

EAST COAST RAILWAY

NO: WTF/5/KRNT

Division: WAT

STATION WORKING RULES OF KUNERU STATION (BROAD GAUGE)

Date of Issue:

Date brought in to force:

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

1. STATION WORKING RULE DIAGRAM:

(i) Station Working Rule diagram No. SI/WRD/23009 Alt 'C'

(ii) Signal Interlocking Plan No. SI/23009 Alt 'C'.

(iii) Date up to which corrected:

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

a) Name of the station	:	KUNERU
b) Class of station	:	'B' class
c) Section	:	Rayagada - Vizianagaram
d) Double line/Single line:		Double- line
e) Electrified/Non-Electrified		Non-Electrified
f) Gauge BG/MG/NG		BG
g) Railway	:	East Coast Railway
h) Route	:	'D Spl'
i) Situated at	:	Km 366.412 F/Raipur
j) Reckoned from	:	Raipur
k) Number of cabins	:	Central panel interlocking

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

Sl no	Adjacent Block-section	Distance	Direction
a	JIMIDIPETA (JMPT)	9.3 km	Raipur end
	GUMADA (GMDA)	8.8 km	VZM end
b	Provision of IBS:	Nil	
c	Automatic signal	Nil	Nil
d	DK station/Outlaying sidings	Nil	Nil
e	Passenger halt	Nil	Nil

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

Between Stations	The Point from which the 'Block Section' Commences	The Point at which the 'Block Section' end
UP Line between KNRT-JMPT	UP Advanced starter signal no. 11 of JMPT	BSLB of KNRT on UP Line.
DN Line between KNRT-JMPT	DN Advanced starter signal no. 12 of KNRT	Facing point no.18A of JMPT.
UP Line between KNRT-JMPT	UP Advanced starter signal no. 11 of KNRT	Facing point no.17A of GMDA.
DN Line between KNRT-GMDA	DN Advance starter No.12 of GMDA.	Facing point no.18A of KNRT.

2.4 GRADIENTS:

Towards GMDA on UP & DN. lines	Chainage in mtrs.		Stretch in Mtrs.	Gradient
	From	To		
DN line	000.000	230.000	230.000	1 in 800 Falling
DN line	230.000	880.000	650.000	1 in 800 Raising
DN line	880.000	1663.000	983..000	1 in 300 Raising
DN line	1663.000	1926..000	263.000	Level
DN line	1926.000	2727.000	801.000	1 in 200 Falling
DN line	2727.000	Into section		1 in 300 Falling
UP line	000.000	230.000	230.000	1 in 800 Falling
UP line	230.000	760.000	530.000	1 in 800 Raising
UP line	760.000	1060	--	1 in 525 Raising
Towards JMPT on UP & DN. Lines	1060	Into section	----	1 in 250 Raising
DN line	000.000	770.000	770.000	1 in 440 Raising
DN line	770.000	900.000	130.000	Level
DN line	900.000	1250.000	350.000	1 in 150 Raising
DN line	1250.000	2340.000	1090.000	1 in 350 Raising
DN line	2340.000	2550.000	210.000	Level
DN line	2550.000	Into section	--	1 in 165 Raising
UP line	000.000	770.00	770.000	1 in 440 Raising
UP line	770.00	1660.000	890.000	1 in 250 Raising
UP line	1660.000	Into section	--	1 in 600 Raising

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2.5. LAYOUT:**RUNNING LINES:**

Sl no	Running/Non Running line	Electrified/Non Electrified	Platform with length
1	Line No - 1 (Common Loop)	Non-Electrified	Rail level P.F. (425X6.1M)
2	Line No - 2 (UP Main)	Non-Electrified	
3	Line No - 3 (DN Main)	Non-Electrified	
4	Line No - 4 (DN Loop)	Non-Electrified	Rail level P.F. (425x6.1M)

2.5.1 RUNNING LINES, DIRECTION OF MOVEMENT AND HOLDING CAPACITY:

Sl no	Name of the line	Holding capacities on CSL	Direction of movement
1	Line no-1(Common loop)	736.7M(STR-STR)	Trains coming from JMPT and proceeds towards GMDA are UP trains.
2	Line no-2(UP Main)	765M(STR-SB)	
3	Line no-3(DN main)	737M(STR-SB)	Trains coming from GMDA and proceeds towards JMPT are DN trains.
4	Line no-4(DN loop)	726M(STR-SB)	

2.5.2 NON RUNNING LINES AND THEIR CAPACITY IN CSL:

Sl. No	Name of the line	Capacity in CSR
1	Goods siding	85M (GJ-GJ)

A Goods siding taking off from Line no.1 at GMDA end of the yard is having a length of 85M (GJ-GJ) and is isolated by derailing switches and controlled by Button no. 24 on the control panel. The entrance point and corresponding derailing switches are coupled and operated by an arc lever provided at site.

2.6 LEVEL CROSSINGS:

Detailed working of L.C gates are mentioned in Appendix 'A'.

3. SYSTEM AND MEANS OF WORKING:

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

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

- 4.1 a) Standard of Interlocking: This Station is provided with Standard-II R Panel Interlocking.
- b) Type of signals: Multiple Aspect Colour Light Signals. The aspects and indications of the MACLS is governed by GR.3.08 (4) (b).
- c) The Station is provided with central Panel Interlocking (PI). All signals and points are electrically operated central panel provided at SM's Office.
- d) Method of operation: Central panel is provided in the Station Master's office to electrically control all signals and points.
- e) Provision of Track circuits on running lines:
Track circuits are provided in the yard as 1AT, 1T, 1T₁, 17AT, 17BT, 19AT, 19BT, 21AT, 21BT, 12T, 12AT, L₁T₁, L₁T₂, L₁T₃, UMT₁, UMT₂, UMT₃, DMT₁, DMT₂, DMT₃, L₄T₁, L₄T₂, L₄T₃, 18AT, 18 BT, 20T, 22 AT, 22BT, 11 AT, 11T, 2AT, 2T, 2T₁. Axle counters are provided for section JMPT-KNRT as UP LVV and for section KNRT-JMPT as DN LVV. Axle counters are also provided for section KNRT-GMDA as UP LVV and for section GMDA-KNRT as DN LVV. When a signal is cleared the route indication 'Yellow' appears for the particular route set and 'Red' light appears as the train occupies the track circuit.
- f) Calling on signals: Calling-on signals are provided below Home signals (i.e. in both Up & Down directions) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b).
- g) IBS is not provided at this station.
- h) The control Panel is provided with SM's key which shall always remain in the custody of the Station Master on duty for control of points, signals and crank handles control etc in terms of SR 3.36.03(a).

i) **CRANK HANDLE:**

When any point fails to operate normally by the Route Setting operation through Panel, it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual para-20.06. CH-1 controls 19A/B, 20A/B; CH-2 controls 21A/B, 22A/B; CH-3 controls 17A/B; CH-4 controls 18A/B.

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the EKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals are not taken 'OFF' and the route is not locked for whatever reasons. Crank Handle can be released by pressing common 'TRANS' push button and concerned Crank handle control push button simultaneously. When the keys are taken out no signal can be taken 'OFF' over the particular route on the points nominated by the crank handle.

This key can be electrically transmitted at both ends locations of the yard for manual operation of the defective points. The failure of motor operated points must be ensured by physical checking that there is no obstruction. SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SM on duty at the station as per Para 20.06(d) of the Operating Manual. Correct setting, clamping and padlocking of the points devolve on the SM on duty.(Details of use of Crank Handle as per Appendix-'B'). The cases of failure of motor point, it should be promptly reported to the concerned signal maintainer/signal inspector for immediate rectification.

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4.1.1 TAKING OFF CALLING-ON SIGNAL:

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

4.1.2 SHUNT SIGNALS:

Shunt back signals SH - 3 (A-D) and SH- 4 (A/B) are provided at JMPT end & GMDA end respectively for shunt back facility.

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 personal 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: Normal power supply to the signaling installation is drawn from AP TRANSCO.

Stand by: - Standby power supply is from two nos. of 15KVA DG sets.

(i) A changeover switch is provided in the Station Master's Office with two power supplies viz., Local and DG for changing the switch to the required supply position. SM on duty shall start DG in case of failure of Local supply.

(ii) There are two DG systems provided at this station. SM on duty shall switch over to other DG system provided in DG room in case of failure of one DG.

(iii) SM on duty shall maintain Log register for fuel consumption record of DG systems.

(iv) 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 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 Local power supply and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

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5.0 TELECOMMUNICATIONS:

- (a) Telephone attached to Token less Block Instruments is connected to adjacent stations on either side.
- (b) Hot line Telephone communication is provided between adjacent stations.
- (c) The station is connected to KRPU-RGDA control Circuit.
- (d) Telephone communication is provided between Station Master on duty to UP CH locations and to DN CH Locations.
- (e) Telephone communication is provided between SM and LC gate at km: 365.957.
- (f) 25w VHF set is provided at the station for emergency communication.
- (g) BSNL telephone is provided at this station.
- (h) Railway Auto telephone is provided at this station.

5.1 FAILURE OF COMMUNICATION: -

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

6. SYSTEM OF TRAIN WORKING:**6.1 DUTIES OF TRAIN WORKING STAFF:**

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

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

6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:

The following is the complement of operating staff provided at the station in each shift for train passing duty.

COMPLEMENT OF STAFF:

Dy.Station superintendent	2
TPM/TP	3
Traffic Gateman	3
SCLM	1(General shift)

STAFF IN EACH SHIFT:

Station superintendent	1
TPM/TP	1
Traffic Gateman	1
SCLM	1(General shift)

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

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

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

The private number book should be under the custody of SM on duty who is authorized to use it.

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6.1.3 ASSURANCE OF THE STAFF IN THE ASSURANCE REGISTER:

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

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

a. The conditions laid in GR 8.03(2)(a) (b) (c) (ii) shall be complied with the SM on duty before line is considered clear and line clear is granted.

b. Before granting a line clear for a train the SM on duty shall personally ensure that the reception signals pertaining to a train are in the 'ON' position and burning properly vide GR 3.49(4).

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

i) Whole of the last preceding UP train has arrived completely inside the BSLB.

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

iii) Line is clear up to BSLB.

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

i) Whole of the last preceding DN train has arrived completely inside the outermost facing point no. 18A.

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

iii) Line is clear up to outermost facing point no. 18A.

e. ADEQUATE DISTANCE: (SIGNAL OVERLAP)

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

Adequate Distance:

CLEARANCE OF ADEQUATE DISTANCE				
LINE NO.	UP TRAINS		DN TRAINS	
	FROM	TO	FROM	TO
Line no.1 (Common loop)	UP starter No. 5.	End of overrun line or up to Advanced starter signal no.11.	DN starter signal No. 8.	End of overrun line.
Line no.2 UP Main line	UP Main line starter No. 9.	UP advanced starter No. 11.	--	----
Line no.3 DN Main line	---	---	DN starter signal no.10	DN Advanced starter signal no.12.
Line no.4 DN Loop	----	-----	DN starter signal No.6.	End of overrun line or up to DN advanced starter No. 12.

Remarks: However when a route is set leading to the Main line the overlap

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beyond the starter in that particular direction shall extend up to the advanced starter of the station in that direction.

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

Nil

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE:

When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points at either end should 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 casualties are minimized. In case of all the lines are occupied by passenger train, points should be set for a loop line to negotiate which the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities.

6.2.1.2 RECEPTION OF A TRAIN ON BLOCKED LINE:

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

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

Not Applicable

6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:

Not Applicable

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

NIL.

6.2.1.6 ANY SPECIAL CONDITIONS:

a) SPECIAL INSTRUCTIONS:

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

b) SPECIAL RESTRICTIONS:

NIL

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:-

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

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

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- 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/DESPACTH, CROSSING AND PRECEDANCE OF TRAINS:

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

1	Reception of an UP train on line No.1 set to overrun line	AND	Dispatch of another UP train from line no. 2.
2	Reception of a DN train on common loop (Line no.1) when line is set to overrun line.	AND	Dispatch of another DN train from line no. 3 or Line no.4.
3	Reception of a DN train on DN loop (Line no.4) when line is set to overrun line.	AND	Dispatch of another DN train from line no. 3 or Line no.1.

6.5 COMPLETE ARRIVAL OF TRAINS:

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

For section KNRT-JMPT (DN line):

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

For section JMPT-KNRT (UP line):

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

For section KNRT-GMDA (UP line):

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

For section GMDA-KNRT (DN line):

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

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

After complete arrival of the train the 'RED' indication disappears and 'GREEN' indication appears. If after complete arrival of the train

'RED' indication does not change to 'GREEN' it should be assumed as Block instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, advanced starter signal

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cannot be taken off for next train and the concerned instrument shall remain locked in last operated position.

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

NOTE:

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

6.6 DISPATCH OF TRAINS:

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

6.7 TRAINS RUNNING THROUGH:

i) In addition to procedure detailed in paras "Reception and Dispatch" of trains, rules laid down in GR 4.17, 4.42, 3.36, 3.42 with relevant SRs shall be followed.

ii) Reception and Dispatch signals shall be taken off for a through train as per the sequence given below vide SR 3.42.02(a) (iv), SR 3.42.03 and SR 3.42.04.

iii) In every case in which trains are permitted to run through on non isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule GR 5.23 may be kept standing on a connected line which is not isolated from through line.

iv) The Station Master shall see that the last vehicle of every train passing through station is provided with a tail board or a tail lamp or such other device in accordance with provision of GR 4.16 and SR 4.17.01(a).

6.7.1 TRAIN ENTERING BLOCK SECTION:

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

6.7.2 ISSUE OF CAUTION ORDERS:

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

6.8 WORKING IN CASE OF FAILURE:

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

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.

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b) AXLE COUNTER:

If the axle counter fails between the block sections, resetting procedure will be adopted as per Para 24.1 of SWR (APP-B) if the axle counter indication does not appear 'GREEN & continues to show 'RED' indication after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SE (signal) for rectification.

c) BLOCK INSTRUMENTS:

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

d) 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]

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, 3.80 and SR 3.68.01©] In the event of signal showing no lights, station master on duty shall before giving line clear initiate action in accordance with the procedure laid down in GR and relevant SRs. [Refer GR 3.51, 3.69, 3.49(4), 3.68 to 3.77]

g) DEFECTIVE INTERLOCKING:

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

h) DEFECTIVE/DAMAGED POINTS:

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

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

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- 6.9 PROVISIONS FOR WORKING OF TROLLIES/ MOTOR TROLLIES/MATERIAL LORRIES ETC”:
Motor trolleys shall be worked as per GR 15.25 & SR thereto and BWM 5.11(2), 5.12, 5.13 and 5.14(2)(b) and Circulars & Orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs thereto and BWM 5.11(2), 5.13.
- 7.0 BLOCKING OF THE LINES:
A clear remark in RED ink shall be made immediately in the Train Signal Register indicating time and number of running line blocked. A record there of shall be made in the Station diary also vide 3.36.03(b), 5.23.01(a), SR 3.51.06(a).
USE OF REMINDER COLLARS:
SM on duty shall place reminder collar on Home Signal buttons in the event of a running line is blocked vide SR 3.36.03[b].
- 7.1 LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES:
Except smalls, loading and unloading of vehicles on running line is prohibited unless permitted by DOM vide SR 5.19.01.
- 7.02 SECURING OF VEHICLES:
The rules laid down in GR 5.23, SR 5.23.01 and OM 7.08 shall be followed.
NOTE: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding on running lines vide SR 5.23.01(b).
- 7.03 DETACHING OF VEHICLES ON RUNNING LINES:
Detaching of vehicles on running lines is normally prohibited. Whenever any vehicle is detached on running lines under unavoidable circumstances such rolling stock shall be placed opposite to the Station Master’s office as far as possible and shall be properly secured vide SR 5.23.01 and 5.19.01(d).
- 8.0 SHUNTING:
- 8.1 GENERAL PRECAUTIONS:
(a) The rules laid down in GR 3.46, 3.52 to 3.56, 5.13 to 5.23, 8.05(2) (3), 8.06 and 8.14, 8.15 (c) with relevant SRs and OM 7.01, 7.07 and 7.08 shall be observed. All shunt moment shall be supervised by Guard/SM/ Points man on duty vide SR 5.13.03 as the case may be.
For any non-signaled movement, the Dy. S.S/S.M. on duty shall ensure physical verification of the clearance of the crossover points.
- (i) CUSTODY OF KEYS AND PAD LOCKS DURING SUCH MOVEMENT:
The key of the pad locks of such points shall be in the personal custody of the operating official vested with this responsibility till such time movements are completed. The operating official vested with the responsibility of supervising the Non-signaled movement of the engine/train/vehicle must return the key along with pad locks to the Station Master on duty, after completion of the said movement or alternatively when such a move is cancelled which fact should be properly documented.
- (ii) AUTHORITY FOR SHUNTING OPERATIONS:
The SM on duty shall issue written shunting authority on from T/806 to the Loco pilot through guard of the train.

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

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

(iv) NON-SIGNALLED MOVEMENTS:

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

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

Strictly prohibited.

8.3 PROHIBITION OF SHUNTING – ANY SPECIAL FEATURES:

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

8.4 SHUNTING ON SINGLE LINE: Not Applicable.

8.5 SHUNTING ON DOUBLE LINE:

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

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

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

(iv) Up to IBS: Not Applicable.

(v) Beyond IBS: Not Applicable.

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

8.6 SHUNTING IN THE SIDING TAKING OFF FROM THE STATION YARD

While shunting in the siding it should be authorized by issuing OP/P-79 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in shunting. The relevant provisions of GR 5.14 and SRs thereto shall be meticulously followed for shunting operations in the siding.

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

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

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

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

c) TRAINS DELAYED IN BLOCK SECTIONS

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

9.1 TOTAL FAILURE OF COMMUNICATION: -

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

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

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION

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

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

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

10.0 VISIBILITY TEST OBJECT:

The signal lights of UP starter signal No.5 and DN Starter signal No.8 of common loop line during Day and Night are the visibility test objects vide GR 3.61(2)(b)(iii).

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11.0 ESSENTIAL EQUIPMENT AT THE STATION:

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

12.0 PROCEDURE FOR WORKING TRAINS DURING FOGGY WHETHER:

During thick foggy whether, train shall be worked as per GR 3.61 and SR thereto. Details are given in Appendix "F" to this Station Working Rules.

13.0 APPENDICES:

APPENDIX- A : WORKING OF LEVEL CROSSING GATES.

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

APPENDIX- C : ANTO COLLISION DEVICE (RAKSHA KAVACH).

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

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

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

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

14.0 CERTIFICATE:

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

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

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

- | | | |
|-----|--|--|
| 1. | Number of Level Crossing Gate: | RV 264 |
| 2. | Engineering or Traffic Gate: | Traffic gate |
| 3. | Under control of Station Master/Permanent Way inspector: | SM KNRT |
| 4. | Location at KM: | 365.957 |
| 5. | At Station | KUNERU |
| 6. | In between station | KNRT-JMPT |
| 7. | BG/MG/NG: | BG |
| 8. | Signal line/Double line/Multiple line | Double Line |
| 9. | Normal Position: | Open to Road Traffic. |
| 10. | Inter Locked/Non-Interlocked: | Interlocked. |
| 11. | Means of interlocking: | Electrical key transmission for taking off Stop Signals. |
| 12. | provision of Gate signal at KMs: | UP line: Station signals.
DN line: Station signals. |
| 13. | Signaling arrangement: | MA CLS. |
| 14. | Means of communication-Telephone/Bell etc: | Telephone connected with KNRT Station. |
| 15. | Width of level crossing gate: | 9 Mtrs. |
| 16. | Type of road {NH/SH/Other}: | SH. |
| 17. | Name of road: | Station Road of KNRT. |
| 18. | Metaled/Non-Metaled: | Metaled. |
| 19. | Approach road: | BT. |
| 20. | Width of the road: | 5 Mtrs. |
| 21. | Angle of road crossing {In case of the skew gates}: | 90°. |
| 22. | Road gradients {If any} : | North/East side: 1 in 20
South/west side: 1 in 20 |
| 23. | Road alignment{Straight/Curve}: 1. North/East side:
2. South/West side: | Straight.
Straight. |
| 24. | Provision of height gauge: | Not required. |
| 25. | Type of Barriers: | Electrical operated Lifting barrier. |
| 26. | Length of check rail: | 11 Mtrs. |
| 27. | Road surface in L-Xing gate: | Plain. |
| 28. | Length of Rumble strip /speed breakers: | 9 Mtrs. |
| 29. | Road signs: | Provided. |
| 30. | Speed breaker indication board : | Provided. |
| 31. | TVU : | 3234 of 14.08.2012 |
| 32. | Census next due on : | 14.08.2015 |
| 33. | Demarcation for placement of detonators: | Provided. |
| 34. | No. of Gate men working : | 3 |
| 35. | Nearest Railway Medical Assistance: | Rayagada. |
| 36. | Nearest Railway Medical Assistance {If Any}: | Parvatipuram. |
| 37. | List of equipment available Yes/No..... | Yes. |

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1.2 EQUIPMENTS:

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

1.3 RECORDS TO BE KEPT AT GATE LODGE:

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

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.
12. S&T Register.

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1.4 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

- a) Yellow and Green buttons are provided on gate panel for opening and closing of L.C gate respectively.
- b) The push button 'Green' is pressed till the gate is closed and locked.
- c) GK shall extract key 'H' from EKT-1 after the gate is closed and locked.
- d) Key 'H' thus extracted from EKT-1 is inserted in EKT-2 & transmitted electrically to SM in conjunction with switch 'GS' reversed releases concerned UP & DN signals.
- e) For opening the gate, SM transmits control No. 29, GK shall extract key 'H' from EKT-2 and inserted in EKT-1, the push button 'Yellow' is pressed till the gate is opened.
- f) Switch GS is provided in the gate lodge to put back concerned UP&DN signals to 'ON' in case of emergency.
- g) In case of input power failure, GK shall operate the gate with the help of hand generator unit keeping the Manual/Auto switch in Manual Mode which is attached to Gate panel for Closing /Opening of LC gate. There will be indications on the gate panel for Closing /Opening of LC gate and hence signals cannot be taken off.
- h) In case of input power supply is available, but cable/hand generator failed, arrangement for direct mechanical crank handling is also available for crank handling of individual pedestal barrier by extracting key from RKT-3. In this case also, no indications on panel are available and hence signals cannot be taken off.

1.5 DUTIES OF GATEMAN :1.5.1 ALERTNESS:

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

1.5.2 POSITION DURING PASSAGE OF TRAINS:

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

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

In day time, 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.

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

1.5.3. ROUTINE DUTIES OF GATEMAN:

(i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.

(ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

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

(iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

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- (v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- (vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco pilot on walkie-talkie or in any other way.
- (vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic.
- (viii) Gateman shall report to the Station Master, Gang mate or Permanent way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective, the gateman shall maintain the signal in the 'ON' position.
- (x) At the gate whose signal have become defective, gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco pilot to the defect at the next station.
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- (xviii) Gateman on electrified section shall watch that road vehicles/animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- (xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

2. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes any thing 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.

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

3. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

1. In case of an obstruction at the level crossing gates,. Gateman shall maintain the gate signals, if any in the 'ON' position.
2. 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.
3. 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:

1. In the both lines are obstructed The Gateman shall plant a red banner flag by day and the red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
2. Then he will similarly pant the other red banner flag by day and the red light by night 5 meters away from the site of obstruction.
3. Gateman shall then proceed to protect the gate along with detonators and red flags by day and red hand signal lamp by night.
4. 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.
5. Thereafter he shall proceed on the other line, showing red hand signal, similarly place the detonators as described in para (4) about and return to the site of obstruction, picking up the intermediate detonator on his way back.
6. Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco pilot of the approaching train.
7. 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.
8. 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] OTHER ACTION TAKEN BY GATEMAN :

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

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ANNEXURE – II**WORKING INSTRUCTIONS FOR TRAFFIC LEVEL CROSSING GATES INTERLOCKED WITH STOP SIGNALS OF THE STATION, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC" AT KM 365.957 IN KNRT YARD****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) Yellow and Green buttons are provided on gate panel for opening and closing of L.C gate respectively.
- ii) The push button 'Green' is pressed till the gate is closed and locked.
- iii) GK shall extract key 'H' from EKT-1 after the gate is closed and locked.
- iv) Key 'H' thus extracted from EKT-1 is inserted in EKT-2 & transmitted electrically to SM in conjunction with switch 'GS' reversed releases concerned UP & DN signals.
- v) For opening the gate, SM transmits control No. 29, GK shall extract key 'H' from EKT-2 and inserted in EKT-1, the push button 'Yellow' is pressed till the gate is opened.
- vi) Switch GS is provided in the gate lodge to put back concerned UP&DN signals to 'ON' in case of emergency.
- vii) In case of input power failure, GK shall operate the gate with the help of hand generator unit keeping the Manual/Auto switch in Manual Mode which is attached to Gate panel for Closing /Opening of LC gate. There will be indications on the gate panel for Closing /Opening of LC gate and hence signals cannot be taken off.
- viii) In case of input power supply is available, but cable/hand generator failed, arrangement for direct mechanical crank handling is also available for crank handling of individual pedestal barrier by extracting key from RKT-3. In this case also, no indications on panel are available and hence signals cannot be taken off.

2. Exchange of Private Number:

(i) Before taking off reception/departure signals Station Master shall inform the gateman, the number, description and direction of the train, under exchange of Private Number.

(ii) The gateman shall close the gate and transfer the key to the Station Master.

(iii) The reception/departure signals will then be taken 'OFF'.

(iv) In order to ensure that road traffic is not held up for a long time, the Station Master must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.

(v) If the gate is operated from the cabin itself, Station Master shall ensure that the gate is closed against road traffic, before taking 'OFF' reception/departure signals.

(vi) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

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- 2.1 Facility has been provided for closing/opening of LC gate. In case of failure of power supply and Hand generator of electrically operated lifting barrier by exchanging private number with SS with the provision of RKT-3 and crank handle with chain arrangement by the side of EKT-3 in sealed box painted in 'RED'. Signals cannot be taken off on extraction of EKT-3 from sealed box and the gate is to be treated as non-interlocked. The operation is as follows.
- a) In case of power supply failure and in operative of Hand generator, gateman shall extract key from EKT-3 having crank handle with chain arrangement. One key and 'T' type handle is also provided in sealed box.
 - b) For opening of the gate, GK shall extract key from EKT-3 with crank handle chain arrangement, gateman shall also take key and 'T' type handle and proceed to lock post at one end.
 - c) Key is to be inserted and turned on lock post. Then gateman shall insert 'T' type handle for unlocking the boom lock when the barrier is in locked condition.
 - d) Gateman shall now proceed to pedestal, key inserted and turned clock wise and use crank handle for opening of the barriers of the gate as per requirement.
 - e) For closing of the gate, gateman shall proceed to individual pedestal after extracting key from EKT-3 and with 'T' type handle, close the gate with crank handle and turned anti clock wise direction and proceeds to lock post to lock the gate with 'T' type handle.
 - f) Similar operation shall also be done for other end of the gate.
 - g) Extraction of key from EKT-3 is interlocked with signals.

3. Failure of Telephonic Communication:

When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adapted:

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

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4. Failure Electrical operated Lifting Barriers:

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

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

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

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

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

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

(vii)Station Master will advise maintenance staff responsible for maintenance of Electrical operated lifting barriers to repair the defect at the earliest.

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

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

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

[ii]In case of emergency, key 'K' (chained with boom crank handle) is extracted from EKT-3 Electromechanically free provided at gate lodge (in a locked and sealed red box) for manual operation of individual lifting barriers by crank handling.

[iii]The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.

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

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

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

[vii]Station Master will advise S&T staff responsible for maintenance of Electrical key transmitter to rectify the defect at the earliest.

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

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

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

[i]If the gate key cannot be extracted from Electrical key transmitter after closing the gate, then gateman must immediately inform the Station Master on duty on telephone, under exchange of private.

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

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

[iv]Station Master on duty shall issue caution order to the Loco pilot of a dispatching train.

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

[vi]Station Master will advise S&T staff responsible for maintenance of Electrical key transmitter to rectify the defect at the earliest.

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

[viii]After rectification, the Emergency key shall be replaced in the Emergency key Box if taken earlier and resealed by the S&T maintainer.

7. Obstruction at the gate:

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

[ii]Immediately after this, the gate man shall advise the Station Master on duty regarding the defects/obstructions at the gate under exchange of private number.

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

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

[v]Gate man shall then rush with detonators, red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General inspection for duties of Gateman under item no.1.5(5).

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

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

[viii]The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstructions.

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[ix]After the track has been cleared of all obstructions the gate man shall inform the Station Master accordingly, under exchange of private number.

[x]Station Master shall then issue a caution order to Loco pilots of all trains to proceed cautiously, and pass the reception/departure signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.

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

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

[xiii]Normal working will be resumed only after maintenance staff rectify the defective Electrical lifting barriers and issue reconnection/fit memo for the same.

8. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gate man and Station Master will adopt the procedure given under itemNo.7 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

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APPENDIX – 'B' TO STATION WORKING RULES OF KUNERU STATION.

- 1.0 **DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC, INCLUDING POWER SUPPLY ARRANGEMENTS.**
- 1.1 **BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATIONS:**
This is a "B" Class Station with standard-IIR interlocking (with isolation). The points and signals are power operated from a composite 'DOMINO TYPE' full-fledged panel installed in the SM office. This station is equipped with panel operated MACLS. The SGE type double Line lock and Block Instruments are provided in the SMs panel room for section KNRT-GMDA and KNRT-JMPT adjacent to the panel.
- 1.2 **DESCRIPTION OF PANEL:**
The yard lay out is depicted in the panel board and is fixed parallel to the track so that when the SM on duty faces, the Yard drawing on the panel corresponds to the actual field lay out in either direction.
- 1.3 **POINT BUTTONS:**
Each point is provided with Push buttons (Black in color) for individual operation of Points. For operation of point to normal/reverse position, Point group push buttons (black with red dot) are provided. Point button and Point Group button normal/reverse shall be pressed at the same time for operation of point to required position. To indicate the position of point, a white steady strip on Normal direction to indicate normal position of point, and a white steady strip on Reverse direction to indicate Reverse position of point.
- 1.4 When a point is set and locked correctly in normal position, a white steady strip indication on normal point zone appears suggesting that the point is in normal position and locked in its position.
- 1.5 When a point is set and locked correctly in Reverse position, a white steady strip indication on reverse point zone appears suggesting that the point is in Reverse position and locked in its position.
- 1.6 When the point is operated from reverse to normal position, a white strip indication on normal point zone will start flashing till the concerned point is set and locked in normal position. When the point is operated from normal to reverse, a white strip indication on reverse point zone will start flashing till the concerned point is set and locked in reverse position.
- 1.7 **OPERATION OF POINTS:**
Points are operated to normal or Reverse by pressing individual point button in conjunction with the point group button there by the white strip indication on normal point zone or reverse point zone as the case may be till the points are set to normal or reverse position and locked. Then the white steady strip indication on normal point zone and white steady strip indication on reverse point zone will appear as the case may be. During the automatic route setting of the train operation, the same indication will glow.
- 1.8 All running line points are operated by Electric point machine.

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

2.1 DESCRIPTION OF POINTS:

Sl. No	Point Button No.	Color	Description
1	17	Black	Cross over point between UP & DN main line at Raipur end.
2	19	Black	Cross over point between DN main & DN loop line at Raipur end.
3	21	Black	Cross over point between UP main & Common loop line at Raipur end.
4	18	Black	Cross over point between UP & DN main line at VZM end.
5	20	Black	Cross over point between DN main & DN loop line at VZM end
6	22	Black	Cross over point between Up main & common loop line at VZM end
7	Point group button (Normal)	Black with red dot.	Common button for normal operation of points.
8	Point Group Button (Reverse)	Black with Red dot.	Common button for Reverse operation of points.

3.0 SIGNAL BUTTONS:

SL No	Button No.	Color	Description
1	C1	Red with white dot	UP Calling 'ON' signal for Line no.1 & 2.
2	S1	Red	UP Home signal for line no.1 & 2.
3	C2	Red with white dot	DN calling 'ON' signal for line no. 1,3 & 4.
4	S2	Red	DN Home signal for line no.1, 3 & 4.
5	S5	Red	UP common loop starter for line no.1.
6	S6	Red	DN loop signal for line no. 4.
7	S8	Red	DN Common loop starter for line no. 1.
8	S9	Red	UP main starter for line no. 2.
10	S10	Red	DN main starter for line no. 3.
11	S11	Red	UP advanced Starter.
12	S12	Red	DN Advanced starter.
13	SH3	Yellow	Shunt signal for line no. 1, 2, 3 & 4.
14	SH4	Yellow	Shunt signal for line no. 1& 2.

3.1 SIGNAL INDICATION:

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

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4.0 ROUTE BUTTONS:

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

4.1 DESCRIPTIONS OF ROUTE BUTTONS:

Sl. No	Button No.	Color	Description
1	L1 UN	White	Common route button for Up & Dn Home signals and Up & Dn Calling-On signal for line no.1 setting overlap on Up main line and route button for shunt signal no. 3&4 for line no.1.
2	L1 UN1	White with black dot	Common route button for Up & Dn Home signal and Up & Dn Calling-On signal for line no.1 setting overlap to over run line on Dn main and route button for Shunt signal no. 3&4 for line no. 1.
3	L2 UN	White	Common route button for Up Home signal and Calling-On signal for line no.2 setting over lap on Up Main line and route button for shunt signal no. 3&4 for line no. 2.
4	L3 UN	White	Common route button for Dn Home signal and Calling On signal for line no.3 setting over lap on Dn main line and common route button for shunt signal no. 3 for line no. 3.
5	L4 UN	White	Common route button for Dn Home signal and Dn Calling On signal for line no. 4 setting overlap on DN main line respectively.
6	L4 UN1	White with black dot	Common route button for Dn Home signal and Dn Calling-On signal for line no. 4 setting overlap on sand hump/ over run line and common route button for shunt signal no. 3 for line no. 4.
7	12 UN	White	Route button for Dn advance starter.
8	11UN	White	Route button for Up advance starter.
9	12ATUN	White	Route button for Dn starters 6, 8, and 10.
10	11ATUN	White	Route button for Up starters 5&9.
11	Group (Trans)	White with black dot	Common Trans button for crank handle and siding control.
12	Group Released	White with black dot.	Common release button for crank handle and siding control.
13	CH-1	Blue	Points no. 19 & 20
14	CH-2	Blue	Points no. 21& 22
15	CH-3	Blue	Points no. 17
16	CH-4	Blue	Points no. 18

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17	29 LXN	Chocolate	L.C. Gate No. 29 control
18	Emergency gate release 29 LXN	Chocolate with red dot	Emergency release of L.C. gate no. 29.
19	Signal lamp failure Ack.	Red with white dot	For acknowledge the signal lamp failure / point failure
20	Button Held Ack.	White with Red dot	To be pressed to stop the buzzer in case of any button held.
21	Signal cancellation	Red	For cancellation of signal this is a common button to be pressed in conjunction with the intended signal button for which cancellation is required
22	Emergency of Point Operation button	Black with red dot	For operation of points in the event of failure of Track circuit/Axle counter.
23	Siding control buttons	Black	For releasing of key from RKT for goods siding point No.24.

5.0 POWER FAILURE INDICATION/BUZZER AND POWER ACKNOWLEDGEMENT:

Normal power supply to installation is drawn from single-phase state electricity supply to the station building. Second source of power supply is through solar panel-110V, 75W and the third source of power supply is through Diesel generator of 15 KVA. Fourth source is another diesel generator of same capacity as mentioned in the third source of power supply. As soon as local power fails, the solar power supply automatically will switch over through IPS changeover. A remote monitoring ASM console is provided at SM's office. It gives alarm to the ASM for fault condition. The IPS system is connected with battery for safe working during transition of power.

(i) 50% depth of discharge (DOD) of battery calls for generator to start. In this condition, audio/visual alarm comes that will be acknowledged with audio cutoff and Dy.SS on duty shall arrange to start Generator.

(ii) 60 to 70 % depth of discharge (DOD) warns alarm. In case of 70 % DOD of IPS battery, signaling system will shut down. ASM on duty take precaution so that at 50 % DOD condition, he should start the generator for failsafe of safety circuit.

In the event of failure of power supply from state electricity supply, a small red indication lamp above the Power Ack. button will appear along with audible buzzer. The Station Master on duty shall start diesel generator to get the supply to signaling installation and change the changeover switch to DG supply.

When the normal power supply is restored, an audible buzzer again rings and the red light on the panel extinguish. The Station Master on duty shall operate the changeover switch to switch back to local state supply and stop the working the diesel generator. In both the above cases, to stop the audible buzzer, the stationmaster on duty shall press the Power Ack. Push button.

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ASM INDICATION IPS PANEL:

INSTRUCTIONS	CONDITION	ACTION TAKEN BY ON DUTY SM/ASM
Start Generator	50% DOD	Audio/visual alarm. Alarm can be acknowledged with auto cut off and Generator to start.
Emergency start Generator	60% DOD	Audio/visual alarm. Alarm can be acknowledged with auto cut off.
System shutdown	70% DOD	Signal feed cut off on all DC-DC converters to work audio alarm to continue till generator is started.
Call S&T staff	Equipment fault	Failure of any module will give the in ASM's panel. Alarm can be acknowledgment for auto cut off.

5.1 BUTTON FAILURE INDICATION WHITE/BUTTON HELD BUZZER WHITE WITH RED DOT:

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

6.0 TRACK CIRCUIT/AXLE COUNTER:

Entire yard is provided with track circuits on berthing lines, point zones as follows. 1AT, 1T, 1T₁, 17AT, 17BT, 19AT, 19BT, 21AT, 21BT, 12T, 12AT, L₁T₁, L₁T₂, L₁T₃, UMT₁, UMT₂, UMT₃, DMT₁, DMT₂, DMT₃, L₄T₁, L₄T₂, L₄T₃, 18AT, 18 BT, 20T, 22 AT, 22BT, 11 AT, 11T, 2AT, 2T, 2T₁. Axle counters are provided for section JMPT-KNRT as UP LVV and for section KNRT-JMPT as DN LVV. Axle counters are also provided for section KNRT-GMDA as UP LVV and for section GMDA-KNRT as DN LVV. 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.

6.1 When a train is to be dispatched from the station yard on signals the station Master on Duty must ensure that the route between the starter signal and the block section limits demarcated by the Advance Starter is clear of any obstruction (which includes point zones track circuits) before he takes off departure signals.

6.2 CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS CRANK:

Crank handle is inter locked with the signaling and inter locking system at this station and the crank handle which is normally locked up in the RKT instrument at the East and West End locations can be taken out when the signals, given for the connected route, are in the normal position and the route is not locked for any reason. Even when the route is locked, crank handle can be from the RKT through emergency operation by pressing crank handle button along with group Trans button. After the lapse of 120 Second, the concern Crank Handle gets released for emergence alteration of the locked route.

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

6.4 **GOODS SIDING:**

The goods siding takes off from the Line no.1 at East goomty end of the yard and is isolated by derailing switch at both ends. The entrance and exit points and corresponding derailing switches of the siding are coupled and operated by an Arc lever provided at site, at either end of siding. Hand plunger lock is fitted at the entrance points in unlocked by the 2 keys released from 2 RKTs of the same ward. 2 RKTs are provided in SMs office one each for East end and West end of the siding point. The key/keys are released from 2 RKTs by pressing of goods siding point button number 24 in conjunction with group trains button. When the key extracted from RKT all up and down reception signals and dispatch signals of Up loop line no.1 will be held locked in their normal position till such time the key IN indication appears on the panel board.

7.0 **STATION MASTER'S KEY:**

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

8.0 **EMERGENCY OPERATIONS:**

The following are the instructions for Emergency operations.

8.1 **EMERGENCY ROUTE CANCELLATIONS:**

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

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

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

8.2 **EMERGENCY ROUTE CANCELLATION COUNTER:**

For the purpose of emergency operations, there is an emergency route cancellation and also there is a counter for counting emergency operations involving the concurrent operation of the emergency route cancellation button. The Station Master must press the emergency route button along with concerned signal button for which emergency

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route release is required. An yellow indication will appear below the signal indicating that the timer has started the operation and after lapse of 120 seconds, the desired route will be released provided all other conditions are favorable for the route release. The numbers of the counter register the number of operations performed for such emergency cancellation and the Station Master on duty should specify the cause for such usage giving the particulars of the cause and the time of operation as related to a particular train etc., in the Train Signal Register. The detailed operation instructions are as follows.

8.3 CANCELLATION OF UNINTENDED LOCKING OF POINTS:

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

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

OR

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

OR

THE TRAIN HAS COME TO A STOP OUT SIDE THE STOP SIGNAL:

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

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

8.5 EMERGENCY OPERATIONS:

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

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

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

9. EMERGENCY OPERATION OF POINTS (IN CASE OF POINT ZONE TRACK CIRCUIT FAILURE):

The Station Master on duty can operate points from panel, in case of point zone track circuit fails. The Station Master on duty after physical verification, insert the SM's emergency point key and turn into get the key 'N' position keeping the Emergency point key in that position the Station Master on duty must press the individual point

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button along with emergency point operation button (Black with Red dot). He shall then release the emergency point operation button only and press the point group Normal or Reverse button as per requirement keeping the individual point button is pressed condition. Points will be set to Normal or Reverse position as per operation. During the initiation on RED indication will appear above the emergency operation button. This operation will be registered in and emergency point operation counter placed about the emergency point operation button will increase in number by one.

10.0 INTER LOCKING OF SIGNALS:

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

11 LOCKING OF RELAY ROOM:

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

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

- 12.1 The regular maintenance of the S&T installation and adherence to the schedules of Maintenance as also to the mandatory schedules of testing of Points, Track Circuits, Signals, Ground Frames, Level Crossing Gates, the associated inter locking apparatus i.e. Cables and finally the interlocking functional tests is a must for the safe and satisfactory working these installations at the Station.
- 12.2 The tests, checks and re-placement etc., including overhauling shall confirm to the Schedules of the maintenance as indicated in the Signal Engineering Manual as also in the current and extent instructions/Circulars on the subject.

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

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

14. INSPECTION OF POINTS BEFORE DELCARING THEM DEFECTIVE:

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

14.1 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

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

15.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORKS:

However any normal maintenance or special works for heavy renewals etc., are involved, These works should be pre-planned by the Signal and Telecom filed staff and the SE/SSE of the section should give to the Station Master in writing "Advance intimation" about this planned work in terms of G & SR 15.08.01.

16. EMERGENCIES:

Not with standing any thing contained in the afore-said Para Nos. 14.1, 14.2 and 14.3 when a Gear is found to be defective and un-safe for passage of trains, the Signal & Telecom staff must at once suspend the working of that gear and the associated installations and issue a "Suspense Memo" explaining the seriousness of the defect or damage to the interlocking installation to the Station Master and take Station Masters acknowledgment. After this, the usual practice of exchange of disconnection memo and re-connection Memo can follow and the Station Master must promptly act on such messages and take adequate precautions treating the S&T installation as defective and pass trains over the effected interlocking gears according to extent instructions as contained in G R 3.77 and SR thereon.

17. SIGNAL LIGHTS:

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

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18. CORRECTING TIME IN THE STATION CLOCK:

The Station Master shall set the time on his Clock according to the time Signal given by the section Controller on duty at 16.00 hours every day according to G&SR 4.01.01 and 4.01.02

19 NORMAL POWER SUPPLY:

The Station works on 230 Volts single-phase power supply. The normal power supply is from the State electricity local supply.

19.1 STANDBY POWER SUPPLY:

Diesel generator supply is available at the Station as stand by with changeover switch arrangement. The station Master on duty shall arrange to start the generator in the event of failure of normal power supply.

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

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

20 WORKING OF POINTS – POSITION OF POINTS:

The normal position of all points shown in the Station Working Rule Diagram No. SI/WRD-23017 Alt-'C' and also in the mimic indication panel provided in the Station Masters office.

20.1 All cross over points and independent points on the running lines are worked by Electric Point Machines. The point machines have in-built locking and detection arrangements. These points are remotely controlled from the panel situated in the Station Master's office.

20.2 The operation and indication on the points and their route locking over them is already explained in earlier pares of Appendix-B.

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

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

21.1 Whenever a Signal or a Point become defective any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at the Station.

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- 21.2 In case of failure of Signal or a Point and in case the Point can not be operated from the Panel, the emergency Crank Handle which is Interlocked with the system has to be extracted and the following procedure has to be observed.
- 21.3 One common emergency Crank Handle is provided for all the Motor operated Points. This is mechanically riveted to the Key of RKT. This Key along with Crank Handle can be released from the RKT by pressing the Common RKT Push Button after cutting the seal between RKT and the Crank Handle. The Station Master on duty in case of Point Motor failure will take out the Crank Handle set the Point manually by inserting Crank Handle on the Motor.
- 21.4 When the Crank Handle is removed from RKT for operation of the defective Motor Operated Points, the responsibility for its safe custody re-sets with the ASM/SM on duty till it is replaced back in RKT and sealed by Signal Maintainer.
- 21.5 The case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.
- 21.6 Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and than handover to him the emergency Crank Handle for the Points concerned. All the Points will be treated as defective till the Emergency Crank Handle is returned back to Station Master on duty.
- 21.7 Before parting with the Emergency Crank Handle either for attending failure or for Maintenance work by Signal Maintenance Officials, the Station Master on duty will ensure that the reception and departure Signals are put back to on position. The Points of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The Station Master on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.
- 21.7.1 The Emergency Crank Handle Register is to be maintained in the following proforma by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded:
1. Date:
 2. Point Number which failed or required to be tested:
 3. Time failure:
 4. Disconnection memo number received from S&T Staff:
 5. Signature of SM/Signal Official to whom the Emergency Crank Handle is handed over:
 6. Time Emergency Crank Handle is sent out:
 7. Individual Point numbers, and Line number nominated for admission of dispatch for which Points are set, Clamped and Padlocked:

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8. Train number to be admitted or dispatched:
9. Signature of the Station Master on duty to ensure correct setting, Clamping and Padlocking of the Points:
10. Date and Time fault rectified.
11. Time of Emergency Crank Handle received back by SM on duty:
12. Signature and Designation of the Signal Official who rectified the fault:

IMPORTANT NOTE:

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

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

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

22.2 INTERLOCKING WITH ADVANCED STARTER:

The UP and DOWN Advanced Starter Signals are Electrically interlocked with respective DLBI so that these Signals can not be taken OFF until the Handle of the concerned Block Instrument is in TRAIN GOING TO position.

22.3 SUSPENSION OF LAST STOP SIGNALS:

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

23.0 BURNING OF SIGNAL LIGHTS:

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

24.0 LAST VEHICLE CHECKING DEVICE:

Digital Axle Counter has been provided in Block Section between KNRT-GMDA and KNRT-JMPT to work as last Vehicle check device. This axle counter will control the DLBI of the respective as suspended and trains shall be Piloted Out. The occupation and clearance of the axle counter section will be indicated in the panel by red and green light.

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UP advanced Starter signal cannot be taken off if axle counter of block section between KNRT-GMDA fails or on the other hand on arrival of a UP train to GMDA station, if the axle counter continue to show occupied of section KNRT - GMDA the DLBI cannot be turned to line closed position and the resetting of LVCD axle counter shall be resorted.

DN Advanced Starter signal cannot be taken off if axle counter of block section between KNRT-JMPT fails or on the other hand on arrival of a DN train to JMPT station, if the axle counter continue to show occupied of section KNRT-JMPT the DLBI cannot be turn to line closed position and the resetting of LVCD axle counter shall be resorted.

24.1 RESETTING OF LVCD AXLE COUNTE [DIGITAL]:

a] Whenever after complete arrival of train the LVCD axle counter continue to show Red. On the panel Board, the on duty SM/ASM at KNRT station shall resort to the reset of the axle counter.

b] For this purpose SM/ASM at KNRT Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SM/ASM shall obtain signature from the Guard of stopping train on the train intact register [vide GR&SR No.4.17, 4.17..01] or by exchanging a light signal with the Guard of through train, so that he can ensure that the train has arrived completely arrived before resetting of LVCD axle counter. SM/ASM-KNRT shall inform the failure of the axle counter to on duty Dy.SS/ASM of KNRT for UP Block Section and JMPT for DN block section.

c] SM/ASM then send an operating person to verify that the last vehicle is clear of Block section. After verifying the clearance of last vehicle on concerned Block section, the operating person exchanges private number and press a button in the last vehicle verification box.

d] On pressing the button LVV indication will appear at Panel Board and the SM/ASM shall press the nominated reset button by this operating LVCD axle counter will reset and associated counter will change to next higher number.

e] SM/ASM shall record the higher number so changed due to reset of axle counter in the reset register and also in train signal register monitoring the purpose of reset even after completion of reset operation of LVCD/axle counter does not show clear indication until the next train is piloted out from the station in rear and necessary caution order in this regard has to be issued by the SM/ASM in rear.

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APPENDIX 'C' TO STATION WORKING RULES OF KNRT STATION

WORKING INSTRUCTIONS OF ANTI COLLISION DEVICE (RAKSHA KAVACH)

NOT APPLICABLE

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APPENDIX-'D' TO STATION WORKING RULES OF KUNERU STATION

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

1. **DY. STATION SUPERINTENDEDNT:**
He is rostered for 8 hrs of train passing duties. He is responsible for the general and satisfactory working of the station and for the efficient discharge of duties by staff working under him. He shall keep all Rulebooks, Registers, Files and documents neat and up to date. He shall ensure that all equipment, apparatus, and instruments including signaling and interlocking gears and fittings are kept clean and oiled by S&T officials. His special attention is drawn to Chapter-II of G&SR and GR 5.01 to 5.08 with relevant SRs and O.M. Chapter XXII. He shall follow the instructions laid down in SR.3.68.01 (c) and (d) and SR 14.07.01 and B.W.M.2.09 (e). He shall promptly attend to accidents and report them. He shall supervise the work of safe working staff and conduct night inspections and report lapses of staff working under him.
2. **STATION MASTER:**
He is responsible for trains passing during his shift. He shall promptly bring to the notice of DY. Station Superintendent all irregularities and accidents in course of his shift duties. During the absence of Dy.SS, the duties of the Station Manager will devolve on him. He shall follow SR 3.68.01© and (d) SR 14.07.1 and OM Chapter XXII. His special attention is drawn to Chapter-2 of G&SR 1976 and GR 5.01 to 5.08 with relevant SRs. As an assistant to Dy.SS, he shall carry out the instructions given to him by the Dy. Station Superintendent.
3. **TRAFFIC POINTS MAN:**
He shall work under the orders Dy.SS /S.M. on duty. He shall couple and uncouple vehicles under the supervision of Dy.SS /S.M./Guard. He shall operate ground lever/levers clamp and padlock the necessary points for shunting operations. He shall watch and guard the packages and other Railway property lying in the Station premises. He shall be thorough of displaying hand signals. He shall report any irregularities coming to his notice. He shall do loading and unloading of parcels, smalls and Guard's boxes. He shall do piloting IN and OUT. He shall deliver any official message to the proper person/office. He shall carry out any other duties entrusted to him by the Station Master on duty.
4. **TRAFFIC GATE MAN:**
He is responsible to operate L.C. Gate at his end. He shall attend to the call of the SM on duty and do the work entrusted by the SM on duty connected to gate operation. He shall promptly report any abnormality to SM on duty. He shall also protect the gate when required as given in gate working rules. He shall do all necessary functions related to gate working as stated in gate working rules.
5. **SAFAIWALA:**
He shall attend to the sanitation of the Railway premises including SM's Office, platforms, Staff Quarters, Latrines and cleaning of drainage's etc. He shall carry out any other work entrusted to him by the Station Master on duty.

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

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APPENDIX 'E' TO STATION WORKING RULES OF KUNERU 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	Hand Signal lamps	3 (1 Spare)
3	Hand Signal Flags	3 (1 Spare)
4	Skids	4
5	Clamps with Padlocks	12
6	Safety chains with Pad locks	8
7	Fire & Sand buckets	5
8	Minimax Fire Extinguishers DCPT	2
9	Reminder collars	6
10	First Aid Box	1
11	Stretcher	1
12	Blanket	1

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APPENDIX 'F' TO STATION WORKING RULES OF KUNERU STATION

RULES FOR WORKING OF DK STATIONS, HALTS, IBH, IBS AND
OUTLYINF SIDINGS.

NOT APPLICABLE TO THIS STATION.

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APPENDIX 'G' TO STATION WORKING RULES OF KUNERU STATION

RULES FOR WORKING OF 25KV AC TRACTION.

NOT APPLICABLE TO THIS STATION

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