

EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF JAGDALPUR [BROAD GAUGE]

Date of Issue: -

Date brought in force:

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

NOTE: -

i) 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/23147

(ii) CSTE/East Coast Railway Signal Interlocking Plan No: SI/23147

(iii) Date up to which corrected:

2. **DESCRIPTION OF STATION:**

Jagdalpur (code: JDB) is a standard-II® 'B' class station with MACLS on the Kottavalasa-Kirandul single line B.G.section of E.Co.Rly on 'D' route. It is situated at km 295.784 from KTV and provided operated centrally with VDU.

2.1 **GENERAL LOCATION:**

| | | |
|--------------------------------|---|-------------------------|
| a) Name of the station | : | JAGDALPUR |
| b) Class of station | : | 'B' class |
| c) Section | : | Kottavalasa-Kirandul |
| d) Double line/Single line | : | Double line |
| e) Electrified/Non Electrified | : | Electrified |
| f) Gauge BG/MG/NG | : | BG |
| g) Railway | : | East Coast Railway |
| h) Route | : | 'D' Special |
| i) Situated at | : | Km 295.784 |
| j) Reckoned from | : | Kottavalasa |
| k) Operation | : | Centrally operated VDU. |

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

| Sl no | Adjacent Block-section | Distance | Direction |
|-------|------------------------------|----------|-----------|
| a | KUMHASR MARENGA | 8.885km | KRDL end |
| | NAKTI SEMRA | 6.454 Km | KTV end |
| b | Provision of IBS | Nil | |
| c | Automatic signal | Nil | |
| d | DK station/Outlaying sidings | Nil | |
| e | 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 |
|---------------------------------------|--------------------------------------------------|---------------------------------------------|
| JDB - KMEZ UP Direction (Double line) | From UP advanced starter signal no. 21 of JDB. | Up to facing point no. 31A of KMEZ. |
| KMEZ-JDB DN Direction | From DN advanced starter signal no. 26 of KMEZ | Up to BSLB of JDB. |
| JDB-NKX DN Direction (Single line) | From DN advanced starter signal no.24 of JDB | UP Advanced starter signal no. 5 of NKX. |
| NKX-JDB UP Direction (Single line) | From UP advanced starter signal no. 5 of NKX | DN Advanced starter signal no. 26 of JDB. |

2.4 GRADIENTS:

a) From the centre of the station building towards KMEZ (UP Line):

| Chainage in Mtrs from CSB | | Stretch | Gradient |
|---------------------------|--------------|---------|---------------------|
| From | To | | |
| 0.000 F/CSB | 1175M | 1175M | 1 in 600 Raising |
| 1175M | 1340M | 165 M | 1 in 113.72 falling |
| 1340 M | 2086 M | 746M | 1 in 140 raising |
| 2086 M | 2280 M | 194 M | Level |
| 2280 M | 2400M | 120 M | 1 in 150 falling |
| 2400 M | 3120 M | 720 M | 1 in 100 falling |
| 3120 M | Into section | --- | Level |

b) From the centre of the station building towards KMEZ (DN line):

| Chainage in Mtrs from | | Stretch | Gradient |
|-----------------------|--------------|---------|----------------------|
| From | To | | |
| 0.000 F/CSB | 1099 M | 1099 M | 1 in 600 raising |
| 1099M | 1342M | 243M | 1 in 179.372 falling |
| 1342M | 2150M | 808 M | 1 in 147177 raising |
| 2150 M | 2562 M | 412M | 1 in 114.71 raising |
| 2562 M | 3186 M | 624 M | 1 in 108.39 raising |
| 3186 M | Into section | ----- | Level |

c) From the centre of the station building towards NKX (Single line):

| Chainage in Mtrs from | | Stretch | |
|-----------------------|--------------|---------|------------------|
| From | To | | Gradient |
| 0.000 F/CSB | 547 M | 547 M | 1 in 600 raising |
| 547 M | 2019 M | 1472 M | 1 in 150 falling |
| 2019 M | 2224 M | 205 M | 1 in 125 falling |
| 2224 M | 2376 M | 152M | 1 in 150 falling |
| 2376 M | 2681 M | 305M | 1 in 300 falling |
| 2681 M | 2986M | 305 M | 1 in 150 falling |
| 2986 M | Into section | ---- | Level |

2.5 (A) LAY OUT:

| Sl no | Running/Non Running line | Electrified/Non Electrified |
|-------|--------------------------|-----------------------------|
| 1 | Line no-1 (Common Loop) | Electrified |
| 2 | Line no-2 (DN Main line) | Electrified |
| 3 | Line no-3 (UP Main line) | Electrified) |
| 4 | Line no-4 Loop line) | Electrified |
| 5 | Line no-5 Loop line) | Electrified |
| 6 | Line no-6 Loop line) | Electrified |

(B) PLATFORMS:

(i) One High level passenger platform on line no1 is provided with measurement of 306MX17M

(ii) One High level island passenger platform between line no. 2 &3 is provided with a measurement of 550M X 10.81M.

(iii) One circulating area cum rail level platform (Goods platform) on Line no.7 is provided with a measurement of 400M X 10M.

(iv) One rail level platform (Goods platform) on Line no.8 is provided with a measurement of 400M X 10M.

2.5.1 RUNNING LINES & HOLDING CAPACITY IN CSL:

HOLDING CAPACITIES:

| | | | | |
|-----------|--------------|------------|-------------|-------------------------|
| Line No 1 | Common Loop | 632 Meters | Electrified | From Starter to Starter |
| Line No 2 | DN Main line | 704 Meters | Electrified | From Starter to S.S. |
| Line No 3 | UP Main line | 915 Meters | Electrified | From Starter to S.S. |
| Line No 4 | Loop Line | 736 Meters | Electrified | From Starter to Starter |
| Line No 5 | Loop Line | 645 Meters | Electrified | From Starter to Starter |
| Line No 6 | Loop Line | 641 Meters | Electrified | From Starter to Starter |

2.5.1.1. NON RUNNING LINES & HOLDING CAPACITY IN CSL:

| | | | | |
|---------------------|-----------|------------|-----------------|------------------|
| Line No 7 | Loop Line | 334 Meters | Electrified | From Shunt to DE |
| Line No 8 | Loop Line | 349 Meters | Electrified | From Shunt to DE |
| Shunting Neck | | 205Meters | Non Electrified | From Shunt to DE |
| RE Siding | | 142Meters | Non Electrified | From Shunt to DE |
| Construction siding | | 186Meters | Non Electrified | From Shunt to DE |

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT:

The station has double line working towards KRDL & single line working towards KTV.

2.6 LEVEL CROSSINGS:

| Sl no | LC no of gate & km no | Class of Gate | Type of Interlocking | Section |
|-------|-------------------------|-----------------------|----------------------|----------|
| 1 | KK-82, Km no: 293/2-3 | 'C' class Engineering | Non Interlocking | JDB-NKX |
| 2 | KK-83, km no: 294/16-17 | Spl class Engineering | Interlocked | JDB-NKX |
| 3 | KK-84, km no: 297/18-19 | Spl class Engineering | Interlocked with ELB | JDB-KMEZ |

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 the block section JDB-KMEZ and Single line tokenless Block instruments are provided for the block section JDB-NKX vide GR 14.01 (a) and the 'OFF' aspect of the last stop signal is the authority for the Loco pilot to enter into the block section vide GR 14.08 (a).

iii) Co-operative/Non Co-operative: Non Co-operative for section JDB-KMEZ and Co-operative for section JDB-NKX.

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-II® with 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). All signals and points are electrically operated from the central VDU provided at SM's Office.
- d) Method of operation: Central 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, 1T, 24AT, 31AT, 31BT, 33AT, 33BT, 35/37T, 39AT, 39BT, 41T, 43T, 45/47T, L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L3T4, L4T1, L4T2, L4T3, L5T1, L5T2, L5T3, L6T1, L6T2, L6T3, 30AT, 30BT, 32AT, 32BT, 32AT1, 34AT1, 34T, 36T, 38T, 40AT1, 40AT, 40BT, 42T, 44AT, 44BT, 21AT, 21T, 2AT, 2T1 and 2T2. Axle counters are provided for section KMEZ-JDB on both UP & DN lines for double line section and JDB-NKX section for single line section for last vehicle verification. Block section indications for the above track circuits/ Axle counters are available on VDU at SM's office. When a signal is cleared the route indication 'Yellow' 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 & DN lines) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b).
- g) IBS is not provided at this station.
- h) **CRANK HANDLE:**

When any point fails to operate normally by the Route Setting operation through VDU, it is inevitable to operate the points with crank handle. The 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 points 31, 33; CH2 controls point 39; CH3 control points 35, 37, 45, 47; CH4 control points 41, 43; CH-5 control points 42, 44; CH-6 control point 40; CH-7 control points 36, 38; CH-8 control points 34; CH-9 control points 30, 32.

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 clicking common 'TRANS' button and concerned Crank handle control 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 SSE/JE 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:**(a) Towards NKX end:**

- (i) Independent shunt signals: SH-3(A-F), SH-5 (A-F), SH-18 and SH-20.
- (ii) Dependent shunt signals: SH-10A/B, SH-12A/B, SH-14A/B and SH-16A/B.

(b) Towards KMEZ end:

- (i) SH-4(A-F), SH-19A/B and SH-26A/B.
- (ii) Dependent shunt signals: SH-7 and SH-9.

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

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

4.3 (A) POWER SUPPLY:

Normal: AT Supply-230v, 50Hz

Stand by: - 1st standby power supply: Chattishgarh State Electricity Board Supply.

2nd stand by power supply: DG set.

(i) A changeover switch is provided in the Station Master's Office with the three power supplies viz., AT, Local and DG for changing the switch to the required supply position. A luminous indicator above the circuit breaker for each supply indicates the availability of the supply.

(ii) For IPS system that provides to EI, auto-change over has been provided.

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

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

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

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

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

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

(e) Whenever there is a failure of power supply in AT or Local the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of power supply AT and Local and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

5. TELECOMMUNICATIONS:

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

(b) Telephone communication is provided between adjacent stations i.e., KMEZ and NKX Stations.

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

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

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

(f) Telephone communication is provided between Station Master on duty to 'C' class engineering manned LC gate at km 293/2-3 between JDB-NKX (LC no KK-82); Spl class Engineering LC gate at km no. 294/16-17 between JDB-NKX (LC No. KK-83); Spl class Engineering LC gate at km no. 297/18-19 between JDB-KMEZ (LC No. KK-84).

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

(h) BSNL telephone is provided at this station.

5.1 FAILURE OF COMMUNICATION: -

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

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

6. SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF:

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

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

6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:**STAFF IN EACH SHIFT:**

| | |
|----------------|-----------------|
| SMR | 1 (Supervisory) |
| Station Master | 1 |
| TPM/TP | 2 |

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

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

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

6.1.3 ASSURANCE OF THE STAFF IN THE ASSURANCE REGISTER:

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

6.2 CONDITIONS FOR GRANTING LINE CLEAR:**(i) FOR DOUBLE LINE SECTION JDB-KMEZ:**

a. The conditions laid in GR 8.03(1)(a) (b) (c) (ii) shall be complied with the SM on duty before line is considered clear and line clear is granted for double line section KMEZ-JDB.

b. Before granting 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 signal is not flashing on VDU.

c. Line shall not be considered clear and line clear shall not be granted to a DN train unless:

i) Whole of the last train passed over the section has arrived completely.

ii) DN Home signal /calling-on signal No. 2(A-E) and/or C-2(A-E) is put back to 'ON' and line is clear up to BSLB.

iii) Ensure about the closure of interlocked LC gate no. KK-84.

iv) Line is clear up to BSLB of JDB.

(ii) FOR SINGLE LINE SECTION JDB-NKX:

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 for single line section NKX-JDB.

b. Before granting 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 signal is not flashing on VDU.

c. Line shall not be considered clear and line clear shall not be granted to an UP train unless:

- i) Whole of the last train passed over the section has arrived completely.
- ii) UP Home signal /calling-on signal No. 1 (A-E) and/or C-1 (A-E) is put back to 'ON' and
- iii) Line is clear up to DN Advanced starter signal no.24.
- iv) Ensure closure of LC gates KK-82 & KK-83.

6.2.1 CLEARANCE OF ADEQUATE DISTANCE (SIGNAL OVERLAP) TO TAKE OFF HOME SIGNAL:

| Berthing Line Number | FOR UP TRAINS | | FOR DOWN TRAINS | |
|----------------------|------------------------------------|----------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| | From | To | From | To |
| 1. | UP common loop starter Signal No.7 | UP advanced starter signal No.21 or up to the end of the sand hump of Line no.1. | DN common loop starter Signal No.6 | DN advanced starter signal No.24 or up to the end of the sand hump of Line no.1. |
| 2. | ---- | ---- | DN Main line starter Signal No.8 | DN advanced starter signal No.24. |
| 3. | UP Main line starter Signal No.11 | UP advanced starter signal No.21. | ---- | ----- |
| 4. | UP loop line starter Signal No.13 | UP advanced starter signal No.21 or up to DS-34B. | DN loop starter Signal No.12 | DN advanced starter signal No.24 or up to the end of 39BT when point no. 37, 39 &41 are normal. |
| 5. | UP loop line starter Signal No.15 | UP advanced starter signal No.21 or up to DS-34B. | DN loop starter Signal No.14 | DN advanced starter signal No.24 or up to the end of 39BT when point no. 37, 39 &43 are normal and point no 41 is reverse. |

| | | | | |
|----|-----------------------------------|---------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 6. | UP loop line starter Signal No.17 | UP advanced starter signal No.21 or up to DS-34B. | DN loop starter Signal No.16 | DN advanced starter signal No.24 or up to the end of 39BT when point no. 37, 39 are normal and point no 41&43 are reverse. |
|----|-----------------------------------|---------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------|

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

1. While shunting on gradient beyond DN advanced starter signal no. 24, SM shall ensure that an engine to be attached towards the falling side of the gradient vide GR 5.20 due to falling gradient of 1 in 150.
2. To take off home signal no.2 of JDB station, the block overlap required from S-2 to BSLB which is 300mtrs.

6.2.2.1 **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 of a station happen to be blocked, when line clear has been granted to a train, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chance of causalities are minimized. In case of all the lines are occupied by passenger train, points should be set for a loop line to negotiate which the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities.

6.2.2.2 **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 or by taking off calling-on signal. [Refer GR 5.09 & SRs there to].

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

Not Applicable

6.2.2.4 **DESPATCH OF TRAIN FROM NON-SIGNALLED LINE.**

Not Applicable

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

NIL.

6.2.2.6 ANY SPECIAL CONDITIONS:**(a) SPECIAL RESTRICTIONS:**

1. Through trains of UP direction are to pass with restricted speed of 30KMPH via Line no. 3 due to approach of Double line.
2. While shunting on gradient beyond DN advanced starter signal no. 24, SM shall ensure that an engine to be attached towards the falling side of the gradient vide GR 5.20 due to falling gradient of 1 in 150.

(b) SPECIAL INSTRUCTIONS:

To take off home signal no.2 of JDB station, the block overlap required from DN home signal S-2 to BSLB which is 300mtrs.

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:-

- i) Conditions for taking off approach signals are governed by GR 3.40(1) (a), 3.40(2) (a), 3.40(3) (b) for double line sections+ KMEZ-TPQ & KMEZ-JDB.
- ii) calling-on signal may be taken off for the admission of train in the event of failure of Home signal in terms of SR 3.69.02(a) or for the admission of a train on obstructed line in terms of GR 5.09 and SRs thereto.

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

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

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

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 | (i) Simultaneous reception of a DN train on Line no.4 or 5 or 6 setting overlap up to 39BT. OR (ii) Simultaneous dispatch of another UP train from line No.3 or 4 or 5 or 6. |
| 2 | Reception of an UP train on Line no-4 or 5 or 6 setting overlap up to DS-34B. | AND | (i) Simultaneous reception of a DN train on line no.1 setting overlap to sand hump. OR (ii) Dispatch of another UP train either from Lineno.1or Line no.3. |
| 3 | Reception of a DN train on line No. 1 setting overlap to sand hump. | AND | (i) Simultaneous reception of an UP train on line no. 4 or 5 or 6 setting overlap up to DS-34B. OR (ii) Dispatch of another DN train from line No. 2 or 4 or 5 or 6. |

| | | | |
|---|-----------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Reception of a DN train on line No. 4 or 5 or 6 setting overlap up to 39BT. | AND | (i) Simultaneous reception of an UP train on line no. 1 setting overlap to sand hump. OR (ii) Dispatch of another DN train from line No. 1 or 2. |
|---|-----------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------|

6.5 COMPLETE ARRIVAL OF TRAINS:

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

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

In case of failure of Axle counter the SM on duty shall obtain complete arrival certificate from the guard of the train in the complete arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide 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 DISPATCH OF TRAINS:

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 VDU. He shall suspend all non-isolated shunting and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the advanced starter is the authority to proceed into the block section. As soon as the train passes the advanced starter signal, Train entering section indication will appear on the VDU. The 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)]

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

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

If the axle counter fails between the block sections, resetting procedure will be adopted as per Para 26.0 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.

c. BLOCK INSTRUMENTS:

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

d. RECEPTION OF A TRAIN ON OBSTRUCTED 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 or by taking off calling-on signal. [Refer GR 5.09 & SRs there to]

e. RECEPTION OF A TRAIN ON NON-SIGNALLED LINE:

NIL

f. DEFECTIVE SIGNALS:

Whenever signals become defective, the procedure laid down in GR & SR shall be followed. [Refer GR 3.68 to 3.71]. In the event of signal showing no lights, station master on duty shall before giving line clear initiate action in accordance with the procedure laid down in GR 3.74.

g. DEFECTIVE INTERLOCKING:

When interlocking becomes defective the SS/SM on duty shall be responsible for correct setting, clamping, padlocking of points for admission of train as per SR 3.69.03 © & 3.69.01.

h. DEFECTIVE/DAMAGED POINTS:

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

Station master on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency crank handle register shall be maintained by SM at the station as per para 20.06(d) of the Operating manual. Correct setting, clamping and padlocking of the points devolve on SM on duty.

(Details of use of crank handle as per Appendix-'B'). The cases of the failures of the point should be promptly reported to the concerned signal maintainer/JE/SE (signal) for immediate rectification.

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

- a. Motor trolleys shall be worked as per GR 15.25 and SRs there to, BWM 5.11(1) (2), 5.12, 5.13, 5.14(2) (a) and circulars and orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs there to and in accordance with the provisions of Block Working Manual.
- b. Tower wagons shall be worked as per GR 17.08 and SRs there to and BWM 4.39 and other circulars and orders issued from time to time.
- c. Push trolleys shall run under block protection only vide SR 15.25.09(e).
- d. Shunting key of token less block instrument at dispatch station as well as receiving station of the motor/push trolley shall be taken out and kept in the personal custody of SM on duty in addition "trolley on line" board shall be hung up on the handle of the block instrument. Special instructions contained in the circular No.19 of 6.4.88 should be followed.

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

7. BLOCKING OF THE LINES:

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. 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.

B. REMINDER FOR BLOCKING LINES :-

Read para no. 3.2.1 of Appendix-'B'.

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 towards NKX end beyond Advanced starter signal is permitted.

8.3 PROHIBITION OF SHUNTING, SPECIAL FEATURES IF ANY:

- (i) Hand shunting is prohibited at both ends of the yard vide GR 5.20.
- (ii) Fly shunting is prohibited at both ends of the yard vide SR 5.21.01 I
- (iii) For shunting in both ends of the yard, engine should be leading towards the falling gradient.

8.4 SHUNTING ON DOUBLE LINE:

- i) Within station section: Governed by GR 8.05.
- ii) Beyond station section: Governed by GR 8.06.

8.5 SHUNTING ON SINGLE LINE:

- i) Within station section: Governed by GR 8.10.
- ii) Between last stop signal and opposite first stop signal: Governed by GR 8.12.
- iii) Beyond station section: Unless the line is blocked back, the line outside the first stop signal shall not be obstructed vide GR 8.13.
- iv) During failure of Block instrument: Block back messages shall be exchanged between Station master at either end of the section which is intended to be obstructed supported by private number. Both the Station Masters shall fix line block collars on respective Block Instruments and shall continue shunting provided the Block section is clear.

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

Not applicable to this station.

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

- (i) During partial interruption of communication between the adjacent block stations, SR 6.02.06 shall be observed.
- (ii) In the event of occupation of block section due to accident or obstruction the authority for the train to work up to obstruction as and when required is T/A 602 & 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.
- (v) Failure of Axle counter Block/BPAC: Procedure to be followed vide GR 14.13 & 14.14.
- (vi) Failure of MTRC: Not applicable.

a) 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 TRACK CIRCUIT/AXLE COUNTER FAILURE AND EMERGENCY ROUTE RELEASE:

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

Then emergency point button to be released and the point group normal button or point group reverse button is to be operated 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.

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

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

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

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

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

9.1 TOTAL FAILURE OF COMMUNICATION:

In the event of total failure of communication on double line, trains shall run on the authority to proceed without line clear in terms of SR 6.02.03 & on single line, as per SR 6.02.04.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

GR 6.01 and SR 6.02.02 shall be followed.

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

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 starter signal No.7 and DN starter signal No.6 of Line No.1 are ear marked 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 labour but regular employees of the railway.

12.1 STATION DETONATOR REGISTER (OPT/124):

A Register regarding detonator is maintained at the station.

12.2 INSTRUCTIONS:

a. This register contains the following parts.

- Part. - I: Particulars of fog signal men posted at the station from time to time.
- Part - II: Particulars of receipt and stock of detonating (fog) signals at the station to be filled in whenever detonators are used or received.
- Part - III: Periods of fogs, fog signalmen on duty and details of detonators used.
- Part - IV: Particulars of issue and testing of fog signals at the station.

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

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

13. APPENDICES:

APPENDIX-A : WORKING OF LEVEL CROSSING GATES

APPENDIX-B : SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.

APPENDIX-C : ANTI COLLISION DEVICE (RAKSHA KAVACH)

APPENDIX-D : DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT

APPENDIX-E : LIST OF ESSENTIAL EQUIPMENT PROVIDED AT THE STATION.

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

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

CERTIFICATE

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

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

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

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

- 1.Number of Level Crossing Gate : KK-83
- 2.Engineering or Traffic Gate : Engineering gate ('Spl'-class)
- 3.Under control of Station Master/Permanent Way inspector:
: SSE [P]/JDB
- 4.Location at KM : 294/16-17
- 5.At Station : Mid section
- 6.In between station : JDB-NKX
- 7.BG/MG/NG : BG
- 8.Single line/Double line/Multiple line : Single Line
- 9.Normal Position : Opened to Road Traffic.
- 10.Inter Locked/Non-Interlocked : Interlocked.
- 11.Means of interlocked : Mechanical interlocked.
- 12.Provision of Gate signal at KMs : UP Gate stop signal at km no:
294/12-13
- 13.Signaling arrangement : MACLS
- 14.Means of communication- Telephone/Bell etc: Telephone
connected with JDB station
- 15.Width of level crossing gate : 7.5Mtrs.
- 16.Type of road {NH/SH/Other} : Others
- 17.Name of road : Lamini Road
- 18.Metalled/Non-Metalled : Metalled
- 19.Approach road : Bitumen.
- 20.Width of the road : 5.5M.
21. Angle of road crossing
[In case of the skew gates] : --
- 22.Road gradients {if any} :
- 23.Road alignment {Straight/Curve} :i) North-East--- Straight
ii) South-west-- Straight
24. Provision of height gauge : Provided
25. Type of Barriers : Lifting Barriers.
26. Length of check rail : 10M.
- 27.Road surface in L-Xing gate : Concrete
- 28.Length of Rumble strip /speed breakers: Rumble strip & 20M from
clearance of track.
- 29.Road signs : Provided.
- 30.Speed breaker indication board : Provided.
- 31.TVU : 78206 as on 03/2015
- 32.Censes next due on : 03/2018
- 33.Demarcation for placement of detonators: Provided.
- 34.No. of Gate men working : Three
- 35.Nearest Railway Medical Assistance: JDB.
36. Nearest private Medical Assistance {If Any}: Jagdalpur
37. List of equipment available Yes/No : Yes.

1.2 EQUIPMENTS:

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

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.
12. Signal failure and inspection register.

1.4 **DUTIES OF GATEMEN:**

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: -

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

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 sunrise.
- [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 Loco pilot on walkie-talkie or in any other way.
- [vi] If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco pilot to report the defect at the next station.
- [ix] Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- [x] Gateman shall ensure that he is having competency certificate in his possession while on duty.

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

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

[xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.

[xiv] Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

[xv] Gateman 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/animal passing from gate are within the height loading gauge provided on either side of the level crossing gate.

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

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 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 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 if connected on telephone, regarding the defects/obstructions at the gate, under exchange of private number.

[iii] If there is no response from the station master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:

[A] ON SINGLE LINE SECTION:

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

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

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

(iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a

point 600meters and place one detonator on the line. There after he shall proceed to a distance 1200meters from the level crossing gate and place 3 detonators on the track 10meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

(v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para(iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

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

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

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

[B] ON DOUBLE LINE SECTION: Not applicable.

[C] 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 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 vehicle driver, owner and relay these details to the nearest Station Master or Permanent way inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

6. ENGINEERING ITEMS:

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

7. SPECIAL INSTRUCTIONS FOR DIFFERENT TYPES OF LEVEL CROSSINGS:

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

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

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

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

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

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

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

Annexure-I**WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATE INTERLOCKED WITH GATE SIGNALS, PROVIDED WITH TELEPHONE AND NORMAL POSITION "OPEN TO ROAD TRAFFIC" FOR L.C. GATE AT KM 294/16-17 BETWEEN JDB-NKX.**

(General instructions are common for all type of Manned Level Crossing)

1. Mode of operation:

Gate shall normally kept open to the road traffic whenever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or dispatch supported by private number. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

- (i) Key 'M' is obtained from winch after closing the L.C. gate and releases GF-2.
- (ii) GF-2 when reversed effects boom locking & releases key-N & lever Nos. GF-3 or GF-4.
- (iii) Lever no. GF-3 when reversed releases UP gate stop signal.
- (iv) Lever no. GF-4 when reversed with key 'N' transmitted to SM will extend slot to DN advanced starter S-24 of JDB.
- (v) Lever no GF-4 is provided in the gate lodge to put back the concerned signals to 'ON' in case of emergency.
- (vi) For opening of the gate, SM transmits control-49, key-N released from RKT at Gate lodge for DN trains only.
- (vii) No key transmission is provided for UP trains from GK to SM and vice versa.

2. Exchange of Private Number:

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

3. Failure of Telephonic Communication:

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

- [i] If the telephone fails at the gate connected with the station at the dispatching end, SS/Dy.SS shall issue a caution order to the loco pilot of the departing train.
- [ii] SS/Dy.SS shall advise the loco pilot to whistle continuously and proceed cautiously while approaching the gate.
- [iii] In case the gate signal is 'ON', he should stop short of the gate signal and follow the procedure laid down under GR 3.73.

[iv] In case of an approaching train, the SS/Dy.SS shall advise the SS/Dy.SS at the dispatching end, under exchange of private number that the telephone at the gate has failed.

[v] The SS/Dy.SS at the dispatching end shall then issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[vi] SS/Dy.SS will also advise the gateman through Gang man/Patrolman /Loco pilot of the first train that the telephone has become defective.

[vii] SS/Dy.SS 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:

(a) If a gate boom/barrier is damaged, the gateman shall-

(i) Close the level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over the telephone or through the loco pilot of a passenger train or through a gangman to the Station master of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

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

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

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9(Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

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

[i] If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gate man must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] If Emergency Key is available at the gate lodge, gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.-No Emergency Key provided.

[iii] The record of the date and time of breaking the sealed cover of emergency key box shall be recorded and signed with reasons.-Not applicable

[iv] Thereafter, the gate must be treated as non-interlocked and produced for reception / Dispatch of trains as prescribed for non-inter locked gates, should be adopted.

[v] SS/Dy.SS on duty shall issue caution order to the loco pilot before dispatching a train.

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

[vii] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[viii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / 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. ---- Not applicable.

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

[i] If the gate key cannot be extracted from the winch, gate signal level or key transmitter then gateman must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch of train as prescribed for non-interlocked gates should be adopted.

[iii] The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

[iv] SS/Dy.SS on duty shall issue a caution order to loco pilot of a departing train.

[v] He shall also advise the SS/Dy.SS at the dispatching end, under exchange of private number, to issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[vi] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[vii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[viii] After rectification, the Emergency Key shall be replaced in the emergency key box and released by the S&T maintainer

7. Defective Gate Signals:

[i] The gate man shall treat the gate signal as defective and must not take off them under following circumstances:

[a] If gate signal can be taken 'OFF' without closing the gate, or

[b] The key can be extracted from the operating winch when the gate is in open condition, or

[c] The key can be extracted from the gates when the gate is in open condition.

[ii] If the gate or the gate signal or distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position by turning signal levers to 'N' position.

[iii] The gate man will immediately advise the SS/Dy.SS on duty, under exchange of private number regarding defective gate signals.

[iv] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch as prescribed for non-interlocked gates should be adopted.

[v] He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.

[vi] SS/Dy.SS on duty will issue a caution order to the loco pilot of a departing train.

[vii] He shall also advise the station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[viii]SS/Dy.SS shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.

[ix]Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection /fit memo for the same.

8. Obstruction at the Gate:

In case of an obstruction at a level crossing protected by station stop signals, which may also include cabin operated level crossings, the gateman or cabin man, as the case may be shall at once close the gates across the road and ensure that the stop signals controlling the passage of trains over the obstructed lines are maintained at 'ON'. In addition, banner flags shall be planted in the manner indicated in SR 16.07.01 (i). However, if in the meantime he notices any train coming from either side, he shall be prepared to stop the same by the usage of hand signals and detonators.

9. Obstruction on the Track near Level Crossing Gate:

If there is a rail fracture or obstruction on the track due to falling of the tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 above. If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared off the obstruction.

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

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

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

- | | | | |
|-----|----------------------------------------------------------|------------------------------------------------------|--------------|
| 1. | Number of Level Crossing Gate: | KK-82 | |
| 2. | Engineering or Traffic Gate: | Engineering gate ('C'-class) | |
| 3. | Under control of Station Master/Permanent Way inspector: | SSE [P]/JDB | |
| 4. | Location at KM: | 293/2-3 | |
| 5. | At Station: | Mid section | |
| 6. | In between station: | JDB-NKX | |
| 7. | BG/MG/NG: | BG | |
| 8. | Single line/Double line/Multiple line: | Single 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 JDB station | |
| 15. | Width of level crossing gate: | 8.5Mtrs. | |
| 16. | Type of road {NH/SH/Other}: | Others | |
| 17. | Name of road: | Municipal Road | |
| 18. | Metalled/Non-Metalled: | Non-Metalled | |
| 19. | Approach road: | Non-Metalled | |
| 20. | Width of the road: | 4Mtr. | |
| 21. | Angle of road crossing [In case of the skew gates]: | 90 ⁰ | |
| 22. | Road gradients {if any}: | North-East side: 1 in 30 South-West side: 1 in 30 | |
| 23. | Road alignment {Straight/Curve}: | curve | |
| 24. | Provision of height gauge: | Provided | |
| 25. | Type of Barriers: | Lifting Barriers. | |
| 26. | Length of check rail: | 11Mtrs. | |
| 27. | Road surface in L-Xing gate: | Tar road | |
| 28. | Length of Rumble strip /speed breakers: | 4Mtrs. | |
| 29. | Road signs: | Provided. | |
| 30. | Speed breaker indication board: | Provided. | |
| 31. | TVU: | 65070 as on 03/2015 | |
| 32. | Censes next due on: | 03/2018 | |
| 33. | Demarcation for placement of detonators: | Provided. | |
| 34. | No. of Gate men working: | TWO | |
| 35. | Nearest Railway Medical Assistance: | Rly.Hospital JDB. | |
| 36. | Nearest private Medical Assistance {If Any}: | Jagdalpur | |
| 37. | List of equipment available Yes/No: | Yes. | |

1.2 EQUIPMENTS:

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

1.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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

1.4 DUTIES OF GATEMEN:**[i] 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: -

[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 Loco pilot on walkie-talkie or in any other way.

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

[vii] 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 on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco pilot 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 are 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 tress passing by persons or cattle to the maximum extent.

4 ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

- [i] He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flags by day and red light by night.
- [ii] He shall simultaneously try to draw the attention of the Loco pilot/guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- [iii] If Loco pilot/guard 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 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 on duty, if connected on telephone, regarding the defects/obstructions at the gate, under exchange of private number.
- [iii] If there is no response from the station master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:

[A] ON DOUBLE LINE SECTION: Not applicable.

[B] SINGLE LINE SECTION:

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

- (ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- (iii) Gateman shall then proceed to protect the gate along with detonators and red flag by day and red hand signal lamp by night.
- (iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. There after he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- (v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- (vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the loco pilot of the approaching train.
- (vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far as he can go.
- (ix) Thereafter, he shall warn the loco pilot and stop the approaching train by waving his red flag by day and 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 vehicle driver, owner and relay these details to the nearest Station Master or Permanent way inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

6. ENGINEERING ITEMS.

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

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

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

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

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

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

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

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

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

Annexure-V**WORKING INSTRUCTION FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONES, WITH NORMAL POSITION "CLOSED TO ROAD TRAFFIC"**

(General Instruction is common for all types of Manned Level Crossing Gate)

1. MODE OF OPERATION:

When level crossing gate is required to be open for passage of road traffic, the gate man must first open the gate farthest away from approaching road traffic and then open the gate on the side nearest the approaching road traffic after ascertaining the trains positions from the SM on duty.

2. EXCHANGE OF PRIVATE NUMBER:

(i) The normal position of the level crossing gate being "closed to road traffic" it should always be in closed condition against road traffic over the level crossing, subject to conditions prescribed below.

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

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

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

(1) He has not exchanged any private number with the station/cabin as per (d) (ii) above or

(2) If he has exchanged private number with the station master/cabin master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the station master/cabin master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent line(s).

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

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

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

3. FAILURE OF TELEPHONE COMMUNICATION:

In the event of failure of telephone communication between the station and non-interlocked mid-section level crossing gate or of failure to get gateman's acknowledgement over the phone, the following procedure shall be adopted for passing trains:

(a) The loco pilot and the guard of every train proceeding into the affected section shall be served with a caution order, giving the number and kilometreage of the level crossing and directing the loco pilot:-

(i) To whistle frequently to attract the attention of the gateman,

(ii) To proceed cautiously, and stop 30m short of the level crossing and be guided by hand signal.

(b) (i) The loco pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the station master/cabin master cabin man as the case may be of the fact using the telephone provided at gate. The station master on receipt of such an advise from the loco pilot shall discontinue issue of caution order to the following train provided the acknowledgement of the gateman is available over the phone.

(ii) In the above circumstance, the loco pilot should not stop his train at the next station to advise the station master.

© (i) If the loco pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his assistant to close the gates and give proceed hand signal. In the absence of assistant, the loco pilot shall seek assistance of the assistant guard or guard of the train. The same should be informed to the station master on gate telephone.

(ii) The loco pilot, after being hand signaled, shall pass the level crossing and shall stop clear of it by at least 2 bogie length to pick up the assistant or assistant guard/guard, as the case may be. The railway servant deputed for closing the gate shall reopen it for road traffic after passage of the last vehicle of the train.

(iii) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station from the gate, the loco pilot shall stop his train at the next station (even if it is through passing station) and give a memo the station master indicating the condition of the gateman, gate and telephone.

(iv) The station master on receipt of the loco pilot's report regarding absence or unfitness of the gateman, shall advise the station master in rear, the notice station, the section controller, JE/SE/SSE (Pway) and AEN concerned and the gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.

(d) Before giving line clear to a train, the station master shall advise the station master of the station in the rear of the facts by message supported by a private number, and obtain his acknowledgement with a private number. The latter shall issue a caution order to the loco pilot as detailed in para (a).

(e) Necessary entries shall be made in the caution order register, station diary or signal failure register as the case may be by the station masters at either end of the affected section. The section controller also keep a note in his chart indicating action taken by him.

4. FAILURE OF LIFTING BARRIARS:

(a) If a gate boom/barrier is damaged, the gateman shall:-

(i) Close the level crossing against the road traffic with a chain and pad lock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over telephone or through the loco pilot of a passing train or through a gangman to the station master/cabin master/cabinman of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

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

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

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9(Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

5. OBSTRUCTION AT THE GATE:

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

(a) ON DOUBLE LINE:

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

(ii) He shall, thereafter, close and lock the gates.

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

(iv) The gateman shall proceed in haste, exhibiting a red hand signal flag, towards the direction from which a train is expected first and place one detonator on the track at a distance of 600meters on BG and three detonators 10meters apart at a distance of 1200meters on BG from the level crossing. Having thus protected one line, he shall immediately return to the level crossing, picking up the intermediate detonator on the way and then proceed with the same haste in the opposite direction and protect the other line also in an identical manner. Having duly protected both the lines, the gateman shall return to the level crossing and endeavour to clear the obstruction, mobilizing any assistance locally available. He shall, however, not leave the level crossing, but shall remain in position to warn the loco pilot of any approaching train.

(v) In case of any one line is obstructed the aforesaid protection need be done only for the obstructed line.

(b) ON SINGLE LINE:

The gateman shall take action as laid down in sub-rule (a), except that the banner flags and the detonators shall be placed on the same line on either side of the level crossing.

6. OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:

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

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

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

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

1. Number of Level Crossing Gate: KK-84
2. Engineering or Traffic Gate : Engineering gate ('B'-class)
3. Under control of Station Master/Permanent Way inspector: SSE[P]/JDB
4. Location at KM : 297/18-19
5. At Station : Mid section
6. In between station : JDB-KMEZ
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 : UP Gate stop signal at km no:297/15-16
DN Gate stop signal cum DN Distant
Signal of JDB at km no: 298/2-3
12. Provision of Gate signal at KM : Nil
13. Signaling arrangement : Nil
14. Means of communication- : Telephone connected
Telephone/ Bell etc : with JDB station
15. Width of level crossing gate : 7.5 Mtrs.
16. Type of road {NH/SH/Other} : Others
17. Name of road : Parpa- Sarai Road
18. Metalled/Non-Metalled : Metalled
19. Approach road : BT Road
20. Width of the road : 5.5 Mtr.
21. Angle of road crossing [In case of the skew gates]: --
22. Road gradients {if any} : North-East side: 1 in 30
: South-West side: 1 in 30
23. Road alignment {Straight/Curve} Straight
24. Provision of height gauge : Provided
25. Type of Barriers : Electrical operated Lifting Barriers.
26. Length of check rail : 10 Mtrs
27. Road surface in L-Xing gate : Concrete
28. Length of Rumble strip /speed breakers:8Mtrs.
29. Road signs : Provided.
30. Speed breaker indication board: Provided.
31. TVU : 92148 as on 03/2015
32. Censes next due on : 03/2018
33. Demarcation for placement of detonators: Provided.
34. No. of Gate men working : Three
35. Nearest Railway Medical Assistance: JDB
36. Nearest private Medical Assistance {If Any}:Jagdalpur
37. List of equipment available Yes/No :Yes.

1.2 EQUIPMENTS:

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

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.
12. Signal failure register.

1.4 **(i) MODE OF OPERATION:**

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

- (i) Barrier-1 & Barrier-2 switches are provided for individual operation of barriers if required.
- (ii) Red and Green buttons are provided on gate panel for closing and opening of L.C.gate respectively.
- (iii) The push button 'RED' is pressed till the gate is closed and locked.
- (iv) Key 'G' is extracted from EKT-1 after gate is closed and locked.
- (v) Key 'G' thus extracted from EKT-1 is inserted in EKT-2 and signal switches G-4 & G-5 are to be reversed for taking off DN & UP gate signals.
- (vi) For opening the gate, the gate signal switches G4 & G5 are to be normalized and key 'G' from EKT-2 is extracted and inserted in EKT-1, the push button 'GREEN' is pressed till the gate is opened.
- (vii) Dead approach locking has been provided to this L.C. gate and also approach warning for both UP & DN trains are provided to this gate.
- (viii) Buzzer sounds when a DN train is approaching gate from a distance of 2 km from the gate, i.e, in rear of DN gate distant signal after occupying DN AT track circuit by train. And also buzzer sounds when an UP train is approaching gate after passing UP advanced starter signal track circuit no. 21T.
- (ix) It is not possible for the GK to open the L.C. gate after the train passes DN AT track circuit. But after gate signals are taken off and if it is warranted that the gate is to be opened before the train occupies DN AT track circuit, G.K. shall put back the approach signals first. After a lapse of 60 sec, G.K. shall release key from EKT.
- (x) In case input power supply failure, G.K. shall operate the gate with the help of hand generator unit which is attached to gate panel for closing/opening of L.C. gate. There will be no indications on gate panel for closing/opening of L.C. gate and hence signals cannot be taken off.
- (xi) In case input power supply is available, but cable/hand generator failed, arrangement for direct mechanical hand cranking is also available at the two pedestals. In this case also, no indications on panel are available and hence signals cannot be taken off.

1.4.1 When normal system of gate working fails, G.K. shall use the emergency key 'H' which is available in EKT-3, with crank handle welded in a sealed 'RED' box kept at L.C. gate.

1.5 DUTIES OF GATEMEN:

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: -

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

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 sunrise.
- [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 Loco pilot on walkie-talkie or in any other way.
- [vi] If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- [vii] In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position.
- [viii] At the gate whose signal has become defective the Gateman shall close and lock the lifting barrier on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco pilot 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 supplied at the gate is in good order and ready for immediate use.
- [xiii] Gateman shall see that the channel for the flange of the wheel is kept clean.
- [xiv] Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- [xv] Gateman 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 tress passing by persons or cattle to the maximum extent.

4 ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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

[i] He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flags by day and red light by night.

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

[iii] If Loco pilot/guard 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 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 if connected on telephone, to take appropriate action under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

[i] In case of an obstruction at the level crossing gates, Gateman shall maintain the gate signals, if any in the 'ON' position.

[ii] Thereafter, if he is unable to remove the obstruction, gateman shall immediately advice the Station Master on duty, if connected on telephone, regarding the defects/obstructions at the gate, under exchange of private number.

[iii] If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:

[A] ON DOUBLE LINE SECTION:

[i] If the both lines are obstructed, the Gateman shall plant a red banner flag by day and the red light by night on the other line 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. Gateman shall proceed exhibiting red flags by day and red light by night on the line on which a train is expected to arrive first, to a point 600 Mtrs and place one detonator on the line. Thereafter he shall proceed to a distance of 1200 Mtrs from the level crossing gate and place 3 detonators on the track 10 Mtrs apart. Having thus protected the line shall return to the level crossing gate picking up the intermediate detonator on his way back.

[iv] Thereafter he shall proceed on the other line, showing red hand signal, similarly place the detonators as described in Para (4) above and return to

the site of obstruction, picking up the intermediate detonator on his way back.

[v] Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco pilot of the approaching train.

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

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

[B] ON SINGLE LINE SECTION:

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

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

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

(iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters a part. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

(v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

(vi) Having returned to this gate, he must then take steps to remove the obstruction mobilizing any assistance locally available and warn the loco pilot of any approaching train.

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

[C] OTHER ACTION TAKEN BY 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 described in sub para [A] above.

[ii] If the gate is broken by the road vehicle which is fouling by track, or if lifting barrier or any other part of the gate found 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 vehicle Driver, owner and relay these details to the nearest Station Master or Permanent way inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

6 **ENGINEERING ITEMS:**

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

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

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

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

Annexure-I**WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATE INTERLOCKED WITH GATE SIGNALS, PROVIDED WITH TELEPHONE WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC" FOR L.C. GATE AT KM 297/18-19, LC NO. KK-84, BETWEEN JDB-KMEZ.**

(General instructions are common for all type of Manned Level Crossing)

1. Mode of operation:

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

(i) Barrier-1 & Barriert-2 switches are provided for individual operation of barriers if required.

(ii) Red and Green buttons are provided on gate panel for closing and opening of L.C.gate respectively.

(iii) The push button 'RED' is pressed till the gate is closed and locked.

(iv) Key 'G' is extracted from EKT-1 after gate is closed and locked.

(v) Key 'G' thus extracted from EKT-1 is inserted in EKT-2 and signal switches G-4 & G-5 are to be reversed for taking off DN & UP gate signals.

(vi) For opening the gate, the gate signal switches G4 & G5 are to be normalized and key 'G' from EKT-2 is extracted and inserted in EKT-1, the push button 'GREEN' is pressed till the gate is opened.

(vii) Dead approach locking has been provided to this L.C. gate and also approach warning for both UP & DN trains are provided to this gate.

(viii) Buzzer sounds when a DN train is approaching gate from a distance of 2 km from the gate, i.e, in rear of DN gate distant signal after hitting DN AT track circuit by train. And also buzzer sounds when an UP train is approaching gate after passing UP advanced starter signal track circuit no. 21T.

(ix) It is not possible for the GK to open the L.C. gate after the train passes DN AT track circuit. But after gate signals are taken off and if it is warranted that the gate is to be opened before the train occupies DN AT track circuit, G.K. shall put back the approach signals first. After a lapse of 60 sec, G.K. shall release key from EKT.

(x) In case input power supply failure, G.K. shall operate the gate with the help of hand generator unit which is attached to gate panel for closing/opening of L.C. gate. There will be no indications on gate panel for closing/opening of L.C. gate and hence signals cannot be taken off.

(xi) In case input power supply is available, but cable/hand generator failed, arrangement for direct mechanical hand cranking is also available at the two pedestals. In this case also, no indications on panel are available and hence signals cannot be taken off.

(xii) When normal system of gate working fails, G.K. shall use the emergency key 'H' which is available in EKT-3, with crank handle welded in a sealed 'RED' box kept at L.C. gate.

is provided for UP trains from GK to SM and vice versa.

2. Exchange of Private Number:

Private numbers are not required to be exchanged in case the level crossing gates are interlocked with gate stop signals or stop signals of the stations. However, gateman should be intimated in advance by the station master/cabin master/cabinman about the movement of the train on the section.

3. Failure of Telephonic Communication:

(i) Immediately after departure of the train from the adjacent station, SS/Dy.SS shall advise the gateman through telephone, the number, description, direction and expected time of passage of the train at the gate.

(ii) If the telephone is connected to the station at the receiving end, this advice shall be given by the SS/Dy.SS to the gate man, under exchange of private number, as soon as he receives train entering section advice from the dispatching station.

(iii) If the actual running time of the train from either end of the section is less than 10 minutes SS/Dy.SS will convey this advice to the gateman before obtaining /granting line clear.

(iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train and excessive detention to road traffic.

4. Failure of Lifting Barriers:

(a) If a gate boom/barrier is damaged, the gateman shall:-

(i) Close the level crossing against the road traffic with a chain and pad lock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over telephone or through the loco pilot of a passing train or through a gangman to the station master/cabin master/cabinman of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

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

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

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9(Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

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 EKT-1, then gate man must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] If Emergency Key is available at the gate lodge, gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic- Emergency Key is provided at this gate.

[iii] The record of the date and time of breaking the sealed cover of emergency key box shall be recorded and signed with reasons.-Not applicable

[iv] Thereafter, the gate must be treated as non-interlocked and produced for reception / Dispatch of trains as prescribed for non-inter locked gates, should be adopted.

[v] SS/Dy.SS on duty shall issue caution order to the loco pilot before dispatching a train.

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

[vii] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[viii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[ix] After rectification, the Emergency key shall be replaced in the Emergency key box and resealed by the S&T maintainer.

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

[i] If the gate key cannot be extracted from EKT-2, then gateman must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch of train as prescribed for non-interlocked gates should be adopted.

[iii] The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

[iv] SS/.Dy.SS on duty shall issue a caution order to loco pilot of a departing train.

[v] He shall also advise the SS/Dy.SS at the dispatching end, under exchange of private number, to issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[vi] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[vi] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[viii] After rectification, the Emergency Key shall be replaced in the emergency key box and released by the S&T maintainer.

7. Defective Gate Signals:

[i] The gate man shall treat the gate signal as defective and must not take off them under following circumstances:

[a] If gate signal can be taken 'OFF' without closing the gate, or

[b] The key can be extracted from the operating winch when the gate is in open condition, or

[c] The key can be extracted from the gates when the gate is in open condition.

[ii] If the gate or the gate signal or distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position by turning signal switches to 'N' position.

[iii] The gate man will immediately advise the SS/Dy.SS on duty, under exchange of private number regarding defective gate signals.

[iv] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch as prescribed for non-interlocked gates should be adopted.

[v]He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.

[vi]SS/Dy.SS on duty will issue a caution order to the loco pilot of a departing train.

[vii]He shall also advise the station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[viii]SS/Dy.SS shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.

[ix]Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection /fit memo for the same.

8. Obstruction at the Gate:

In case of an obstruction at a level crossing protected by station stop signals, which may also include cabin operated level crossings, the gateman or cabin man, as the case may be shall at once close the gates across the road and ensure that the stop signals controlling the passage of trains over the obstructed lines are maintained at 'ON'. In addition, banner flags shall be planted in the manner indicated in SR 16.07.01 (i). However, if in the meantime he notices any train coming from either side, he shall be prepared to stop the same by the usage of hand signals and detonators.

9. Obstruction on the Track near Level Crossing Gate:

If there is a rail fracture or obstruction on the track due to falling of the tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 above. If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared off the obstruction.

APPENDIX 'B' TO STATION WORKING RULES OF JAGDALPUR STATION**VISUAL DISPLAY UNIT (VDU)****1. SYSTEM OVERVIEW**

The PC-based control cum indication panel (*hereinafter referred as operator VDU*) functions similar to that of the Conventional Control cum Indication Panel (*hereinafter referred as CCIP*) for the operation of Signals, Points, L.C Gates, Crank Handles and Siding Controls, etc. The SM of a station (*hereinafter referred as operator*) required to be familiar on the specific station's SWR (station working rules).

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

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

2. CCIP / OPERATOR PC – MODE SELECTION:

For the stations having both Operator PC and CCIP, the privilege has been given with the operator to control the station through operator PC or CCIP. Obviously, the station having only operator VDU or CCIP doesn't possess the selection feature.

The operator VDU is having controls to operate the field gears from the Mimic panel diagram. A Mimic panel diagram displayed on the operator VDU will be an exact replica of the CCIP and suits the yard plan as per SI plan.

2.1 SM KEY:

SM KEY IN operation can be achieved through operator PC as follows:

Operator shall right click on the SM KEY icon, and shall select the SM KEY IN option in the menu, which will enable the password window to appear. After the valid entry of user name and password the SM KEY IN operation will be enabled.

SM KEY OUT operation can be achieved through operator PC as follows:

Operator shall right click on the SM KEY icon, and shall select the SM KEY OUT option in the menu, which will enable the confirmation window for SM KEY OUT. After providing the confirmation, SM KEY OUT operation will be enabled. This will lock all the controls in operator VDU except the Signal cancellation facility.

3. CONTROL(S) & INDICATION(S):

3.1 VDU FAILURE INDICATIONS:

a) Vital Interlocking Computer Status:

In EI, two Vital Interlocking Computers are available normally. The status of each of the VIC is provided on VDU as following.

VIC – A Indications



VIC-A is Active



VIC-A is Stand By



VIC-A is Not Available

VIC –B Indications



VIC-B is Active

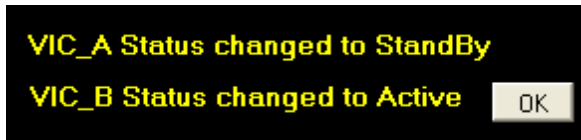


VIC-B is Stand By



VIC-B is Not Available

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



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

b) Link Status Indication:

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

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



Channel –A Link Status is Healthy



Channel – A Link Status is Faulty



Channel – B Link Status is Healthy



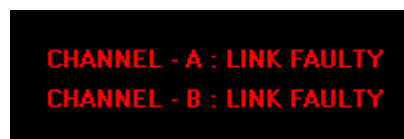
Channel – B Link Status is Faulty

Buzzer and Acknowledgment:

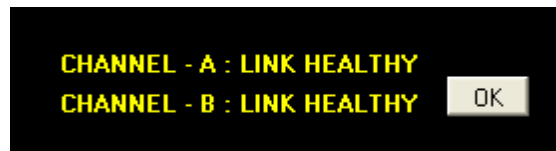
When Channel A link or Channel B Link fails, a Buzzer is turned on to alert the operator. To acknowledge the fault, right click on this control, a pop up menu is displayed, then click on the Ack menu option. The Buzzer stops when the fault is acknowledged by the Operator.



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



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



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

c) VCOR Relay Drop:

When VCOR Relay Drops in OC, a message is shown in red color along with OK button and a buzzer is turned on automatically to alert the operator. The Buzzer stops and indication message disappears when the OK button is pressed by the Operator.



Action by SM: SM shall acknowledge the fault and inform the EI Maintainer of the failure.

d) CIU Critical Fault:

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



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

3.2 Function Lock & Unlock Operation Details:

Lock/Unlock Operation and Indication:

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

Lock Indication:



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



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

Lock or Unlock Operation:

Right Click on this image, a pop- up menu is displayed this menu is called Button Lock/Unlock Menu. To Lock or Unlock the required button go to the required menu and click on it. This shall be explained in detail below.

Lock/Unlock Menu:

OPERATION

Main Signal
Shunt signal
Calling-on
signal
Point
Route

- Click on this menu option to lock /unlock all the items in the menu.
- When a menu option is clicked, it will be checked i.e. a tick mark will be shown if it is previously unchecked or else it will be unchecked if it is previously checked.
- If a menu item is checked its main menu or parent menu will also be checked as shown below and color of Lock/Unlock image will be changed to yellow.

3.3 VDU ACTIVE INDICATIONS:

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

4. SIGNAL OPERATION:

The Software is installed to display the Station Yard Mimic Panel diagram on the operator VDU and it allows access to all functions by selecting menus with a right click of mouse on the corresponding function icon. By selecting the menu, the function (Signal clear and cancellation, Route release, Point operation, Gate release etc.,) can be executed.

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

a) SETTING A ROUTE:

To set a route, select the required route on route set sub menu. The route initiated indication will appear over the route. All the relevant points Normal/ Reverse set indications will start flashing if it is not available in the required position. After setting of point in the route required condition (flashing indication will be steady) a complete yellow route set indication will appear

over the route. Also the point lock indication will appear through yellow indication. Finally a route lock yellow steady indication will appear on just below the signal. The signal will be taken-off now. The yellow route set indication will turn to red when the train occupies the concerned track circuit.

b) CANCELLING A ROUTE/ EMERGENCY ROUTE RELEASE:

To cancel a signal route when the route is set and the signal is taken-off, right click on the signal and select the signal cancellation in the menu. The signal will immediately go to ON aspect. Again right click the signal and select the route cancellation in the menu. The concerned signal route locked indication will start flashing for 120 sec, after the completion of 120 sec the locked route will be released and counter for the route release on VDU will change to next higher digit number.

5. CALLING ON/SHUNT SIGNAL OPERATION:

Calling on/Shunt signal route set and cancel operation follows the same procedure as mentioned for the main signal.

6. POINT OPERATION:

To operate the point, the operator needs to click the concerned points and select the Normal/Reverse in the menu appearing at the point in the operator VDU.

a) REVERSE TO NORMAL OPERATION:

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

b) NORMAL TO REVERSE OPERATION:

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

c) EMERGENCY POINT OPERATION:

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

Before doing the emergency operation, the Emergency point operation key to be IN, for that right click on the Emergency point operation key and select the KEY IN in the menu appeared. After completion of the emergency point

operation, the key has to be taken OUT, for that again right click on the Emergency point operation key and select the KEY OUT in the menu appeared.

(i) EMERGENCY NORMAL OPERATION:

Right click on the point, so that a menu will appear, select the emergency point normal from the menu then normal flashing indication will appear at the point. Flashing will stop and steady indication will appear after the point is set to Normal. After the Emergency point operation the counter value will get incremented.

(ii) EMERGENCY REVERSE OPERATION:

Right click on the point, so that a menu will appear, select the emergency point reverse from the menu then reverse flashing indication will appear at the point. Flashing will stop and steady indication will appear after the point is set to Reverse. After the Emergency point operation the counter value will get incremented.

7. CRANK HANDLE & SIDING CONTROL OPERATION:

To Transmit or Release control of the Crank Handle, right click on the concerned Crank handle / Siding control button provided on the operator VDU. For Transmitting the Crank Handle KEY to the field personnel, right click on the Crank Handle and select the **Transmit control** in the menu appeared. After transmission, the KEY IN indication will start flashing; now the KEY can be extracted from the EKT. After extracting the key from the EKT, the key IN indication will disappear.

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

A Crank handle locked indication will appear, when the particular point is locked through respective possible signal route(s).

8. RESETTING OPERATION FOR DIGITAL AXLE COUNTER:

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

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

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

The procedure to be followed for re-setting by both of sending end and receiving end individually is as follows:-

- a) On being advised by SM of JAGDALPUR Station, SM of KUMHAR MARENGA/NAKTI SEMERA Station inserts the key in the Reset Box, turns right and presses both the key and the Push Button (Red) simultaneously with the SM of KMEZ. The Counter on the Reset Box at JDB Station and KMEZ/NKX Station registers the next higher number and after five seconds miniature green Preparatory Reset indication appears on the Reset Box both at JDB and KMEZ/NKX Station. The step by step procedure shall be followed as given in "b" to "i".
- b) SM of JDB Station and KMEZ/NKX Station shall then Insert SM's LV reset key, and turn right.
- c) Press LV reset button provided on the panel.
- d) Release SM's LV reset key and reset button.
- e) Turn left the SM's LV reset key and remove it.
- f) The system obtains preparatory reset state and preparatory reset indication (Green) glows on the panel. The counter reading increases by one count after a gap of 5 seconds approximately.
- g) The counter reading should be recorded.
- h) One train is to be piloted in the section to make the system normal.
- i) The SM on duty shall record it in the Train Signal Register indicating the resetting operations in detail i.e. train number, time, Private Number exchanged with SM of sending station and giving reasons for the resetting operation.
- j) If the axle counters functioning properly now, then Block Section cleared indication 'G' will appear on the panel and the concerned Block working will be normalized.

k) If the LV axle counter section indication does not appear 'Green' and continues to show 'RED' indication, the concerned Block section shall be suspended and failure intimation to be given to sectional signal Maintainer/JE/SE (Signal) for early rectification.

**APPENDIX 'C' TO STATION WORKING RULES OF JAGDALPUR STATION
ANTI COLLISION DEVICE [[RAKSHA KAVACH]:**

-NIL-

APPENDIX 'D'**DUTIES TO BE PERFORMED BY THE STAFF AT AGDALPUR STATION:****1) STATION MASTER (IN CHARGE):**

He is the over all In-charge of the station. He is rostered for 8 hours and train passing duties. He is responsible for the efficient discharge of duties devolving upon all the Staff employed at the station whether permanent or temporary according to Station Working Rules, Manuals & safe working Instructions. He shall get himself well conversant with the detailed working of Station and panel, points and signals etc.

He shall conduct surprise night inspection and safety meetings/fire drills etc. as per instructions issued from time to time. He shall see that all the staff under his control working safely according to the rules in force.

He shall see that all signals, points, level crossing gates and the whole machinery at the station are in proper working order. He shall report all the defects to the concerned officials.

He shall satisfy himself that the staff employed under him are well conversant with Station Working Rules and perform their duties correctly. He is responsible for maintaining SWR, other Rule books and Assurance Register up to date.

He shall see that all safety records are maintained properly and all rules prescribed in G & SR, Block Working Manual, Operating Manual and other relevant directions issued from time to time by competent authorities are followed rigidly by all concerned and any irregularities if noticed are reported promptly to the authorities concerned.

He shall see that all accidents are promptly reported, attended to and GA-3 along with accident message is submitted to the concerned officers in time. He shall see that the staff is civil and helpful to all users of railway.

He is responsible for booking all Group "C" and Group 'D' staff for PME and Refresher Course / Safety camp in their due time. His Special attention is drawn out to chapter II of General and Subsidiary Rules and GR 5.01 to 5.08 with relevant Subsidiary Rules, Chapter – XXII of Operating Manual.

2. SM/ASM:

He is responsible for trains passing during his shift. He shall promptly bring to the notice of Station Master all irregularities & accidents in course of his shift duties. During the absence of station master the duties of station master will devolve on him. He shall follow SR 3.08.01 © & (d), SR 14.07.01. HIS SPECIAL ATTENTION IS DRAWN TO CHAPTER-II of G&SR 2000 & GR 5.01 to 5.08 with relevant SRs. As an assistant to the station master, he shall carry out the instructions given to him by the station master. He should have thorough knowledge in PC operation, operations of points and signals to PC are to be given priority.

3. TRAFFIC POINTSMAN/TOKEN PORTERS:

He shall work under the orders of Dy.SS/SM on duty. He shall couple and un couple vehicles under the supervision of Dy.SS/SM/Guard. He shall operate ground lever/levers and clamp and pad lock the necessary points for shunting operations and during piloting of trains. He shall watch and guard the packages and Rly property lying in the station premises. He shall be thorough with the correct usage of displaying hand signals. He shall report to SM on duty any irregularities coming to his notice. He shall do loading and un loading of parcels, smalls and Guard boxes. He shall carry out any other duties entrusted to him.

4. SAFAIWALA-CUM LAMP MAN:

He shall attend to sanitation of Railway premises including SM's office, platforms, staff quarters, and latrines and cleaning of drainages etc., He shall carry out any work instructed to him by Dy.SS/SM on duty.

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

APPENDIX 'E' TO STATION WORKING RULES OF JAGDALPUR STATION:**ESSENTIAL EQUIPMENT:**

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

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

**APPENDIX 'F' TO STATION WORKING RULES OF JAGDALPUR
STATION**

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

---NIL---

APPENDIX- 'G'

JAGDALPUR STATION

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS:

DETAILS OF WORKING RULES OF 25KV AC TRACTION.