Correction Slip No. 01
Date of Issue: 29.06.2012
Sl.No.SWR/KRAR/24

EAST COAST RAILWAY
SAMBALPUR DIVISION

STATION WORKING RULES OF KHARIAR ROAD STATION (CODE: KRAR)

BG/MG/NG : BROAD GAUGE
Date of issue : 29.11.2010
Date brought into force: 20.01.2011

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

1. STATION WORKING RULE: -

1.1 **STATION WORKING RULE DIAGRAM NO.** SI/WRD – 10173 (ALT-'A')

1.2 **SIGNAL INTERLOCKING PLAN NO**: - SI - 10173 (ALT-'J')

The Station Working Rule diagram and Signal Interlocking Plan shows the complete lay out of the yard, siding, normal position of points, the Signalling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This must be referred to for giving details of the point's number and signals when reporting accidents

2. DESCRIPTION OF STATION: **-**

KHARIAR ROAD (KRAR) is a three-line station situated in Titlagarh – Raipur single line section at KM. 105.086 from Raipur. It is Standard – III interlocked station with central panel and having semaphore motor operated lower quadrant signals

2.1 GENERAL LOCATION: -

2.1.1 **NAME OF STATION**: - KHARIAR ROAD

2.1.2 **CLASSIFICATION OF STATION: -** 'B' class

2.1.3 **NAME OF THE SECTION: -** Titilagarh-Raipur, BG Single Line, Non-RE section

2.1.4 **ROUTE: -** **'**D' Spl.

2.1.5 **LOCATION: -** 105.086 km from Raipur.

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

i) Titlagarh end - NAWAPARA ROAD (Code: NPD) inter distance 11.544 K.M.
ii) Raipur end - KOMAKHAN (Code: KMK) inter distance 10.429 K.M.
iii) Passenger halt : - Nil
iv) Flag station : - Nil
v) Outlying siding : - Nil
vi) D.K. station : - Nil.
vii) IBH : - Nil
viii) IBS : - Nil

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2.3 BLOCK SECTION LIMITS: -

Sl.No	Between Stations	The point from which "Block Section" commences.	The point at which "Block Section" ends.
1.	KRAR – NPD	UP advanced starter signal No.9 of KRAR	DN advanced starter signal of NPD
2.	KRAR- KMK	DN advanced starter signal No.17 of KRAR	UP advanced starter signal of KMK.

2.3.1 **STATION SECTION:** The portion between UP and DN Advanced Starter signals is the station section.

2.3.2 **STATION LIMIT :** The portion of line between UP and DN Outer signals is the station limit of this station.

2.4: **GRADIENTS: -**

i) From the centre of Station building towards NAWAPARA ROAD end

From	To	Inter distance	Gradient
CSB	981.00 M	981.00 M.	1 in 1000 R
981.00 M	1249.00 M	268.00 M.	Level
1249.00 M	1450.00 M	20100 M	1 in 200 F
1450.00 M	1718.00 M	268.00 M	Level
1718.00 M	3115.00 M	1397.00 M	1 in 150 R
3115.00 M	6114.00 M	2999.00 M	1 in 200 F
6114.00 M	To Block section.	---	Level

ii) From the centre of Station building towards KOMAKHAN end.

From	To	Inter distance	Gradient
CSB	1483.00 M	1483.00 M	1 in 1000 F
1483.00 M	1550.00 M	67.00 M	1 in 150 F
1553.00 M	1751.00 M	201.00 M	Level
1751.00 M	2019.00 M	266.00 M	1 in 150 R
2019.00 M	2349.00 M	2130.00 M	Level
2349.00 M	3086.00 M	737.00 M	1 in 250 F
3086.00 M	To Block Section	---	Level

2.5 **LAY OUT**: -

i) No. of Running lines: - 3 (Three)

ii) No. of Sidings: - 2 (Two) Full length Goods siding in two spurs takes off from line No-1, one at KMK end and other at NPD end.

iii) No. of Passenger Platform :-2 (Two) (High level, 291.70 x 11.00 M beside line no-1)
(High level, 550.00 x 7.00 M beside line No-3)

iv) No. of Goods Platform: - 2 (Two) (High Level, 310.00 x 15.00 M at KMK end)
(Low Level, 310.00 x 15.00 M at NPD end).

v) FOB : - 1 (One) at CH49.4 M from CSB at KMK end.

2.5.1 **RUNNING LINES, DIRECTION OF MOVEMENTS AND HOLDING CAPACITY IN CSL:-**

(i)

Sl.No	Line No.	Description	CSL	Isolation provided	
				NPD end	KMK end
1.	Line No.1	1st Loop	717 M (str-str)	ORL	Sand Hump
2.	Line No. 2	Main line	686 M (Str-Str)	-	-
3.	Line No.3	2nd Loop	745 M (Str-Str)	Sand Hump	Sand Hump

(ii) **DIRECTION OF MOVEMENTS: -**

Trains arriving from KMK end are UP trains.
Trains arriving from NPD end are DN trains.

2.5.2 (i) **NON-RUNNING LINES AND CAL:-**

Srl No	Description	CAL	Takes off from line No.	Exit	Operation
1	Goods Siding	320.55 M {DE-DS)	1st Loop at KMK end	One way	Operated by HPL near siding point and controlled by switch No.15 from operating panel.
2	Goods siding	385.00 M {DE-DS)	1st Loop at NPD end	One way	Operated by HPL near siding point and controlled by switch No.16 from operating panel.

2.5.3 **ANY SPECIAL FEATURES IN THE LAYOUT:**
There is a falling gradient of 1 in 150 at CH 1483 M towards Raipur end of the yard.

2.6. (i) **Level Crossings** :- (***Station Section***): -

Sl. No.	Location	Km.	Normal position	Class	Type	Operation	Communication
1.	Between UP Home signal & DN starter signals.	104.615 (RV-72)	Open to road traffic	B-1	Interlocked	Winch operated lifting barrier	Telephone connection with KRAR station

ii) **Level crossing: - (in Block Section):**

Sl. No.	Location Between	Km	Normal position	Class	Type	Operation	Communication
1	KRAR-KMK	103/9-10 (RV-71)	Open to road traffic	B-1	Interlocked	Winch operated lifting barrier	Telephone connection with KRAR station.
2.	KRAR-NPD (DN Outer & UP adv. starter signal)	105/13-14 (RV-73)	Open to road traffic	C	Interlocked	Electrically operated lifting barrier	Telephone connection with KRAR station.

Train Actuated Warning Device is not provided for the above Level Crossing Gates.
(Working of level crossing Gate is detailed in Appendix-'A'.)

3.0 **SYSTEM AND MEANS OF WORKING**: -*(Rule No., Chapter - xiv of GR & SR, Chapter – iii & IV of BWM*) Absolute Block System No.8.01 (1)(a & c) 8.01(2)(a) 8.03 (2).

i) **System of working**: - Absolute Block System of working on single line.
ii) **Type of block instruments**: - Token-less block instruments connected with Block Instrument of adjacent stations.
iii) **Instrument**: - Non-cooperative.
iv) **Block Telephone:** - Provided with KMK & NPD stations.
iv) **Staff responsible for their operation**: - SM on duty.
v) **Custodian of keys**: - SM on duty.

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4.0 **SYSTEM OF SIGNALLING AND INTERLOCKING: -**

4.1 **STANDARD OF INTERLOCKING AND TYPE OF SIGNALLING:** –

(i) **INTERLOCKING :-**

The station is provided with Standard-III interlocking. All the points and signals are operated from central panel in Station. Home signals and Advanced Starters are interlocked with respective Tokenless Block Instruments. DN gate stop signal of L.C. gate at KM 103/9-10 is interlocked with DN advanced starter signal of KRAR station and UP gate stop signal of L.C. gate at KM 103/9-10 is interlocked with UP outer signal of KRAR station.

The panel board, provided in the SM's office is directly operated by SM on duty. This panel is provided with locking arrangement so that the same can be locked either in normal or operated position by the removal of lock up key. GR 3.08 (2) governs the aspect indications of the signals. The station has no end cabins.

(ii) **MAXIMUM EQUIPMENT OF SIGNAL** –

Outer, Warner below Outer, Home, Starter and Advanced starter in either direction.

(iii) **AXLE COUNTER**: Not Applicable

(iv) **TRACK CIRCUIT –**

Track circuits are provided at different places in the yard as shown in the panel. The different track circuits for signal replacement are namely: 2T, 17T, 3AT, 3T, 24T, 9T, 23AT, 23T. The point zone track circuits are 14T, 14BT, 13T, 6AT, 11AT, 11BT, 12T, 18AT. Berthing track circuits on main line are MLT1, MLT2, on line No. 3 are L2T1, L2T2 & on line No. 1 are L1T1, L1T2.

4.1.1 **POSITION AND OPERATION OF POINTS:**

The positions of all points are shown in station Working Rule Diagram and also on operating panel. All points are power operated through Station Master's control panel apparatus. All cross over points on running line are independently worked by electric point machine and have built in locking and detection arrangement.

4.1.2 **ROTARY KEY TRANSMITTER (RKT)**: RKTs with crank handle keys are provided in SM's office for the operation of points in case of failure of motors. The crank handle keys are mechanically riveted to the keys of RKTs. The SM on duty in case of point motor failure shall press the control push button Nos. 26 (CH-1 controlling point Nos. 11 & 12) & 27 (CH-2 controlling point Nos.13 & 14) along with common trans button which will release Keys from RKTs and it is carried to the points for operating the points to desired position by crank handling.

4.1.3 **IBS**:- :- NIL

4.1.4 **POINT & TRAP INDICATOR** : - NIL

4.1.5 **REPEATER (BANNER TYPE)**:- NIL

4.1.6 **CALLING ON SIGNALS :-** NIL

4.1.7 **SHUNT SIGNALS :-** NIL

4.1.8 **ANTI COLLISION DEVICE : -** NIL

4.1.9 **EMERGENCY CROSS OVER-** NIL

4.1.10 **L.C. GATE OPERATION: -** (Given in Appendix-A)

4.1.11 **ANTI COLLISION DEVICE: -** NIL

NOTE: Details of signalling and interlocking are given in Appendix 'B' of the SWR.

4.2 CUSTODY OF RELAY ROOM KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T MAINTENANCE STAFF:- The Relay room should be kept locked with two separate locks, the arrangement should such that one key is kept with the on duty SM in his custody and the other key with the signal maintainer. Whenever required, the Station Master shall hand over the key to the maintainer with proper arrangement with proper acknowledgement in the basement/Relay room key register. The maintainer on receipt of the key from the station master may use the same and the key in his custody to open the relay room by inserting the keys one after another separately into the earmarked locks.

After completion of work, the relay room is to be locked using both the keys separately and designated key should be handed over to the SS/SM on duty. The details of the transaction should be properly recorded in the relevant register at the Station duly signed by SS/SM on duty and the signal staff concerned. If the relay room key is handed over to the Signal staff regarding in safety gears, the train shall be piloted in and piloted out.

NOTE: Details of signalling and interlocking are given in Appendix 'B' of the SWR.

4.3 **POWER SUPPLY: -** Normally for signaling and interlocking installation power supply is drawn from WESCO (230V, 50Hz) but when this source fails, D-G set for stand-by is installed at the station to feed the S&T equipments.

5.0 **TELECOMMUNICATION FACILITIES: -**

(i) Telephones with single line Tokenless Block Instrument for either side Block Sections.

(ii) Station to Station fixed telephone (hot line) is provided

(iii) Station is provided with auto telephone connected with Railway Exchange

(iv) BSNL telephone is provided

(v) The station is connected to Raipur-Titlagarh control circuit by a control telephone.

(vi) Station to station VHF communication is provided

(vii) Telephone is provided between Station and LC Gates at KM 105/13-14, KM 104/9-10 & KM 103/9-10

Note: (i)For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.

(ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.

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(iii) The on duty SM shall use the above electrical communication instruments stated in Para-5.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR

14.01.01. In case of failure of any of the above means of communication the SM on duty shall work vide SR 6.02.06.

(Details are mentioned in Appendix'B' of the SWR)

6.0 **SYSTEM OF TRAIN WORKING: -** The movement of trains is controlled by Section Controller on duty whose orders shall be complied with, provided they do not contravene any General Rules, Subsidiary Rules, Station Working Rules, Block Working Manual and other safe working instructions issued from time to time. In the event of suspension of control working, the SM 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 **DUTIES OF TRAIN WORKING STAFF:** - Details of duties of operating staff are mentioned in Appendix 'D' of the SWR.

6.1.1 **TRAIN WORKING STAFF: -** The following are the complement of train working and operating staff provided at this station to work in each shift.

SL No.	Designation	Roster	No. of staff in each shift	Hrs. of Duty
1.	SMR(In-charge)---------- DY.SS /SM/ASM----------	Continuous	01	--09 hrs. --08 hrs.
2.	TPM-A/TPM-B / Sr. TP/ TP	Continuous	01	08 hrs.
3	Sr.GK/GK	E.I.	01	12 hrs.

The above staff shall work as per the rosters issued by DPO/SBP from time to time and these rosters shall be displayed in the SM office.

6.1.2 **RESPONSIBILITY OF ASCERTAINING CLEARANCE OF THE LINE AND ZONE OF RESPONSIBILITY:** The SM on duty is responsible to ascertain the clearance of the nominated line between outer most facing points of concerned line as per GR 14.10.

6.1.3 **ASSURANCE OF STAFF IN ASSURANCE REGISTER: -** All staff before taking up independent charge of their duties at this station shall make a written declaration in the assurance register that they have read and thoroughly understood the working system in force and must sign in Assurance Register. No Railway servant shall be entrusted with any duty involving safety of the public unless the station in-charge is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals.

The SS is responsible to see that all the staff are conversant with the Station Working Rules and their signature obtained in the Assurance register in Form 'A' after he is satisfied that they have thoroughly understood the working rules of the station. In case of Group 'D' staff, their signature/thumb impression in Form 'B' must be obtained after explaining fully about their duties and responsibilities. The Station Manager is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance Register must be maintained in two parts, one for Group 'C' and the other for Group 'D' staff. A duplicate copy of the Assurance Register must be maintained and kept in personal custody of the Station Superintendent.

The declaration shall be renewed in the following cases: -

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

6.2 **(A) CONDITION FOR GRANTING LINE CLEAR: -** The conditions laid down in GR 8.01 (1) (a) & (c), 8.01 (2) (a), 8.03 (2) (a)(b)(c)(I), BWM 2.07 (3) & (4) shall be complied with and as under: -

i) The whole of last preceding train has arrived complete clearing the fouling mark concerned.

ii) All necessary signals are put back to 'ON' behind the said train.

iii) Block section is clear of trains running in the direction towards the block station to which such line clear is being given.

iv) The line is clear up to the advanced starter signal of station nearest to expected train. (Up advanced starter signal No. 9 for a DN train and DN advanced starter signal No. 17 for an UP train).

(B) OUTLYING SIDING: - **Nil.**

6.2.1 **ANY SPECIAL CONDITION TO BE OBSERVED WHILE RECEIVING OR DESPATCHING A TRAIN: -** Reception signal should be taken off well in advance for UP goods train with 58 BOXN load and single WAG7 loco and 40BCN load with single WDG 3A/WDM 3A loco.

6.2.1.1 **SETTING OF POINTS AGAINST BLOCKED LINE: -** All Points shall normally be set for the straight except when otherwise authorized by special instruction. 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 arrival of a train at the station, the points at either end should immediately be set against the blocked line except when shunting or any other movement towards the blocked line is required to be done vide 3.51.06(a). If all the lines at the station happen to be blocked, then SR.3.51.06 (b) will be followed. During crossing of passenger and goods trains, the rules laid down in SR 3.47.01& 3.51.06 shall be followed.

6.2.1.2 **RECEPTION OF TRAIN ON BLOCKED LINE:** - In case reception of a train on an obstructed line, the SM shall follow GR 5.09 & SR 5.09.01.

6.2.1.3 **RECEPTION OF TRAIN ON NON-SIGNALLED LINE**: - In case reception of a train on a non-signalled line, the SM shall follow GR 5.10 & SR thereto.

6.2.1.4 **DESPATCH OF TRAINS ON NON-SIGNALLED LINE**: - In case despatch of a train on a non-signalled line, the SM shall follow GR 5.11 & SR thereto.

6.2.1.5 **DESPATCH OF TRAINS FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:-** N/A

6.2.1.6 **SPECIAL RESTRICTIONS** -

(i) The Sand Hump/ORL shall not be obstructed for stabling vehicles or harboring an engine. If it is obstructed through any accident or for any cause it ceases to be a substitute for the adequate distance, in that case the train shall be passed over loop line as per Subsidiary Rules 3.40.02(a).

(ii) Shunting in the face of an approaching train is prohibited

(iii) Hand shunting & Fly shunting is prohibited at both ends of the yard.

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6.2.1.7 **SPECIAL INSTRUCTIONS** :

(i) DN starter signals No.20 and No.19 have been placed on RH side of line No.2 and 3 respectively.

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(ii) Reception signal should be taken off well in advance for UP goods train with 58 BOXN load and single WAG7 loco and 40 BCN load with single WDG 3A/WDM 3A Loco.

6.3 **CONDITIONS FOR TAKING 'OFF' APPROACH SIGNALS** : -

A. Reception of trains is governed by General Rule 3.36, 3.38, 3.40, 4.17, Subsidiary Rule 3.36.02, 3.36.04, 3.42.02 (a)(i), 3.42.03 and other relevant provisions of General and Subsidiary Rules, Block Working Manual and Station Working Rules of the station.

B. Adequate distance to be kept clear vide GR 3.40 (1) (b).CRS's dispensation vide letter No.985 of date 10.12.2008 received for adequate distance.)

Sl. No.	Line No.	UP Train		DN Train	
		From	To	From	To
1.	1st Loop line	UP Starter No.6	UP Adv. Starter No.9	DN Starter No.18	End of Sand Hump / DN Adv. Starter No.17
2.	Main line	UP Starter No.8	UP Adv. Starter No.9	DN Starter No.20	DN Adv. Starter No.17
3.	2nd Loop Line	Up starter No.7	End of Sand Hump / UP Adv. Starter No.9	DN starter No.19	End of Sand Hump / DN Adv. Starter No.17

C. **Reception of Trains** - For receiving a train, the SM on duty shall take the following actions serially. He shall: -

(i) Set the concerned points both facing and trailing to the desired position and observe as per strip indication that the points are set correctly.

(ii) Press the relevant route push button R1/R2/R3 and turn the relevant Home signal thumb switch 3/4/5 or 21/22/23 in the direction of the movement of the Train.

(iii) Turn the relevant Outer signal thumb switch 2 or 24 to the direction of the movement of the train along with the respective route buttons.

(iv) Turn the relevant Warner signal thumb switch 1 or 24 to the direction of the movement of the train along with the respective route buttons for trains running through on main line.

(v) Verify by the arm or back light of reception signals that they have been correctly lowered.

(vi) Since the UP outer and Warner signals are not visible to the SS/SM on duty, arm and light repeaters are provided in the panel for the signals. The SS/SM should verify from the arm and light repeater that these signals have been correctly lowered.

(vii) Before operating the thumb switches to take off Home signal for the reception of UP trains, the SM on duty should ensure that the level crossing Gate is in closed condition.

6.3.1 **RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON': -** For replacing signals to on, the SM on duty shall follow Rule No. SR 3.36.02.

6.4 **SIMULTANEOUS RECEPTION, DESPATCH, CROSSING & PRECEDENCE OF TRAINS:** According to the existing interlocking at this station, the simultaneous reception and despatch of trains are permitted as stipulated below: -

Reception of DN train on Line No.1 by setting towards sand hump	AND	Reception of an UP train on line No.3 by setting towards sand hump or despatch of another DN train from Line No.2/3
Reception of UP train on Line No.1 by setting towards ORL	AND	Reception of a DN train on line No.3 by setting towards sand hump or despatch of another DN train from Line No.2/3
Reception of an UP train on line No.3 by setting towards sand hump	AND	Reception of a DN train on line No.1 by setting towards sand hump or despatch of another UP train from line No.1/2
Reception of a DN train on Line No.3 by setting towards sand hump	AND	Reception of an UP train on Lie No. 1 by setting towards ORL or dispatch of another DN train from Line No. 1/2

6.4.1 Rules laid down in GR 3.47 and 3.47.01 shall be followed.

6.5 **COMPLETE ARRIVAL OF TRAINS :** -
(*Rule No. GR 4.16, SR 4.17.01, GR 4.17.02 & GR 14.10*)

a) (i) **STAFF RESPONSIBLE TO VERIFY COMPLETE ARRIVAL: -** SM on duty.

(ii) **MODE OF VERIFICATION**: When the train has arrived intact and completely within the station yard clearing the fouling marks and the ENTRANCE / EXIT tracks at each end of the cross-overs at the reception end, the SM on duty must ensure complete arrival of a stopping train by sending the Train intact arrival Register to the Guard of stopping train, who will certify this fact, with his clear signature in the Register. As soon as the Guard of the Train certifies that the Train has arrived intact and the train is berthed in the station yard clearing the fouling mark at both ends, the SM on duty shall close the Block section in terms of SR 4.17.01. (e)(Iii) and BWM 2.07 (6).

b) For through passing of trains, both SM & TP on duty shall ascertain the complete arrival of the trains.

c) In case of trains arriving with last vehicle number the last vehicle number shall be repeated vide BWM 2.07 (6).

6.5.1 **L.V. VERIFICATION THROUGH AXLE COUNTER**: - N A.

6.5.2 **L.V. VERIFICATION WHEN AXLE COUNTER FAILS: -** N A.

6.5.3 **L.V. VERIFICATION WHEN MOTOR TROLLEY FOLLOWING: -** On occasions when motor trolley follows a train, the points shall not be altered until the following motor trolley is admitted on the same line. In the event of motor trolley is delayed in the section the Station Master on duty shall take action in terms of Subsidiary Rule 15.25.03 (b)(vi).

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6.5.4 **RECEPTION OF TRAIN ON BLOCKED LINE: -** For admission of a train on a blocked line, the SM on duty shall comply with the instructions laid down in GR 5.09 and SRs thereto.

6.6 **DESPATCH OF TRAINS:** - Despatch of trains is governed by GR 3.36 to 3.39, 3.42, 3.43, 5.11, 8.01(a), SRs 3.36.01,3.36.02(a)(b), 3.36.03,3.36.04(b), 3.42.01(b), 3.42.02(a)(i), 3.42.04, 5.11.01 and other provisions of GR & SR, BWM and Operating Manual, SWR.

To despatch a train, the SM on duty, having obtained line clear for that train, shall set the route for the out going train correctly and satisfy himself by observing the visual indication on the panel board. He shall suspend all non-isolated shunting, ensure closure of the L.C.gate and then shall turn the concerned route starter and advanced starter signal switch and press the concerned route button D1 or D2. After observing the 'OFF' aspect of the route starter and advanced starter signals, the Loco Pilot shall start his train.

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. When the train passes the Advanced starter completely, he shall send the 'Train entering block section' signal to the station in advance

If a train worked without Guard or Brake Van the instructions laid down in Subsidiary Rules 4.23.02 and 4.25.02 shall be followed

6.6.2 **PUTTING BACK SIGNALS TO 'ON' IN CASE OF EMERGENCY: -**If a signal once taken 'Off' for reception/despatch of a train has to be, in an emergency, put back to 'ON', the procedure laid down in General Rules 3.36.02 shall be followed. In case of reception of train, route shall not be altered until the train has come to a stand outside Outer signal. In case of departure signal before changing route, the Line clear authority is to be withdrawn from the Loco pilot with a memo, taking his acknowledgement thereof.

6.7 **TRAINS RUNNING THROUGH** : -

a) In addition to the rules laid down for reception and despatch of trains, the rules laid down in GR 4.17, 4.42 with relevant SRs thereto and SRs 3.36.04 (b)(i), 3.42.02 (a) (i) shall be followed.

b) In every case in which trains are permitted to run through on a non-isolated line, all shunting shall be stopped and no vehicle un-attached to an engine or not properly secured in accordance with GR 5.23 may be kept standing on a connected line which is not isolated from the through line as per GR 4.11(2).

For through passing trains, on main line the concerned Warner signal shall be taken off. For all through passing trains SM on duty shall exchange all right signal with driver and guard of the train and observe the last vehicle indicator of the train as well as look out for any dangerous conditions on the train. For this purpose he shall depute a station TP/TPM at the other side of the station to exchange all right signal**.**

6.8 **WORKING IN CASE OF FAILURE: -**

In case of failure of S&T equipments, on duty Station Master shall work in accordance to GR 3.68, 3.69 and 3.70 and SRs thereto.

6.8.1 PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF A SIGNAL & INTERLOCKING INSTALLATION: -

Whenever there is a failure of points, signals, track circuits or any other interlocking gear at the station that includes level crossing gate (s). if any etc. the SM on duty shall follow the procedure detailed in GR 3.68, 3.72, 3.74 and SR thereto. In case of defective approach signals, the trains will be piloted in vide SR 3.69.02, 3.69.03 & 3.69.05. In case of defective departure signals, trains will be piloted out vide GR 3.70 & SR 3.70.01. & 3.70.02.

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6.8.2 TRACK CIRCUIT

In the event of failure of track circuit in the yard concerned signal shall be suspended and trains shall be piloting 'IN' or 'OUT'. Before piloting a train in to the yard the clearance of the track must be ensured by physical verification

6.8.3 **AXLE COUNTER:-**

Not Applicable.

6.8.4 **DEFECTIVE SIGNALS:**

When signals become defective, the procedure laid down in GR & SR shall be followed. A signal in the OFF position is the final indication that the points are correctly set for the route for which it applies. If it is found impossible to take OFF a signal, the setting of points on the route to which it applies shall be inspected by the Station Master on duty before the signal is declared as defective irrespective of what is indicated by the position of the route, [Refer GR 3.68 to 3.46, 3.52 to 3.56, 3.71, 3.80 and SR 3.68.01 (c)].

If the semaphore motor operated signal getting stuck up in "off" position, it should be treated as defective and SM shall follow the procedure vide SR 3.68.02 and 3.68.04.

In case of disconnection of signal and interlocking for repair and maintenance, procedure laid down in GR and relevant SRs shall be followed.

In the event of signal showing no lights, Station Master on duty shall before giving line clear, initiate action in accordance with the procedure prescribed in GR and the relevant SRs. [Refer GR 3.51, 3.69, 3.49 (4), 3.68 to 3.77]

6.8.5 **BLOCK INSTRUMENT**

In the event of partial / total failure of token less Block instrument the concerned block instrument shall be suspended till its rectification, trains shall be worked as per GR 14.01, 14.08 & SRs there to and SR 6.02.06 & BMW Rule No. 4.04, 4.02 & 4.43.

Both UP and DN advanced starters are electrically interlocked with respective Tokenless block instruments so that the same cannot be taken off unless the concerned block instrument is in line clear position (TGT). When the block instrument is suspended in 'Line Clear' position, the concerned advanced starter must also be treated as suspended. When the block instrument is under suspension, the authority to proceed will be paper line clear ticket.

UP and DN Home signals are electrically interlocked with respective block instruments. Block instrument can be normalized from 'TRAIN ON LINE' to LINE CLOSED' position, when the corresponding home signals are in the ON position. However, the Home signals can be taken off in case of failure of the block instruments.

6.8.6 **DEFFECTIVE INTERLOCKING**

In the event of interlocking becoming defective, the points will be treated as defective. The SM on duty on receipt of this information will immediately introduce non-interlocking system of working at the station. Trains will be Piloted In or Out as the case may be. The SM on duty shall be responsible for correct setting, clamping and padlocking of points for admission of train.

6.8.7 **DEFFECTIVE/DAMAGED POINTS**

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.

The responsibility of correct setting of points, clamping and padlocking the points for reception and despatch of trains at the station, rests with SM on duty himself.

6.8.8 **RECEPTION OF A TRAIN ON BLOCKED LINE**

Whenever trains are to be admitted on an obstructed line the SM on duty shall authorize the on duty TPM with form T/509 indicating the reason for such admission the line number and the nature of obstruction on that line.

Before handing over the authority the SM on duty shall ensure the correct setting clamping and padlocking of both facing and trailing end of the concerned route vide SR 3.69.03.

A stop hand signal shall be exhibited by the SM on duty at a distance of not less 45mts. from the point of obstruction to indicate to the Driver as to where the train shall be brought to a stand.

6.8.9 **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE**:

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Superintendent/Station Master irrespective of the position of the switches point laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]. Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49(4) and 3.68, 3.77]

6.8.10. **ISSUE OF CAUTION ORDER: -** Whenever in consequence of the line being under repair or for any other reason special precautions are necessary, a caution order detailing the kilometers and speed at which a train shall travel and the reasons for taking such precautions shall be handed over to the driver in terms of GR 4.09 and SR thereto.

6.9 **WORKING OF TROLLEYS /MOTOR TROLLEYS, MATERIAL LORRIES ETC: -**

(a) Motor Trolleys are run in accordance with Subsidiary Rules 15.25.03 to 15.25.07.
(b) Material Trolleys will work in accordance with Subsidiary Rules 15.27.05 to 15.27.08.
(c) Rail Dolleys will work in accordance with Subsidiary Rules 15.27.10.

The following precaution must be taken:

i) The section where axle counters are provided in lieu of track circuits, trolleys, motor trolleys, Lorries etc which are not insulated, shall not be allowed to run except on line clear.

ii) Motor trolleys / tower wagons / material Lorries are not likely to actuate the axle counter correctly. When they are to run over the sections split by axle counters, the whole section to be treated as one and next train to be started after the first train has arrived complete.

iii) In all other respects, the working of a light Motor trolley shall conform to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley or a motor trolley.

7.0 **BLOCKING OF LINES: -** Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement and reminder collars shall be placed on the concerned point push button and route button(s) for the blocked lines vide SR 3.36.03(b). A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured as per General Rules 5.23 and Subsidiary Rules 5.23.01 to prevent rolling down of vehicles. . A record thereof shall be made in the Station Diary vide SR 5.23.01 (a) (c) & (d).

7.1 **USE OF REMINDER COLLARS**:- Whenever a running line is blocked either by loose vehicles or by stabled train or by a train which is to cross or give precedence to another train

even for a short while or during shunting operations, the reminder collars must be placed on concerned point push button, signal and route button(s) for the blocked lines on the operating panel by SS/SM on duty.

7.2 **SECURING OF VEHICLES** :- As far as practicable loose vehicles shall not be allowed to stand on the running line. However, under unavoidable circumstances, if it is necessary to detach vehicles from a train or to stable a train and leave them standing on running line, SS/SM on duty shall be responsible to secure vehicles/stable loads in accordance with GR 5.23, SR 5.23.01 and OM 7.08 to prevent rolling down of vehicles and arrest obstruction of fouling.

NOTE: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding or on running lines A stabled load register to be maintained shift wise as per FORMAT given below: -

1	2	3		4	5	6
Date	Name of SM on duty	Duty Hours		Line on which stabled	Total no. of wagons	Time Line blocked
		From	To			

7(a)	7(b)	7(c)	7(d)
No. of Hand brakes pinned down	No. of wagons on which wooden wedges used	No. of safety chains with pad lock used	Clamps and pad locks used to set the line against blocked line

7(e)	7(f)		8	9	10
Switch nos. on which reminder collars applied	Time Line cleared		Signature of SM on duty	Signature of SM taken over	Remarks
	Date	Time			

7.3 **ALTERING OF POINTS TO A CLEAR LINE WHEN RUNNING LINE IS BLOCKED**:-

a) When a running line is blocked by stable load e.g., wagons, vehicles or by a train which is to cross or give precedence to another train or immediately after arrival of a train at the station etc. the points at either end should immediately be set against the blocked line except when shunting or another movement is required to be performed in that direction on the same line.

b) If all the lines at a station happens to be blocked when line clear has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order so that in a case of a mishap, the chances of casualties are minimized.

c) In case all the lines are occupied by passenger carrying trains, points should be set for a loop line, to negotiate which the speed of the incoming train would be reduced & which in turn would minimize the consequences of casualties. While doing so, points shall be set for a loop, occupied by a train if any, whose engine is facing the direction of approach of the incoming train rather than a loop line, occupied by a train whose passenger coach will receive the impact in case of a collision.

7.4 **LOADING AND UNLOADING OF VEHICLES ON RUNNING LINE**:- Loading and unloading from vehicles on running line is prohibited unless permitted by Sr. DOM / SBP vide SR 5.19.01. At stations where loading and unloading of goods is permitted whether full rake or part thereof, the station master shall ensure that no goods are left fouling any line before and after clearance of

the rake from the line. The railway servant supervising loading and unloading shall also ensure that consignment does not foul any line vide SR 5.19.001: (a).
If the stations are on gradients, the rake should be properly secured as detailed in SR 5.23.01.
During the time of loading / unloading, the station master shall ensure isolation of the lines(s) as detailed in SR 3.51.06.

8.0 **SHUNTING: -**

8.1 **GENERAL PRECAUTIONS: -** Shunting shall be performed in terms of General Rules 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.17, 5.19, 5.20 to 5.23, 8.09, 8.10, 8.12, 8.13, 8.14, 8.15 and Subsidiary Rules thereto. The Guard/Asst. Guard/SS/SM/TPM on duty is authorized to supervise shunting operation. For non signal movement, shunting order (T-806) is to be issued by the SS/SM on duty, which shall be withdrawn after completion of shunting or in need when train movement is involved to receive/despatch trains on the adjacent line. The same shall be cancelled and pasted to its record foil. The staff supervising shunting shall ensure correct setting of points, clamping and pad locking of points, if necessary.

8.2 **SHUNTING IN THE FACE OF APPROACHING TRAIN: -**
Shunting in the face of approaching train is prohibited

8.3 **PROHIBITION OF SHUNTING AND ANY SPECIAL FEATURE: -**

a) Hand shunting/Fly shunting is prohibited at both end of the station.

b) Shunting shall not be permitted at RAIPUR end of the yard unless the engine is leading towards falling gradient.

8.4

SHUNTING ZONE	BLOCK SECTION IS CLEAR	BLOCK SECTION IS OCCUPIED
Shunting within Station section	Permitted.	Not permitted in face of an approaching train
Shunting outside station section upto outer signal.	Permitted vide GR 8.11 (a).	Permitted as per GR 8.11 (b)
Shunting beyond opposite First Stop Signal	The concerned section shall be blocked back vide GR 8.13	Not permitted in face of an approaching train

During failure of block instrument on single line, the SM on duty shall ensure that there is no train in the block section and the last train has arrived complete clearing the fouling mark while conducting shunting at that end of the block section of which block instrument has been suspended and all necessary precautions have been taken as per rules laid down in GR.

8.5 **SHUNTING ON DOUBLE LINE:-N /A**

8.6 **SHUNTING IN THE SIDING TAKING OFF FROM STATION YARD & GOODS YARD:** When shunting in the goods siding, proper shunting authority on T/806 to be issued to the train staff and limit upto which shunting is to be performed. While performing shunting : GR 5.14 and SRs thereto to be followed

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9.0 **ABNORMAL CONDITIONS**: -

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

[I] **PARTIAL FAILURE OF COMMUNICATION: -** In the event of suspension of single line token less Block Instrument and during partial failure of other available means of communications, trains will be worked in terms of Subsidiary Rule 6.02.06 and Chapter-III Part–I of Block Working Manual.

[II] **THE AUTHOURITY TO PROCEED IN THE OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT :-** In case, it is necessary to allow a train into an

obstructed block section due to engine failure, obstruction or accident, a block ticket shall be issued in terms of SR 6.02.05. Absolute Block System on the affected block section shall be suspended and concurrence of the SS/SM at other end shall be obtained and recorded in caution order register and train signal register.

On the block ticket (T/A 602) it shall be mentioned in detail the place of obstruction i.e. Engine Km., B/Van Km., whether the train is to return or to wait at the place of obstruction for the arrival of another following train(s) or to proceed to next station.

A caution order shall be issued restricting the speed to 15 KMPH. in day light hours when the visibility is good and 10 KMPH at night or whenever clear view for 800 Mtrs. is not available.

On arrival at the station the block ticket shall be collected with necessary endorsement from Loco Pilot/Guard and cancelled and pasted to its record foil or shall be sent to the issuing station for cancellation.

In case of accident/engineering block, assurance from SE/P.WAY concerned shall be obtained that the line is safe for movement of trains before resumption of normal working. When the obstruction is removed and assurance in writing is obtained from SE/P.WAY concerned or Guard/Driver, the SS/SM on duty may resume normal working after exchanging proper messages supported by Private Number.

[III] **TRAINS DELAYED IN BLOCK SECTION** :-
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 of this fact. There after SMs at either end of the Block section shall send one Railway servant into block section to collect the whereabouts of train, condition of train and nature of assistance, if any, required. SM on duty shall collect the full particulars from railway servant so deputed and intimate the same to SM at other of block section and to the section control simultaneously for taking action according to circumstances of the case. [Refer GR 6.04 & SRs thereto]

[IV] **FAILURE / PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT ON:- NIL**

[V] **FAILURE OF LV AXLE COUNTER: - NIL**

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

Details of the operation are given in Appendix 'B' of SWR

(C) CERTIFICATION OF CLEARANCE OF TRACK BEFORE CALLING-ON SIGNAL IS OPERATED: Nil

(D) REPORTING FAILURE OF POINTS, TRACK CIRCUIT/AXLE COUNTER AND INTERLOCKING: - In case of failure of any interlocking gear at the station, the failure report should be communicated by the SS/DY.SS/SM on duty to the sectional Maintainer, the JE/SE/SSE (SIG) of the Section and others through a memo as per SR 3.68.04 and document all such transactions.

9.1 **TOTAL FAILURE OF COMMUNICATION:-** In the event of total interruption of communication occurring between KRAR-NPD or KRAR-KMK stations, i.e when line clear cannot be obtained by one of the following means stated in order of preference viz

a. Block Instruments, Track Circuits or Axle Counters
b. Telephone attached to the Block Instruments
c. Station to Station fixed telephones whenever available
d. Fixed telephone such as Railway auto telephone &BSNL phone
e. Control telephone
f. VHF sets

and actions shall be taken as per SR 6.02.04. The train which is to be despatched to the affected section will be stopped and the Driver and Guard of the train shall be informed about the fact.

Before dispatching the light engine /main engine/motor trolley /Tower wagon/Trolley /Cycle trolley/Moped trolley/Diesel car/rail motor car/EMU rake, the SM on duty shall hand over a Authority for opening of communication during total failure interruption of communication on Single Line Section to the driver /motorman/Guard/SM who is being sent to open communication, which includes.

(i) An authority to proceed without "Line Clear" in the prescribed form (T/B 602).
(ii) A Caution Order restricting to speed of the train to 15Kmph by day when the view ahead is clear and 10 Kmph during night or when view ahead is obstructed in addition to other speed restrictions in force (T/B409).
(iii) Paper Line Clear Ticket to pass the Last Stop Signal at 'ON' position.
(iv) A "Line Clear" enquiry message (T/E602) asking "Line Clear" for the awaiting train (T/F602).
(v) A conditional "Line Clear" message for the light engine to return with or without a train attached, supported by a Private Number.

On arrival of the engine at the next station, the conditional "Line Clear" message and enquiry message shall be collected by the SM on duty who shall prepare conditional "Line Clear" ticket (T/G602 or T/H602) for engine to return either light or a train attached to it and conditional "Line Clear" reply message for the enquiry message, giving "Line Clear" for the train waiting at the other end shall be handed over to the Driver of the light engine. On return trip, the Driver will come on booked speed subject to any other speed restriction in force.

As soon as any one of the means of communication has been restored the conditional "Line Clear" working of train shall be cancelled when there is no train in the affected block section and messages shall be exchanged supported by Private Number. The section controller shall be informed.

9.2 **DESPATCH OF TRAINS UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR OR TO ASSIST THE CRIPPLED TRAIN:** Rules laid down in SR 6.02.05 shall be followed.

10.0 **VISIBILITY TEST OBJECTS:** -

i) V.T.O. post / authorised substitutes earmarked to work as V.T.O. Post. - The arms of UP Starter signal No. 6 & DN Starter signal No.18 of line No.1 during day and their lights during night are earmarked to serve as visibility test objects vide GR 3.61 (2) (b) (ii).
ii) Distance between CSB and V. T. O. post: - 180 Mts.
iii) Station Master on duty will test the visibility during thick and foggy weather and if visibility is impaired, he will work as per GR 3.61 and SRs thereto.

11.0 **ESSENTIAL EQUIPMENTS AT THE STATION**: - Essential equipment shall be kept ready on hand in good condition with necessary relief stock.

(This is mentioned in Appendix – "E")

12.0 **FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG: -**

In order to indicate to the Drivers of approaching trains the location of signal during thick, foggy and tempestuous weather or during dust storm, the SM on duty shall arrange for fog signalling in terms of General Rule 3.61 and Subsidiary Rules thereto. Assurance of the staff shall be taken in the Fog Signal Register in the month of October every year as token of their having knowledge of Fog Signalling Rules and their use.

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

STATION DETONATOR REGISTER (OPT/124)

A Register regarding detonator is maintained at the station.

(a) **INSTRUCTIONS:**

This register contains the following parts.

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

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

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

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

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

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

CERTIFICATE:- NOTHING IN THIS RULES SHALL BE READ AS CANCELLING, AMENDING AND MODIFYING ANY OF THE GENERAL RULES, SUBSIDIARY RULES, BLOCK WORKING MANUAL AND OPERATING MANUAL. THESE RULES HENCEFORTH CANCEL ALL PREVIOUS STATION WORKING RULES OF KHARIAR ROAD STATION.

APPENDICES

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

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A P P E N D I X - 'A'

DETAILS OF LEVEL CROSSING GATES TOGETHER WITH INSTRUCTIONS TO OPERATING STAFF INCLUDING LEVEL CROSSING GATEMAN ABOUT THEIR NORMAL WORKING, THEIR MAINTENANCE AND THEIR WORKING IN CASE OF FAILURE / EMERGENCIES WITH SPECIAL PROVISIONS IF ANY.

1.1 **GATE WORKING RULE FOR "B-1" CLASS MANNED LEVEL CROSSING GATE AT KM 104/10-11 (No. RV-72) BETWEEN UP HOME SIGNAL AND DN STARTER SIGNALS.**

1.1.1 **DESCRIPTION OF THE LEVEL CROSSING GATE**:

1.	Number of Level Crossing Gate: -	RV-72.
2.	Engineering or Traffic Gate: -	Traffic

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3.	Under control of Station Master/P W I	SM/KRAR.
4.	Location KM	104/10-11 (104.615).
5.	At. Station: -	Khariar Road.
6.	In between stations: -	KRAR-KMK.
7.	BG/MG/NG: -	BG.
8.	Single line/Double line/Multiple line: -	Single Line.
9.	Normal Position: -	Open to road traffic.
10.	Interlocked/Non Interlocked: -	Interlocked.
11.	Means of interlocking: -	EKT.
12.	Provision of Gate signal at Kms.	
		i) Up line - NIL
		ii) Dn line - NIL
13.	Signalling arrangement: -	Interlocked with the signaling gears.
14.	Means of Communication:	Magneto Telephone Communication from Gate Goomty with SM/ KRAR.
15.	Width of level crossing Gate: -	8 Meters.
16.	Type of road. (NH/SH/Others): -	Others (Municipal)
17.	Name of Road: -	The KRAR- Beltakri road.
18.	Metalled/Non Metalled:	Metalled
19.	Approach Road: -	ASP.
20.	Width of the road: -	5.50 m.
21.	Angle of road crossing (In case of the skew Gates)	NIL.
22.	Road gradient (If any)	
		i) North side.- 1 in 30 F.
		ii) South side.- 1 in 35 F.
23.	Road alignment (Straight/Curve): -	
		i) North side-. straight
		ii) South side- straight.
24.	Provision of height gauges: -	Provided
25.	Type of Barriers: -	Winch Operated Lifting barrier type.
26.	Length of checkrails: -	10.00 Meter.
27.	Road surface in between Level Xings Gates: -	5.5 Meters.
28.	Length of speed breakers: -	10.50 Meters.
29.	Road signs: -	Available
30.	Speed breaker indication board: -	Provided.
31.	TVU: -	28182 on 02/2010.
32.	Census next due on: -	02/2013.
33.	Demarcation for placement of Detonators: -	Displayed.
34.	Name of the Gateman working: -	02.
35.	Nearest Railway Medical Assistance: -	MSMD.
36.	Nearest Private Medical Assistance available (If any) :	KRAR.
37.	List of equipment available Yes/No: -	Yes.

1.2. **EQUIPMENT**:

	ITEMS	**QUANTITY/NUMBERS**
1.	Hand signal Lamp Tri Colour	3(5 on Quadruple/Line or twin single line)
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 (6 on Quadruple/line or Twin single line and 7 in case Hexaple section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q/Twin single line and 5 on Hexaple section

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6.	Spares chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Motor Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (in case of asphalted road this may not be provided)
13.	Pick Axe	1 (in case of asphalted road this may not be provided)
14.	Tin case for flags	1
15.	Can for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of Gateman Wearing glasses.	1
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate .	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small size chain with padlocks to be used in case failure of Gate boom lock.	2

1.3 **THE GATEMAN SHALL BE PROVIDED WITH FOLLOWING REGISTERS**: -

i) Gate working instructions in Hindi / English.
ii) Gate working instructions in local vernacular language.
iii) General Rules Book in Local vernacular language.
iv) List for tools and books.
v) Duty Roster.
vi) Certificate for working as gateman.
vii) Bio–Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
viii) Accident Register.
ix) Records of last census of road traffic at level crossing gate.
x) Public complaint Book.
xi) Inspection Book.

1.4 **DUTIES OF GATEMAN**:

1. **ALERTNESS:** The Gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the gate shall be in his personal custody.

2. **POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS**:
During passage of trains, gateman will stand in the manner indicated below:

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

3. **ROUTINE DUTIES OF GATEMAN**:

i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the gate is kept in open condition in case of emergencies and obstruction on the track.

ii) Gateman shall ensure that all gate lamps and hand signal lamps 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 his reliever arrives and takes over charge from him. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

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

v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

vi) Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie – talkie or in any other way.

vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

viii) Gateman shall report to the Station Master or PWI any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

x) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xi) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.

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

xiii) Gateman shall see that the channel for the flange of the wheel is kept clear.

xiv) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.

xv) Gateman must be vigilant to see that inconvenience to road users due to closure of gate should be to the minimum possible extent.

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

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4. **ACTION IN CASE OF UNUSUAL OCCURRENCE OF 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 driver/guard of the passing train by showing red flag by day and red light by night.

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

iii) If driver/guard fails to take notice, gateman shall immediately inform the station Master, to take appropriate action, under exchange of private number.

iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavor to attract the attention of the Driver/Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.

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vi) In case the train does not stop, gateman shall immediately inform the Station Master to take appropriate action, under exchange of private number.

5. **ACTION IN EMERGENCY AT THE LEVEL CROSSING**:

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

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

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

The Gateman shall protect the line as under:-

A) ON SINGLE LINE SECETION:-

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

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

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

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

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

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

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

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

(B) OTHER ACTIONS TO BE TAKEN BY GATEMAN:

i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.

ii) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

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

1.5 **SPECIIAL INSTRUCTIONS:-**

1. **MODE OF OPERATION**: This is a manned, interlocked traffic LC Gate situated in between DN Starter signals and UP Home signal towards KMK end of the yard. The normal position of the gate is open to the road traffic. This gate is situated within the "Station Section" and interlocked with station

stop signals. Telephone communication is provided between the LC Gate lodge with SM on duty of KRAR station. The gate is of lifting barrier type operated by means of winch, provided at the gate lodge.

A two-lever ground frame is provided at the gate lodge.The key of the LC remains in the winch when the gate is opened condition. When it is necessary to close the gate for lowering signals or for shunting operations, the SM on duty shall inform the gate man to close and lock the gate. The gate man on duty shall then close the barriers of the LC gate by operating winch. Then key 'G' is to be extracted from the winch, which will be inserted in the lever of 1-GF. When 1-GF is reversed it locks the booms of the gate and releases 2-GF. When 2-GF is reversed, Key 'P' is extracted. When this Key 'P' is inserted in the RKT and turned, L.C Gate closed indication will appear on the Panel and UP & DN reception and DN despatch signals automatically get released.

After passage of the Train or completion of shunting, the SM on duty shall inform the gateman and press LC gate controlling button No.10 and keep it pressed till such time the gate man extracts the control key 'P' from the RKT instrument. After getting the Key 'P' the gate man will open the L.C gate by normalising the levers. Lever No. 2-GF has been provided in the gate lodge to put back concerned signals to 'ON' in case of emergency.

In the event of failure of any UP or DN reception or DN despatch signals or during Non Interlocking working the Traffic Gateman shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate. During this period the L.C Gate shall be opened only when necessary and safe to do so.

2. **INTIMATION TO GATEMAN**:

i) Before taking off reception/departure signals Station Master/KRAR shall inform the gateman, the number, description, and direction of the train.

ii) The gateman shall close the gate and transfer the key to the Station Master/ KRAR

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/ KRAR must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.

v) 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 to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate

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

i) Station Master on duty / KRAR shall send written advise 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/ KRAR, which will enable him to take 'OFF' Reception/Departure signals.

iii) When sufficient time is not available because of greater frequency of train service, station Master/ KRAR will issue written authority to the train driver to pass the signal at 'ON' position.

iv) In addition Station Master/ KRAR shall also issue a caution order advising the driver to whistle continuously and approach the gate cautiously.

v) The train driver shall be instructed to pass the gate cautiously, on before signaled by the gateman. If hand signal is not seen, driver 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/ KRAR shall advise the Station Master /KMK, under exchange of private number that the telephone at the gate has failed.

vii) The station Master/KMK shall then issue a caution order to the driver before dispatching a train into the block section from his end.

viii) Station Master/ KRAR should also advise S&T staff responsible for maintenance of the telephone rectify the defect at he earliest.

ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection /fit memo for the same.

4. FAILURE OF LIFTING BARRIERS:

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

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

v) Station Master on duty/ KRAR shall issue a caution order to the driver of a departing train.

vi) He shall also advise the station Master / KRAR, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

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

viii) Normal working will be resumed only after maintenance staff repair the barrier and issue reconnection/fit memo for the same.

Note:

Authority to pass signals in 'ON' position as per rules shall also be issued to the drivers of both departing and arriving trains.

Correction Slip No. 02
Date of Issue: 25.01.2013

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

i) If the gate key cannot be extracted from the gate leaves or the key transmitter, then gateman must immediately inform the Station Master / KRAR on duty on telephone, under exchange of private number.

ii) Thereafter, the gate must be treated as non – interlocked and procedure for reception/ despatch of trains as prescribed for non – interlocked gates, should be adopted.

iii) Station Master on duty / KRAR shall issue a caution order to the driver of a departing train.

iv) He shall also advise the station Master/KMK at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

v) Station Master / KRAR will advise S&T staff responsible for maintenance of winch/key transmitter to rectify the defect at the earliest.

vi) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same

6. <u>FAILURE OF THE GATE KEY WITH THE GATE IN OPEN CONDITION</u>:

i) If the gate key cannot be extracted from the winch, gate lever or key transmitter then gateman must immediately inform the Station Master on duty/ KRAR on telephone, under exchange of private number.

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

iii) 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/ KRAR shall issue caution order to the driver of a departing train.

v) He shall also advise the station Master /KMK at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

vi) Station Master/ KRAR will advise S&T staff responsible for maintenance of winch//key transmitter to rectify the defect at the earliest.

vii) Normal working will resumed only after S&T staff repairs the winch/key transmitter and issue reconnection/fit memo for the same.

7. <u>OBSTRUCTION AT THE GATE</u>:

i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately normalize the slot lever in order to put back the signals to “ON” position then fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.

ii) Immediately after this, the gateman shall advise the Station Master/ KRAR on duty, regarding the defects/obstruction at the gate, under exchange of private number.

iii) Stationmaster/ KRAR 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 / KRAR after two or three attempts, he shall first protect the gate and then inform on phone.

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Date of Issue: 29.06.2012

v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item No.1.4. (5).

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

vii) He shall note down the particulars of the road vehicle, name of the driver, owner and reply these details to the station Master who shall not start the trains unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.

viii) The Station Master/ KRAR shall also inform the station Master /KMK at the despatching end, under exchange of private number, asking him not to despatch any train into the block section from his end, until the track has been clear of all obstruction.

ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.

x) Station Master/ KRAR shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate signal at ‘ON’ position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.

xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they’re after exhibit green hand signal, if the gate is not obstructed.

xii) Station Master/ KRAR shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.

xiii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers and issue reconnection/fit memo for the same.

8. **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE**:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the gateman, the gateman and SM/ KRAR will adopt the procedure given under item No.7 above. If the obstruction fouls the level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

2.0 **GATE WORKING INSTRUCTIONS FOR "B1" CLASS ENGINEERING INTERLOCKED LEVEL CROSSING GATE AT KM 103/9-10 (No-RV-71) BETWEEN KRAR-KMK STATIONS.**

2.1 GENERAL INSTRUCTIONS: -

2.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE

1.	Number of Level Crossing Gate: -	RV-71
2.	Engineering or Traffic Gate: -	Engineering.
3.	Under control of Station Master/PWI:	PWI
4.	Location KM	103/9-10
5.	At. Station: -	------.
6.	In between stations: -	KRAR-KMK
7.	BG/MG/NG: -	BG.
8.	Single line/Double line/Multiple line: -	Single Line.
9.	Normal Position: -	Open to road traffic.
10.	Interlocked/Non Interlocked: -	Interlocked.
11.	Means of interlocking: -	Gate Signals.

12.	Provision of Gate signal at KMs	(I) Up -KM 103.419 (II) Dn -KM 103.779
13.	Signalling arrangement: -	MACLS.
14.	Means of Communication:	Telephone Communication from Gate Goomty with SM/KRAR
15.	Width of level crossing Gate: -	10.5 Meters.
16.	Type of road. (NH/SH/Others): -	SH
17.	Name of Road: -	Khariar-Bagbahara Road
18.	Metaled/Non:	Metaled
19.	Approach Road: -	Metaled.
20.	Width of the road: -	9.5m
21.	Angle of road crossing (In case of the skew Gates)	(48 Degree).
22.	Road gradient (If any)	(i) North/East side -- Level (ii) South/West side- Level
23.	Road alignment (Straight/Curve): -	(i) North/ East side - Curve (ii) South/West side-Curve
24.	Provision of height gauges: -	Not Provided.
25.	Type of Barriers: -	Lifting Barriers
26.	Length of check rails: -	11.5 Meters.
27.	Road surface in between Level: -	Concrete Blocks.
28.	Length of speed breakers: -	9.5M
29.	Road signs: -	Available
30.	Speed breaker indication board: -	Provided
31.	TVU: -	25500 on 07/2007
32.	Census next due on: -	07/2010.
33.	Demarcation for placement of Detonators: -	Provided.
34.	No. of Gateman working: -	03
35.	Nearest Railway Medical Assistance: -	KBJ
36.	Nearest Private Medical Assistance available (if any)	KRAR.
37.	List of equipment available Yes//No: -	Yes.

2.2 <u>EQUIPMENT</u>:

	ITEMS	**QUANTITY/NUMBERS**
1.	Hand signal Lamp Tri Colour	3 (5 on Quadruple/Line or twin single line)
2.	Hand signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red.	3 (6 on Quadruple/line or Twin single line & 7 in case Hexable section mounted on sticks)
4.	Banner Flag Red	3 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	2 (4 on Q/Twin single line & 5 on Hexable section.
6.	Spares chains with padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate Lamps	2
9.	Tommy Bar	1
10.	Motor Pan	1
11.	Spade/Fowrah	1
12.	Rammer	1 (in case of asphalted road this may not be provided)
13.	Pick Axe	1 (in case of asphalted road this may not be provided)
14.	Tin case for flags	1

15.	Can for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of Gateman Wearing glasses.	1
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on Gate .	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small size chain with padlocks to be used in case failure of gate boom lock.	02

2.3 **THE GATEMAN SHALL BE PROVIDED WITH FOLLOWING REGISTERS: -**

i) Gate working instructions in Hindi / English.
ii) Gate working instructions in local vernacular language.
iii) General Rules Book in Local vernacular language.
iv) List for tools and books.
v) Duty Roster.
vi) Certificate for working as gateman.
vii) Bio–Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
viii) Accident Register.
ix) Records of last census of road traffic at level crossing gate.
x) Public complaint Book.
xi) Inspection Book.
xii) S&T Register.

2.4. **DUTIES OF GATEMAN**:

1. **ALERTNESS:**
The Gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the Gate shall be in his personal custody.

2. **POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS**:
During passage of trains, Gateman will stand in the manner indicated below:

i) Gateman will stand attentively in front of the Gate – lodge facing the approaching train.
ii) In daytime, Gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
iii) In nighttime, Gateman shall hold lighted hand signal lamp with white light facing the track.
iv) He shall keep the whistle slung around his neck from a cord and blow the whistle to draw the attention of Driver & Guard of the passing train.

3. **ROUTINE DUTIES OF GATEMAN**:

i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the Gate is kept in open condition during emergencies or obstruction on track.

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

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

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

v) Gateman shall watch all passing trains and keep sharp like out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering sage running of trains.

vi) Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie – talkie or in any other way.

vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

viii) Gateman shall report to the nearest station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the past the defective signal. In such case he should inform the driver to report the defect at the next station.

xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xiii) Gateman shall work the gate as per gate working instructions and remain well [illegible] instructions.

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Date of Issue: 25.01.2013

xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xv) Gateman shall see that the channel for the flange of the wheel is kept clear.

xvi) Gateman must keep the road surface well-watered and rammed in case of un metalled 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.

4. **<u>ACTION IN CASE OF UNUSUAL OCCURRENCE OF TRAIN</u>.**

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

i) He shall take prompt action to warn the driver/guard of the passing train by showing red flag by day and red light by night.

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

iii) If driver/guard fails to take notice, Gateman shall immediately inform the SM on duty to take appropriate action, under exchange of private number.

iv) In case of train parting, Gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavor to attract the attention of the Driver/Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.

vi) In case the train does not stop, Gateman shall immediately inform the SM to take appropriate action, under exchange of private number.

5. **ACTION IN EMERGENCY AT THE LEVEL CROSSING**:

i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if at, in the 'ON' position.

ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, regarding the defects/obstructions at the gate, under exchange of private number.

iii) If there is no response from the Station Master after or three attempts he shall first protect the gate and then inform on phone.
The gateman shall protect the line as under: -

a) ON SINGLE LINE SECTION:

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

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

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

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

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

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

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

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

(b) **Other actions to be taken by Gateman:**

i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.

ii) If the Gate is broken by a road vehicle, which is fouling the track or if lifting barriers or any other part of the Gate foul the track or if there is any other obstruction at the Gate, the Gateman shall take immediate action.

iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the SM / KRAR regarding the particulars and obstructions at the level crossing Gate, through messenger or other means available.

2.5. **SPECIAL INSTRUCTIONS**:

1 **MODE OF OPERATION** :-

This is a Manned, Engineering interlocked L.C. Gate situated in between KRAR-KMK at Km 103.599(103/9-10). This gate is interlocked with Gate stop signals. Telephone communication is provided between the L C. gate lodge with SM on duty of KRAR Station. The level crossing gate is of lifting barrier type operated by means of winch provided at the gate lodge. The normal position of the gate is open to road traffic. A Four-lever ground frame is provided at the gate lodge. The key of the LC remains in the winch when the gate is in open condition. When it is necessary to close the gate, for passing off trains, the SM/KRAR on duty shall inform the gate man to close and lock the gate. The gate man on duty shall then close the barriers of the LC gate by operating the winch. Then key ‘G’ is to be extracted from the winch, which will be inserted in the lever of GF-1. When GF-1 is reversed it locks the booms of the gate and releases GF-2 and GF-3 . Thenafter, the gateman can reverse the GF-2 or GF-3 for taking OFF concerned UP or DN Gate stop signals. GF-4 is a spare lever. DN gate stop signal of L.C. gate is interlocked with DN advanced starter signal and UP gate stop signal of L.C. gate is interlocked with UP outer signal of KRAR station. DN advanced starter signal of KRAR station is released by DN gate stop signal and UP Gate stop signal is released by UP Outer of KRAR station.

After passage of the Train the gateman shall normalise the concerned GF-2 or GF-3 lever to put back the gate signal. The gate man after normalizing the GF-1 lever shall extract the key ‘G’ from GF-1. Thereafter he will open the gate by inserting the Key ‘G’ in the winch for normal passage of road traffic. The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a).

Once the LC gate is closed should not be opened by the gateman till such time the train for which the gate was closed has passed the LC gate completely. In case of emergency the LC gate may be opened for road traffic with the specific permission of the SM/KRAR under exchange of PN if there is no train in the section

2. INTIMATION TO GATE MAN:

(i) Immediately after departure of the train, Station Master/KRAR shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.

(ii) This advice shall be given by the Station Master/KRAR to the gateman, as soon as he receives train entering section advice from the KMK station.

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

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

3. **FAILURE OF TELEPHONIC COMMUNICATION**:

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

(i) If the telephone fails at the gate connected with the station at the dispatching end, Station Master/KRAR shall issue a caution order to the driver of the departing train.

(ii) Station Master shall advise the driver to whistle continuously and proceed cautiously while approaching the gate.

(iii) In case the gate signal is 'ON' he should stop at the gate signal and follow the procedure laid down under GR 3.73.

(iv) In case of an approaching train, the Station Master/KRAR shall advise the Station Master/KMK at the dispatching end, under exchange of private number that the telephone at the gate has failed.

(v) The Station Master/KMK at the dispatching end shall then issue a caution order to the driver before dispatching a train into the block section from his end.

(vi) Station Master/KRAR will also advise the gateman through Gangman /Patrolman /Driver of the first train that the telephone has become defective.

(vii) Station Master/KRAR should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.

(viii) Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.

4. **FAILURE OF LIFTING BARRIERS OF GATES**:

(i) When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master/KRAR on duty under exchange of private number, and ensure that lifting barriers of gate do not foul the track.

(ii) He shall immediately fix red banner flag by day and red light by night on the post 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 to the driver of the approaching train.

(v) Station Master/KRAR on duty shall issue caution order to the driver of a departing train.

(vi) He shall also advise the Station Master/KMK at the dispatching end, under exchange of private number; to similarly issue a caution order to the driver before dispatching a train into the block section.

(vii) Station Master/KRAR shall advise maintenance staff responsible for maintaining the lifting barrier to rectify the same at the earliest.

(viii) Normal working will be resumed only after maintenance staff repairs the lifting barrier of gate and issue reconnection/fit memo for the same.

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

(i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master/KRAR on duty on telephone, under exchange of private number.

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

(iii) Station Master/KRAR on duty shall issue caution order to the driver of a departing train.

(iv) He shall also advise the Station Master/KMK at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train into the block section from his end.

(v) Station Master/KRAR shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

(vi) Normal working will be resumed only after S&T staff repairs the key transmitter and issue reconnection/fit memo for the same.

6. FAILURE OF THE GATE KEY, WITH THE GATE IN OPEN CONDITION:

(i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master/KRAR on duty on telephone, under exchange of private number.

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

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

(iv) Station Master/KRAR on duty shall issue a caution order to the driver of a departing train.

(v) He shall also advise the Station Master/KMK at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train into the block section from his end.

(vi) Station Master/KRAR shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

(vii) Normal working will be resumed only after S&T staff repairs the key transmitter and issue reconnection/fit memo for the same.

7. DEFECTIVE GATE SIGNAL:

(i) The gateman shall treat the gate signal as defective and must not take off them under following circumstances:

(a) If gate signals can be taken 'OFF' without closing the gate, or
(b) The key can be extracted from the operating winch when the gate is in open condition.

(ii) If the Gate or the Gate Signal or Distant Signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position.

(iii) The gateman will immediately advise the Station Master/KRAR on duty, under exchange of private number, regarding defective gate signals.

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

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

(vi) Station Master/KRAR on duty will issue a caution order to the driver of departing train.

(vii) He shall also advise the Station Master/KMK at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching train into the block section from his end.

(viii) Station Master/KRAR shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.

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

8. **OBSTRUCTION AT THE GATE**:-

(i) If the gate is broken by a road vehicle, which is fouling the track, or if lifting barrier gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position.

(ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate.

(iii) Immediately after this, the gateman shall advise the station Master/KRAR on duty regarding the defects /obstructions at the gate, under exchange of private number.

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

(v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item No.2.4 (5).

(vi) Thereafter he shall protect the gate from the other direction also.

(vii) He shall note down the particulars of the road vehicle, name of the driver, owner and reply these details to the Station Master/KRAR who shall not start the trains unless he has been assured by the gateman that the road vehicle or the lifting barriers of gate are not fouling the track.

(viii) The Station Master/ KRAR shall also inform the Station Master/KMK at the despatching end, under exchange of private number, asking him not to despatch any train into the block section from his end, until the track has been cleared of all obstruction.

(ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master/ KRAR accordingly, under exchange of private number.

(x) Station Master/ KRAR shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.

(xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and thereafter exhibit green hand signal, if the gate is not obstructed.

(xii) Station Master/ KRAR shall advise maintenance staff responsible for maintaining the lifting barrier of gate to repair the same at the earliest.

(xiii) Normally working will be resumed only after maintenance staff rectifies the defective lifting barrier and issue reconnection/fit memo for the same.

9. **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE**:
If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the gateman, the gateman and Station Master/ KRAR will adopt the procedure given under item No.8 above. If the obstruction fouls the level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

3.0 GATE WORKING INSTRUCTIONS FOR "C"CLASS, ENGG. INTERLOCKED LEVEL CROSSING GATE AT KM 105/13-14 (No.RV-73) BETWEEN KRAR-NPD STATIONS.

(These instructions should be read together with provisions in General and Subsidiary Rules.)

3.1 GENERAL INSTRUCTIONS: -

3.1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

1.	Number of Level Crossing Gate: -	RV-73.
2.	Engineering or Traffic Gate: -	Engineering.
3.	Under control of Station Master/PWI:-	PWI.
4.	Location KM	105.903 (105/13-14)

5.	At. Station	Khariar road
6.	In between stations:	KRAR-NPD.
7.	BG/MG/NG	BG.
8.	Single line/Double line/Multiple line	Single Line
9.	Normal Position	Open to the road traffic
10.	Interlocked/Non Interlocked	Interlocked
11.	Means of interlocking	EKT
12.	Provision of Gate signal at Kms	i) Up line NIL ii) Dn line NIL
13.	Signalling arrangement	NIL.
14.	Means of Communication – Telephone/Bell etc	Magneto Telephone Communication from Gate Goomty with SM office/ KRAR.
15.	Width of level crossing Gate	7.5 Meters
16.	Type of road. (NH/SH/Others)	Others (Village.)
17.	Name of Road:	Khariar road -Chalmunda Road
18.	Metaled/Non Metaled	Metaled
19.	Approach Road:	Metaled
20.	Width of the road:	5.5 m
21.	Angle of road crossing (In case of the skew Gates)	Nil.
22.	Road gradient (If any)	i) North/East side:- Level ii) South/West side:- 1 in 150.
23.	Road alignment (Straight/Curve): -	i) North/East side. Straight ii) South/West side. Straight
24.	Provision of height gauges	Not Provided
25.	Type of Barriers	Electrically Operated Lifting barriers
26.	Length of check rails	9.50 Meter
27.	Road surface in between Level X-ings Gates	CCB.
28.	Length of speed breakers: -	5.5 Meters
29.	Road signs:	Provided
30.	Speed breaker indication board	Provided
31.	TVU:	6720 on 07/2007
32.	Census next due on	07/2010
33.	Demarcation for placement of Detonators	Provided.
34.	No. of Gateman working	02.
35.	Nearest Railway Medical Assistance	Khariar Road
36.	Nearest Private Medical Assistance available (if any)	Khariar Road
37.	List of equipment available Yes//No	Yes.

3.2 **EQUIPMENTS TO BE AVAILABLE AT THE GATE:**

SL. NO.	ITEMS		QUANTITY
1.	Hand signal lamp Tri Colour	:	03 (5 on Quadruple/Line or twin single line)
2.	Hand Signal Flag Green	:	01(Mounted on stick)
3.	Hand Signal Flag Red	:	03 (6 on Quadruple/line or Twin single line and 7 in case Hexable section mounted on sticks)
4.	Banner Flag Red	:	03 (5 on Quadruple/Line or twin single line)
5.	Posts for exhibiting red banner flag	:	02 (4 on Q/Twin single line and 5 on

			Hexable section.
6.	Spare chains with padlocks	:	02 (with stop mark)
7.	Detonators	:	In tin case 10
8.	Gate lamps	:	02
9.	Tommy bar	:	01
10.	Motor pan	:	01
11.	Spade/Fowrah	:	01
12.	Rammer	:	01(in case of asphalted road this may not be provided)
13.	Pick axe	:	01 (in case of asphalted road this may not be provided)
14.	Tin case for flag	:	01
15.	Cane for oil	:	01
16.	Water pot/Bucket	:	01
17.	Canister for Muster Roll	:	01
18.	Set of spare spectacles of gateman wearing glasses	:	01
19.	Board demarcating protection of level crossing Gate diagram in case of obstruction on gate	:	01
20.	Basket	:	01
21.	Whistle	:	01
22.	Wall clock	:	01
23.	Small size chain with padlocks to be used in case of failure of gate boom lock	:	02

3.3 **THE GATEMAN SHALL BE PROVIDED WITH FOLLOWING REGISTERS: -**

i) Gate working instructions in Hindi / English.
ii) Gate working instructions in local vernacular language.
iii) General Rules Book in Local vernacular language.
iv) List for tools and books.
v) Duty Roster.
vi) Certificate for working as gateman.
vii) Bio–Data particulars of Gateman, including date of passing vision test, initial/refresher course, safety camp etc.
viii) Accident Register.
ix) Records of last census of road traffic at level crossing gate.
x) Public complaint Book.
xi) Inspection Book.

3.4 DUTIES OF GATE MAN:

1. **ALERTNESS:** The Gateman on duty shall be alert. He should be prepared to take immediate action, when danger is apprehended. Keys of the Gate shall be in his personal custody.

2. **POSITION OF GATE KEEPER DURING PASSAGE OF TRAINS**:
During passage of trains, Gateman will stand in the manner indicated below:
i) Gateman will stand attentively in front of the Gate – lodge facing the approaching

train.

ii) In daytime, Gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.

iii) In nighttime, Gateman shall hold lighted hand signal lamp with white light facing the track.

iv) He shall keep the whistle slung around his neck from a cord and blow the whistle to draw the attention of Driver & Guard of the passing train.

3. **ROUTINE DUTIES OF GATEMAN**:

i) Gateman shall ensure that red banner flag by day and red light by night is placed across the track whenever the Gate is kept in open condition during emergencies or obstruction on track.

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

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

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

v) Gateman shall watch all passing trains and keep sharp like out for any unusual like hot axle, hanging chains, hanging battery, any vehicle/wagons /trains/battery/box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

vi) Gateman shall also be prepared to repeat any signal which guard may give to driver on walkie – talkie or in any other way.

vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

viii) Gateman shall report to the nearest station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the past the defective signal. In such case he should inform the driver to report the defect at the next station.

x) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

xi) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xii) Gateman shall work the gate as per gate working instructions and remain well conversant with these instructions.

xiii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xiv) Gateman shall see that the channel for the flange of the wheel is kept clear.

xv) Gateman must keep the road surface well-watered and rammed in case of unmetalled roads.

xvi) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xvii) Gateman on electrified section shall watch that road vehicles/animals passing from gate are within the height-loading gauge provided on either side of the level crossing gate.

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

4 **ACTION IN CASE OF UNUSUAL OCCURRENCE OF 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 driver/guard of the passing train by showing red flag by day and red light by night.

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

iii) If driver/guard fails to take notice, Gateman shall immediately inform the SM on duty to take appropriate action, under exchange of private number.

iv) In case of train parting, Gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavor to attract the attention of the Driver/Guard by whistling continuously, shouting, gesticulating, and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.

vi) In case the train does not stop, Gateman shall immediately inform the SM to take appropriate action, under exchange of private number.

5 **ACTION IN EMERGENCY AT THE LEVEL CROSSING**:

i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if at, in the 'ON' position.

ii) Therefore, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, regarding the defects/obstructions at the gate, under exchange of private number.

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

The gateman shall protect the line as under: -

a) **ON SLNGLE LINE SECTION**:

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

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

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

iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by

night towards the direction, which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track in 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

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

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

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

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

b) OTHER ACTIONS TO BE TAKEN BY GATEMAN:

i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.

ii) If the gate is broken by a road vehicle, which is fouling the track or if lifting barriers or any other part of the gate fouls the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or PWI regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

3.5 **SPECIAL INSTRUCTIONS**-

1. **MODE OF OPERATION**:

This is an interlocked L.C.Gate situated at the NPD end of the yard in between UP Advanced Starter and DN Outer signals of KRAR station. Telephone connection is provided between the L C. gate Lodge and SM's office of KRAR Station. The level crossing gate is of lifting barrier type and motor operated by means of HAND

GENERATOR/MOTOR from panel provided at the gate lodge. The normal position of the gate is open to road traffic. The key "N" of the LC normally remains locked in the EKT when the gate is in open condition.

When it is necessary to close the gate, for taking of signals, SM on duty KRAR shall inform the gate man to close and lock the gate. The gate man on duty shall then close the barriers of the LC gate by pressing the RED push button provided on the panel. Gate man will keep the red push button pressed till gate is closed against road traffic. Then key 'N' is to be extracted from the EKT-I and gate closed and locked indication (Red) appears on the panel. The key 'N' thus extracted is inserted in EKT-2 and transmitted electrically to SM's panel in conjunction with switch GS-30 (gate slot) reversed releases concerned UP or DN signals. Switch 'GS-30' is provided in gate lodge to put back the concerned UP or DN signals to "ON" in case of emergency.

After passage of the Train, the SM on duty shall inform the gateman and press LC gate controlling button No.30 and Trans button and keep it pressed till such time the gate

man extracts the control key 'N' from the EKT-2 . After getting the Key 'N' the gate man will insert the key in EKT-1 and turn keeping the switch GS-30 in normal position. Then the gate man will get a gate free indication on the panel and subsequently the gate can be opened by pressing the GREEN push button till gate is fully opened and (Green) indication appears.

In case of emergency Key-M is to be extracted from EKT-3 (Electromechanically Free) provided in the gate lodge in a sealed red BOX for manual operation of lifting barriers by crank handling. Extraction of Key-M will put back all relevant signals to "ON".

The LC gate shall be so worked as to cause least possible inconvenience to the vehicular traffic consistence with safety as per subsidiary rule 16.03.01 (a). During Non Interlocking working the Traffic Gateman shall be informed and the Train shall be passed in terms of SR 3.69.02, 3.69.03 and 3.70.01 after ensuring correct closing and locking of L.C Gate.

2. **INTIMATION TO GATEMAN**:

i) Before taking off reception/ departure signal Station Master/KRAR shall inform the gateman, the number, description, and direction of the train.

ii) The gateman shall close the gate and transfer the key to the Station Master/ KRAR

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/ KRAR must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.

v) 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 to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

3. **FAILURE OF TELEPHONIC COMMUNICATIONS**

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

i) Station Master on duty / KRAR 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/ KRAR, which will enable him to take 'OFF' Reception/Departure signals.

iii) When sufficient time is not available because of greater frequency of train service, station Master/ KRAR will issue written authority to the train driver to pass the signal at 'ON' position.

iv) In addition Station Master/ KRAR shall also issue a caution order advising the driver to whistle continuously and approach the gate cautiously.

v) The train driver shall be instructed to pass the gate cautiously, on before signaled by the gateman. If hand signal is not seen, driver 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/ KRAR shall advise the Station Master /NPD, under exchange of private number that the telephone at the gate has failed.

vii) The station Master/NPD shall then issue a caution order to the driver before dispatching a train into the block section from his end.

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

ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection /fit memo for the same

4. **FAILURE OF LIFTING BARRIERS OF GATE:**

i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform, the Station Master on duty, under exchange private number, and ensure the lifting barriers of gate 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 driver of the approaching train.

v) Station Master on duty/ KRAR shall issue a caution order to the driver of a departing train.

vi) He shall also advise the station Master /NPD, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

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

viii) Normal working will resume only after maintenance staff repair the barrier and nnection/fit memo for the same.

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Note:

Authority to pass signals in 'ON' position as per rules shall also be issued to the drivers of both departing and arriving trains.

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

i) If the gate key cannot be extracted from the key transmitter, then gateman must immediately inform the Station Master / KRAR on duty on telephone, under exchange of private number.

ii) Then Key-M is to be extracted from EKT-3 (Electromechanically Free) provided in the gate lodge in a sealed red BOX for manual operation of lifting barriers by crank handling. Extraction of Key-M will put back all relevant signals to "ON".

iii) Thereafter, the gate must be treated as non – interlocked and procedure for reception/ despatch of trains as prescribed for non – interlocked gate should be adopted.

iv) Station Master on duty / KRAR shall issue a caution order to the driver of a departing train.

v) He shall also advise the station Master/NPD at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

vi) Station Master / KRAR will advise S&T staff responsible for maintenance of L.C gate to rectify the defect at the earliest.

vii) Normal working will resumed only after S&T staff repairs the key transmitter.

6. **FAILURE OF THE GATE KEY WITH THE GATE IN OPEN CONDITION**:

i) If the gate key cannot be extracted from the key transmitter then gateman must immediately inform the Station Master on duty/ KRAR on telephone, under exchange of private number.

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

iii) 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/ KRAR shall issue caution order to the driver of a departing train.

v) He shall also advise the station Master/NPD at the despatching end, under exchange of private number, to similarly issue a caution order to the driver before despatching a train into the block section from his end.

vi) Station Master/ KRAR will advise S&T staff responsible for maintenance of key transmitter to rectify the defect at the earliest.

vii) Normal working will resumed only after S&T staff repairs the winch/key transmitter

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Date of Issue: 25.01.2013

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7. **OBSTRUCTION AT THE GATE**:

i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall Immediately normalize the slot lever in order to put back the signals to “ON” position and then fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.

ii) Immediately after this, the gateman shall advise the Station Master/ KRAR on duty, regarding the defects/obstruction at the gate, under exchange of private number.

iii) Stationmaster/ KRAR 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 / KRAR after two or three attempts, he shall first protect the gate and then inform on phone.

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DOM(G)/SBP

v) Gateman shall then rush with detonators and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item No.3.4. (5).

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

vii) He shall note down the particulars of the road vehicle, name of the driver, owner and reply these details to the station Master who shall not start the trains unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.

viii) The Station Master/ KRAR shall also inform the station Master /NPD at the despatching end, under exchange of private number, asking him not to despatch any train into the block section from his end, until the track has been clear of all obstruction.

ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master/ KRAR accordingly, under exchange of private number.

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

xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and they're after exhibit green hand signal, if the gate is not obstructed.

xii) Station Master/ KRAR shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.

xiii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers and issue reconnection/fit memo for the same.

8. **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE**:
If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment, which is visible to the gateman, the gateman and SM/ KRAR will adopt the procedure given under item No.7. above. If the obstruction fouls the level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

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A P P E N D I X - 'B'

DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC. INCLUDING THE POWER SUPPLY ARRANGEMENT.

1.1 **BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATIONS:-** This is a 'B' class station with standard – III interlocking (with isolation). The points and signals are power operated from a central panel installed in SM's office. The station is equipped with Two Aspect Lower Quadrant semaphore signalling.

1.2 **DESCRIPTION OF PANEL** : The yard layout is depicted on the panel and the panel is fixed parallel to the track so that when SS/SM on duty faces the panel the yard drawing of the panel correspond to the actual layout.

1.3 **POINT PUSH BUTTONS: -** Two types of push buttons are provided (i) Common, (ii) Individual for operation of any point. The concerned individual point and the concerned common push buttons are to be pressed simultaneously.

PUSH BUTTONS PROVIDED ARE –

i) **Common push buttons**:- 2 Nos,. One for NORMAL and the other for REVERSE operation of points.

ii) Common Trans and Release button for operation of Level crossing, Crank Handle & siding key.

ii) **Individual push buttons**: Seven numbers, No. 13 &14 for operating point No. 13 &14 at VZM end. No.11&12 at RAIPUR end and No-15 for controlling entry/exit to the goods siding point at Raipur end, No-16 controlling entry/exit to the goods siding at VZM end &.No-10 & 30 controlling the L.C gate key. When the push buttons 15 or 16 are pressed with trans button it releases the keys from the concerned RKTs provided in the panel for the siding points No.15 & 16. For the extraction of the key, the common points need not be pressed.
The control push buttons 26 &27 are provided on the panel for releasing of crank handle keys No-26 & 27 from RKTs. Push button Nos.10 & 30 are for Gate control.

1.4 Signal switches & the operation of the signals are controlled by two position thumb switches. In order to take off any signal the concerned thumb switch shall be turned towards the direction of the movement of the trains and simultaneously the relevant route push button should be pressed.

No. of switches/Buttons	Description
1.	UP Warner
2.	UP Outer
3.	UP Main Home
4.	UP1st loop Home
5.	UP2nd loop Home
6.	UP 1st loop Starter
7.	UP 2 nd loop Starter
8.	UP Main Starter
9.	UP Adv. Starter
10.	L .C Gate Control button (Km 104.615)
11.	Pt. control push button between 1st loop & M/L towards KMK end.
12.	Pt. control push button between 2nd loop & M/L towards KMK end
13.	Pt. control push button between 2nd loop & M/L towards NPD end
14.	Pt. control push button between 1st loop & M/L towards NPD end
Correction Slip No. 02 Date of Issue: 25.01.2013	Siding Key Control button (KMK end) Siding key control button (NPD end)
17.	DN Adv. Starter
18.	DN 1st loop Starter
19.	DN 2nd loop Starter.
20.	DN Main Starter
21.	DN 1st Loop Home Signal
22.	DN 2nd Loop Home signal
23	DN Main Home Signal
24	DN Outer
25	DN Warner
26.	DN goomty crank handle release push button.
27.	UP goomty crank handle release push button.
30.	L .C Gate Control button (Km 105/13-14)

1.5 **ROUTE PUSH BUTTONS**: - There are 5 (Five) route push buttons on the panel. Push button Nos. R/1, R/2, R/3 for receiving UP & DN trains on line Nos 1, 2, & 3 respectively. Push buttons

D/1 at Raipur end of the panel and D/2 at VZM end of the panel for despatching DN & UP trains respectively from line Nos 1, 2, & 3 .

1.6 **INDICATIONS**: Indications are provided by strip / dot lights.

i) **POINT INDICATIONS**: - The setting of the point is indicated on the panel by the lighting up of strip light. Individual lights are provided for normal and reverse setting of the points. When the points are locked and cannot be operated a red light appears over the point push button on the panel.

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

b) **Description of Crank Handle Buttons** : All motor operated points in the yard have been grouped into two crank handle zones for emergency / manual operation of points by crank handles as follows:

SL. NO.	CRANK HANDLE	CONTROL POINTS
1	UP-CH1 (Control-26)	11 & 12
2	DN-CH2 (Control-27)	13 & 14

ii) **SIGNAL INDICATORS**: - No indication is provided on the panel to show the aspect of the signal excepting for Outers and Warners. After operation of signal switches, the SM on duty should physically verify the lowering of the concerned signal by the off aspect of signal arm during day and back light during night and also the arm and light repeater for the UP Outer and Warner.

iii) **TRACK INDICATIONS**: - No indication is provided in normal condition of the panel. When the points are set and the concerned route button is operated white strip lights appear on the panel illuminating the route set. As the train occupies the route, red strip lights appear on the occupied route and turn to white once again as the track is cleared. The route lights extinguish only when the signal switch is normalized.

iv) **L.C.GATE INDICATIONS-**

L.C.gate has four indications:- When gateman has inserted key in gate RKT, “key in” indication is available. Gate closed indication is received when gate is in closed position i.e Gate is closed, Key IN and SM releases the gate by pressing Gate button and common Release button and l ved after gate is closed and signals taken off. Emergency gate release (er initiating emergency gate release operation.

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1.7 **SM’S KEY**: -It is provided on the control panel for locking up the panel in the last operated position. This is to prevent unauthorized operation of the panel. The key should be in the personal custody of the SS/SM on duty. Provision however, exists for putting back a signal to danger, in case of emergency, even if the panel is locked.

2.0 **GOODS SIDING:** The goods siding having two spurs have been provided to deal with full rake traffic. The goods siding at KMK end with CAL of 320.55 m. (DE to DS) takes off from Line No.1

and terminated into a dead end. The goods siding at NPD end having the CAL of 385 m. (DE to DS) takes off from line No.1 and terminates into a dead end. These siding points are isolated by derailing switches. The entrance points and corresponding derailing switches are fitted with hand plunger locks and are operated by Arc levers at site. The hand plunger lock at KMK end is unlocked by siding key No.15 which is locked in the RKT normally and the hand plunger lock at NPD end of the siding is unlocked by siding key No.16 and which is also in the RKT normally. These keys can be released only when the siding point push button No.15 & 16 along with

commom trans button are pressed. Once the key is out from the RKT provided in the SM's room, the reception and despatch signal of 1st loop line are locked in their normal position.

3.0 **CRANK HANDLE**: - All facing points (except siding points) are fitted with electric point machines. When the point operation from panel has failed, points numbers 11A, 11B, 12A, 12B, 13A, 13B, 14A & 14B should be crank handled with the crank handles provided in SM's office. The working procedure is detailed in para-7.

4.1 **INTERLOCKING WITH BLOCK INSTRUMENTS AND SIGNALS: -** UP and DN reception and despatch signals are fitted with electric motors and will be replaced to 'ON' automatically after the passage of a train through track circuits ahead of the signals.

4.2 The Home and advanced Starter signals are interlocked with the respective block instruments as indicated below:

a) UP and DN Home signals are electrically interlocked with respective block instruments. For operating the block instruments from 'TRAIN ON LINE' to 'LINE CLOSED' position, the corresponding Home signals must be in the 'ON position, and the corresponding Home signals thumb switch should be in 'normal' position. However, the Home signals can be taken off in case of failure of the block instruments.

b) Both UP and DN advanced Starters are electrically interlocked with respective block instruments so that the same cannot be taken off unless the concerned block instrument is in line clear position (TGT).

c) When the block instrument is suspended in 'Line clear' position, the concerned advanced Starter must also be treated as suspended and the train shall be piloted out on form T/369 (3b)

d) When the block instrument is under suspension, the authority to proceed will be paper line clear ticket.

e) Signal once taken off may be put back to danger in case of emergency by turning the concerned signal switch to the center position but the route shall not be altered till the driver is informed in writing and his acknowledgement is obtained.

5.0 **AXLE COUNTER:**

Not Applicable

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Date of Issue: 25.01.2013

e) **FAILURE OF AXLE COUNTER: -** Not Applicable

6.0 **PANEL BOARD INDICATION**: -

a) Unless the indication on the panel board shows that main/loop line is clear even with other conditions satisfied the operation of the thumb switch for the UP and Down Home signals by the SM on duty will not permit the UP and DN Home signals to be taken off.

b) UP and DN Warner, Outer, Home and Starter signals are fitted with electrical motors and will be replaced to 'ON' automatically after passage of a train through track circuits provided in advance of the signals.

7.0 **PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF POINTS AND USE OF CRANK HANDLE.**

a) Whenever a point becomes defective any movements over the point on the running lines should be made after clamping and padlocking both the facing and trailing points by SM/SS on duty personally for all trains at this station.

In case of failure of a point and in case the point cannot be operated from the panel, the crank handle key which is interlocked with the system is to be extracted and the following procedure has to be observed.

b) Two crank handles are provided in SM's office for motor operation of points 11, 12 (UP side) and 13, 14 (DN side) respectively. These are mechanically riveted to the keys of RKTs provided in the SMs office. The SM on duty in case of point motor failure shall press the control push buttons 26/27 with common Trans button, which will release keys 26/27 from RKTs provided in SM's room. Key 26 shall be carried to UP side points and key 27 shall be carried to DN side points and get the point set to desired position by inserting crank handle on the motor. All the signals will be locked in the normal position as soon as any one key is released from the RKT provided in the SM's office. After the work is over the key shall be carried back to SM office. The SM on duty should verify from the visual indication available on the panel that the points are set to the desired position (Normal or Reverse) and there after return the crank handle received by him in the appropriate RKT and release the same by pressing CH button and common release button. The SM on duty after ensuring personally, the correct setting of defective points and also after verifying the correct visual indications available on the panel, can take off the concerned signals for movement of the train over the said points. If even after complying with the instruction contained in the above paras by the SM on duty, the correct setting of the defective points to the desired position is not indicated in the visual indication on panel, the train shall be piloted in or out in terms of SRs 3.69.01, 3.69.02, 3.69.03, 3.70.01 and 3.70.02.

c) When the crank handle is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody rests with the SS/SM on duty till it is replaced back in RKT.

d) The cases of failure of motor operated points should be promptly reported to the concerned ESM/Signal Inspection for immediate rectification.

e) Whenever crank handle is required to be used by a signal official for maintenance work or attending to failure, the signal official will give a disconnection memo to the SM on duty and after making necessary entries in the crank handle register, the SM on duty will obtain the acknowledgement of the signal official in the crank handle register and then hand over to him the crank handle key for the points concerned. The concerned points will be treated as defective till the crank handle is returned back to SM on duty.

Before parting with the crank handle either for attending failures or for maintenance work by Signal maintenance officials, the SM on duty will ensure that the reception and departure signals put back to 'ON' position. The points for the affected lines should be treated as non-interlocked and the SM on duty is responsible for introduction of non-interlocked working and the trains will be piloted 'IN' & 'OUT' duly clamping and padlocking the points over which the train is to pass, as per GR 3.69 and 3.70 with relevant SRs. The SM on duty will be personally responsible for setting and locking of points for reception or despatch of all trains.

The crank handle register is to be maintained vide OM 20.06 note (d) by the SS/DY.SS/SM/ ASM on duty the use of the crank handle must be recorded.

Correction Slip No. 02
Date of Issue: 25.01.2013

7.1 **EMERGENCY ROUTE RELEASE OPERATION:**

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

When it becomes necessary to alter the route after the signal has been taken 'OFF' vide SR 3.36.02(a) or route is not released after arrival of a train, the concerned signal must be put back to danger by normalising the concerned signal switch. Then, the emergency route release button (White) positioned on the top of the panel to be pressed. A white light will be lit indicating that the timer is working. After a lapse of 120 seconds the white light along with the white strip of light will disappear suggesting that the route has been released. In case the route illumination (white strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case the concerned S&T staff should be advised immediately to release the route by rectifying the fault.

A veeder counter has been provided to register the number of operations made for emergency cancellation of route. The counter number will register the next higher number after each emergency route cancellation

operation. All such operations & the new number should be recorded in the station diary, counter register & in the train signal register. The Station Master must record the last number registered on the counter while taking over/handing over duty.

NB:- Route cannot be released through emergency route release operation when a track circuit on the route is in occupied condition.

7.2 **EMERGENCY CRANK HANDLE OPERATION:**

When a route is not released after passage of a train or the Crank handle is in locked condition due to any failure, the "CH key" can also be extracted from the HKT by applying emergency Crank Handle operation. The procedure is same for transmitting the CH key as in normal CH key transmission. In key "in" and lock condition, the CH button and group trans button are pressed simultaneously. After 120 seconds the lock indication disappears and the needle of the HKT deflects indicating that the key is free to extract. At this position the key can be extracted from the HKT in SM office. The procedure for receiving the CH key is same like the normal operation of Crank handle.

7.3 **EMERGENCY GATE RELEASE OPERATION**:

Emergency gate release operation facility is provided in the panel when the route gets locked out of some failure. For emergency release of L.C gate, the SM on duty shall press emergency gate release button and concerned gate button No.10 or 30 . After a lapse of 120 secs, the open indication provided near gate button will glow and the lock indication will disappear. The SM on duty shall then operate gate button and group Trans button to release the key from RKT in the gate Lodge. All such operations will be registered in the emergency gate operation counter. SM shall record this and all such operations in the station diary, TSR & in the register meant for it.

7.4 **PILOTING OF TRAINS:** - In the event of failure of Home signals, it is inevitable to pilot the train 'IN'. For piloting the train, the setting of route must be ensured by SM on duty personally and the points en-route must be clamped & padlocked at both facing & trailing end by Operating staff. Same procedure shall be adopted when route illumination fail to disappear. Facing and trailing ends of the all motor operated points must be clamped and padlocked while piloting 'IN' or 'OUT' and during non-signalled movement

8.0 **LIGHTING OF SIGNAL LIGHT AND THEIR MAINTENANCE**: -

8.1 The SM on duty must ensure that all the lights of signals and level crossing Gate(s) lighted and extinguished according to the timings given in the G&SR vide para GR 3.49 and SRs thereto.

8.2 If any signal bulb fused, the SM on duty should immediately intimate the sectional ESM for the rectification and record the fact in the failure register.

8.3 The SM on duty at 00 hrs (second night) must also ensure that all signal lights are glowing properly. This fact must be recorded in the diary under a separate entry and confirm to the Section Controller on duty as per the instructions contained in Divisional safety Circular No. 82/82 dt.3.5.82.

9.0 **CORRECTING TIME IN STATION CLOCK:-**

9.1 The SM shall set the time in his clock according to the time signal given by the Section Controller on duty at 16.00 hrs every day according to SR 4.01.01 and 4.01.02.

10.0 **POWER SUPPLY**: Normal power supply is given to the station from WESCO (230 volts – 50 Hz) and the standby power supply is given to the station by the diesel generator.

10.1 **MAINTENANCE OF POWER SUPPLY, POWER FAILURES – REPORTING SUCH FAILURES**: - The signalling and interlocking installations works on normal local power supply whenever power supply fails, the SM on duty has to operate the change over switch (provided in the SM's office) connecting the power supply from the healthy source to the installations diesel generator.

10.2 Whenever the diesel generator is working, it should be ensured that the diesel generator is not used for more than eight hours at a stretch and as far as possible when there are no trains, the generator should not be run. This will not only conserve fuel but also to avoid straining of the generator continuously.

10.3 Unless the generator has attained the full speed and steady voltage not less than 210V indicating on the voltmeter fixed on the generator, the SM on duty should not operate the change-over switch to feed the installations. The signal Inspector should be advised to keep a watch on the adequacy of fuel supply to the station.

10.4 The SM must, however, maintain the record of the power failures and promptly report the failures to the Section Controller and to the concerned Electrical and S&T maintenance staff.

11 .0 **LOCKING OF RELAY ROOM**: - The Relay room should be kept locked with two separate locks, the arrangement should be such that one key is kept with the SM on duty and the other with the signal maintainer. Whenever required, the key in the custody of Station Master shall be given to the signal staff with proper acknowledgement in the Relay room key register. After completion of work, the signal staff shall return the key to SS/SM on duty. The details of the transaction should be properly recorded in the Relay room key register at the Station duly signed by SM on duty and the signal staff concerned according to Operating Manual 1.14 & SR 3.51.05. If the Relay room key is handed over to the Signal staff regarding the interference in safety gears, the train shall be piloted in and piloted out.

12.0 **MAINTENANCE OF S&T INSTALLATION & ADHERENCE TO MAINTENANCE SCHEDULES:** - Regular maintenance of the S&T installations, adherence to schedules of maintenance, testing of points, track circuits, ground frames, level crossing gates, associated interlocking apparatus, cables and the interlocking functional tests is must for safe and satisfactory working of these installations at this station.

The tests, checks and replacements etc., including overhauling shall conform to the schedules of Maintenance as indicated in the Signal Engineering Manual as also as per the current and extant instructions/circulars on the subject. During checking/ testing or during day to day as well as regular maintenance of S&T gears, SMR/SM on duty shall co-operate with S&T staff for safe and satisfactory maintenance.

13.0 **PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF A SIGNAL INTERLOCKING INSTALLATION:** - In case of failure of any interlocking gear at the station, the failure report should be communicated by the SMR/SM on duty to the sectional Maintainer, the JE/SE/SSE (SIG) of the Section and others through a memo as per SRs 3.51.04 and 3.68.04 and document all such transactions.

14.0 **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**- However, before declaring a signal or any other S&T gear as defective SMR/SM on duty shall verify them and setting of points on the route and overlap for a signal to which it applies shall be inspected by the SMR/SM on duty irrespective of the position of buttons and indications on the panel and will work vide GR 3.68.

15.0 **RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:** - On receipt of this information, the sectional Maintainer shall attend to the failure after giving a Disconnection Memo. After rectification of the fault, the Sectional Maintainer shall give a Reconnection Memo detailing the rectification. Thereafter the SM on duty shall personally check the defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR 3.68.04 (c), (d) , (e) & (f).

16.0 **PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:** - Whenever any normal maintenance or special works for major renewals etc., are involved, the signal & Telecom should pre plan these works. Field staff and the JE/SE/SSE (sig) should give 'Advance Intimation' to the SMR/SM in writing about this work in terms of SR 15.08.01.

17.0 **EMERGENCIES:** - Notwithstanding anything contained in the aforesaid paras when equipment is found to be defective and unsafe for passage of trains, the Signal & telecom. Staff must at once suspend the working of the equipment and associated installations and issue 'Suspension Memo' explaining the seriousness of defect or damage to the interlocking installation to the SM on duty and take the Station Master's acknowledgement. After this, the usual practice of exchange of disconnection memo and reconnection memo can follow. The SS/SM on duty must act promptly on such messages and take adequate precaution treating the S&T installation as defective and pass trains over the affected interlocking equipment according to extant instructions as contained in GR 3.77 & SRs thereto.

18.0 **TELECOMMUNICATIONS: -**

(i) Telephones with single line Tokenless Block Instrument for either side Block Sections.
(ii) Station to Station fixed telephone (hot line) is provided
(iv) Station is provided with auto telephone connected with Railway Exchange
(iv) BSNL telephone is provided
(v) The station is connected to Raipur-Titlagarh control circuit by a control telephone.
(vi) Station to station VHF communication is provided
(vii) Telephone is provided between Station and LC Gates at KM 105/13-14, KM 104/9-10 & KM 103/9-10

Note:

i) For obtaining line clear, VHF should be used as a last alternative and not as a sole means of communication.

ii) VHF and Walkie Talkie sets should not be used for unnecessary discussions with Drivers, Guards or any other staff.

iii) The on duty SM shall use the above electrical communication instruments stated in Para- 18.0 from item No. (i) to (vi) strictly in order of preference for obtaining/granting line clear vide SR 14.01.01. In case of failure of any of the above means of communication the SM on duty shall

Correction Slip No. 01
Date of Issue: 29.06.2012

19.0 **FAILURE OF COMMUNICATION / FAILURE OF BLOCK INSTRUMENTS:**

1) In the event of failure/suspension of block instrument, Track circuit & Axle Counter- 'Line Clear' shall be obtained over telephone attached to the block instrument or station to station telephone by exchanging identification number and supported by private number as per SR 6.02.06 (a) and Chapter–III Part–I of Block Working Manual.

2) In the event of failure/suspension of block instrument and block telephone attached to the block instrument, or the Station to station fixed telephone -

"Line Clear" shall be obtained on Railway auto phone or BSNL phone, by exchanging identification number supported by private number vide SR 6.02.06 (1)(b) and Chapter-III Part-I of Block Working Manual.

3) In the event of failure/suspension of block instrument or track circuit or axle counter or telephone attached to block instruments or station to station fixed telephone or Railway auto phone or BSNL phone –

"Line Clear" shall be obtained over the control phone exchanging identification number and supported by 'Private Number' vide SR 6.02.06(1) (c) and Chapter-III Part-I of Block Working Manual.

4) In the event of failure / suspension of block instrument or track circuit or axle counter or telephone attached to block instruments or station to station fixed telephone or Railway auto phone or BSNL phone or control telephone –

"Line clear" shall be obtained on the VHF sets exchanging ID number supported by PN provided that the instructions contained in SR14.01.02 are followed vide SR 6.02.06 (1)(d) Chapter-III Part-I of Block Working Manual.

5) In the event of total failure of all communications trains shall be worked vide SR 6.02.04.

A P P E N D I X - 'C'

ANTI COLLISION DEVICE (RAKSHA KAVACH)

NIL

A P P E N D I X - 'D'

1.0 **STATION MANAGER (IN-CHARGE)** : The Station Manager is the chief Supervisor of the station and is responsible for the general satisfactory working of the station and the efficient discharge of duties by all the staff under him. He is responsible for the efficient discharge of duties devolved upon all the staff employed at the station whether permanently or temporarily according to rules, safe working instructions and Station Working Rules. He shall see that all signals, points, level crossings, sidings and the whole machinery at the station are in perfect working order. He shall report all defects to the concerned officials. It is his personal responsibility to maintain the Station Working Rule, all rulebooks and Assurance Registers. He shall see that all operating and commercial records separately be maintained and due statements and returns are up to date. He shall submit the coaching return/statements in time with the help of his assistant. He shall conduct surprise night inspections, safety meetings and fire drills. He shall maintain good public relation as well as look after passenger's amenities and be helpful to travelling public. He shall also ensure that the safety equipments at the station/cabin as mentioned in Station Working Rules are supplied in full and they are in good working order.

His special attention is drawn to chapter No.II of G & SR 2000 and GR 5.01 to 5.08 with relevant SRs. He shall follow the instruction laid down in SR 3.68.01(c) & (d) and SR 14.07.01 and BWM 2.09 (e). . He will promptly attend to accidents and report them. In addition to his normal day shift he will supervise the work of staff and conduct night inspections and report lapses of staff under him.

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

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

3.0 The Station Manager is responsible personally for maintaining the Assurance Register and for obtaining declaration of the staff working under him. The Assurance Register must be maintained in two parts, one for Group 'C' and the other for Group 'D' staff. A duplicate copy of the Assurance Register must be maintained and kept in personal custody of the Station Manager.

4.0 The declaration shall be renewed in the following cases:-

(i) Whenever there is a change in the Station Working Rules.

(ii) For any staff who have not worked at the station or were away from the station for a period of 15 days or more.

5.0 **USE OF PRIVATE NUMBER BOOKS / IDENTIFICATION NUMBER SHEET**: - Sufficient Private Number books and I.D number sheets in sealed covers shall be kept always in the stock by Station Manager under lock and key. He shall maintain a register for this purpose.

6.0 **ACCIDENTS**: Accidents shall be reported and immediate action shall be taken by the Station Manager in charge in accordance with the instruction laid down in the Accident Manual. Whenever the Station Manager receives report of an accident, he shall take all necessary precautionary measures to protect the traffic and shall arrange earliest possible assistance as required at the site of accident. He shall frame the accident message/reports and follow up all safety principles without delay.

7.0 **TESTING OF POINTS AND SIGNALS** :The Station Manager shall test the working of the reception signals daily during the day when there is no train due to arrive/leave the station. He shall also test the working of points, crossings etc. and record the result in the Station Master's diary as per SR 5.01.03.

8.0 **Dy.SS/STATION MASTER/ASSISTANT STATION MASTER**: He shall work in 8 hrs. shift for train passing and booking of traffic, coaching returns and other statements shall be prepared and submitted by him in time under the direction of the Station Manager in charge. He shall assist the Station Manager in charge for the up keep of the station in all aspects.

Station Master on duty who makes an entry in the train signal register must continue on duty till all the entries pertaining to the trains are completed vide Subsidiary Rule

14.07.01.He is responsible for working beyond this period when called upon to do so in the exigencies of services. He will follow SR 3.68.01(c) & (d), SR 14.07.01.Their special attention is drawn to Chapter II of G & SR 2000 and GR 5.01 to 5.08 with relevant SRs. As an Assistant to the Station Manager, he shall follow the instructions given to him by the Station Manager.

9.0 **HANDING OVER AND TAKING OVER CHARGE**: The Station Manager in charge/Station Master/Assistant Station Master on duty shall record in the diary the condition of all the running lines, the caution orders in force at the time of handing over charge. These entries must be counter signed by Station Master/Assistant Station Master coming on duty while taking over charge. This will not, however, relieve any one of the SS/SM of his responsibility to ensure by physical check that the nominated line is clear of all obstructions before admission of any train on it.

10.0 **TRAFFIC POINTSMAN / TOKEN PORTER: -**

He shall work under the instructions of SM on duty and follow the GR 02.05 to 2.11 and other relevant rules laid down in GR and SR. He shall remain responsible for:

(i) Delivery of authority to proceed and caution order etc. to the driver of train.
(ii) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation under the supervision of Station Master.
(iii) To couple and uncouple vehicles under the supervision of Station Master/Guard when shunting operation is in progress.
(iv) Piloting and hand signalling of trains when necessary.
(v) Knowledge of hand signals, detonators and their use.
(vi) Protection of line in emergency and fog signalling.
(vii) Exchange of signals with the Driver and Guard of passing trains as directed by the Station Master.
(viii) Cleaning, Oiling and lighting of lamps.
(ix) Loading/unloading of parcels, luggage and packages to and from the train and watching the packages and other materials by properly stacking in the station premises.
(x) Dusting of station office, filling up the fire buckets with sand/water and getting train interact arrival register (T/1410) signed by the Guard as and when required.
(xi) Serving messages and any other duties entrusted to them by the SMR/SM from time to time.
(xii) Uses of emergency crank handle for setting of points.
(xiii) To supervise shunting as per SR 5.13.03.

They must be thoroughly conversant with the GR 3.38, 3.46, 3.77(I), 5.09, 3.52 to 3.60, 3.62, 5.13, 5.15, 5.16, 5.21, 5.23 & SRs there to.

11.0 **DUTIES OF TRAFFIC GATEMAN**:

Mentioned in Gate working instructions of concerned L.C.gates in Appendix-A. In addition to that he shall follow the GR 2.05 to 2.11 and other relevant rules laid down in GR & SR.

12.0. **SAFAIWALA /LCS**-

He is responsible to attend the sanitation of Railway premises including SM's office Passengers awaiting room platform and platform latrines, cleaning of night soils, lighting of lamps and clearing of drainage. He shall remove night soil in staff quarters and dump in and also for clearing of the drains attached to staff quarters. He shall do any other duties entrusted to him by the SM in case of emergencies.

13.0 **GENERAL**

i. A set of Red and Green flags and Tricolor hand signal lamps will be part of the essential equipments of staff while on duty. They shall not leave the station except when required by the SM on duty or with his permission. They shall comply with SR 4.42.02 (b) & (c).

ii. Staff working at the Station must be able to distinguish between Up and Down Line Clear Tickets and also to recognize other Operational forms and documents delivered to Guard and Drivers. They must also know how and when to ring the Station Bell and to call out the Station's name on arrival of Passenger carrying train.

N.B: - All *staff while on duty should be in proper uniform*.

A P P E N D I X – 'E'

1.1 **ESSENTIAL EQUIPMENT: -** A list of essential equipment is given below vide OM 20.04(11), which shall be maintained in good working order.

Srl No	Equipment	Quantity
1.	Detonator	10 Nos
2.	Hand Signal Lamps (Tricolour Torch)	4 Nos (1 spare)
3.	Hand signal flags	4 Sets (1 set spare)
4.	Wedges	6 Nos
5.	Clamps with pad locks	6 Nos
6.	Safety chains with pad locks	6 Nos
7.	Fire buckets	5 Nos
8.	First Aid Box	1 No
9.	Stretcher	1 No
10.	Blanket	1 No
11.	Fire extinguisher	2 Nos
12	Reminder collars	3 Nos
14	"Motor Trolley on Line" Board.	2 Nos
15.	Block suspension Board	2 Nos

APPENDIX– 'F'

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

NIL.

APPENDIX – 'G'

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

NIL.

R.Das
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