

**EAST COAST RAILWAY**  
**WALTAIR DIVISION**

No.WTF/5/SWR/KRDL

Date of issue:

Date brought into force:

Ref.Lr.No.2000/Safety (A&amp;R)/19/36 of Rly. Board dt.27.10.05.

**STATION WORKING RULES OF KIRANDUL STATION**  
**(BROAD GAUGE)**

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

**1.0 STATION WORKING RULES DIAGRAM:**

- i) Station Working Rule Diagram No. : SI 10387 ALT 'B'  
ii) CSTE/E.Co.Rly/DRG No. : SI 10387 ALT 'B'  
iii) Date up which corrected :

**2.0 DESCRIPTION OF STATION:**

**2.1 a) GENERAL (LOCATION):**

i)	Name of the Station	:	KIRANDUL
ii)	Class of Station	:	'B' class (Terminal)
iii)	Section	:	Koraput – Kirandul
iv)	Double/Single line	:	Single Line
v)	Electrified/non electrified	:	Electrified
vi)	Guage BG/MG/NG	:	BG
vii)	Railway	:	East Coast Railway
viii)	Route	:	'D' Spl.
ix)	Situated at KM	:	444.789 KM
x)	From	:	Kottavalasa
xi)	No. of Cabins	:	1 end cabin at east end with 72 levers.

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

a)	Adjacent block Station	Distance	Direction
	BACHELI	8.229 KM	East
	West end extends into loading neck and terminates at dead end.		

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- b) Provision of IBS : Nil
- c) Automatic Signals : Nil
- d) DK Stations/ Outlying Sidings : Nil

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

Between Stations	The Point from which the “Block Section” Commences	The Point at which the “Block Section” ends.
KRDL-BCHL	Dn Advanced Starter No.65 of KRDL	Up Advanced Starter of BCHL

**2.4 GRADIENTS IF ANY**

Gradients from the centre of the Station Building towards BCHL

Sl.No	Chainage		Interdistance	Gradient
	From	To		
1.	0.00 M	1330 M	1330 M	1 in 400 Falling
2.	1330 M	3509 M	2179 M	1 in 80 Falling
3.	3509 M	Into Section		Level

Gradients from the centre of the station building towards West side of yard.

Sl.No	Chainage		Interdistance	Gradient
	From	To		
1.	0.00 M	1397 M	1397 M	1 in 400 Raising

**2.5 LAYOUT:**

A)	a)	Number of Running Lines	:	12 (Twelve)
	b)	Good Siding/Sidings	:	10 (ten) Sidings
	c)	Platforms	:	One High level passenger platform on line no 1 (241 M x 5.9 M)

**B) DESCRIPTION OF SIDINGS:**

**a). TEMPORARY ENGINEERING SIDING:**

The Temporary Engineering siding takes off from line No.1 (at East end of the yard) and is isolated at both ends. The entrance points and the corresponding derailing switches are coupled and operated by Arc levers provided at site at either end of the siding. Hand plunger locks fitted at the entrance points are unlocked by a key released from lever No.47 of cabin in its reverse position. When the lever No.47 is in

its reversed position the Up reception signal and Down departure signals including shunt signals for line No.1 will be held locked in their normal position.

**b). ARME SIDING:**

The ARME siding takes off from line No.2 (East end of the yard) and is isolated by derailing switches at both ends. The entrance points and the corresponding derailing switches are coupled and operated by Arc levers provided at site at either end of the siding. Hand plunger locks fitted at the entrance points are unlocked by two keys released from lever No.19 of cabin in its reversed position. When the lever No 19 is in its reversed the Up reception signals No.70 and shunt signals No.3, 60, 63 will be held locked in their normal position.

**c. SLIP SIDING:**

A slip siding is provided at East end of the yard and is normally set to slip siding. The slip siding point is required to be set to running lines for reception of an Up train or to dispatch of a down train or to perform shunting towards BCHL end when KRDL-BCHL section is 'blocked back'. The slip siding point is interlocked with the Tokenless Block Instrument of KRDL-BCHL section, so that it will not be possible to set the slip siding point to running line unless the handle of the block instrument is either in 'TRAIN GOING TO' or "TRAIN COMING FROM" positions. Similarly the handle of the block instrument cannot be made normal unless the slip siding point is set to its normal position i.e. to slip siding.

**d) ELECTRIC LOCO SIDING:**

The Electric Loco siding takes off from line No.12 towards BCHL end and is isolated by a derailing switch No.57, operated from cabin. The Electric Loco siding consists of 2 spurs with dead ends for locomotive repairs. A stop board is provided beyond the D.S. point No 57 (towards loco siding) with the inscription "Non Interlocked Territory" ahead, wait till piloted. All the points in this loco siding are hand operated.

**e). SICK LINE SIDING:**

The sick line siding takes off from South side shunting neck and terminates into dead ends. These siding consists of

1. Washout line for shunting engine and 4 other spurs for light repair, crane line and heavy repair line etc. are provided. These sidings are isolated by two derailing switches. The entrance points and the derailing switches are operated by a key released from lever No.50 in its reversed position, when the lever No.50 is in its reversion the shunt position, when the lever No.50 is in its reversion the shunt signals No.63/64 will be held locked in its normal position. In addition to this, shunt signals Nos.2, 3, 4, 5, 6, 14 & 15 will be held locked in their normal positions when the route is set leading to the South side shunting neck. Succession key locking arrangement is

provided between the entrance point and the corresponding derailing switches.

**f). NORTH SIDE CRIPPLE LINES:**

The North side cripple lines (line No.14) takes off from North side shunting neck and is isolated by a derailing switch. The entrance point and the derailing switch is a crossover point operated by lever No.40 from the cabin. Lever No.40 in its reversed position shall lock shunt signal No.60 & 61 in its normal position.

**g). SOUTH SIDE CRIPPLE LINES:**

The South side cripple lines consist of two spurs (line No.16 & 17) takes off from South side shunting neck and is isolated by a derailing switch. Hand plunger lock fitted at the entrance point is unlocked by a key released from lever No.29 of cabin in its reverse position. When the lever No.29 is in its reverse position, shunt signals No.63 & 64 will be held locked in their normal position. When the route is set leading to South side shunting neck, shunt signal No.2, 3, 4, 5, 6, 14 & 15 will be held locked in their normal position.

**h). M/s. NMDC SIDING:**

The M/s. NMDC siding takes off from line No.4 at West end of the yard (towards loading neck) and terminates into a dead end and is isolated by a derailing switch. The entrance point is a hand operated point. Hand plunger lock fitted at the derailing switch is unlocked by key 'B' released from HKT in the goomty at site. This key 'B' is transmitted from cabin through HKT by a key released from lever No.70 in its normal position.

**i). MANUAL LOADING LINE:**

The manual loading line (line No.13) takes off from line No.12 (at KTV end of the yard) and is isolated by a derailing switch. The entrance point and corresponding derailing switch at this end is coupled and operated by an arc lever provided at site. Hand plunger lock fitted at the entrance point is unlocked by a key released from lever No.18 of cabin in its reversed position. When lever No.18 is in its reversed position, shunt signals No.12, 13, 15, 60, 61 & 64 will be held locked in their normal position shunt signals No.2, 3, 4, 5 & 6 also will be held locked in their normal position when the route is set leading to North side shunting neck. The West end of the siding is terminated into a dead end, the points at this end are hand operated points.

**2.5.1 RUNNING LINES DIRECTION OF MOVEMENT & HOLDING CAPACITY:**

Line No.1	Passenger loop	790 M	(CSL)
Line No.2	Reception line	732 M	(CSL)
Line No.3	Reception line	771 M	(CSL)
Line No.4	Engine line	805 M	(CSL)
Line No.5	Reception line	794 M	(CSL)
Line No.6	Reception line	795 M	(CSL)
Line No.7	Reception & Despatch	821 M	(CSL)
Line No.8	Despatch	652 M	(CSL)
Line No.9	Despatch	672 M	(CSL)
Line No.10	Engine line	673 M	(CSL)
Line No.11	Despatch	704 M	(CSL)
Line No.12	Despatch	594 M	(CSL)

**DIRECTION OF MOVEMENT:**

The trains coming from BCHL are Up trains. The trains proceeding towards BCHL are Dn Trains.

**2.5.2 NON RUNNING LINES AND THEIR CAPACITY:**

1.	Temporary Engg. siding	115 M
2.	Carriage washing line`	185 M
3.	ARME siding	187 M
4.	Slip siding	-
5.	Loco siding (Diesel)	-
6.	Sick line siding	3 lines of 210 M each and one line of 52 M
7.	North side cripple lines(L/14)	1- 180 M each
8.	South side cripple lines(L/16, L/17)	2 – 180 M each
9.	M/s. NMDC siding	
10.	Manual loading line	654 M
11.	NMDC Mallinger valley siding	Not shown in WRD

**2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT:**

A slip siding is provided towards BHNS end.

**2.6 LEVEL CROSSING GATES:**

Nil

**3.0 SYSTEM AND MEANS OF WORKING:**

a). Trains are worked under Absolute Block System in accordance with GR 8.01(1)(a)(c), 8.01(2)(b), 8.03(2)(b)(ii), 14.01 to 14.08, 14.10, 14.12, 14.13 and BWM Chapter-IV Part-II in either direction.

**b). BLOCK INSTRUMENTS:**

Daido type single line token-less block instruments is provided in the cabin for Block section KRDL-BCHL vide GR 14.01(a) and the instrument is of co-operative type. Block Telephone attached to respective block instrument for communication with SM BCHL.

**4.0 SYSTEM OF SIGNALLING AND INTERLOCKING:****4.1**

Standard of interlocking	Standard I
Type of signaling	MACLS
Operation of signals and points	The station is equipped with Multi Aspect Colour Light Signals and Standard-I interlocking with isolation. The aspects and indications of the MACLS is governed by SR 3.07(4) and 3.08(4)(b). There is an end cabin at east end of the yard for operating points and signals. SM is the incharge of the cabin.
Track Circuits	Track circuits are provided on line No 1, its points zone and at the approach of track at this station.

**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 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 handover 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 transaction shall be entered by the SM on duty in the Relay room Key Register vide OM 1.14.

**4.3 POWER SUPPLY:**

Normal power supply source is drawn from AT supply.

Standby power supply source is drawn from CGSEB local power supply.

**5.0 TELECOMMUNICATIONS:**

- i) Telephone attached to the block instrument is connected to adjacent block station (in cabin)
- ii) Hot line telephone between the two adjacent block stations (in cabin)
- iii) The station is connected to WAT-KRDL traction loco control circuit.
- iv) The station is connected to KRPU-KRDL control circuit (in station & cabin)
- v) The station is connected to KRPU-KRDL traction power control (in cabin)
- vi) 25Watts VHF sets.
- vii) Auto telephone provided.
- vii) BSNL telephone provided.

**5.1 ACTION IN THE EVENT OF FAILURE OF TELEPHONE COMMUNICATIONS:**

- a) During partial interruption of communication between the adjacent block stations SR 6.02.06 shall be observed.
- b) During total interruption of communication between the adjacent block stations SR 6.02.04 shall be observed.

**6.0 SYSTEM OF TRAIN WORKING:****6.1 DUTIES OF TRAIN WORKING STAFF:**

Movement of trains is regulated by the Section Controller on duty whose orders must be carried out provided they do not in any way contravene any G&SR, BWM, OM and SWR and any other safe working principles. In the event of suspension of control working the SM on duty shall work independently in conjunction with the Station Master's of the adjacent block stations and shall be responsible for reception/dispatch of trains. He shall ensure that preference is given to important trains without causing undue detention which occurs to other trains vide OM 2.14 & 2.24(a).

**6.1.1 TRAIN WORKING STAFF**

Station Manager	1
SS /SM	1
Cabin Master	1
TPM/TP	2

Note: Staff deployed at the station shall follow the rosters issued by DPO/WAT from time to time.

The duties of operating staff at the Station are incorporated in Appendix 'D' in the SWR.

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

- a) Before receiving an up train, the clearance of route including over lap must be ensured by SM on duty in cabin.
- b) When a train is to be dispatched from the station yard, the SM on duty must ensure that the route between the starter signal and block section limits demarcates by the advance starter is clear of any obstruction and which also includes points, zones on the route before the train is dispatched.

**6.1.3 ASSURANCE OF 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 in token of having understood the contents. However, in the event of any corrections or modification in the SWR is involve a, the assurance of the all the staff who ever is entrusted the work of trains passing duty shall be obtained a fresh in the Assurance Register by the In-charge of the station before they are allowed to work vide SR 5.01.02.

**CONDITIONS FOR GRANTING LINE CLEAR:**

- a) The trains are worked under Absolute block system with single line working and MACLS vide GR 7.01(1)(a) & 8.01
- b) The conditions laid in GR. 8.01(1)(a) & (c), 8.01(2)(b), GR 8.03(2)(a)(b) & (ii), GR 14.10 & BWM Ch-IV Part-II must be complied with before the line is considered clear and line clear is granted to the block station in rear for a train by the SM on duty.
- c) **Principles to be observed before granting line clear:-**



- i) Line shall not be considered clear and line clear shall not be granted to any Up train unless whole of the last preceding Up train has arrived complete, Up Home signal put back to On and line is clear up to Dn Advanced Starter No.65.

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

**6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE:**

When a running line is blocked by a train stabled load, wagon, Vehicle or by a train which is to cross or give precedence to another or immediately after the arrival of the train at the station the points. It either end on single line section should be immediately set against the blocked line except when shunting or any other movement is required to be done immediately in that direction, on that line vide GR3.38(2) lever / block collars placed on the concerned lever / button of the blocked line vide SR 3.38(2), 5.04.01 and SR 3.51.06 shall be followed.

**6.2.1.2 RECEPTION OF TRAIN ON BLOCKED LINE:**

Admission of train on blocked line is governed by GR 5.09 and SR there to. Trains shall be piloted on the authority of Form T/509.

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

Whenever a train has to be received on a non signaling line GR 5.10 & SR 5.10.01 to be followed.

**6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:**

Despatch of trains from non signaled line is governed by GR 5.11 & SR 5.11.1

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

Despatch of train from line provided with common starter signal is governed by GR 5.12 & SR 5.12.01.

**6.2.1.6 ANY OTHER SPECIAL CONDITIONS SHOULD BE MENTIONED GIVING REFERENCE TO THE G&SR:**

**SPECIAL RESTRICTIONS:**

- i) Shunting in the face of an approaching train is prohibited vide GR 8.09 and relevant SRs.

- ii) Shunting shall not be permitted at KTV end of the yard unless the engine is towards the falling gradient vide SR 5.20.01(b).

**SPECIAL INSTRUCTIONS:**

- i) Ballast/Material train shall not be allowed to be pushed into block section KRDL-BCHL.

**6.3 CONDITIONS FOR TAKING ‘OFF’ APPROACH SIGNALS**

- i) For taking ‘OFF’ Home signal the conditions vide GR 3.40, SR 3.40.01 & SR 3.40.02 shall be observed.
- ii) The Home signal overlaps for admission of trains in terms of GR 3.40(1)(b) & 3.40(3)(b).
- iii) To take off the home signal for admission of a train the adequate distance as mentioned below shall be kept clear in terms of GR 3.40(3)(b) and SR thereto

**Clearance of Adequate distance.**

	<b>From</b>	<b>To</b>
Line No -1	Up Home Signal No 70/71	Upto stop board of R/1 at Terminate end
Line No – 2	Up Home Signal No 70/71	Upto stop board of R/2 at Terminate end
Line No – 3	Up Home Signal No 70/71	Upto stop board of R/3 at Terminate end
Line No – 4	Up Home Signal No 70/71	Upto stop board of R/4 at Terminate end
Line No – 5	Up Home Signal No 70/71	Upto stop board of R/5 at Terminate end
Line No – 6	Up Home Signal No 70/71	Upto stop board of R/6 at Terminate end
Line No – 7	Up Home Signal No 70/71	Upto stop board of R/7 at Terminate end
Line No – 8 & 9	Despatch line	
Line No - 10	Up Home Signal No 70/71	Upto stop board of R/10 at Terminate end
Line No - 11 & 12	Despatch Line	

**6.3.1 RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON':**

If in an emergency a Reception signal is required to put back to On position, SM on duty shall observe SR 3.36.02(b) and 14.01

**6.4 a) SIMULTANEOUS RECEPTION/DESPATCH, CROSSING AND PRECEDENCE OF TRAINS:**

Not applicable

**b) Crossing of trains:**

In addition to the normal position of reception and dispatch of trains the rules laid down in SR 3.51.06 and 3.47.02 shall be followed.

**6.5 COMPLETE ARRIVAL OF TRAINS:**

As soon as the train arrives, the SM on duty at cabin will satisfy himself that the train has arrived complete and standing clear of the fouling marks and shall ensure that the Last Vehicle arrived with Last Vehicle indication as prescribed under clause (a) and (b) of sub-rule (1) of GR 4.16 and he will put back the reception signal levers to normal position.

**6.6 DISPATCH OF TRAINS:**

a) Dispatch of trains shall be governed by GR. 3.42 and SRs thereto. SR 3.42.02(a) & SR 3.42.04(b), 3.42.04 and relevant provision of G&SR shall be followed. Despatch of trains from non signalled line is governed by GR 5.11.01.

b) The SM on duty in the cabin after getting the vacuum memo from the TXR for the DN train which is to be despatched shall obtain 'Line Clear' from BCHL.

**6.7 TRAINS RUNNING THROUGH:**

Not Applicable

**6.8 WORKING IN CASE OF FAILURE:**

**a) FAILURE OF TRACK CIRCUITS**

In the event of failure of track circuits, SM on duty shall ensure clearance of track circuited portion by sending TPM / TP to check before allowing movement of a

train

**b) FAILURE OF HOME SIGNAL:**

In the event of Home Signal becoming defective the station master shall advise the station in rear to issue authority on form NoT-369(1) vide SR 3.69.02.

If the station in rear is not advised train shall be admitted on the authority of T-369(3b) issued at the foot of the home signal observing the conditions vide SR 3.69.03

**c) FAILURE OF POINTS:**

In the event of failure of points SM on duty shall observe GR 3.77 and relevant SRs

**d) FAILURE OF SIGNALS**

In the event of failure of approach stop signals GR 3.69 & relevant SRs shall be observed. In the event of failure of departure stop signals GR 3.70 & SRs thereto shall be followed.

**e) FAILURE OF AXLE COUNTERS/AXLE COUNTER BLOCK:**

Not applicable.

**f) RECEPTION OF TRAINS ON OBSTRUCTED LINE/NON SIGNALLED LINE:**

GR 5.10 and relevant SRs to be followed.

**6.9 PROVISIONS FOR WORKING OF MOTOR TROLLIES / MATERIAL TROLLIES:**

- a) Motor trollies shall be worked as per GR 15.25 and SR thereto.
- b) Material lorries/Trollies/Lorries are to be run in track circuited area shall be worked vide SR 15.20.02.
- c) Material lorries shall work as per GR 15.27 and SR's thereto.

**7. BLOCKING OF LINE:**

- a) Whenever a running line is blocked by a train or a vehicle the SM on duty shall enter a clear remark in RED ink immediately in the TSR indicating time and number of running line on which vehicles are stabled or blocked. A record there of should be made in the station dairy also vide SR 5.25.01 (a)
- b) **Use of Lever Collars:-**

Lever collars must be placed on the concerned levers in cabin respectively controlling the blocked line vide SR 3.36.03(b) and SR 5.04.01 (a). Points either side of blocked line shall be set against as per the provision of SR 3.51.06.

c) **Loading and Unloading of Vehicles on Running Lines:-**

Loading and Unloading of vehicles on running lines is prohibited unless permitted by Sr.DOM vide SR 5.19.01.

d) **Securing of Vehicles:**

The rules laid down in GR 5.23, SR 5.23.07 and OM 7.08 shall be followed.

e) **Detaching of Vehicles on Running Lines:**

Detaching of vehicles on running lines is normally prohibited. Whenever any vehicles is detached on running stock shall be placed opposite to the SM's office as far as possible and shall be properly secured vide SR 5.23.01.

**8.0 SHUNTING:**

**8.1 GENERAL PRECAUTIONS :**

Shunting is governed by GR 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.19, 5.20 to 5.23, 8.05(2)(3), 8.06, 8.10, 8.11, 8.13 & 8.15 with relevant SRs and operating manual 7.01, 7.07, 7.08 shall be followed for any signaled movement. Physical verification of the clearance of the cross over points shall be ensured by the cabinman on duty.

**8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:**

Shunting in the face of an approaching train is prohibited vide GR 8.09.

**8.3 PROHIBITION OF SHUNTING - SPECIAL FEATURES:**

- a) Shunting in the face of an approaching train is prohibited vide SR 8.09.02(b)(i).
- b) Hand shunting is prohibited vide GR 5.20.
- c) Fly shunting is prohibited vide SR 5.21.01(c).
- d) Unless the engine is leading towards falling gradient shunting towards BCHL shall not be permitted.

**8.4 SHUNTING ON SINGLE LINE:**

- i) Within Station section: Shunting with in the station section shall be governed by GR 8.10.
- ii) Between last stop signal and opposite first stop signal shall be governed by GR 8.12.
- iii) Beyond opposite first stop signal shall be governed GR 8.13.
- iv) During failure of block instrument: In the event of failure of Block instrument before allowing any shunt movement SM on duty at both the adjacent stations concerned shall exchange messages of Block back and ensure no other movement is allowed into that station until the shunting is completed or cancelled. Line block label is hung on the block instrument concerned. Whenever possible lock the block instrument in such a way to prevent the operation of block instrument.

**8.5 SHUNTING ON DOUBLE LINE:**

Not Applicable

**8.6 SHUNTING IN THE SIDING TAKING OFF FROM STATION YARD / GOODS SHED:**

- i). The shunting in the siding taking OFF from the station yard shall be authorized by issuing T/806 clearly mentioning the limits upto which shunting is permitted as also the lines occupied in shunting. The relevant provisions of GR 5.14 and SRs thereto shall be meticulously followed for shunting operations in goods shed.

**ii). SHUNTING OPERATIONS & NON-SIGNALLED CROSSOVERS:**

All signalled movements of train or an engine shall be from one stop signal to the other end no half way movements are permitted. If such movements are unavoidable all the points involved in such movement shall be clamped and padlocked by the person incharge of the shunting operations and keys kept in his personal custody till the complete train/engine has passed over the points or other wise such movemens are cancelled.

**9. ABNORMAL CONDITIONS:**

- a) **RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITIONS.**

- i) During partial interruption of communication between two adjacent block stations, the trains are observing SR 6.02.06.
- ii) In the event of occupation of block section due to accident or obstruction the authority for the train to work upto 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 : Not applicable.
- vi) Failure of MTRC: Not applicable.
- b) **REPORTING FAILURE OF POINTS, TRACK CIRCUITS/AXLE COUNTERS AND INTERLOCKING.**
  - i) In the event of failure of points, signals, track circuits/axle counters and interlocking the SM on duty shall advice the concerned Maintainer through a memo and after rectification shall obtain memo to his effect. SR 3.51.04 and SR 3.77.01 shall be followed.
  - ii) The entries in the failure register to be done with message to the section controller.

**9.1 TOTAL FAILURE OF COMMUNICATIONS:**

In the event of total failure of communications between two adjacent block stations SR 6.02.04 shall be followed.

**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 TRAINS:**

- i) In the event of total failure of communications trains shall run on the authority to proceed without line clear in terms of SR 6.02.04.
- ii) In the event of necessity to send a train to assist the crippled train SR 6.02.05

shall be followed.

**10. VISIBILITY TEST OBJECT:**

- i) The light of advanced starter signal No-65 during day and night shall be the visibility test object vide GR 3.61(2)(b)(iii).
- ii) The SM on duty may at his discretion comply GR 3.61(1) & arrange to place detonators as mentioned there in and when required to do so.

**11. ESSENTIAL EQUIPMENT:**

The detailed list of essential equipment to be kept readily available for use at the station is mentioned in Appendix-E of the SWR.

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

- i) During thick/foggy or tempestuous weather when the visibility of signals impaired the SM on duty shall comply GR 3.61 and relevant SRs thereto in order to indicate to the Loco Pilots of approach trains, the locality of a signal. Fog signalman shall be a regular employee of the Railway. Substitute/casual labour shall not be utilised as Fog Signalmen vide SR 3.61.01(i).
- ii) SM shall explain the rules to work in the event of fog to the Fog Signalmen nominated and their signatures to be obtained in Station Detonator Register on Form No. OP/T 124 vide SR 3.61.01(m).
- iii) Position of stock of detonators/use/testing etc. are maintained in terms of GR 3.64 and SRs thereto.
- iv) Life span of detonators is 7 yrs from the date of manufacture.

**13. APPENDICES:**

Appendix 'A'	Working of level Crossing gates.
Appendix 'B'	System of signalling and interlocking and communication arrangements at the station.
Appendix 'C'	Anti Collision Device (Raksha Kavach).
Appendix 'D'	Duties of Train Passing Staff and Staff in each shift.
Appendix 'E'	List of Essential equipment provided at the Station.
Appendix 'F'	Rules for Working of DK stations, halts, IBH, IBS and outlying sidings.
Appendix 'G'	Rules for working of trains in electrified sections.
Appendix 'H'	Rules for working of private siding.



**CERTIFICATION**

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

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**APPENDIX 'A' TO STATION WORKING RULES OF KIRANDUL STATION**

**DETAILS OF LEVEL CROSSING GATES:**

Nil.

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**APPENDIX 'B'**

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

**1. BRIEF DESCRIPTION OF THE SIGNALLING & INTERLOCKING INSTALLATIONS:**

**1.1** This is a 'B' Class station with Standard-I interlocking (with isolation). There is an end cabin for operating points and signals at each end of the yard and the station is equipped with LED Signalling.

**1.2** Catch handle type lever machines (72 levers) with rod worked points and locks along with the levers for slots and key controls etc. are installed at the cabin. These levers shall operate points, point locks, slots, key controls and signals.

**2.0 POINTS AND LOCKS AND INTERLOCKING BETWEEN BLOCK INSTRUMENTS AND SIGNALS:**

Facing points are fitted with plunger type locks with lock bars and electrically detected by the relevant signals. The Up home signal, Down advanced starter signal governing block section must be in the normal position while handling the block instrument of the section KRDL-BCHL. The down advanced starter signal is controlled by the tokenless block instrument for section.

**3.0 SIGNAL INDICATORS IN THE CABINS:**

Every signal has got an indicator in the cabin to show whether it is burning or not.

**4.0 SLOT CONTROLS:**

Not Applicable

**5.0 TELECOMMUNICATIONS:**

- i) Telephone attached to the block instrument is connected to adjacent block station (in cabin)
- ii) Hot line telephone between the two adjacent block stations (in cabin)
- iii) The station is connected to WAT-KRDL traction loco control circuit.
- iv) The station is connected to KRPU-KRDL control circuit (in station & cabin)

- v) The station is connected to KRPU-KRDL traction power control (in cabin)
- vi) 25Watts VHF sets.
- vii) Auto telephone provided.
- vii) BSNL telephone provided.

## **6.0 TRACK CIRCUITS:**

No track circuits are provided at this station on the berthing portion of loop lines except Line No 1 or on Point zones or at the approach track. However, the following track circuits are provided.

- i) Line No 1 berthing track circuit as L1 T1, L1 T2 and L1 T3 and the clearance of the track circuit zone is proved in the UP Home Signal circuit of Line No1.
- ii) The portion between Up Home signal and fouling of point No 58 is track circuited as 58BT, 58AT , 67T and 65T. These track circuits are proved in circuits for automatic replacement of corresponding signals and for route holding.
- iii) The demarcation of track circuit portion is indicated on picture diagram provided in the cabin. LED indications are provided on the picture diagram of the cabin to indicate clearance or occupation of the Track circuits by GREEN and RED respectively.
- iv) Last vehicle track (LVT), first vehicle track (FVT) and track circuits on slip siding provided.

## **7.0 STATION MASTER'S SLIDE CONTROL MACHINE**

Not applicable.

## **8.0 SLOT CONTROL**

Not applicable.

## **9.0 SIDING CONTROL**

The details are shown in main SWR.

**10.0 DESCRIPTION OF LEVERS IN CABIN:**

There are 72 levers in the cabin (C.H. Type) and their individual function is detailed below.

LEVER NO.	FUNCTION
1	Down Starter for line No.1
2	Shunt signal from line No.1
3	Shunt signal from line No.2 and 3
4	Shunt signal from line No.4
5	Shunt signal from line No.5
6	Shunt signal from line No.6
7	Shunt signal from line No.8
8	Shunt signal from line No.9
9	Shunt signal from line No.10
10	Shunt signal from line No.11
11	Shunt signal from line No.12
12	Down common starter for line Nos.7, 8 & 9
13	Down common starter for line Nos.11, & 12
14	Common shunt signal from line Nos. 7, 8, 9 & 10
15	Common shunt signal from line Nos. 11 & 12
16	Controlling key for crossover between line Nos.1 & 3 (West end)
17	Shunt signal from line No.7
18	Controlling key for line No.13
19	Controlling key for ARME siding
20	Turn out point from line Nos.3 to 2
21	Lock bar on point No.20
22	Turn out point from line No. 4 to 6
23	Turn out point from Line No. 6 to 5
24	Lock bar on point No.22 and 23
25	Crossover point between line No.1 and line No.3 with derailing switch, on line No.3
26	Lock bar on point No.25 at East end
27	Lock bar on point No.28 at West end
28	Crossover point between shunting neck and line No.1
29	Controlling key for cripple lines 16 & 17
30	Crossover point between Main line and line No.4 with derailing switch and clearance bar on line No.4
31	Turn out point from line Nos.8 to 7
32	Turn out point from line Nos.12 to 11
33	Crossover point between Line No.10 and 12
34	Turn out point from line No.10 to 9
35	Turn out point from line No.10 to 8

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LEVER NO.	FUNCTION
36	Lock bar on point No.37
37	Turn out point connecting spur from line No.10
38	Lock bar on point No.39 (West end)
39	Crossover point between line No.10 & 12
40	Crossover point between line No.12 and cripple lines (with derailing switch on cripple lines)
41	Spare
42	Crossover point between main line and the line connecting line No.10
43	Turnout point connecting North shunting neck and line No.10
44	Spare
45	Lock bar on point No.42 West end
46	Lock bar on point No.42 East end
47	Control keys for Temporary Engg. siding
48	Lock bar on point No.49 at West end
49	Crossover point between Main line and South shunting neck
50	Controlling key for sick lines and washout line
51	Lock bar on point No.52 West end
52	Crossover point between main line and North shunting neck
53	Spare
54	Lock bar on point No.52 East end
55	Lock bar on point No.56 & 58 West end
56	Crossover points between main line and North shunting neck
57	Derailing switch isolating diesel shed/fuel store from North shunting neck
58	Crossover point between main line and South shunting neck
59	Spare
60	Shunting signals from loco lines to reception yard lines (lines No.1 to 6)
61	Shunt signal from loco lines to dispatch yard lines (line No7 to 12)
62	Spare
63	Shunt signal from South side shunting neck to reception yard lines (No.1 to 6)
64	Shunt signal from South side shunting neck to reception yard lines (No.7 to 12)
65	Down advanced starter
66	Lock bar on point No.67 which locks in both ways
67	Slip siding
68	Route lever (fitted with electric lever lock)
69	Spare
70	Home signal for line No.2, 3, 5 and 6
71	Home signal or line No.1
72	Spare

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**11.0 REPLACEMENT OF SIGNALS**

**11.1** Down advanced starter signal No 65 is controlled through 65T for automatic replacement.

**11.2** Up home signals No 70/71 of cabin are controlled through 65T for automatic replacement.

**12.0 STATION MASTER'S SLIDE CONTROL**

Not applicable.

**13.0 USE OF COLLARS VIDE SR 5.04.01(a):**

**13.1**

NO. OF LINES BLOCKED	LEVER COLLARS TO BE PLACED ON THE RESPECTIVE	
	HOME SIGNAL	POINTS
1	71	-
2	70	20 N
3	70	-
5	70	23 N
6	70	-

**13.2** The above chart shall be exhibited in the cabin.

**AUTOMATIC REPLACEMENT OF SIGNALS (AT CABIN):**

Down advanced starter signal No.65 is controlled through 65 T for automatic replacement.

Up home signals No.70/71 of cabin are controlled through 65 T for automatic replacement.

**14.0 MAINTENANCE ON S&T INSTALLATION AND ADHERENCE TO MAINTENANCE SCHEDULES:**

**14.1** The regular maintenance of the S&T installations and adherence to the schedules of maintenance as also to the mandatory schedules of testing of points, track circuits, signals, lever machines, ground frames and the associated interlocking apparatus i.e. cables etc. and finally the interlocking functional test is a must for the safe and satisfactory working of these installations at the station which shall be complied by the S&T department.

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**14.2 MAINTENANCE OF S&T INSTALLATION:**

The tests, checks and replacement etc. including overhauling shall confirm to the schedules of maintenance as indicated in the signal Engineering Manual as also in the correct instructions/circulars on the subject.

**15.0 PROCEDURE TO BE FOLLOWED IN CASE FAILURE OF SIGNALS AND INTERLOCKING INSTALLATIONS:**

**15.1** Whenever there is a failure of points, track circuits, signals or any other interlocking gear at the station which include slip siding etc. the failure report should be communicated by the Station Master on duty through a memo to the Sectional Maintainer and the Signal Inspector of the section along with others as per G&SR 3.51 and 3.68.04 and document all such transactions. Instructions contained in the divisional joint circulars No.WTG/1 dt.14-9-91 on the subject to be strictly followed.

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

However, before declaring signal as defective the setting of the point on the route to which it applies shall be inspected by the Station Master/Cabinman irrespective of the position of the switches, route levers, point levers and lock levers in terms of SR 3.68.01(c).

**15.3 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:**

It is only after receipt of this information the Sectional Maintainer (Electrical or Mechanical) shall attend to the failure after giving a disconnection memo.

After rectification of the fault, the Sectional Maintainer shall give a reconnection memo detailing the rectification and it is only after the Station Master on duty has personally checked this defective gear and is satisfied that it is in good and proper working order, he shall resume the normal working of the said defective gear vide SR 3.68.04(c)&(d).

**16.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:**

Whenever any normal maintenance or special works for heavy renewals etc. are involved, these works should be pre-planned by the S&T field staff and the inspector of the section should give to the SM in writing "advance intimation about this planned work in terms of G&SR 15.08.02(c)(ii).



**17.0 EMERGENCIES:**

Notwithstanding anything contained in the aforesaid para Nos.10.1, 10.2 and 11.0 when a gear is found to be defective and unsafe for passage of trains, the Signal and Telecom staff must at once suspend the working of that gear and the associated installations and issue a "Suspension Memo" explaining the seriousness of the defect or damage to the interlocking installation to the Station Master and take Station Master's acknowledgement. After this the usual practice of exchange of disconnection memo and reconnection memo can follow and the Station Master must promptly act on such messages and take adequate precaution treating the S&T installation is defective and pass trains over the defective interlocking gears according to extant instructions as contained in G&SR 3.77.

**18.0 LIGHTING OF SIGNAL LAMPS AND THEIR MAINTENANCE:**

**18.1** The Station Master on duty in each shift must ensure that all the lights are burning 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 the Divisional Safety Circular No.82/82 dt.3.5.82.

**19.0 CORRECTING TIME IN STATION CLOCK:**

**19.1** The Station Master shall set the time of his clock according to the time signal given by the Section Controller on duty at 16:00 hrs. every day according to G&SR 4.01.02.

**20.0 BASEMENT/RELAY ROOM KEY:**

**20.1** The basement/relay room is provided with double lock and one key is kept with maintainer and the other with station master on duty.

**20.2** The Station Master on duty shall ensure that the cabin basement/relay room key is given to the S&T maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by S&T staff immediately after completion of their work and document the same in the basement key/relay room key register maintained at the station according to SR 3.51.05. The S&T staff must mention in basement/relay room key register that they shall not interfere with safe passage of trains before taking the key.

**21.0 NORMAL POWER SUPPLY:**

**21.1** The station works on 230 volts single phase power supply. The normal power supply is from the Auxiliary transformers connected to OHE Traction distribution.

Standby power supply is from CGSEB.

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**21.2 MAINTENANCE OF POWER SUPPLY**

Normal power supply to the signaling and interlocking installations at this station is drawn from the traction power supply sources (at 230V – 50 Hz). Whenever traction power supply fails, the Station Master on duty has to operate the change-over-switch (provided in the cabin) connecting the power supply from the healthy source to the installation.

**21.3 LED SIGNAL FAILURE INDICATION (RED SIGNAL LAMP MUTTING BUTTON RED WITH WHITE DOT)**

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

**21.4** The Station Master must, however, maintain the record of the power failure either of the traction supply or local supply and he must promptly report the failure of any one or both the power sources immediately to the Section Controller and to the concerned electrical and S&T maintenance staff.

**22.0 SPECIAL PROVISIONS****21.1 SLIP SIDING:**

The slip siding point situated towards BCHL end of the yard, is operated by lever No.67. This point should always be kept in the normal position except for reception/dispatch of trains.

**22.2 ELECTRIC LEVER LOCK:**

Electric lever lock is fitted on lever No.68 for holding the route and this is controlled by short length track circuits. In case of track circuit failure, the lever gets locked in reverse position. In order to release this lever, a mechanical emergency time release is fitted in the cabin, it has a handle which is normally sealed. When the track circuit fails, the seal may be cut and the handle of mechanical release rotated to release the lever. This is achieved when “R” position of mechanical release coincides with the arrow mark and indicator shows ‘OFF’. Now the concerned lever No.68 is free to be made normal. After making the lever normal, the mechanical time release has to reset. This is correctly done when ‘N’ position of mechanical time release coincides with the arrow mark. The concerned SM should be immediately advised to attend to the failure. This procedure has to be repeated till the failure is rectified by ESM.

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The number of times the mechanical release is operated should be noted by the SM on duty who shall record it in the station diary as well as in the failure register. After the track circuit failure is rectified, the ESM will reseal the handle and restore normal working.

- 22.3** Lever No.70 is provided with a key 'B' which will be released when the lever No.70 is in normal position. This key will be electrical transmitted to goomty by means of HKT provided in the cabins as well as in goomty at West end. When the key is extracted from lever No.70 and inserted in HKT at the cabin and transmitted, two keys of key 'B' will be released at goomty. When the keys are inserted in the hand plunger locks at the points and turned the points for NMDC siding, cripple line, turnouts point of line No.4 at West end turn out point of line No.5 at West side. DS point on cripple line will be released and free for operations when the key is out from lever No.70 reception signals for line No.2, 3, 5 & 6 will be held locked in normal position.

**APPENDIX 'C' TO STATION WORKING RULES OF KIRANDUL STATION**

**ANTI COLLISION DEVICE (RAKSHA KAVACH)**

**Not applicable to this station**

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**Appendix 'D' to Station working Rules of KIRANDUAL Station****DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT**

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

**1. STATION MANAGER (SMR) / STATION SUPERINTENDENT:**

The SMR is the Chief Supervisor of the station having supervisory duties and is responsible for the general satisfactory working of the station and the efficient discharge of the duties by all the staff under him. His special attention is drawn to General Rule Chapter II. He is responsible for ensuring that:-

- a). The staff employed under him carryout their respective duties as prescribed to them and report irregularities to the competent authority.
- b). The staff are civic and helpful to all users of the Railway.
- c). All accidents are promptly reported, attended to and a comprehensive report with details i.e., sketch, statements of staff involved, fixing responsibility is sent within 48 hrs. of the occurrence to the Divl. Rly. Manager through the Sectional DTI.
- d). All rules prescribed in General and Subsidiary Rules, Train Signalling Rules, Operating Manual and other directives issued from time to time by competent authorities are followed by all concerned and that any irregularities in respect thereof are reported.
- e). All transportation records are checked daily in Dy.SS office as well as cabins.
- f). The BWM 2.09(e) complied with daily.
- g). The proper utilization of wagons placed in goods shed registration of indents and supply of wagons as per allotment is done.
- h). All equipment, apparatus, instruments including signal and interlocking gears and fittings are kept clean and all failures thereof are promptly reported to officers concerned for repairs, notice and action.
- i). All station earnings, periodical returns and statements etc., are sent in time by the staff responsible for them.

j). Station premises are kept clean and tidy.

**NOTE:**

In case of emergency he must be prepared to take up line clear duties.

**2. DEPUTY STATION SUPERINTENDENT/STATION MASTER :**

He is responsible for train passing during his shift. He shall promptly bring to the notice of SS all irregularities and accidents in course of his shift duties. During the absence of SS the duties of the Station Superintendent will devolve on him. He shall follow GR 3.49, SR 3.68.01(c) & (d), SR 14.07.01. His special attention is drawn to Chapter II of G&SR 1976 and SR 5.01 to 5.08 with relevant SRs. He shall carry out the instructions given to him by the SS.

**3. LEVERMAN 'A':**

He shall operate the levers of the points, locks and signals in proper sequence. He is responsible for keeping the lever frame and the cabin clean and tidy and shall not allow any unauthorized person into cabin vide GR 5.04(3). He will clean and polish the lever handles. He shall report defects and deficiencies if any immediately to the SS/Dy.SS on duty. He shall see that no unauthorized person is allowed to interfere with the levers and other apparatus. He shall use lever collars on the concerned levers whenever running lines are blocked irrespective of period of block vide SR 5.04.01(a). Whenever over head line staff are working on the electrified portion line under repairs shall protected in signal cabins by means of lever collars vide SR 5.04.01(b). He shall set clamp 'In' and 'Out' of trains. He will watch the movement of trains specially and report irregularities immediately to SM/ASM on duty vide SR 4.42.02. He shall carryout any other work entrusted to him by the SS/Dy.SS on duty. He shall not leave cabin while on duty until he is relieved by a competent person vide SR 3.5.1.01.

**4. TRAFFIC POINTSMAN / TOKEN PORTER:**

He shall work under the orders of SS/Dy.SS on duty. He shall couple and uncouple vehicles under the supervision of Dy.SS/Guard. He shall pick up and deliver line clear authority from and to Loco Pilot of the trains. He shall watch and guard the package and other Railway property lying in the station premises. He shall be thorough with the correct usage of displaying hand signals. He shall report any irregularities coming to his notice. He shall do loading and unloading of parcels and smalls. He shall do piloting 'IN' and 'OUT'. He shall deliver any official messages to the proper person/office. He shall carryout any other duties entrusted to him by SM/ASM.

**5. SAFAIWALA:**

He shall attend to the sanitation of the Railway premises including SM's office, platforms, latrines and cleaning of drainages etc. He shall carry out any work entrusted to him by the SS/Dy.SS on duty. His services may be utilized in casualties of Token Porter if he is qualified in all respects.

**N.B:**

All staff while on duty should be in proper uniform.

**APPENDIX 'E'****ESSENTIAL EQUIPMENT:**

A List of essential equipment is given below vide OM 20.04(11), which shall be maintained in good working order.

<b>SL.NO.</b>	<b>EQUIPMENT</b>	<b>STATION</b>	<b>CABIN</b>
1	Detonators	-	10
2	Hand Signal Lamps	-	10
3	Hand Signal Flags	-	10 Sets
4	Skids	-	6 Nos
5	Clamps with pad locks	-	16
6	Safety Chains with padlocks	-	10
7	Sand and Fire buckets	-	5
8	Lever collars	-	6
9	Power block lever collars	-	6
10	First Aid Box	1	-
11	Stretcher	1	-
12	Blanket	1	-
13	Minimax Fire Extinguisher(DCPT)	1	1



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

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

There is no provision at the station.

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**APPENDIX 'G' TO STATION WORKING RULES OF KIRANDUL STATION**

**Details of the working for 25 KV AC Traction of “KIRANDUL” station**

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