

EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF KAKIRIGUMA [BROAD GAUGE]

Date of Issue: -

Date brought in force:

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

NOTE:-

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

1. STATION WORKING RULE DIAGRAM:

(i) The Station Working Rule diagram no: SI/WRD/23125

(ii) CSTE/East Coast Railway Signal Interlocking Plan No: SI/23125

(iii) Date up to which corrected:

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

a) Name of the station	:	KAKIRIGUMA
b) Class of station	:	'B' class, Std-IIR
c) Section	:	Koraput - Rayagada
d) Double line/Single line	:	Single line
e) Electrified/Non Electrified	:	Non-Electrified
f) Gauge BG/MG/NG	:	BG
g) Railway	:	East Coast Railway
h) Route	:	'D' Special
i) Situated at	:	Km 45.885
j) Reckoned from	:	Koraput
k) Number of cabins	:	Centrally operated Domino type full-fledged panel.

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

Sl. No	Adjacent Block - section	Distance	Direction
a	LAKSMIPUR ROAD (LKMR)	16.285 km	RGDA end
	BAIGUDA (BGUA)	12.432 km	KRPU end
b	Provision of IBS	Nil	
c	Automatic signal	Nil	
d	DK station/Outlying sidings	Nil	
e	Passenger halt	Nil	

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

Between Stations	The Point from which the Block section commences	The Point at which the 'Block Section' ends
KKGM-LKMR DN Direction	From DN advanced starter signal no. 9 of KKGM	DN home signal of LKMR.
KKGM-BGUA UP Direction	From UP advanced starter signal no.10 of KKGM	UP home signal of BGUA.

2.4 GRADIENTS:

a) From the centre of the station building towards LKMR:

Chainage in Mtrs from CSB		Stretch	Gradient
From	To		
Ch: 0.000	Ch: 707.56M	707.56M	1 in 400 falling
Ch: 707.56M	Ch:2062M	1354.44M	1 in 100 raising
Ch: 2062M	Ch: 2205M	143M	Level
Ch: 2205M	Into section	---	1 in 225 raising

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

Chainage in Mtrs from CSB		Stretch	Gradient
From	To		
Ch: 0.000	Ch:676M	676M	1 in 400 falling
Ch: 676M	Ch: 1125M	449M	1 in 100 raising
Ch: 1125M	Ch:1922M	797M	1 in 115 raising
Ch: 1922M	Ch:2060M	138M	1 in 100 raising
Ch: 2060M	Into section	---	1 in 125 raising

2.5 (A) LAY OUT:

Sl no	Running/Non Running line	Electrified/Non Electrified
1	Route-1 (1 st loop)	Non-Electrified
2	Route-2 (Main line)	Non-Electrified
3	Route-3 (2 nd loop)	Non-Electrified

(B) PLATFORMS:

(i)One low level passenger platform measuring 244MX6.4M is provided on Line no.1 (1st loop).

(ii)One Goods platform measuring 70MX6.1M is provided on Goods siding take off from Line no.3 (2nd loop)

2.5.1 DIRECTION OF MOVEMENT & HOLDING CAPACITY:

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(a) DIRECTION OF MOVEMENT:-

The trains coming from Lakshmipur Road end and proceed towards Baigida are UP trains and the trains coming from Baiguda end and proceed towards Lakshmipur Road are DN trains.

HOLDING CAPACITIES:

Line no	Designation	CSL	Electrified/Non Electrified	CSL starting & Destination
Line No 1	1 st Loop	690Meters	Non-Electrified	From Starter to Starter
Line No 2	Main line	691Meters	Non-Electrified	From Starter to Starter
Line No 3	2 nd loop	690Meters	Non-Electrified	From Starter to Starter

2.5.2 NON RUNNING LINES AND THEIR CAPACITY:GOODS SIDING:

One Goods siding is taken off from line no.3 at both ends and is isolated by derailing switches and is measuring 107.70M (GJ-GJ). The entrance point and derailing switch are operated by rodding through arc lever and access of single entry at a time. Hand plunger locks fitted at the entrance point unlocked by key 'A' released from EKT provided in location box through switch control no.103 from panel. When switch control 103 is transmitted from panel, S-1/C-1, SH-15, S-5, S-6, S2/C2, SH-16 signals for line no1 will be locked in their normal position.

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT:

Nil

2.6 LEVEL CROSSINGS:

NIL

3. SYSTEM AND MEANS OF WORKING:-

(i)System of working: Absolute block system:

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

(ii)Block instruments:

Single line Diado type Tokenless block instruments are provided for block sections KKGm-LKMR and KKGm-BGUA vide GR 14.01(a) and the 'OFF' aspect of the last stop signal is the authority for the Loco pilots of all trains to enter into the block section vide GR 14.08(b) (iv).

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

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(iv) Provision of block telephone: Telephone attached to block instrument connecting the adjacent block stations concerned.

(v) Custody of keys of block instrument: Block instrument is provided with double locking. One key will be with SM and other key will be with S&T maintainer.

4.0 SYSTEM OF SIGNALLING AND INTERLOCKING:

- 4.1.0 a) Standard of Interlocking: This Station is provided with Standard-II® Panel Interlocking.
- b) Type of signals: Multiple Aspect Colour Light Signals. The aspects and indications of the MACLS is governed by GR.3.08 (4) (b).
- c) The Station is provided with central Panel Interlocking (PI). All signals and points are electrically operated from the central Panel provided at SM's Office.
- d) Method of operation: Central Panel is provided in the Station Master's office to electrically control all signals and points.
- e) Provision of axle counter/Track circuits on running lines:
Track circuits are provided in the yard as 1AT, 1T₁, 1T₂, 101/102AT, 101BT, 102BT, L₁T₁, L₁T₂, L₂T₁, L₂T₂, L₃T₁, L₃T₂, 104/105AT, 104BT, 105BT, 2AT, 2T₁ and 2T₂. When a signal is cleared, the particular route appears with white strip of lights and 'Red' light appears as the train occupies the track circuit.
- f) Calling on signals/IBS: Calling-on signals are provided below Home signals (i.e. in both Up & Down directions) as per GR.3.13 (1) (b), (2) (3) (4) & (6) (b).
- g) The control Panel is provided with SM's key which shall always remain in the custody of the Station Master on duty for control of points, signals and crank handles control etc in terms of SR 3.36.03(a).

h) CRANK HANDLE:

When any point fails to operate 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.

CRANK HANDLE CONTROL FOR EMERGENCY OPERATION OF POINTS			
Sl. No	CRANK HANDLE	CONTROL POINTS	SWITCH No.
1	CH-1	101A/B, 102A/B	13
2	CH-2	104A/B, 105A/B	14

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the EKT instrument at The respective Crank Handles Locations. EKT key can be taken out only when all signals are not taken 'OFF' and the route is not locked for whatever reasons. EKT key can be released by pressing common

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TRANS/RESTORE push button 'ZN' and concerned Crank handle control switch simultaneously. White flashing indication appears on the panel during transmission and extinguishes When EKT key is taken out at the Location box. When EKT key is taken out, no signal can be taken 'OFF' over the particular route.

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

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

(i) TAKING OFF CALLING-ON SIGNAL:

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

(j) SHUNT SIGNALS:

Back Shunt signals SH -15 and SH-16 are provided at BGUA end & LKMR end respectively for shunt back facility.

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

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

4.3 (A) POWER SUPPLY:

Normal: Local supply- 230v, 50Hz (Odisha State Electricity Board supply)
Stand by: - DG set (2 nos.)

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

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

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

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

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

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

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

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

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

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

5. TELECOMMUNICATIONS:

(a) Telephone attached to Token less Block Instruments is connected to adjacent stations on either side.

(b) Hot line Telephone communication is provided between adjacent stations.

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

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

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

(f) BSNL telephone is provided at this station.

5.1 FAILURE OF COMMUNICATION: -

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

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

6. SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF:

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

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

6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:

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

COMPLEMENT OF STAFF:

STAFF IN EACH SHIFT:

Dy. Station superintendent	2
TPM/TP	4
SCLM	1(General shift)

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

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

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

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

6.1.3 ASSURANCE OF THE STAFF IN THE ASSURANCE REGISTER:

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

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

- a. The conditions laid in GR 8.03(2)(a) (b) (c) (ii) shall be complied with the SM on duty before line is considered clear and line clear is granted.
- b. Before granting a line clear for a train the SM on duty shall personally ensure that the reception signals pertaining to a train are in the 'ON' position and burning properly vide GR 3.49(4).

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

- i) Whole of the last preceding UP train has arrived completely.
- ii) UP Home signal /calling-on signal No. S-2 and/or C-2 is put back to 'ON' and
- iii) Line is clear up to DN advance starter signal No.9.

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

- i) Whole of the last preceding DN train has arrived completely.
- ii) DN Home signal /calling-on signal No. S-1 and/or C-1 is put back to 'ON' and
- iii) Line is clear up to UP advance starter signal No.10.

e. ADEQUATE DISTANCE: (SIGNAL OVERLAP)

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

Adequate Distance:

CLEARANCE OF ADEQUATE DISTANCE				
LINE NO.	UP TRAINS		DN TRAINS	
	FROM	TO	FROM	TO
Line no.1 (1 st loop)	UP 1 st loop starter No. 6.	Sand hump or up to UP advanced starter No. 10.	DN 1 st loop starter No. 5.	DN advanced starter No. 9.
Line no.2 Main line	UP Main line starter No. 4.	UP advanced starter No. 10.	DN Main line starter No. 3.	DN advanced starter No. 9.
Line no.3 (2 nd loop)	UP 2 nd loop starter No. 8.	Overrun line or up to UP advanced starter No. 10.	DN 2 nd loop starter No.7.	DN advanced starter No. 9.

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

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

Nil

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE:

When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points at either end should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line. If all the lines of a station happen to be blocked, when line clear has been granted to a train, the points

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

6.2.1.2 RECEPTION OF A TRAIN ON BLOCKED LINE:

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

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

Not Applicable

6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE.

Not Applicable

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

NIL.

6.2.1.6 ANY SPECIAL CONDITIONS:

NIL.

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:-

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

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

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

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

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

1	Reception of an UP train on line No.1 setting overlap to sand hump when point no 101 is normal.	AND	Reception of DN Train on Line No. 3. (OR) Dispatch of another UP train from line no. 2 or 3.
2	Reception of an UP train on line No.3 setting overlap to overrun line when point no 102 is normal.	AND	Reception of DN Train on Line No. 1. (OR) Dispatch of another UP train from line no. 1 or 2.

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3	Reception of a DN train on line No.1 setting overlap to sand hump when point no 104 is normal.	AND	Reception of an UP Train on Line No. 3. (OR) Dispatch of another DN train from line no. 2 or 3.
4	Reception of a DN train on line No.3 setting overlap to sand hump when point no 105 is normal.	AND	Reception of UP Train on Line No. 1. (OR) Dispatch of another DN train from line no. 1 or 2.

6.5 COMPLETE ARRIVAL OF TRAINS:

a) FOR STOPPING OF TRAINS:

On arrival of a train SM on duty shall send the train complete arrival register in the prescribed form T/1410 through TPM/TP to the Guard of the train for certifying complete arrival of the train (when he is not in a position to observe the last vehicle indicator). The Guard after confirming that the train has arrived complete and standing clear of fouling mark shall sign the complete arrival register. The TPM/TP on getting the Guard's signature shall personally verify that the train has arrived complete with its last vehicle indicator and confirm the same to SM on duty through field telephone provided at the Goomty supported by a Private Number or take the complete arrival Register to SM whichever is earlier/. After getting confirmation the SM on duty shall send the train out of section report to the station in rear vide SR 4.17.01(e)(iii) & (iv). Whenever the train is running with the last vehicle, SR 4.23.02(f), BWM Rule 2.07(5) (e) shall be followed.

The TPM/TP shall be issued with a Private Number book which shall be kept in his personal custody and it shall be handed over to his reliever making a diagonal line across and signing the same while making over and handing over duties.

b) FOR THROUGH TRAINS:

The duty of ascertaining that the train has arrived complete will develop on the Station Master on duty for run through trains and/or trains which come to a stop at a place where the Station Master can personally observe the last vehicle indicator of the train vide SR 4.17.01.(a).

6.6 DISPATCH OF TRAINS:

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

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

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(b) ISSUE OF CAUTION ORDERS:

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

6.7 TRAINS RUNNING THROUGH:

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

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

The Station Master on duty is responsible to see that a train passes complete with its last vehicle indicator. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General and Subsidiary Rule. [Ref GR 3.40,3.42, 4.17, 4.42, & SR 4.42.02 (b) (i), (ii), (iii), c & (d)]

6.8 WORKING IN CASE OF FAILURE:PROCEDURE TO BE FOLLOWED FOR WORKING OF TRAINS DURING FAILURE /SUSPENSION OF INTERLOCKING /SIGNALS/ POINTS:a) TRACK CIRCUITS:

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

b) POINTS:

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

c) BLOCK INSTRUMENTS:

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

d) RECEPTION OF A TRAIN ON OBSTRUCTED LINE:

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

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

NIL

f) DEFECTIVE SIGNALS:

Whenever signals become defective, the procedure laid down in GR & SR shall be followed. [Refer GR 3.68 to 3.71, 3.80 and SR 3.68.01©] In the event of signal showing no lights, station master on duty shall before giving line clear initiate action in accordance with the procedure laid down in GR and relevant SRs.

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

g) DEFECTIVE/DAMAGED POINTS:

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

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

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

a) Motor trolleys shall be worked as per GR 15.25 and SRs there to, BWM 5.11(1) (2), 5.12, 5.13, 5.14(2) (a) and circulars and orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs there to and in accordance with the provisions of Block Working Manual.

b) Tower wagons shall be worked as per GR 17.08 and SRs there to and BWM 4.39 and other circulars and orders issued from time to time.

c) Push trolleys shall run under block protection only vide SR 15.25.09(e).

d) Shunting key of token less block instrument at dispatch station as well as receiving station of the motor/push trolley shall be taken out and kept in the personal custody of SM on duty in addition “trolley on line” board shall be hung up on the handle of the block instrument. Special instructions contained in the circular No.19 of 6.4.88 should be followed.

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

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7. BLOCKING OF THE LINES:

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23 and SR 5.23.01]

(a) SECURING OF VEHICLES: -

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

NOTE:

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

b) USE OF REMINDER BLOCK COLLARS:-

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

8.0 SHUNTING:**8.1 GENERAL PRECAUTIONS.**

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

NOTE:

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

8.2 SHUNTING IN FACE OF AN APPROACHING TRAIN:

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

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8.3 PROHIBITION OF SHUNTING, SPECIAL FEATURES IF ANY:

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

8.4 SHUNTING ON SINGLE LINE:

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

8.5 SHUNTING ON DOUBLE LINE:

Not applicable.

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

Not applicable to this station.

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

- (i) During partial interruption of communication between the adjacent block stations, SR 6.02.06 shall be observed.
- (ii) In the event of occupation of block section due to accident or obstruction the authority for the train to work up to obstruction as and when required is T/A 602 & SR 6.02.05 shall be observed.
- (iii) In the event of trains delayed in the block section, GR 6.04 and relevant SRs shall be followed.
- (iv) Failure/passing of Intermediate Block stop signal at 'ON' position:
Not applicable.
- (v) Failure of Axle counter Block/BPAC: Procedure to be followed vide GR 14.13 & 14.14.
- (vi) Failure of MTRC: Not applicable.

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

In the event of failure of points through panel, it is inevitable to operate through crank handle. To achieve this, there are two CH controls provided at the station and corresponding release of keys through EKT in Location box at both ends. Switch no.13 controls point no. 101, 102 and switch no. 14 controls point 104, 105.

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ii. Procedure for emergency operation of points with point zone Track circuits failure and emergency route release is detailed in Appendix-'B'.

(c) Certification of clearance of track before Calling –On Signal operation in initiated:-

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

(d) Reporting of failure of points, Track circuits and interlocking:-

(i) All failures whether relevant to points, signals, track circuits or Block instruments shall be promptly reported by SM on duty to the concerned S&T maintainer through a memo immediately and shall resume normal working only after rectifying the concerned gear at fault and obtain reconnection memo from S&T Maintainer concerned.

(ii) Such failures are to be recorded in the signal failure register, SM's diary, TSR and urgent order book.

9.1 TOTAL FAILURE OF COMMUNICATION:

In the event of total failure of communication SR 6.02.04 shall be observed.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

Not applicable

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

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

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

10. VISIBILITY TEST OBJECT:

The signal lights of UP starter signal No.6 and DN starter signal No.5 of Line No.1 are ear marked to serve as visibility test object during day and night vide GR 3.61.2(b)(iii)

11. ESSENTIAL EQUIPMENT AT THE STATION:

(Details are given in Appendix-'E')

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

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

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Signal Register vide SR.3.61 as a token of their acknowledgement in fog signaling Rules.

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

12.1 STATION DETONATOR REGISTER (OPT/124):

A Register regarding detonator is maintained at the station.

12.2 INSTRUCTIONS:

(a) This register contains the following parts.

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

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

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

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

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

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

13. APPENDICES:

APPENDIX-A	Working of Level crossing gates.
APPENDIX-B	System of signal Interlocking and Telecommunications.
APPENDIX-C	Anti collision device (Raksha kavach).
APPENDIX-D	Duties of Train passing staff and staff in each shift.
APPENDIX-E	List of essential equipment provided at this station.
APPENDIX-F	Working of DK stations, Halts, IBS and outlying sidings.
APPENDIX-G	Rules for working of trains in Electrified sections.

CERTIFICATE

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

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EAST COAST RAILWAY

WALTAIR DIVISION

APPENDIX-'A'

WORKING OF LEVEL CROSSING GATES

KAKIRIGUMA STATION

NIL

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APPENDIX 'B'
DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATION AND COMMUNICATION ARRANGEMENTS AT THE KAKIRIGUMA STATION

1.0 BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALATION:

This is a 'B' Class Station with Standard-II® interlocking (with isolation) with non route setting type panel. The points and signals etc are power operated from a composite miniature 'DOMINO TYPE' full-fledged central panel installed in the station Master's office. This Station is equipped with multi aspect colour light signaling. The Handle type Token less Single Line block instruments are provided in the SM panel room for section KKGM-LKMR & KKGM-BGUA.

1.1 DISCRIIPTION OF PANEL:

The yard layout is depicted on the panel and the panel is fixed parallel to the track so that when the Station Master faces the panel, the yard drawing on the panel corresponds to the actual field lay out.

1.2 SIGNAL, POINT SWITCHES AND ROUTE BUTTONS:

Two position point knobs are fitted for points in one row at the bottom of the panel opposite to the respective points. For starter signals, separate two position knob switches are provided near each starter signal on the panel. For Home and Advanced starter signals also separate two position knob switches are provided on either direction. A separate two position knob switch is provided for calling-on signal at either end of the yard. Common route buttons are provided for both UP and DN Home signals, calling-on signals on each line. Two position knob switches are provided for shunt signal on either direction. For taking off signals, it is necessary to operate the signal switch and concerned route button concurrently.

1.3 DESCRIPTION OF POINT SWITCHES:

SL. NO	POINT NO.	POINT SWITC H NO.	COLOUR	DESCRIPTION
1	101A/B	13	Black	Cross over point between Main line and line no.1 at BGUA end.
2	102 A/B	13	Black	Cross over point between Main line and line no.3 at BGUA end.
3	104A/B	14	Black	Cross-over Point between Main line and line no.1 at LKMR end.
4	105A/B	14	Black	Cross over Point between Main line and line.3 at LKMR end.

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1.3.1 DESCRIPTION OF SIGNAL SWITCHES:

SL NO	SWITCH NO.	COLOUR	DESCRIPTION
1	C-1	Red with white dot	Switch for DN calling 'ON' signal for Line No.1 to 3.
2	S-1	Red	Switch for DN Home signal for Line No.1 to 3.
3	C-2	Red with white dot	Switch for UP calling 'ON' signal for Line No.1to 3.
4	S-2	Red	Switch for UP Home signal for Line No.1to 3
5	S-3	Red	Switch for DN L-2 starter.
6	S-4	Red	Switch for UP L-2 starter.
7	S-5	Red	Switch for DN L-1 starter.
8	S-6	Red	Switch for UP L-1 starter.
9	S-7	Red	Switch for DN L-3 starter.
10	S-8	Red	Switch for UP L-3 starter.
11	S-9	Red	Switch for DN advanced starter
12	S-10	Red	Switch for UP advanced starter
13	SH-15	Yellow	Switch for DN shunt signal for line no. 1 to 3.
14	SH-15	Yellow	Switch for UP shunt signal for line no. 1 to 3.

1.3.2 SIGNAL INDICATION:

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

1.4 ROUTE BUTTONS:

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

1.4.2 DESCRIPTION OF ROUTE BUTTONS:

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	L1- UN	White	Common route button for UP and DN Home signal, calling-on signal and shunt signal of line No.1 (1 st loop).

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2	L-2 UN	White	Common route button for UP and DN Home signals, Calling-on signals and shunt signals of line No. 2 Main line.
3	L3 UN	White	Common route button for UP and DN Home signals, UP & DN Calling-On signals and UP & DN shunt signals of line No. 3 (2 nd loop).
4	4/6/8- UN	White	Common route button for UP starters 4, 6, 8.
5	3/ 5/ 7-UN	White	Common route button for DN starters 3, 5, 7.
6	9-UN	White	Route button for DN advanced starter no.9.
7	10UN	White	Route button for UP advanced starter no.10.

1.5 CRANK HANDLE/SIDING CONTROL SWITCHES:

CRANK HANDLE/SIDING CONTROL FOR OPERATION OF POINTS			
Sl. No	CRANK HANDLE/SIDING	CONTROL POINTS	SWITCH No.
1	CH-1	101A/B, 102A/B	13
2	CH-2	104A/B, 105A/B	14
3	GOODS SIDING	GOODS SIDING POINTS	103

1.6 MISCELLANEOUS PUSH BUTTONS:

SL No.	Button No	Colour	Description
1	SM's PANEL KEY	---	To lock the control panel to prevent unauthorized operation.
2	COMMON TRANS/RESTORE PUSH BUTTON (ZN)	BLUE	Common push button for extraction and Restore of crank handle and siding key.
3	COMMON PUSH BUTTON FOR POINT NORMAL/REVERSE (O UN)	BLACK WITH RED DOT	To be pressed to initiate NORMAL/REVERSE setting of point along with concerned point switch.
4	EMERGENCY ROUTE RELEASE PUSH BUTTON	WHITE WITH RED DOT	To be pressed for emergency Route Release.
5	SIGNAL LAMPFAILURE /POINT FAILURE ACKNOWLEDGEMENT	RED WITH WHITE DOT	To be pressed for acknowledging signal lamp/point failure
6	BUTTON HELD ACKNOWLEDGEMENT PUSH BUTTON	WHITE WITH RED DOT	To be pressed for silencing button held buzzer in case of any push button remains pressed after the button is released.
7	UP TRAIN ARRIVED ACK PUSH BUTTON	CHOCOLATE WITH WHITE DOT	To be pressed for normalizing the Block instrument for section LKMR-KKGM.
8	DN TRAIN ARRIVED ACK PUSH BUTTON	CHOCOLATE WITH WHITE DOT	To be pressed for normalizing the Block instrument for section BGUA-KKGM.

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1.7 Power failure indication /Buzzer and power acknowledgement:(A) Power supply:

Normal: Local supply- 230v, 50Hz (Odisha State Electricity Board supply)

Stand by: - DG set (2 nos.)

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

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

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

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

The IPS is connected with Battery for safe working during transition of power.

(B) Remote Monitoring:

ASM console for IPS is provided at SM's office, which give the following instructions.

	Instructions	Condition	LED indication	Remarks
A	Run DG set	50% DOD	Red	Auto/visual alarm. Alarm shall be acknowledged by SM on duty.
B	Emergency start	60% DOD	Red	Auto/visual alarm. Alarm shall be acknowledged by SM on duty.
C	System shut down	70% DOD	Red	Signal feed cut off and all DC-DC converters to work. Audio alarm will continue till Generator is stated.
D	Call S&T staff	Equipment fault	Red	Failure of any module will give the alarm in SM's panel. Alarm shall be acknowledged by SM on duty for audio cut off.

In the event of failure of Remote Monitoring ASM console due to any reason when Local power supply is failed, the SM on duty shall start DG set immediately. In case "call S&T staff" or "system shut down" appears on the Remote Monitoring panel of IPS and/or malfunctioning of the Remote Monitoring panel, SM on duty shall inform the same to concerned S&T staff immediately.

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

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

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

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

2.0 TRACK CIRCUITS:

Entire yard is track circuited from Home to Home. The following track circuits are provided in this yard.

1AT, 1T₁, 1T₂, 101/102AT, 101BT, 102BT, L₁T₁, L₁T₂, L₂T₁, L₂T₂, L₃T₁, L₃T₂, 104/105AT, 104BT, 105BT, 2AT, 2T₁, 2T₂.

These track circuits are provided to effect track indications, track locking to prove the presence or other wise of vehicles on any other track circuits and sequential operation of these track circuits in the direction of movement of train.

Normally there is no track indication on the panel. When signal is given, the designated route gets a white strip of light. When train passes over these track circuits shows occupancy by a RED light and as the train clears the track circuit zone, shall change to WHITE light. These lights remain till the route is released/cancelled by normalizing concerned signal switch by SM.

3.0 CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS:

Crank handle operation is interlocked with the signaling and interlocking system at this station. Key of crank handles are normally locked inside the RKT instrument at the respective crank handle locations. Crank handle keys can be taken out only when all signals leading over the points are in the normal position and route is not locked for whatever reasons. Crank handle can be released by operating common TRANS/RESTORE button 'ZN' and concerned crank handle control switch simultaneously. When this key is taken out, no signal for the concerned route can be taken off. This key can be electrically transmitted at both ends of the yard. On account of doubtful operation of any track circuit by a light vehicle including self propelled vehicle such as Motor trolley or light Diesel/Electrical engine or tower wagon, indicating the occupancy of the track. It is necessary to satisfy SM on duty that the said vehicle has cleared point zone track circuits by observing the track indications on either side of the cross over.

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4. OPERATION OF TRACK CIRCUITS BY LIGHT VEHICLES:

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

5. ROUTE SETTING INDICATION:

Normally there is no indication displayed on the panel for any of the track circuits on any line, but when a route is set and the signal is taken off, a white strip of lights will be displayed on the concerned route including point zones.

As the train travels occupying the track circuit zones, 'WHITE' strip light extinguishes and 'RED' strip lights glow. When the train clears the track circuit zones one by one 'RED' strip lights of the concerned track circuit zone extinguishes and white strip lights glow. These 'WHITE' strip lights shall remain till the route is released/cancelled by normalizing concerned signal switch by SM.

However, when a train is detained in the station yard for precedence/crossing, the overlap will be released 2 minutes after the reception signal switch is made normal.

6.0 COUNTER:

Three counters are provided on the panel, two for registering the operation of UP & DN calling-on signals and the other for emergency route release operations. SM on duty shall make an entry in RED ink in the Train Signal Register, diary and note the number on the counter after every emergency operation with the train number, cause etc., Station Master at every shift changing shall also note that the last number of the two calling-on counters and take the acknowledgement of the SM taking charge.

7.0 TARIN ARRIVAL INDICATION:

Train arrival indications are provided for UP & DN trains at their respective ends on the panel. As the train arrives into the yard the indication glows at the concerned end. This illumination shall remain till the route is released by pressing the common route button on the concerned line.

The train arrival indication should not be considered to indicate the complete arrival of the train.

The procedure detailed in SR 4.17.01(a) (iii) & (iv) shall be followed for confirming the complete arrival of the train.

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8. EMERGENCY OPERATIONS:**8.1 EMERGENCY CANCELLATION OF ROUTE:**

The 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), the concerned signal must be put back to Danger by normalizing the signal switches. Then the concerned common route button and the emergency route release button (after breaking the seal) are to be pressed simultaneously for two or three seconds and released. The emergency route release counter registers next higher number for every such operation after lapse of 120 seconds. The white route indication extinguishes and the route gets released. If the route does not get released after the normal passage of the train, the same procedure as detailed in foregone paras shall be followed for emergency release of the route. The concerned Signal Technician/Signal Section Engineer must immediately be informed to get the 'Emergency Route release button' sealed after rectification of fault if any.

While performing emergency route release, it must be ensured by SM on duty that there will be no danger to the approaching train.

8.2 EMERGENCY ROUTE RELEASE COUNTER:

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

9.0 BUTTON HELD ACKNOWLEDGEMENT (WHITE WITH RED DOT):

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

10.0 OVER LAP TIME RELEASE (WHITE LIGHT):

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

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

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11.0 STATION MASTER'S PANEL CONTROL KEY:

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

12.0 FAILURE OF BLOCK INSTRUMENT:

Whenever there is a failure of Block instruments, train shall be worked on PLC ticket and piloting vide GR 14.23 and BWM 3.01 of chapter-III.

13.0 INTERLOCKING OF SIGNALS:

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

13.1 Advanced starter signals are interlocked with respective Block instrument in LINE CLEAR position. Signal S-9 is controlled by Train Going To (TGT) position of the Tokenless block instrument for the section KKGM-LKMR and Signal S-10 is controlled by Train Going To (TGT) position of the Tokenless block instrument for the section KKGM-BGUA

13.2 The Block instruments cannot be made to normal unless the respective Home is put back to 'ON' aspect and the respective block section monitored by axle counter is clear of trains.

13.3 Signals once taken OFF can be put back to ON in case of emergency by normalizing concerned signal switch even when the panel is locked up with Station Master's key.

14. REPLACEMENT OF SIGNALS TO ON:

Signals are replaced to 'ON' automatically by the occupation of the first track in advance of the signal. It will not be possible to re-clear the signal again unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the respective signal switch is to be normalized.

15.0 TAKING OFF CALLING ON SIGNAL:

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

To take "OFF" Calling-on signal the train must come to a stop at the foot of the Home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit a RED light strip will appear on the Panel. The particular route on which train is intended to be received

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shall be set by operating the calling-on signal switch and route button. After a lapse of 120 seconds, the Calling-on signal clears i.e. a Yellow light glows at the concerned Calling-on signal on the panel.

15.1 CALLING-ON COUNTERS:

The calling-on signal counters (UP & DN) provided on the panel for UP & DN calling-on signals separately which register a consecutive higher number every time 'CALLING-ON' signal is taken off. The Station Master must record the last number registered on the counter while taking over /handing over duty.

16.0 SHUNTING:

For shunting SH15 and SH-16 are provided in the yard for shunting in desired direction. The particular route on which it is intended to do shunting is to be set by operating the desired points individually from the panel or by pressing the shunt signal switch and required route button simultaneously for 2-3 seconds. When the route is set and locked correctly white strip of lights will appear on the route and concerned shunt signal shall display 'OFF' aspect.

17.0 LOCKING OF RELAY ROOM:

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

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

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

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

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

In case of failure of any interlocking gear at the station, the failure report should be communicated by the Station Master on duty through a memo to the Sectional Maintainer and the Signal Engineer of the Section and others as per G& SR 3.51.04 and 3.68.04 and document all such transactions.

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19.1 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

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

19.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

After receipt of this information, the sectional maintainer shall attend to the failure after giving a disconnection memo. After rectification of the fault the sectional maintainer shall give a reconnection memo detailing rectification. Thereafter the Station Master on duty shall personally check the defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective gear in terms of SR 3.64.04 (c) and (d).

20. PROCEDURE FOR CARRYING OUT PLANNED MAINTANANCE WORK:

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

21.0 SUSPENSION OF LAST STOP SIGNALS:

21.1 When the Block Instrument is suspended with its handle in 'TRAIN GOING TO' position for whatever reason, the concerned Last Stop Signals controlled by the Block Instrument must be treated as suspended and trains shall be worked on PLCT
21.2 The Station Master on duty shall not grant LINE CLEAR unless he has ensured that the lamps of fixed signals which apply to the trains are glowing. If the Signal Lights are not glowing the Station Master on duty shall before giving LINE CLEAR shall initiate action in accordance with the procedure prescribed in GR 3.68 to 3.71 and relevant SR's vide GR 3.49(4).

22. SIGNAL LIGHTS:

The station Master on duty must ensure from panel board that all the signal lights are glowing properly and brightly. This fact must be recorded in the Diary under a separate entry and confirm to the section controller on duty.

23. CORRECTING TIME IN STATION CLOCK:

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

24. TELECOMMUNICATIONS:

- (a) Telephone attached to Token less Block Instruments is connected to adjacent stations on either side.
- (b) Hot line Telephone communication is provided between adjacent stations.

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- (c) The station is connected to KRPU-RGDA control Circuit.
- (d) Telephone communication is provided between Station Master on duty to UP CH locations and to DN CH Locations.
- (e) 25w VHF set is provided at the station for emergency communication.
- (f) BSNL telephone is provided at this station.

25.0 DETAILS OF OPERATION & CANCELLATION OF TLBI:

25.1 SEQUENTIAL OPERATION FOR SENDING A DN/UP TRAIN FROM KAKIRGUMA STATION TO LAKSMIPUR ROAD/BAIGUDA STATION:

- (a) SM/KKGM shall press PB1 button and transmits bell code signal to SM LKMR/BGUA.
- (b) SM LKMR/BGUA shall acknowledge and also advises SM/KKGM over telephone of his willingness and repeating the bell code signal for "IS LINE CLEAR".
- (c) SM/KKGM shall press PB1 and PB2 push buttons.
- (d) SM/LKMR/BGUA turns block handle to TCF position.
- (e) SM/LKMR/BGUA now presses PB1 and PB2 push buttons.
- (f) SM/KKGM turns block handle to TGT position.
- (g) SM/KKGM clears last stop signal and train departs from KKGM station. On passing the last stop signal, the FV track circuit is operated, last stop signal also automatically restored to 'ON' position. The last stop signal control switch is then restored to normal. Train On Line indication appears at KKGM station and a buzzer sounds.
- (h) Simultaneously at station LKMR/BGUA, Train On Line indication appears and a buzzer sounds as soon as the train enters the block section. SM LKMR/BGUA acknowledges the train entering signal by pressing PB1 and prolongs the last beat.
- (i) Buzzers at KKGM station and LKMR/BGUA stop sounding with TOL indications at both stations at both stations persists.
- (j) SM LKMR/BGUA takes off reception signals. Train passing the block clearance point, operates last vehicle track circuit and causes a buzzer to sound continuously. Home signal is automatically restored to position. After ensuring complete arrival of train SM LKMR/BGUA puts back Home signal switch to normal. When home signal switch is put back to normal, the train arrival buzzer stops sounding. SM LKMR/BGUA then transmits Train out of section signal by pressing PB1 and PB2.
- (k) SM/KKGM turns block handle to Normal (Line closed) position. 'Train On Line' indication disappears at KKGM. SM/KKGM now acknowledges the signal by pressing PB1 and PB2 buttons simultaneously.
- (l) SM LKMR/BGUA turns block handle to normal (Line closed position). 'Train on Line' indication also disappears at LKMR/BGUA. Both instruments are now brought to normal.

25.2 CANCELLATION OF LINE CLEAR BEFORE ALLOWING A TRAIN INTO THE BLOCK SECTION TOWARDS LKMR/BGUA:

- (a) SM/KKGM shall press PB1 button and transmits bell code signal to SM LKMR/BGUA.
- (b) SM LKMR/BGUA shall acknowledge and also advises SM/KKGM over telephone of his willingness and repeating the bell code signal for 'IS LINE CLEAR'.
- (c) SM/KKGM shall press PB1 and PB2 buttons.
- (d) SM LKMR/BGUA turns block handle to TCF position.

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- (e) SM LKMR/BGUA now presses PB1 and PB2 buttons.
- (f) SM/KKGM turns his block handle to TGT position.
- (g) SM/KKGM informs SM LKMR/BGUA that LC obtained is to be cancelled and operates switch S1. Immediately LSS becomes 'ON' with LSS control in reverse. After normalizing LSS control, S1 counter registers a higher number. After a delay of 120 seconds, time release indicator changes from white to green. SM/KKGM puts S1 switch to normal and presses PB1 and PB2 buttons.
- (h) SM LKMR/BGUA on receipt of the code signals turns block handle to normal position during the prolonged beat and in turn presses PB1 and PB2 buttons to send the acknowledgement.
- (i) SM/KKGM now turns block handle to normal position.
Both the instruments are now brought to normal.

25.3 CLOSING THE BLOCK SECTION WHEN A TRAIN PUSHES BACK TO KKGM STATION FROM WHICH IT HAD LEFT:

- (a) SM/KKGM shall press PB1 button and transmits bell code signal to SM LKMR/BGUA.
- (b) SM LKMR/BGUA shall acknowledge and also advises SM/KKGM over telephone of his willingness and repeating the bell code signal for 'IS LINE CLEAR'.
- © SM/KKGM shall press PB1 and PB2 buttons.
- (d) SM LKMR/BGUA turns his block handle to TCF position.
- (e) SM LKMR/BGUA now presses PB1 and PB2 buttons.
- (f) SM/KKGM turns his block handle to TGT position and clears last stop signal.
- (g) The Loco pilot of the train after entering into the block section and completion of job, returns to KKGM and stops at the Home signal.
- (h) On getting the information about the sent train is returning back to KKGM, SM/KKGM operates switch S2 and take off Home signal. S2 counter registers one higher number. Train on passing Home signal, operates last vehicle track circuits. A buzzer sounds at KKGM which stops when Home signal switch is put back to normal. Home signal is automatically put back to 'ON' position. After ensuring complete arrival of the train, SM/KKGM presses PB1 and PB2 buttons.
- (i) SM LKMR/BGUA turns block handle to normal (Line closed) and then presses PB1 and PB2 push buttons simultaneously.
- (j) SM/KKGM turns block handle to normal position.
Both the instruments are now brought to normal.

25.4 SEQUENCE OF OPERATION FOR RECEIVING DN/UP TRAIN FROM LKMR/BGUA:

The operations which are to be carried out at LKMR/BGUA for receiving DN/UP train from KKGM station, the same operations shall be carried out by SM/ KKGM for receiving DN/UP train.

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

-NIL-

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APPENDIX 'D'**DUTIES TO BE PERFORMED BY THE STAFF AT KAKIRIGUMA STATION:****1. Dy. STATION SUPERINTENDENT (Dy.SS):**

He is rostered for 8 hours of train passing duties. He is responsible for the general and satisfactory working of the station and for the efficient discharge of duties by staff working under him. He shall keep all Rule Books, Registers, Files and Documents neat and up to date. He shall ensure that all equipments, apparatus and instruments including signaling & interlocking gears and fittings are kept clean and oiled by the S&T Officials. His special attention is drawn to Chapter-II of G&SR and GR 5.01 to 5.08 with relevant SRs and O.M Chapter XXII. He shall follow the instructions laid down in SR 3.68.01(c) & (d) and SR 14.07.01 and BWM 2.09 (e). He shall promptly attend to accidents and report them. He shall supervise the work of safe working staff and conduct night inspections and report lapses of staff working under him.

2. STATION MASTER:

He is responsible for trains passing during his shift. He shall promptly bring to the notice of Dy.SS all irregularities and accidents in course of his shift duties. During the absence of Dy.SS, the duties of the Station Manager will devolve on him. He shall follow SR 3.68.01 (c) & (d), SR 14.07.01 and OM Chapter XXII. His special attention is drawn to Chapter-II of G&SR 1976 and GR 5.01 to 5.08 with relevant SRs. As an assistant Dy.SS, he shall carry out the instructions given to him by the Dy.SS.

3. TOKEN PORTER :

He shall work under the orders of Dy.SS/SM on duty. He shall couple and uncouple vehicles under the supervision of Dy.SS/SM/Guard. He shall operate ground lever/levers clamp and padlock the necessary points for shunting operations. He shall watch and guard the packages and other Railway property lying in the Station premises. He shall be through of displaying hand signals. He shall report any irregularities coming to his notice. He shall do loading and unloading of parcels, smalls and Guard's boxes. He shall do piloting IN and OUT. He shall deliver any official message to the proper person/office. He shall carryout any other duties entrusted to him by the Station Master on duty. He will relight the BSLB lamp during night.

4. SAFAIWALA:

He shall attend to the sanitation of the Railway premises including SM's Office, Platform, Staff Quarters, Latrines and cleaning of drainages etc. He shall carry out any work entrusted to him by the Station Master on duty.

N.B: All staff while on duty should be in proper uniform and follow the rosters issued by Sr.DPO/WAT/E.Co.Rly. from time to time.

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

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

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

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**APPENDIX 'F' TO STATION WORKING RULES OF KAKIRIGUMA
STATION:**

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

---NIL----

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APPENDIX- 'G'

KAKIRIGUMA STATION

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS:

NOT APPLICABLE

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