pressing concerned CH button and group release button (White with Black dot).

Crank Handle control for operation of points:

S N	CRANK HANDLE	CONTROL POINTS
1	CH-1	21 A/B
2	CH-2	22 A/B
3	CH-3	23 A/B, 26A/B, 27
4	CH-4	24 A/B, 25A/B

9.1 SETTING OF ROUTE AND TAKING OFF RECEPTION SIGNALS.

For setting a route all the concerned points must be set by operation of relevant point button and group button one at a time in the desired position or by operating signal and route button. As soon as the required points are set to the required position, the concerned signal for the route will clear and a Yellow strip of light will appear on the route confirming that the route is set and locked. The signal 'OFF' indication will appear on the panel.

9.2 SETTING OF ROUTE AND TAKING OFF DEPARTURE SIGNALS.

For setting a particular route for departure of a train, all the concerned points must be set by operation of relevant point button and group button one at a time in the desired position or by operating signal and route button.

To take 'OFF' UP advanced starter signal no.13, UP LV section between DNV-KMX should be clear and Line clear must be obtained from the concerned Block section in advance. Then the concerned advanced starter signal button shall be pressed along with the concerned route button for two or three seconds and released. This will clear the Up advanced starter signal and a white strip of light will appear on the panel.

To take 'OFF' DN advanced starter signal no.12, DN LV section between DNV-VBL should be clear and Line clear must be obtained from the concerned Block section in advance. Then the concerned advanced starter signal button shall be pressed along with the concerned route button for two or three seconds and released. This will clear the DN advanced starter signal and a white strip of light will appear on the panel.

To take 'OFF' the starter signal the concerned signal button is pressed and at the same time common route button to be pressed for two or three seconds and released. This will clear the starter signal and a white strip of light will appear on the route from the concerned starter to advanced starter.

9.3 TAKING OFF CALLING ON SIGNAL

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

To take "OFF" Calling-on signal the train must come to a stop at the foot of the Home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit a RED light strip will appear on the Panel/VDU. The particular route on which train is intended to be received shall be set by operating the point push button and group button individually or by signal and route buttons pressing or by crank handling in the event of failure of operation of points through panel/VDU. After the route is set, the Calling On signal button 'C-1(A) C-2(A-) (Red with White dot) shall be pressed (as the case may be) simultaneously along with the concerned route button for 2 to 3 seconds and then released. After a lapse of 120 seconds, the Calling-on signal clears i.e. a Yellow light glows at the concerned Calling-on signal on the panel.

10. RELEASE/ CANCELLATION OF ROUTE.

Normally when a train is received or dispatched on any route the route illumination will disappear automatically after passage of the train suggesting that the route is released.

NOTE:-

UP and DN calling on signals, UP and DN advanced starters are to be manually cancelled after the passage of the train to cancel the route.

11. REPLACEMENT OF SIGNALS TO ON:

Signals are replaced to 'ON' automatically by the operation of the first track in advance of the signal. It will not be possible to re-clear the signal again unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the respective signal button and signal cancellation button (RED) is to be pressed simultaneously.

12. INTERLOCKING OF SIGNALS/POINTS

All running line points are fitted with point machines which have in built locking and are electrically detected by the relevant Home signals and starters.

12.1 Advanced starter signals are interlocked with respective Double line SGE Block Instrument in LINE CLEAR position.

12.2 Home signals are interlocked with respective Double line Block instruments. The Block instruments cannot be made to normal unless the respective Home is put back to 'ON' aspect and the respective block section monitored by axle counter is clear of trains.

12.3 Signals once taken OFF can be put back to ON 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's key.

13. PILOTING OF TRAINS IN TO THE STATION YARD

Whenever Home signal becomes defective, trains can be admitted by taking off calling-on signal. When both home and calling-on failed, then the trains will be piloted 'IN' in terms of SR 3.69.3(a) &(c).

The SM on duty shall nominate a clear line and shall set the nominated route correctly from the panel or shall advise the TPM on duty at station to set the nominate route with the help of crank handle during failure of points. The TPM shall set the facing and trailing points clamp and padlock the same under the super vision of SM on duty at station in both the cases.

Then the SM on duty shall then hand over the written authority (T/369(3b) to the TPM for "piloting IN" the train. While going towards home signal, the TPM shall check that the points have been correctly set, clamped and padlocked. After the train has been brought to a dead stop at the foot of the home signal the TPM shall hand over the PILOT memo to the Loco Pilot board the engine and display proceed hand signal to pass the defective home signal.

NOTE:

- 1) The station master on duty shall personally supervise the correct setting, clamping and padlocking of both end points for admission of a train.
- 2) The keys of padlock used for clamps on the points shall be kept in the personal custody of SM on duty till such movement is either completed or alternatively cancelled
- 3) The SM on duty shall ensure the closure of the interlocked gate supported by a private number from the gateman on duty.

13.1 PILOTING OF TRAINS OUT OF STATION YARD:

When starter signal has become defective, the SM on duty shall set the points correctly from the panel or advise the TPM to set the concerned points correctly for the outgoing train with the help of crank handle. The TPM on duty shall clamp and padlock both the facing and trailing end points under supervision of SM on duty in both the cases. He shall also advise the gateman to close the level crossing gate/gates on the route for dispatch of a train.

The SM on duty shall then authorize the TPM on duty to hand over the pilot memo T/369(3b) along with other authorities if any to the Loco Pilot of the train. Thereafter, he shall display proceed hand signal at the foot of the starter signal vide subsidiary rule 3.70.01.

Incase advanced starter signal becomes defective BWM 3.33 will be followed.

NOTE:

(1) The station master on duty shall personally supervise the correct setting, clamping and padlocking of both end points for dispatching of a train.

(2) The keys of padlock used for clamps on the points shall be kept in the personal custody of SM on duty till such movement is either completed or alternatively cancelled.

(3) The SM on duty shall ensure the closure of the interlocked gate supported by a private number from the gateman on duty.

14. SHUNTING

For back shunting SH-3 & SH- 4 are provided in the yard for shunting back to the station yard in desired direction. The particular route on which it is intended to do shunting is to be set by operating the desired points individually from the panel or by pressing the shunt signal button and required route button simultaneously for 2-3 seconds. When the route is set and locked correctly white strip of lights will appear on the route and concerned shunt signal shall display 'OFF' aspect.

15.0 VERIFICATION OF LINE CLEARANCE BY STATION MASTER ON DUTY FOR RECEPTION OF TRAINS INTO THE YARD

In the station yard, a route on the running line comprises of entrance, berthing and dispatch portion of the yard and this portion of the yard should be clear of any obstruction for the passage of any train or for any other movements.

The clearance of the route including overlap must be ensured by the Station Master on duty personally through Luminous indications of the track before any movement of trains are permitted on the concerned route subjected to the other conditions such as locking of points etc.

16.0 CRANK HANDLING EMERGENCY OPERATION OF POINTS

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

On account of the doubtful operation of any track circuit by a light vehicle including self propelled vehicle such as Motor trolley or light Diesel/electrical engine or tower wagon, indicating the occupancy of the track. It is necessary to satisfy SM on duty that the said vehicle has cleared point zone track circuits by observing the track indications on either side of the cross over.

17.0 EMERGENCY OPERATIONS

The following are the instructions for emergency operations.

17.1 CANCELLATION BUTTON AND COUNTERS

17.1.1 For the purpose of the emergency operations there is an emergency Route cancellation button (provided at the top of the panel) and also there is a counter for counting emergency operations involving the concurrent operation of the emergency route cancellation button. The Station Master on duty must press the emergency route button along with concerned signal button for which emergency route releases is desired. A yellow indication will appear below the signal indicating that the timer has started operating and after lapse of 120 seconds the desired route will be released provided all other conditions are favorable for the route release.

17.1.2 The counter registers the number of such emergency operations performed for such emergency cancellation and the Station Master on duty shall specify the cause for such usage giving the particulars of cause and the time of operation as related to a particular train etc. in the train signal register. The detailed operation instructions are as follows:

17.2 EMERGENCY OPERATIONS CANCELLATION THE LOCKING OF POINTS NOT RELEASED AFTER THE PASSAGE OF THE TRAIN FOR WHAT EVER 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 operations.

- a) Firstly, it must be ensured that the signal is in the ON position.
- b) Operation as detailed in Para 3.0 to be followed.

18.0 LOCKING OF RELAY ROOM:

The relay room shall be locked with a double lock which can be opened only after both the keys are inserted and turned. One key of the lock shall be kept with the Station Master on duty in his custody and other with Maintainer. Whenever required for maintenance, the key in the custody of Station Master shall be given to the Maintainer. After completion of the work the Maintainer shall return the key to the Station Master. The details of transaction should be properly recorded in relay room register maintained at the station and duly signed by the Station Master and the Maintainer concerned as per OM 1.14. In addition, the Station Master shall also observe SR 3.51.05.

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

19.1 Regular maintenance of S&T installations and adherence to the schedules of maintenance is also the mandatory schedules of testing of points, track circuits, point machines, level crossing gates, the associated interlocking apparatus i.e., cables and finally the interlocking functional tests is a must for the safe and satisfactory working of those installations at this Station.

19.2 The tests, checks and replacements etc. including overhauling shall confirm to the Schedule of maintenance as indicated in the signal engineering manual as also in the current and extent instruction / circulars on the subject.

20.0 PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF A SIGNAL AND INTERLOCKING INSTALLATIONS:

In case of failure of any 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 Engineer of the Section and others as per G& SR 3.51.04 and 3.68.04 and document all such transactions.

20.1 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

Before declaring a Signal as defective the setting of point on the route to which it applies shall be inspected by the Station Master on duty irrespective of the position of the Buttons the Panel in term of SR 3.68.04(c).

20.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

After receipt of this information, the sectional maintainer shall attend to the failure after giving a disconnection memo. After rectification of the fault the sectional maintainer shall give a reconnection memo detailing rectification. Thereafter the Station Master on duty shall personally check the defective apparatus. After

satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective gear in terms of SR 3.64.04 (c) and (d).

21.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTANANCE WORK:

Whenever any normal maintenance or special works for heavy renewals etc., are involved, these works should be pre-planned by the signal & Telecommunication field staff and the Inspector of the section should give to the Station Master in writing "Advance Intimation" about this planned work in terms of GR 15.08.01.

22.0 EMERGENCIES:

Notwithstanding anything contained in the aforesaid Paras, when equipment is found to be defective and unsafe for passage of trains, the Signal and Telecom. Staff shall at once suspend the working of such equipment and the associated installation and issue a "Suspension Memo" explaining the seriousness of the defect or damage to the interlocking installation to the Station Master and obtain SM's acknowledgement. After this, the usual practice of issuing disconnection memo and reconnection memo can follow and the Station Master must promptly act on such messages and take adequate precautions treating the S&T installations as defective and pass trains over the affected interlocking gears according to extant instructions as contain in GR & SR 3.77.

23.0 PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNALS AND POINTS AND USE OF CRANK HANDLE.

- 23.1 When crank handle key is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody rests with the Station Master on duty, till it is replaced back to RKT.
- 23.2 The cases of failure of Motor Operated Points should be promptly reported to the Concerned Signal maintainer /Signal Inspector for immediate rectification.
- 23.3 Whenever an emergency Crank handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty; will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and then handover to him the emergency Crank Handle for the Points concerned. All the concerned Points will be treated as defective till the Emergency Crank Handle is returned back to the Station Master on duty.

23.4 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 for the affected lines shall be treated as Non-interlocked. The Station Master on duty is responsible for introduction of Non-interlocked working and the trains will be piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, 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.

23.5 The Emergency Crank Handle Register is to be maintained vide OM 20.06 note (d) by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded.

24.0 SUSPENSION OF LAST STOP SIGNALS

24.1 When the Double line SGE Block Instrument is suspended with its handle in 'LINE CLEAR' position for whatever reason, the concerned Last Stop Signals controlled by the Block Instrument must be treated as suspended and trains shall be worked in accordance with the procedure prescribed in BWM 3.33.

24.2 The Station Master on duty shall not grant LINE CLEAR unless he has ensured that the lamps of fixed signals which apply to the trains are glowing. If the Signal Lights are not glowing the Station Master on duty shall before giving LINE CLEAR shall initiate action in accordance with the procedure prescribed in GR 3.68 to 3.71 and relevant SR's vide GR 3.49(4).

25.0 NORMALISATION OF THE BLOCK AXLE COUNTER AND BLOCK WORKING BY RESETTING FEATURE

25.1 Axle counters are provided on UP and DN lines between KMX-DNV and KMX-GPI Double line section for Block proving.

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

25.3 If any Block proving Axle counter section fails, the Last stop signal at the rear station cannot be taken 'OFF' and Block instrument at advance station cannot be turned to "Line Closed" position after arrival of a train and in such case, resetting of last vehicle checking device is to be resorted to in either section.

25.4 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.

25.5 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'.

25.6 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 at the receiving station and is certified in this respect by the SM at the receiving station through exchange of Private Number.

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

25 (A) 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 **DNV-KMX** and **DNV-VBL** 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/SM at **DNV** station shall resort to the reset procedure of the axle counter.

For this purpose SS/SM at **DNV** Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SS/SM shall obtain signature from the Guard of stopping train on the train intact register [vide GR & SR No.4.17, 4.17.01) or 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/SM of **KMX** for Up Block Section and **VBL** for DN block section.

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

One reset box for each 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/SM on duty at receiving end shall confirm the same to the dispatching end SS/SM supported by a PN and shall request for preparatory resetting of axle counter. SS/SM on duty at both ends shall adopt the following procedure simultaneously.

SS/SM 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/SM 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/SM shall inform concerned S&T staff immediately. Till such time the system is rectified, the absolute block working shall be suspended and the trains shall be worked as per relevant para of G.SR & BWM.

All reset keys shall be kept in the personal custody of SS/SM on duty.

25 (B) LAST VEHICLE CHECKING DEVICES:

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

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

If any Block proving Axle counter section fails, the Last stop signal at the rear station cannot be taken 'OFF' and Block Instrument at advance station cannot be turned to "Line Closed" position after arrival of a train and in such case, resetting of last vehicle checking device is to be resorted to in both the station's.

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

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

Track clear indication is available for the relevant axle counter track circuited portion and Last stop signal is not taken 'OFF'.

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

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

26.0 RESETTING OF LVV DIGITAL AXLE COUNTER:

- i) Whenever after complete arrival of train, the LVV axle counter continue to show 'RED' on the panel board, the on duty SS/SM at both ends of the section shall resort to reset the axle counter. For this purpose SS/SM at receiving end shall first verify that Block section is clear of trains. If the failure has occurred after arrival of train, SS/SM shall obtain signature from the guard of stopping train on the train intact register (vide GR &SR 4.17, 4.17.01) or by exchanging signal with the guard of through train, so that he can ensure that the train has arrived completely before resorting the LVV axle counter. SS/SM of receiving end shall inform the failure of axle counter to on duty SS/SM of dispatching end for UP/DN section.
- ii) SS/SM at receiving end then sends an operating person to verify that the last vehicle is clear of Block section. After verifying the clearance of last vehicle of concerned block section, the operating person exchanges private number.
- iii) On exchanging private number the SS/SM at both ends will insert the reset key for corresponding section and shall press the nominated reset button. By this operation LVV axle counter will reset and associated counter will change to next higher number at both ends.

- iv) SS/SM at both ends shall record the counter number so changed due to reset of axle counter in the reset register and also in the Train Signal Register mentioning the purpose of reset. After the reset operation is completed, preparatory reset indication will appear on panel/reset box at both ends which suggests that the reset operation is successfully completed and the first train has to be piloted out. On arrival of the piloted train the axle counter track cct zone of the section shows clear and normal working shall be resumed. Even after arrival of piloted train, LVV axle counter zone does not show clear indication, S&T staff to be informed for getting rectified the failure of axle counter.
- v) It is mandatory that every reset operation of LVV axle counter first train after reset process shall have to be piloted out.

27.0 SIGNAL LIGHTS:

The station Master on duty at 00.00 Hrs (2nd Night shift) must also ensure from Panel board that all the signal lights are glowing properly and brightly. This fact must be recorded in the Diary under a separate entry and confirm to the section controller on duty.

28. CORRECTING TIME IN STATION CLOCK:

The station Master shall set the time in his clock according to the time signal given by the section controller on duty at 16.00 Hrs every day according to GR and SR 4.01.01 and 4.01.02.

29.0 TELECOMMUNICATIONS:

- (a) Telephone attached to Double line Block Instruments is connected to adjacent Stations on either side.
- (b) Telephone communication is provided between adjacent stations i.e. VBL and KMX stations.
- (c) The station is connected to Section control Circuit.
- (d) The station is connected to BSNL circuit.
- (e) Telephone communication is provided between Station Master on duty to Up CH locations and to DN CH Locations.
- (f) 25w VHF set is provided at the station.
- (g) The station is connected to LC gates at km .
- (h) Provision of Traction Power Control & Traction Loco Control of section VSKP-RGDA.

APPENDIX 'B1' TO STATION WORKING RULES OF DONKINAVALASA STATION VISUAL DISPLAY UNIT (VDU)

NOTE:

The standby system (VDU) is also provided with the Conventional panel for the operation of Signals, Points, L.C.Gates, Crank Handles, Siding Controls and Resetting of all type of Axle counters.

SYSTEM OVERVIEW:

In addition to the panel, an operator console (VDU) consists of a CPU with a high resolution colour monitor, keyboard and pointing device (mouse) are provided. Both the serial ports in the CPU are connected to the Westrace CPU board for exchange of control and indication messages. The Software is installed to display the Station Yard Mimic Panel diagram on the VDU and that it allows access to all functions through pop-up menus. When a particular function is selected, an appropriate Menu will appear on the screen by selecting a required operation clicking by the Left button of the pointing device (mouse) a function (Signal clear and cancellation, Route release, Point operation, Gate release etc.,) can be executed.

The Computer (VDU) or panel any one may be used for controlling and monitoring the station, however indications on the Station yard Mimic diagram of VDU and panel will be dynamically updated.

SELECTION OF CONTROL:

This VDU (Computer) is provided as a standby of conventional panel for the operation of signals, points, L.C.Gates, crank handles, siding controls from the Mimic panel diagram. A Mimic panel diagram will be displayed on the VDU, which is an exact replica of operation cum indication panel and suits the yard plan as per SI plan 23081 AKT-B.

One two-position switch (Red coloured) is provided on the conventional panel along with the SM's Key used for selection of Panel or VDU called PANEL/PC Change over switch.

SM of the station can select any of the controls, for the selection of one control to another there are certain procedures to be followed for the control transfer. The procedure to be followed as mentioned below.

PANEL/PC KEY and PC CONTROL KEY

To prevent the unauthorised operation by other than on duty SM in VDU this facility is provided on VDU. On duty SM need to track the pointer to the "PC CONTROL KEY" icon and click the KEY OUT menu by the left button of mouse, by this a Password window will appear. SM need to enter the password and press OK button provided on the password window. This will lock all the controls in VDU except the Signal Cancellation of All Cleared Signal routes. The PC CONTROL KEY is nothing but a SM's Key in the conventional panel.

CHANGE OVER FROM PANEL WORKING TO PC

Ensure that SM's Key is in ON position.

Ensure that PANEL/PC Change over switch is in PANEL mode.

Click the PANEL/PC key provided in the left top corner of the VDU. (A pop-up menu will appear)

REQUEST PC
PANEL ACKNOWLEDGE

Click the first Menu – PC REQUEST. (A password required window will appear in the centre of the screen).

Enter the proper USER NAME and PASSWORD in the required text boxes by selecting with mouse, after entering so, click the OK button.

Now both the PANEL and PC indications will start Flashing.

Change the PANEL/PC changeover switch to PC mode in the conventional panel.

Now the PC indication will steady and Panel indication will disappear.

Click the PC CONTROL KEY and click the KEY IN menu. (A password required window will appear in the centre of the screen).

Enter the USER NAME and PASSWORD and click the OK button.

Now the Overall control is transferred to VDU.

The entire operation can be possible from the VDU.

CHANGE OVER FROM PC WORKING TO PANEL

Turn the PANEL/PC changeover switch to PANEL mode.

Now both the PANEL and PC indications will start Flashing.

Click the PANEL/PC key provided in the left top corner of the VDU. (A pop-up menu will appear)

Click the second Menu – PANEL ACKNOWLEDGE. (A password required window will appear in the centre of the screen).

Enter the proper USER NAME and PASSWORD in the required text boxes by selecting with mouse, after entering so click the OK button.

Now the PANEL indication will be steady and the PC indication will disappear.

Now the Overall control is transferred to PANEL, The entire operation can be possible from the PANEL.

OPERATIONAL PROCEDURE:

VDU INDICATIONS:

MICROLOK II (SSI) INDICATIONS:

In Panel/PC there are two system indication, Green indication mentioning the On-line system and the RED indication mentioning the Off-line system. In addition there are two indications mentioning status of communication and panel processor.

SIGNAL OPERATION:

SIGNAL 1/C1.
HOME
CALLING-ON ►



PANEL/PC SWITCH
REQUEST PC
PANEL ACKNOWLEDGE

Clear Route A (ORL)
Clear Route A (M/L)
Clear Route B
Clear Route C
Clear Route D
Clear Route E (ORL)
Clear Route E (M/L)
Cancel
Emergency Route Release

To Take-Off a Signal with the desired route the SM needs to track the mouse pointer over the concerned Signal on the VDU, after clicking by the left button on the mouse a popup menu will appear as below:

SETTING A ROUTE:

To set a route of a signal, click on a possible route of the signal, after done so the route initiated Red indication will appear on the replacement track of the signal. And all the relevant points Normal/Reverse set indications will start flashing if it is not available in the required position. After setting of point in the route required condition (Flashing indication will be steady) a complete yellow route set indication will appear from the Replacement Track of the signal to the last track of overlap of the route also the points will be locked (A Point locked can be ensured from the Red Steady indication will appear near the point). Finally a Route locked Yellow Steady indication will appear on the just below the signal. The signal will be Taken-Off now. The yellow route set indication will turn to Red when the train occupies the track circuit.

CONDITIONS FOR SETTING A ROUTE:

The following condition to be ensured before setting the route by the SM.

All the Crank handles of the required route related points to be in Key in condition.

All the related siding control keys to be in Key in condition.

If any Level Crossing gates are falling under the route that should be locked (KEY IN) and signal slot lever of the gate to be in reverse position (Can be ensured from the Yellow steady indication just near the LC Gate control).

All the related siding points should be in normal position (can be ensured from Yellow steady indication at the siding point on the route).

CANCELLING A ROUTE/ EMERGENCY ROUTE RELEASE:

To Cancel a signal route when the route is set and the signal is taken-off, click on the signal cancellation menu (Main/Calling on) of the concerned signal, the signal will immediately go to ON aspect, after doing so click on the Route release menu the route locked indication will starts flashing for 120sec. After the completion of 120sec the locked route will be released and counter provided for the route release in the conventional panel will changeover to next higher digit which should be recorded by SM.

SHUNT SIGNAL OPERATION:

To setting and Cancelling the signal route for the shunt signal the same procedure shall be followed as explained in Signal Operation.

POINT OPERATION:

To Operate the Point the SM needs to track the mouse pointer to concerned point's normal/reverse indications on the VDU, after clicking by the left button on the mouse a popup menu will appear as below:

**REVERSE TO NORMAL OPERATION:**

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

NORMAL TO REVERSE OPERATION:

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

EMERGENCY NORMAL OPERATION:

When the Point zone track circuits/ Axle counters failed without any Point lock condition by any signal routes, a point can be operated by the Emergency Point operation.

Before doing the emergency operation A Emergency Point Operation Key to be KEY IN by clicking the KEY IN menu, after the completion of the Emergency point operation, the key to be KEY OUT by clicking KEY OUT menu.

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

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

EMERGENCY REVERSE OPERATION:

When the Point zone Track circuits/ Axle counters failed without any Point lock condition by any signal routes, a point can be operated by the Emergency Point operation.

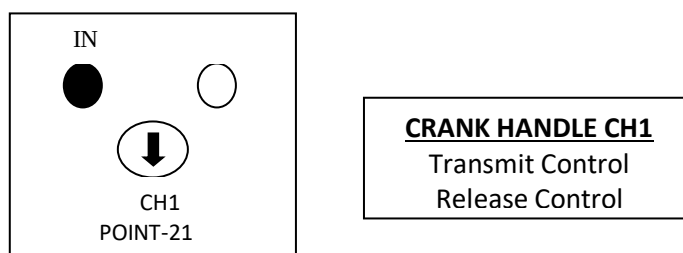
Before doing the emergency operation A Emergency Point Operation Key to be KEY IN by clicking the KEY IN menu, after the completion of the Emergency point operation the key to be KEY OUT by clicking KEY OUT menu.

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

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

CRANK HANDLE & SIDING CONTROL OPERATION:

To Transmit or Release control of the Crank Handle, click on the crank handle/ Siding control button provided like the following button on the VDU.



The appearing pop-up menu gives details of the possible commands on the Crank Handle.

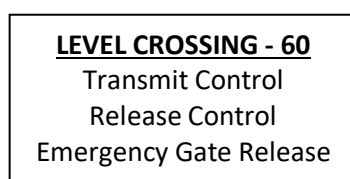
For Transmitting the Crank Handle KEY to the field personnel SM has to click transmit control menu. After transmission the KEY IN indication will start flashing, now the KEY can be extracted from the RKT. After extracting the key from the RKT, the KEY IN indication will disappear.

When the Manual point operation is over, after putting the KEY in the RKT, A KEY IN flashing indication will appear on the panel. Now the SM has to release the control for the Steady indication by clicking release control menu.

A Crank handle locked indication will appear when the particular point has locked by any of the possible signal routes.

LEVEL CROSSING GATE OPERATION:

To Transmit or Release control of the Level crossing gate, click on the Level crossing control button provided like the following button on the VDU. The appearing pop-up menu gives details of the possible commands on the Level crossing gate.



For transmitting the LC Key to the Gate man, SM has to transmit the control by clicking, after transmission the CLOSED indication will start flashing, now the KEY can be extracted from the RKT. When the gate has been closed, locked & slot lever is in reverse position, after putting the key in the RKT, a closed flashing indication will appear on the panel. Now the SM has to release the control for the Steady indication.

The locked indication will appear when the LC Gate has locked by any of the possible signal routes.

EMERGENCY GATE OPERATION:

If the LC Gate has locked by any of the signal route, for releasing the gate by the Emergency operation the SM has to cancel the signal by signal cancellation control of the relevant signal. Then he has to click the Emergency Gate Release Control in the Gate pop-up menu. This will take 120sec of time to release the gate. After the time lapsed, the Key can be extracted from the RKT at Gate Lodge and concerned counter provided on the panel board will change to next higher digit number, which should be recorded in the register provided for this purpose.

APPENDIX 'C'

TO STATION WORKING RULES OF DONKINAVALASA STATION

ANTI COLLISION DEVICE [[RAKSHA KAVACH]

-NIL-

APPENDIX 'D'

DUTIES TO BE PERFORMED BY THE STAFF AT DONKINAVALASA STATION.

DUTIES TO BE PERFORMED BY THE STAFF AT KUMHARSODRA STATION:

STATION MASTER (IN CHARGE):

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

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

SS/SM/VDU:

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

- i) He shall come on duty after taking complete rest and shall not perform his duty under the influence of drugs or intoxicants.
- ii) When on duty or when called upon to do so, in case of emergency, he shall be responsible for obtaining and granting line clear to trains as per SWR &GR.
- iii) He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate panel.
- iv) He shall keep the SM's control panel in his personal custody whenever, he is required to leave his office even for a short duration.
- v) While coming on duty, he shall ensure that all points and signals are in good working order and all the registers, records, pertaining to train passage are completed in all respect before taking over the charge.
- vi) He shall personally ensure that conditions for taking 'off' the reception signals are fulfilled and the clearance of line is verified as per SWR before actually pressing the relevant button for taking off the signals.
- vii) He shall ensure from indications available in the panel that the signals are burning brightly and are giving correct indications.
- viii) He shall ensure that proper indications of points, signals, track circuits crank handle, level crossing gate etc., are displayed at their proper places.
- ix) He shall ensure that all Shunting operations are carried out as per extant orders and GR 5.19 and SRs thereof.
- x) He shall inform the Technician/JE/SE (Sig) in writing or through a written message, any failure of track/signals/points/keys or panels etc. and shall invariably enter these failures in Signals Failure Register.

TRAFFIC POINTSMAN/TOKEN PORTERS:

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

- i) He shall obey all lawful orders of the ASM/SM/SS on duty or official in- charge supervising the shunting during the course of shunting operations including coupling or uncoupling of vehicles, wagons, fixing rubber washers, closing wagon doors, displaying hand signals etc.
- ii) He shall exhibit danger signal to the official supervising the shunting if vehicles are fouled during the shunting operation.
- iii) He shall pilot the trains in case of abnormal working and when ordered by the SS on duty.
- iv) He shall be in proper neat and clean uniform while on duty.

- v) He shall come on duty after taking complete rest and shall not perform duty under the influence of liquor, drugs, or intoxicants.
- vi) Neither shall he absent himself from duty nor shall he exchange his duty without prior permission of his superiors.
- vii) He shall not leave his duty unless properly relieved or authorized by his superiors.
- viii) He shall set the points properly in non-interlocked yard and man them for all shunting movements and shall not interfere with the points while the vehicles are standing and or passing over them.
- ix) He shall be responsible to see that fouling marks are kept clear after completion of shunting.
- x) He shall always commence his duty equipped with hand signal lamps during night and flags during day.
- xi) He shall verify the correct setting of route before delivering required papers to the Loco Pilot either though taking 'OFF' the relevant shunt signal or by personal observation.
- xii) In case of track failure he shall assist the SM to ascertain the clearance of line.
- xiii) He shall be responsible for lighting up of the indicators in the evening and putting out in the morning time fixed by DRM office and ensure that these are burning brightly at night.

APPENDIX 'E'**STATION WORKING RULES OF DONKINAVALASA STATION****ESSENTIAL EQUIPMENT**

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

S N	Description	Station
1	Detonators	20
2	Battery operated LED based flashing Hand Signal lamps	3(1 spare)
3	Hand Signal Flags	3(1spare)
4	Safety chains with Pad locks	6
5	Clamps with Padlocks	6
6	Reminder collars	6
7	Fire Extinguishers DCPT	2
8	Fire & Sand buckets	5
9	First Aid Box	1
10	Stretcher	1
11	Blanket	1
12	Iron skids	6

APPENDIX 'F'

TO STATION WORKING RULES OF DONKINAVALASA STATION]

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

---NIL---

STATION WORKING RULES FOR 25KV AC ELECTRIC TRACTION DONKINAVALASA STATION

1. **GENERAL & SUBSIDIARY RULES:**

- a) The rules applicable to electrified section have been given in chapter-XVII of the General Rules and in the subsidiary Rules made here under for electric traction. The General principles governing operation and maintenance of Traction Overhead Equipment, Electric locomotives, Signal & Telecommunications installations have been given in the A.C. traction manual. These rule books and an extract of the relevant paras of A.C.Traction Manual, shall be kept with the concerned staff shall make themselves thoroughly familiar with the same (GR. 17.01).
- b) Brief reference to important rules required to be followed by Station/ Yard staff in their day-to-day work has been given in this Appendix. These are, however, illustrative and not exhaustive.

2. **GENERAL SAFETY PRECAUTIONS:**

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

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

- a) A sectioning diagram No.VTRE/OHE/RE/DNV/06 indicating schematically the lines, which have been equipped with, for electric traction is exhibited. The diagram also indicates different electrical sections (Elementary Sections) the Controlling Switches (Isolators switches or interrupters), insulated overlaps and section insulators where the overhead equipment is electrically separated. The limits of an electrical section (Sub-Sector or Elementary section) are indicated by the relevant section. A copy of this diagram is also enclosed with these special working rules and will form part of the same.
- b) For all-purpose connected with Train movements and Power Blocks, this diagram is the only authorized document to be referred to the normal position of various switches is indicating on the diagram.

4. **UNWIRED TRACKS:**

No electric locomotive with pantograph raised shall under any circumstances be taken to an unwired section.

5. **OPERATING OF SWITCHES:**

- a) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller except in respect of switching operations for local blocks, which may be carried out by authorized traction staff, after they have been granted local blocks by the Station Master in accordance with S.R. 17.04.09 and ACTM para No. 20600,20601 of Vol.II, Part.I.
- b) "In case of emergency, authorized and trained station staff may open Isolator switches under specific instructions of the Traction Power Controller (G.R. 17.04 14-B) with exchanging of Private Nos. to perform the operations of the following isolator switches as well as any other isolators within the station limit.

Sl.No.	Isolator No.	Loc. No.	Sl.No.	Isolator No.	Loc. No.
1.	SM - 427	425/21	4.	SM – 430	423/26
2.	SM - 428	425/8	5.	SS - 511	424/37/2
3.	SM - 429	424/7	6.	SS – 511A	424/23

6. **POSITION OF SWITCH HANDLES (ISOLATORS):**

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

7. **LOCATION OF KEYS OF SWITCHES:**

The keys for the padlocks of various isolator Switches are kept in the ASM's Office in a box with a glass mounted cover (17.04.13). The Station Master shall daily check the keys of switches of the isolator and report any defects 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 G .R. 17.04.15 and S.R 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 then 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 such Isolator switch, which is controlling the Elementary Section free of raised pantographs of Electric Locomotives or the Interrupters controlling the supply to the yard lines in question is open (GR 17.04.15)

9. **POWER BLOCK:**

- a) The detailed procedure for obtaining power block has been given in G.R. 17.04.02, 17.03.03 & 17.04.04) and ACTM Para 20603,20604,20611,20612 & 20613 which must be rigidly followed except in case of emergency.
- b) The sequence of switching operations for granting and cancelling the Power Block for a particular section, are included in the Annexure. These shall be strictly followed by all staff. Failure to follow the sequence indicated is likely to lead to dangerous consequences. When any Isolator switch is changed from its normal position, for staff to work in overhead equipment, a danger board shall be exhibited on the switch with the caption "DANGER MEN WORKING" by the concerned staff.

10. **PROTECTION AT THE TIME OF POWER BLOCK:**

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

11. **SECTION INSULATORS:**

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

12. **BREAKDOWN OF TRACTION OVERHEAD EQUIPMENT:**

All breakdown or defects noted or reported on the Traction overhead equipment or any other traction equipment including bonding shall immediately be reported to the Traction Power controller (G.R. 17.03.02) and ACTM Para 20605 of Vol.II Part I. Necessary Caution Order should be issued to the Loco Pilot concerned as directed by the Traction Power Controller observing the existing rules regarding issue of caution orders.

13. **REGISTER OF MESSAGES:**

All message relating to faults on the traction Overhead equipment, operation of switches custody of keys of out-door switches and other important communication in connection with the operation and maintenance of Traction Overhead equipment shall be recorded serially in a register by both the sender and the receiver indicating the time at which the message are received or exchanged (G R. 17.04.12) and ACTM Para 20610, Vol II Part I.

14. **MOVEMENT OF DIESEL ENGINES OR TRAINS HAULED BY SUCH ENGINES:**

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

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

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

15. **ELECTRIC LOCOMOTIVES :**

Provisions included in A.C. traction Manual must be completed with in case of double heading or banking by electric locomotive and precautions indicated therein must be complied with when dispatching locomotive(ACTM 30636, Vol III.).

16. **ESM :**
Any direct contact or close proximity to 25 KV line conductors is dangerous, the station ESM climbing up the Signal post for removing or fixing or cleaning the signal should not carry any long article which may accidentally touch or come in close proximity to live conductors. The ESM shall also be warned against bringing any part or body near live conductors.
17. **CRANES :**
No crane shall be worked on or near Traction Overhead equipment, unless such equipment is first made dead and earthed and an authorized representative of the OHE section is present (S.R. 17.04.17 (a) & (b)).
18. **WORK ON ROOF OF ROLLING STOCK:**
No person shall climb on the top of the Engine or Tenders or on the roofs of carriages, or wagons, when those vehicles are located beneath Overhead equipment except, when a regular 'Permit to work' has been obtained from authorized Traction Staff and the overhead equipment has been made dead and earthed (GR 17.05(02)) and ACTM Para 10402 & 10403 of Vol.I.
19. **BLOCK INSTRUMENT OR ANY OTHER ELECTRICAL SIGNALLING EQUIPMENT:**
The Station Master/Cabin master on duty must always watch for any unusual working in the Block instrument or any other signaling equipment, which may arise due to voltage, induced from traction system. The Block instrument or the signaling Equipment must be suspended whenever there is any signs of unusual working and the nearest signal and Telecom, maintenance Inspector may be contacted to inspect and certify the same. In the event of a break of the OHE, the Station Master Master must immediately check up whether all Block and signaling equipment are working normal before permitting any train movement.
20. **TELECOMMUNICATION CIRCUITS:**
The details of the Telecommunication facilities available on the electrified sections and the use of the same have been given at ACTM Para 10213, 10429 of Vol. I and Para 20703 of Vol. II part I.
21. **ELECTRIC SHOCK:**
The Station Master shall exhibit prominently the instructions issued regarding the treatment to persons suffering from electric shock in the Station/Yard Office and shall ensure that all Class-III staff are familiar with those instructions.

22. **FIRE:**
Regarding fire on or adjacent to any electrical equipment refer G R (6:10) and SR there to..
23. Nothing in these rules amends or supersedes any General or subsidiary rules or instructions included in AC Traction Manual. These working rules shall be read as supplement to the aforesaid Rules Books and also to the existing Station Working Rules of the Station.
24. **AMENDMENTS OR SUPPLEMENTARY CORRECTION SLIPS:**
Any amendment to these Working Rules or any of the Annexure will be notified by a correction slip to the Station Working Rules. The correction slips will be serially numbered and it is the responsibility of SM in charge of a station to bring the contents to the notice of all staff concerned and take their acknowledgement.
25. **CONTINUOUS WATCH BY INSPECTING STAFF:**
The Inspecting staff of Operating, telecommunication and Traction Departments shall make regular checks at all points to which these special working rules are supplied to ensure that the rules are corrected up-to-date and the staff concerned are fully conversant with the rules and abide by them.
- NOTE:** Whenever the codes 'GR' & 'SR' appear in these special working rules, please refer to the General and Subsidiary Rules for 25 KV AC Electric Traction, chapter- XIX.

OPERATION STATION WORKING ON AC TRACTION AREA

DO(s) and DON'T(s)

A. FOR ALL STAFF

a) DO(s)

1. In case of fire on Electric Traction Equipment of Wires.
 - i. Inform traction Power Controller.
 - ii. Extinguish fire by special extinguishers, if available.
 - iii. Ensure no water jet is used under any circumstances.
2. Anything unusual on Traction Wires or Electric Locomotive inform traction Power Controller or nearest Station Master.
3. In emergency Traction Power Controller can be contacted on emergency telephone system. (Sockets for connecting emergency telephone are provided at intervals of approximately every kilometer and direction to nearest socket is indicated on OHE masts).

b) DON'T(s)

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

B. FOR RUNNING STAFF:

a) DO(s)

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

b) DON'T(s)

1. Do not lift or raise your tools towards traction wires (keep the tools in their respective position immediately after use).
2. Do not load coal on the engine tender to a height more than 4 meters above rail level.
3. Do not take electric locomotive with raised pantograph to any unwired line, beyond power block working limit board or near the section insulators at the end of section under power block.
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 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 or water, if necessary, may be used horizontally outside the safety zone of 2 meters (7 feet)).

C) FOR OPERATING STAFF

a) DO(s)

1. Ensure all staff is conversant with safety precautions.
3. Report defects in traction wires of any electric locomotive or electric Multiple Unit Promptly to the traction Power controller.
4. Keep sufficient number of button collars and ensure safety understand their use.
5. Ensure fitting of button collars to the points, & signal levers which give access to section under power block.
6. Observe procedures given in station working rules of 25 KV AC Electric Traction while operating isolator switches.
7. Ensure safe custody of isolator switch keys.
8. Ensure the section is protected by traction staff from all directions by banner flag during power block.
9. Suspend working of block and signals if single of unusual working are noticed. Always checkup block instruments at signaling equipment when any breakdown in traction wires occurs.

b) DON'T(s)

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

LIST OF SWITCHING STATION AND TRACTION SUB-STATION IN THE SECTION VZM-SPRD.

<u>Sl.No.</u>	<u>SWS/TSS</u>	<u>Location</u>
1.	Gotlam/SP	KM.CH: 462/55.50
2.	Gajapatinagaram/SSP	KM.CH: 445/20.50
3.	Komatipalli/TSS	KM.CH: 435/100.00
4.	Bobilli/SP	KM.CH: 415/835.50
5.	Sitanagaram/SSP	KM.CH: 402/365.50
6.	Parvatipuram/TSS	KM.CH: 388/707.00
7.	Gumuda/SSP	KM.CH: 375/854.00
8.	Kuneru/SP	KM.CH: 368/285.50
9.	Ladda/SSP	KM.CH: 350/978.00
10.	Rayagada/TSS	KM.CH: 341/305.00
11.	Singapur Road/SSP	KM.CH: 332/09.50

EAST COAST RAILWAY**STATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR *DONKINAVALASA* STATION**

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

Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
Sector:					
1.	Sector between Gotlam/SP- Parvatipuram/TSS on both UP & DN line.	i) Movement of Electric Trains/Locos shall not be permitted into section Vizianagaram – Paravatipuram Town on both UP & DN line. ii) Line clear shall not be obtained/granted from/to Komatipalli & Bobbili for Electric Trains/Locos on UP & DN line. 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-268 & BM-269 are in open condition at Gotlam/SP. i) Open CB-119 at Parvatipuram/TSS.	i) Close CB-119 at Parvatipuram/TSS.
Sub-Sector:					
2.	DN sub-sector between Gajapatnagaram/SSP - Bobbili/SP on DN line.	i) Movement of Electric Trains/Locos shall not be permitted into Komatipalli – Donkinavalasa - Bobbili on DN line. ii) Line clear shall not be granted to Komatipalli for Electric Trains/Locos on the DN line. iii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iv) All reception and dispatch signals shall be kept at 'ON'.	Crossover point No. 22 at Komatipalli end and Point No.21 at Bobbili end shall be kept at normal position only.	i) Open BM-279 and BM- 280 at Bobilli/SP. ii) Open BM-272 at Gajapatnagaram/SSP.	i) Close BM- 272 at Gajapatnagaram/ SSP. ii) Close BM-279 and BM-280 at Bobilli/SP.

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3.	DN sub-sector between Bobbili/SP - Sitanagaram/SSP on DN line.	i) Movement of Electric Trains/Locos shall not be permitted into Donkinavalasa - Bobbili on DN line. ii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iii) DN dispatch signals shall be kept at 'ON'.	Nil	i) Open BM-280 and BM- 282 at Bobilli/SP. ii) Open BM-284 and BM-286 at Sitanagaram/SSP.	i) Close BM-284 and BM-286 at Sitanagaram/SSP. ii) Close BM-280 and BM- 282 at Bobilli/SP.
4.	UP sub-sector between Gajapatinagaram/SSP - Bobilli/SP on UP line.	i) Movement of Electric Trains/Locos shall not be permitted into Bobbili – Donkinavalasa - Komatipalli on UP line. ii) Line clear shall not be granted to Bobbili for Electric Trains/Locos on UP line. iii) Line clear shall not be obtained from Komatipalli for Electric Trains/Locos on UP line. iv) UP reception & dispatch signal shall be kept at 'ON'.	Crossover point No. 22 at Komatipalli end and Point No.21 at Bobbili end shall be kept at normal position only.	i) Open BM-273 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-281 at Bobilli/SP.	i) Close BM-279 and BM-281 at Bobilli/SP. ii) Close BM-273 at Gajapatinagaram/SSP.
5.	UP sub-sector between Bobbili/SP - Sitanagaram/SSP on UP line.	i) Movement of Electric Trains/Locos shall not be permitted into Donkinavalasa - Bobbili on UP line. ii) Line clear shall not be granted to Bobbili for Electric Trains/Locos on UP line. iii) UP reception signals shall be kept at 'ON'.	Nil	i) Ensure SM-435 of Bobbili at Loc. No. VBL/1020 is in open position. ii) Open BM-281, BM-282 and BM-283 at Bobbili/SP. iii) Close SM-435 of Bobbili at Loc. No. VBL/1020. iv) Open BM-284 and BM-285 at Sitanagaram/SSP.	i) Open SM- 435 of Bobbili at Loc. No. VBL/1020. ii) Close BM-281, BM-282 and BM- 283 at Bobilli/SP. iii) Close BM-284 and BM-285 at Sitanagaram/SSP.

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ELEMENTARY SECTION					
1.	E/S No. 27808 on DN line between section Komatipalli – Donkinavalasa including Common Loop line (L/4) at Donkinavalasa. Location from SM-424 of Komatipalli at Loc.No.434/4 to SM-428 of Donkinavalasa at Loc.No. 425/8.	<ul style="list-style-type: none"> i) Movement of Electric Trains/Locos shall not be permitted into section Komatipalli – Donkinavalasa on DN line and Common Loop line (L/4) at Donkinavalasa. ii) Line clear shall not be granted to Komatipalli for Electric Trains/Locos on DN line. iii) Ensure that no Electric Trains/Locos is standing with its panto raised condition on Common loop line (L/4). iv) Any Electric Trains/Locos can not be admitted/dispatched to/from Common Loop line (L/4) on both the directions. v) DN reception signals for DN Main & Common Loop line and DN dispatch signals for Common Loop line shall be kept at 'ON'. 	Crossover point No. 22, 24 at Komatipalli end and Point No.25 & 21 shall be kept at normal position only.	<ul style="list-style-type: none"> i) Open BM-272 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-280 at Bobbili/SP. iii) Open SM-424 of Komatipalli at Loc. No.434/4. iv) Open SM-428 of Donkinavalasa at Loc. No. 425/8. v) Close BM-272 at Gajapatinagaram/SSP. vi) Close BM-279 and BM-280 at Bobbili/SP. 	<ul style="list-style-type: none"> i) Close SM-424 of Komatipalli at Loc.No. 434/4. ii) Close SM-428 of Donkinavalasa at Loc.No.425/8.
2.	E/S No. 27810 on DN Main line at Donkinavalasa. Location from SM-428 of Donkinavalasa at Loc. No. 425/8 to SM-430 of Donkinavalasa at Loc. No.423/26.	<ul style="list-style-type: none"> i) Admission of Electric Trains/Locos shall not be permitted into DN Main line(L-3) at Donkinavalasa. ii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iii) UP Electric Trains/Locos cannot be admitted on Common Loop line (L/4). iv) No Electric Trains/Locos can be dispatched from Common Loop line (L/4) towards Bobbili. v) Electric Trains/Locos can be dispatched from Common Loop line (L/4) towards Komatipalli vi) DN reception signal for DN main line shall be kept at 'ON'. vii) DN dispatch signals for DN Main line and Common Loop line shall be kept at 'ON'. viii) UP reception signals for Common Loop line shall be kept at 'ON'. 	Crossover point No. 25 & 21 at Bobbili end shall be kept at normal position only.	<ul style="list-style-type: none"> i) Open BM-272 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-280 at Bobbili/SP. iii) Open SM-428 of Donkinavalasa at Loc. No. 425/8. iv) Open SM-430 of Donkinavalasa at Loc. No.423/26. v) Close BM-272 at gajapatinagaram/SSP. vi) Close BM-279 and BM-280 at Bobbili/SP. 	<ul style="list-style-type: none"> i) Close SM-428 of Donkinavalasa at Loc. No. 425/8. ii) Close SM-430 of Donkinavalasa at Loc. No. 423/26.

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3.	E/S No. 27812 on DN line between section Donkinavalasa – Bobbili. Location from SM-430 of Donkinavalasa at Loc. No. 423/26 to SM-432 of Bobbili at Loc. No. 416/8.	i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa - Bobbili on DN line. ii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iii) DN dispatch signals shall be kept at 'ON'.	Nil	i) Open BM-272 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-280 at Bobbili/SP. iii) Open SM-430 of Donkinavalasa at Loc. No. 423/26. iv) Open SM-432 of Bobbili at Loc. No.416/8. v) Close BM-272 at Gajapatinagaram/SSP. vi) Close BM-279 and BM-280 at Bobbili/SP.	i) Close SM – 430 of Donkinavalasa at Loc. No. 423/26. ii) Close SM – 432 of Bobbili at Loc. No.416/8.
4.	E/S No. 27814 on DN line between section Donkinavalasa – Bobbili. Location from SM-432 of Bobbili at Loc. No. 416/8 to Bobbili/SP.	i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa - Bobbili on DN line. ii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iii) DN dispatch signals shall be kept at 'ON'.	Nil	i) Open BM-272 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-280 at Bobbili/SP. iii) Open SM-432 of Bobbili at Loc. No.416/8. iv) Close BM-272 at Gajapatinagaram/SSP.	i) Close BM-279 and BM-280 at Bobbili/SP. ii) Close SM – 432 of Bobbili at Loc. No.416/8.
5.	E/S No. 28610 on DN line between section Donkinavalasa – Bobbili. Location from Bobbili/SP to SM-434 of Bobbili Loc. No. 415/28.	i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa - Bobbili on DN line. ii) Line clear shall not be obtained from Bobbili for Electric Trains/Locos on DN line. iii) DN dispatch signals shall be kept at 'ON'.	Nil	i) Open BM-280 and BM-282 at Bobbili/SP. ii) Open BM-284 and BM-286 at Sitanagaram/SSP. iii) Open SM-434 of Bobbili at Loc. No.415/28. iv) Close BM-284 and BM-286 at Sitanagaram/SSP.	i) Close BM-280 and BM-282 at Bobbili/SP. ii) Close SM – 434 of Bobbili at Loc. No.415/28.

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6.	E/S No. 27707 on UP line between section Donkinavalasa – Komatipalli. Location from SM-425 of Komatipalli at Loc.No.434/1 to SM-427 of Donkinavalasa at Loc.No. 425/21.	<ul style="list-style-type: none"> i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa – Komatipalli on UP line. ii) Line clear shall not be obtained from Komatipalli for Electric Trains/Locos on UP line. iii) No Electric Trains/Locos can be dispatched from Common Loop line(L/4) towards Komatipalli on UP line. iv) UP dispatch signals for UP Main, UP Loop and Common Loop line (L/4) shall be kept at 'ON'. 	Crossover point No. 22 at Komatipalli end shall be kept at normal position only.	<ul style="list-style-type: none"> i) Open BM-273 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-281 at Bobbili/SP. iii) Open SM-425 of Komatipalli at Loc.No.434/1. iv) Open SM-427 of Donkinavalasa at Loc.No. 425/21. v) Close BM-273 at Gajapatinagaram/SSP. vi) Close BM-279 and BM-281 at Bobbili/SP. 	<ul style="list-style-type: none"> i) Close SM-425 of Komatipalli at Loc.No.434/1. ii) Close SM-427 of Donkinavalasa at Loc.No. 425/21.
7.	E/S No. 27709 on UP Main line including UP Loop line. (E/S No. X-511 on Goods siding gets automatically blocked) Location from SM-427 of Donkinavalasa at Loc.No.425/21 to SM-429 of Donkinavalasa at Loc.No. 424/7.	<ul style="list-style-type: none"> i) Admission/dispatch of Electric Trains/Locos shall not be permitted on/from UP Main line, UP Loop line and Goods siding. ii) UP Electric Trains/Locos can be admitted on Common Loop line (L/4). iii) UP Electric Trains/Locos can be dispatched from Common Loop line (L/4) towards Komatipalli. iv) Ensure that no Electric Trains/Locos is standing with its panto raised condition on L/1, L-2 & Goods siding. v) Shunting of Electric Trains/Locos shall be prohibited on L-1, L-2 and Goods Siding from adjacent lines. vi) Reception & Dispatch signals for UP Main, UP Loop shall be kept at 'ON'. 	Nil	<ul style="list-style-type: none"> i) Open BM-273 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-281 at Bobbili/SP. iii) Open SM-427 of Donkinavalasa at Loc.No.425/21. iv) Open SM-429 of Donkinavalasa at Loc.No. 424/7. v) Close BM-273 at Gajapatinagaram/SSP. vi) Close BM-279 and BM-281 at Bobbili/SP. 	<ul style="list-style-type: none"> i) Close SM-427 of Donkinavalasa at Loc.No.425/21. ii) Close SM-429 of Donkinavalasa at Loc.No. 424/7.

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8.	E/S No. 27711 on UP line between section Donkinavalasa – Bobbili. Location from SM-429 of Donkinavalasa at Loc. No. 424/7 to SM-431 of Bobbili at Loc. No. 416/5.	i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa - Bobbili on UP line. ii) Line clear shall not be granted to Bobbili for Electric Trains/Locos on UP line. iii) UP reception signals shall be kept at 'ON'.	Crossover point No. 21 at Bobbili end shall be kept at normal position only.	i) Open BM-273 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-281 at Bobbili/SP. iii) Open SM-429 of Donkinavalasa at Loc. No. 424/7. iv) Open SM-431 of Bobbili at Loc. No.416/5. v) Close BM-273 at Gajapatinagaram/SSP. vi) Close BM-279 and BM-281 at Bobbili/SP.	i) Close SM – 429 of Donkinavalasa at Loc. No. 424/7. ii) Close SM – 431 Bobbili at Loc. No.416/5.
9.	E/S No. 27713 on UP line between section Donkinavalasa – Bobbili. Location from SM-431 of Bobbili at Loc. No. 416/5 to Bobbili/SP.	i) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa – Bobbili on UP line. ii) Line clear shall not be granted to Bobbili for Electric Trains/Locos on UP line. iii) UP reception signals shall be kept at 'ON'.	Nil	i) Open BM-273 at Gajapatinagaram/SSP. ii) Open BM-279 and BM-281 at Bobbili/SP. iii) Open SM-431 of Bobbili at Loc. No. 416/5. iv) Close BM-273 at Gajapatinagaram/SSP.	i) Close SM-431 of Bobbili at Loc. No. 416/5. ii) Close BM-279 and BM-281 at Bobbili/SP.
10.	E/S No. 28509 on UP line between section Donkinavalasa – Bobbili. Location from Bobbili/SP to SM-433 of Bobbili Loc. No. 415/25.	iv) Movement of Electric Trains/Locos shall not be permitted into section Donkinavalasa - Bobbili on UP line. v) Line clear shall not be granted to Bobbili for Electric Trains/Locos on UP line. vi) UP reception signals shall be kept at 'ON'.	Nil	i) Open BM-281, BM-282 and BM-283 at Bobbili/SP. ii) Open BM-285 and BM-284 at Sitanagaram/SSP. iii) Close SM-435 of Bobbili at Loc. No. VBL/1020. iv) Open SM-433 of Bobbili at Loc. No.415/25. v) Close BM-285 and BM-284 at Sitanagaram/SSP.	i) Open SM-435 of bobbili at Loc. No. VBL/1020. ii) Close SM – 433 of Bobbili at Loc. No.415/25. iii) Close BM-281, BM-282 and BM-283 at Bobbili/SP.

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11.	E/S No. X-511 on Goods siding at Donkinavalasa.	i) Movement of Electric Trains/Locos shall not be permitted into Goods siding. ii) No Electric Trains/Locos can be admitted/dispatched into/from Goods siding from/towards both the directions. iii) Ensure that no Electric Loco is standing with its panto raised condition on Goods siding. iv) Loading work can be performed on Goods siding only after elementary section made dead. v) Reception & dispatch signals for Goods siding at both ends shall be kept at 'ON'.	i) Hand point lever of Goods siding shall not be operated. ii) Point No. 29N & 29T shall be kept at normal position only.	i) Open SS-511 of Donkinavalasa at Loc. No. 424/37/2 first. ii) Then open SS-511A of Donkinavalasa at Loc. No.424/23.	i) Close SS-511A of Donkinavalasa at Loc. No.424/23 first. ii) Then close SS-511 of Donkinavalasa at Loc. No. 424/37/2.
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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. VTRE/OHE/RE/DNV/06.