

STATION WORKING RULES OF DHANMANDAL STATION (BROAD GAUGE)

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NOTE:

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 rules in the above books.

1. STATION WORKING RULE DIAGRAM:

The Station Working Rule diagram No. SI/WRD/21007 based on CSTE/East Coast Railway's Signal Interlocking Plan No. SI/21007 ALT-C shows the complete layout of the yard, siding, normal position of points, the Signaling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This must be referred to for giving details of the point numbers and signals when reporting accidents.

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

DHANMANDAL (Code: DNM) is a Class 'B' six lined station on the Howrah – Visakhapatnam Double line electrified (BG) section of East Coast Railway. It is situated at Km. 373.185 from Howrah. The station is provided with Standard-II (R) Interlocking and equipped with Central Panel/VDU and Multiple Aspect Colour Light Signals. The station is worked under Absolute Block System of GR & SRs.

[Ref GR 8.01 (1) a, b, 2 (b), 8.03 (1), a, b, c (ii), 8.05 (2) (3), 8.06, 8.14, 8.15, 8.16, 14.08 (a) and Chapter-IV of Block Working Manual].

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

DHANMANDAL (Code: DNM) station is situated between BARITHENGARH (Code: BRTG) in the South side at a distance of 6.35 Km. and HARIDASPUR (Code: HDS) in the North side at a distance of 5.1 Km.

2.2.ii. IBH/IBS/OUT LYING SIDING/DK STATION:

BARITHENGARH (Code: BRTG) IBH is situated at a distance of 6.35 Km. from DNM in South side.

2.2.iii PASSENGER HALT:

NIL

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

Between Stations	The Point from which the 'Block Section' Commences	The Point at which the 'Block Section' end
HDS-DNM UP Direction.	UP Advanced Starter Signal No. 9 of HDS station.	UP Block Section Limit Board on Up line of DNM station.
HDS-DNM DN Direction.	DN Advanced Starter Signal No. 14 of DNM station.	DN BSLB on DN line at HDS.

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DNM-BRTG UP Direction.	UP Advanced Starter Signal No. 13 of DNM station.	400 mtrs. beyond the UP Home Signal No. 3 of BRTG station.
DNM-BRTG DN Direction.	DN Home Signal No. 2 of BRTG station.	DN Block Section Limit Board on DN line of DNM station.

b. **STATION SECTION:**

Station Section	The Point from which the 'Station Section' Commences.	The Point at which the 'Station Section' end.
UP Line	UP BSLB on Up Line at HWH end.	UP Advanced Starter Signal No. 13.
DN Line	DN BSLB on Down line at VSKP end.	DN Advanced Starter Signal No. 14.

c. **STATION LIMIT:**

i. **UP LINE**

From UP Inner Distant Signal to UP Advanced Starter Signal No. 13.

ii. **DN LINE**

From DN Inner Distant Signal to DN Advanced Starter Signal No. 14.

2.4 **GRADIENTS:**

a) **TOWARDS HWH END: (FOR BOTH UP & DN LINES)**

From	To	Gradient
CSB	CH: 300 M	LEVEL
CH: 300 M	CH:675 M	1 in 400 'F'
CH:675 M	Towards Block Section	1 in 260 'F'

b) **TOWARDS VSKP END (FOR BOTH UP & DN LINES):**

From	To	Gradient
CSB	CH: 240 M	LEVEL
CH: 240 M	CH: 945 M	1 in 400 'F'
CH: 945 M	CH:1209 M	1 in 150 'F'
CH: 1209 M	CH:2755 M	LEVEL

2.5 **LAYOUT:**

The station is provided with six running lines in the Main yard namely Common Loop Line (Line No. 1), DN Main Line (Line No. 3), UP Main Line (Line No. 2), Common Ore Lines-1, 2, 3 i.e. Line No. 4, 5, 6 and three non-running line i.e. Traffic Siding, Engineering Siding & Shunting Neck.

a. **TRAFFIC SIDING:**

The Traffic siding at VSKP end of the yard with both sides entries are taken off from line No.1 (Common loop). The entrance point & corresponding derailing switches are coupled & operated by an arc lever at site. Both the entrance points are fitted with hand plunger locks. These hand plunger locks are unlocked by Traffic siding keys 'A & B' & released by pressing the button No. 35 provided on the panel/VDU at SM's office. Reception signals (i.e. S1B, C1B in UP direction & S2B, C2B in DN direction, shunt signal No.18B & 15B and Starter signal No. 5 & 6 are electrically interlocked in such a way that these signals can not be taken 'off' if the Traffic siding keys are taken 'OUT' from the RKT provided at SM's Office.

ENGINEERING SIDING:

Engineering siding is provided in continuation of common loop at HWH end and isolated by derailing switch. The derailing switch is provided with a lock and key 'C' is obtainable from station by pressing the control button No. 34 on the panel board.

SHUNTING NECK:

The Shunting Neck siding at VSKP end is an extended portion of ore Line No. 3 and is isolated from ore line with derailing switch point No. 33. The train movement to and from will be controlled by pressing the concern shunt signal button and the relevant Route button provided on the panel/VDU.

b. PLAT FORMS:

- i) Platform No. 1 (Common loop) : L.L.P.F.
- ii) Platform No. 2 (UP Main) : R.L.P.F.
- iii) Platform No. 3 (DN Main) : R.L.P.F.
- iv) Platform (Ore Line No. 1) : H.L.

2.5.1. RUNNING LINES, DIRECTION OF MOVEMENT & HOLDING CAPACITY IN CSL:**DIRECTION OF TRAFFIC:**

The trains coming from HDS end are UP trains and the trains coming from BRTG end are DN trains.

Line No. 1	Common Loop	709 M	(Electrified).	From Starter to Starter
Line No. 2	UP Main	752 M	(Electrified).	From FB to Starter
Line No. 3	DN Main	950 M	(Electrified).	From FB to Starter
Line No. 4	Common loop	815 M	(Electrified).	From Starter to Starter
Line No. 5	Common loop	815 M	(Electrified)	From Starter to Starter
Line No. 6	Common loop	956 M	(Electrified)	From Starter to Starter

2.5.2. NON RUNNING LINES AND THEIR HOLDING CAPACITIES IN CSL:

1.	Traffic siding	136.36 M	(Electrified).
2.	Engineering siding	262.54 M	(Electrified)
3	Shunting Neck	145.73 M	(Electrified)

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT:

(a) The turnout points of Traffic siding are 1 in 8½.

(b) SPECIAL RESTRICTIONS:

- i) Shunting in the face of an approaching train is prohibited.
- ii) Hand shunting/Fly shunting/Loose shunting is prohibited at both ends of the yard.
- iii) The Over Run line must not be used for stabling of vehicle or harboring an engine with or without vehicle.

(c) SPECIAL INSTRUCTIONS:

i) Line No. 2 & 3 are Track Circuited whereas line No. 1, 4, 5 & 6 are Axle Countered. All point zones are Track Circuited/Axle Countered. In case of failure of Track Circuit/Axle Countered, the clearance of the concerned line/zone should be ensured physically before a train is piloted.

ii) From Home Signal to BSLB in both UP & DN direction are track circuited. In case of failure of Track Circuit, the train shall be piloted as per rule.

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- iii) Whenever a non-signal movement has taken place over a point operated by motor whether facing or trailing direction, SM on duty shall operate the points to normal and reverse setting for the purpose of setting the point. After clamping and padlocking of both the points and the indication is correctly available, further movement may be permitted over the points.
- iv) Movement of non insulated trolleys/motor trolleys/lorries are prohibited between DNM-HDS and DNM-BRTG sections vide SR 15.25.04 (c)
- v) In case of failure of Analog Axle Counter provided for monitoring block section at both ends, resetting should only be initiated for normalizing the Block instrument after ensuring complete arrival of train by physical verification of last vehicle by SM on duty.
- vi) Speed over turn outs on directional common loop line No. 1 is 30 KMPH as per CRS sanction No. 695 dtd. 24.09.2009.

2.6 LEVEL CROSSING:

- i) There is a 'C' class mid-section interlocked level crossing gate No. 161 situated at Km. 370/29-31 (UP) & 370/32-30 (DN) between HDS and DNM. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- ii) There is a 'C' class non-interlocked level crossing gate No. 162 situated at Km. 374/15-17 (UP) & 374/14-18 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- iii) There is a 'C' class non-interlocked level crossing gate No. 164 situated at Km. 376/9-11 (UP) & 376/12-10 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- iv) There is a 'C' class non-interlocked level crossing gate No. 165 situated at Km. 378/1-3 (UP) & 378/4-2 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at BRTG.

3 SYSTEM AND MEANS OF WORKING:

Trains are worked under Absolute Block System by means of Block Panel (with block proving by axle counter for double line) instrument for BRTG-DNM & DNM-HDS sections & worked in terms of Chapter-XIV of General & Subsidiary Rules and Chapter-IV of Block Working Manual. The Block Instruments shall be operated by Station Master on duty and keys of the Block Instruments shall remain under personal custody of SM on duty. The authority for the Loco Pilot to proceed is taking 'OFF' of the last stop signal. The Block Instruments are of non co-operative. [Refer Chapter-XIV of GR & SRs, Chapter-IV of Block Working Manual and GR 14.08 (a). Line clear is granted/obtained through telephone attached with the Block Instrument.

4 SYSTEM OF SIGNALLING AND INTERLOCKING:

- 4.1 This Station is provided with Standard-II (R) interlocking with Multiple Aspect Colour Light Signaling having maximum equipment of signals. The aspects and indications of the MACLS is governed by GR 3.08 (4) (b).

The Station is provided with central panel (SSI) interlocking and having no end cabins. All signals and points are electrically operated from the central panel/VDU provided at SM's Office. Calling-on signals are provided below Home signals (i.e. in both UP & DN directions) as per GR 3.13 (1) (b), (2) (3) (4) & (6) (b). Central panel with miniature push buttons or VDU are provided in the Station Master's office to electrically control all signals, points, siding key, etc,. The control panel is provided with SM's key which shall always remain in the personal custody of the Station Master on duty in terms of SR 3.36.03 (a).

A two-position switch is provided on the control panel through which SM on duty can select the mode of operation (i.e. from panel or VDU)

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(The details of stand by operation from VDU is given under APPENDIX-'B-1')

(a) **CRANK HANDLE:**

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

<u>Crank Handle</u>	<u>Control Points</u>
CH – 1	21, 22
CH – 2	24, 27
CH – 3	23, 31
CH – 4	25, 26, 29, 30, 33
CH – 5	28, 32

CH – 1 to CH – 5 are crank handle keys and are normally locked in RKT and are electrically interlocked with signals. The Crank Handle Key is inserted in the point machine to unlock Crank Handle operation and to facilitate insertion of Crank handle in the point machine. The Crank handle is normally kept in a locked glass fronted wooden box in panel room and the key is with the SM on duty. This Crank handle is to be taken along with the CH Key for manual operation of points. In order to enable the manual operation of motor operated points due to failure, nominated Crank handle key provided at station may be taken out for manual operation of points mechanism of motor at site. Before taking out the Crank handle key SS/SM on duty must make an entry in Crank handle Register detailing the purpose of use of Crank handle as laid down in Para 20.06 of Operating Manual. The failure of motor operated points must be ensured by physical checking at site that there is no obstruction. An emergency Crank handle Register must be maintained in prescribed proforma (detail in Appendix-'B').

(b) **TAKING OFF CALLING-ON SIGNAL:**

Miniature Colour light Calling-on Signal is provided below the UP and DN Home Signals and DN Starter Signals in terms of SR 3.13 (6) (b). A Calling-on-signal shows no light when 'ON' and when taken 'OFF'; it shows miniature 'Yellow' light. 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 provided in rear of the signal. When a train occupies the track circuit, a 'RED' light strip will appear in the panel. The particular route on which train is intended to be received shall be set by operating the panel push button and group button or by signal and route button or by crank handling in the event of failure of operation of points through panel. After the route is set, the Calling-on Signal button shall be pressed simultaneously along with concerned route button for 2-3 seconds and released. 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.

NOTE:

SM on duty is to ensure that no through signals are given while receiving a train on Calling-on.

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[c] SHUNT SIGNALS:

Shunt 7, 9, 11 provided below Starter signal No. 7, 9, 11 and back shunt signal No. 15 A/B/C/D/E/F, 16 A/B/C and 18 A/B/C/D/E/F are provided for shunting purposes.

[d] EMERGENCY CROSS OVER:

Emergency cross over is provided at each end of the yard.

[e] L.C. GATE OPERATION:

Details described in Appendix-'A'.

[f] EMERGENCY POINT OPERATION (BLACK WITH RED DOT):

Emergency point operation facility is provided to operate the point from the panel in case of failure of point controlling track circuit/axle counter. If such operation is necessary, the SM on duty, after ensuring that no vehicle is standing on the concerned point track circuit/axle counter shall press the emergency point operation button along with relevant point button simultaneously. Then retaining point button pressed emergency point button to be released and the point group normal button or point group reverse button is to be pressed for operating the point to 'NORMAL' or 'REVERSE'. All such operations will be registered in the emergency point operation counter. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose.

[g] 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.

[h] EMERGENCY ROUTE RELEASE INDICATION (WHITE) EMERGENCY ROUTE RELEASE BUTTON (WHITE WITH RED DOT):

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 simultaneously pressing the signal cancellation button and the concerned signal button. After this first the emergency route release button (white with red dot) positioned in the top of panel to be pressed and subsequently the concerned signal button is to be pressed releasing the emergency route release button. A White light will flash indicating that the timer is working. After 120 seconds, the White light along with the White strip of light will disappear suggesting the route has been released. In case the route illumination (white strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case the concerned S&T staff should be advised immediately to get the emergency route release button sealed after rectification of fault if any.

Each operation of emergency cancellation of route is recorded in the emergency route release counter register by registering the next higher number. All such operations and the new number should be recorded in the station diary and in the train signal register.

TRACK CIRCUITS:

Both UP & DN main lines are Track Circuited between fouling marks. Point Zones are also Track Circuited except Zone No. 29/30 & 23/25/26. All the three ore lines & common loop line are Axle Countered between the fouling marks.

In addition there are (short length) track circuits near Advanced Starter Signals in both the directions and Home signal tracks are also provided. Calling-on signal (7 Rail length) track circuits are also provided in rear the Home signals in both directions. From last trailing

point/fouling mark to Advanced Starter Signal are also track circuited in both directions (i.e. 13AT & 14AT in UP and DN directions respectively). Indications for the above track circuits are available on panel at SM's office. White light on panel indicates route set and track clear and Red light indicates track occupied condition.

Normally, the panel is dark except for point and block section indication. The positions of running lines are indicated in the illuminated diagram in the Station Master's office. It shows "RED" when the line is occupied and "WHITE" when the route is set and the signal is cleared. The position of points at either end is also indicated in the illuminated diagram. Whenever a signal is cleared, the route set indication "WHITE" appears for the particular route set and as the train occupies the track circuit, the "WHITE" indication disappears and "RED" indication appears.

AXLE COUNTER:

- (i) Line No. 1, 4, 5, 6 & Point zone Nos. 29/30 & 23/25/26 are provided with Axle Countered to count the axle IN & OUT which indicates whether the said line/zone monitored by axle counter are cleared or occupied.
- (ii) **FOR SEC: BRTG-DNM:** A pair of analog axle counter is provided between BRTG-DNM on UP line one just beyond UP Advanced starter signal of DNM and another pair is on track circuit No. 3T1 i.e. 400 mtrs. beyond the UP home signal at BRTG. Similarly, a pair of analog axle counter is provided between BRTG-DNM on down line one just beyond DN Home Signal of BRTG and another pair is on track 2T1 i.e. beyond DN Home signal of DNM.
- (iii) **FOR SEC: DNM-HDS:** A pair of Analog Axle Counter is provided between DNM-HDS on Up line one just beyond Up advanced starter signal of HDS and another pair is on track 1T1 i.e. beyond the UP home signal of DNM. Similarly, a pair of Analog Axle Counter is provided between DNM-HDS on down line one just beyond DN Advanced Starter of DNM and another pair is on track 2T2 i.e. beyond DN Home signal of HDS.

The position of the Block section whether cleared or occupied are reflected in the panel diagram for section DNM-HDS & DNM-BRTG provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters in to the Block Section, "Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as Block Instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, Advanced Starter signal shall not come to OFF and the concerned instrument shall remain locked in last operated position.

A resetting arrangement for resumption of the system in case of failure of axle counter has been provided in the SM office of the adjacent Block stations after being assured by both the SM that the last vehicle has arrived complete at the receiving station by exchanging Private Number then resetting to be complied with. (Details of resetting procedure given in APPENDIX-'B' of this SWR)

NOTE:

Before taking off reception and dispatch signals for Up and Down directions the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all

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obstructions by observing the Track indication. The indication of track will exhibit Red Light when track is occupied and White light when track is clear. There will be no track indication when any route is not set.

(k) **STOP BOARDS:**

One stop board at the VSKP end of the station yard and One Stop Board at HWH end of the yard are provided. At VSKP end at end of DN Main line to demarcate DN Main line position up to which shunting can be performed (with SH-15C). At HWH end at end of up main line to demarcate up line position up to which shunting can be permitted with SH-18C.

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

The Relay room should be kept locked with two separate locks. The arrangement should be such that one key is kept with the on duty SM & the other key with the Signal Maintainer. Whenever required the SM shall handover the key to the maintainer with proper acknowledgement in the basement/ relay room key register. The maintainer on receipt of the key from the SM may use the same and the key in his custody to open the basement/ relay room by inserting the keys one after another separately into the earmark locks. After completion of the work, the relay room is to be locked using both the keys separately and designated key should be handed over to the SM. The details of transaction are to be properly recorded in the Basement/Relay Room Key Register maintained at the station and duly signed by the SM and maintainer respective.

4.3 **POWER SUPPLY:**

1. A changeover switch is provided in the Station Master's Office with the three power supplies viz. UP AT, DN AT and Local for changing the switch to the required supply position. A luminous indicator above the circuit breaker for each supply indicates the availability of the supply.
2. Normally the switch will be kept towards UP AT or DN AT position. Whenever power block is to be given on the line, the on duty SM must ascertain that power is available on the other AT. E.g.: If power block is to be given on the UP line, DN AT must be available and vice-versa.
3. In case of failure of one of the AT supply without any power block, the on duty SM. has to check whether the circuit breaker has tripped. (Three circuit breakers are provided in the changeover switch board, one for each supply and their normal position is down and when tripped it goes up) In case of failure of both AT supplies, the Local supply shall be utilized by operating the switch.

If the circuit breaker is tripping even after resetting, no attempt shall be made to hold it by any other mean and a message shall be given to the AEE and CTFO/PSI for prompt rectification.

4. Whenever there is a failure of power supply in one AT the SM shall take prompt action to inform to all concerned for the rectification. The SM himself during his daily checks shall test the availability of power supply on both ATs and make an entry in the Station Diary duly initiating action for rectification of failure, if any.
5. IPS (Integrated Power Supply) arrangement has been provided at the station to take care of the signaling system as well as to avoid blanking of signals in case of power failure.
In case of AT/GRIDCO Power failure the IPS takes care of the signaling system approximate for 6 to 8hrs.

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One Indication panel for monitoring of IPS voltage has been provided in SM Room. The Indication panel shall display the voltage of IPS as well as health of the IPS provided to operate signaling gears. Audio Visual alarm has been provided in the panel to guide on duty SM to take action in case of low voltage or no voltage or any defect in IPS is shown in the SM panel. Details indications and alarm have been described below:

SM INDICATION PANEL FOR IPS:

- Call S&T - Red indication
- Signal system shut down - Red indication
- Emergency start DG - Red indication
- Start DG - Red indication
- Stop DG - Green indication

To acknowledge the indication on panel two push buttons are provided. Besides this the panel also has digital display of IPS battery voltage.

Whenever alarm appears on the SM panel due to any fault in the IPS system or due to low battery voltage on duty shall acknowledge the alarm by pressing the push button provided on the panel. Pressing on the push button shall mute the buzzer but relevant indication will continue to show till the fault is rectified by S&T staff. After acknowledgement of the alarm on duty SM shall immediately inform S&T staff at station regarding the alarm.

5. **TELECOMMUNICATIONS:**

- a) The Station is connected to BHC-JKPR-NYG Control Circuit.
- b) Telephone attached to Block Panels for sections DNM-HDS and DNM-BRTG.
- c) Railway Auto Telephone is provided at the station.
- d) Telephone communication is provided between Station Master on duty to all Crank handle Locations.
- e) Telephone attached to L.C. Gate at Km. 370/29-31 (UP) & Km. 370/32-30 (DN), and 374/15-17 (UP) & Km. 374/18-14 (DN), Km. 376/9-11 (UP) & 376/12-10 (DN).
- f) BSNL phone is provided at this station.
- g) The station is connected to BHC-BRAG traction power control circuit.
- h) VHF set is provided at the station.

NOTE

1. For obtaining line clear VHF should be used as a last alternative and not as a sole means of communication.
2. VHF & Walkie-Talkie sets should not be used for unnecessary discussion with Loco Pilot/ Guards and any other staff.

6. **SYSTEM OF TRAIN WORKING:**

The movement of trains is controlled by Section controller on duty whose orders shall be carried out provided they don't contravene any General Rules, Subsidiary Rule and Station Working Rules, Block Working Manual, Operating Manual and other safe Working Instructions issued from time to time. In the event of suspension of control working, the SM on duty shall work independently in conjunction with the Station Master of adjoining block Stations and shall be responsible to ensure that there is no undue delay to train operation in general.

6.1 DUTIES OF TRAIN WORKING STAFF IN EACH SHIFT:

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

		<u>In each shift</u>
SS (In-charge)	1 (One)	in each day shift
SM/ASM	1 (One)	in each night shift
Traffic Pointsman	1 (One)	in each 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 Superintendent's office (details duties are given in APPENDIX-'D').

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

The Station Master on duty is responsible to ascertain the clearance of the nominated line between BSLB and advanced starter signal in each direction.

6.1.3 ASSURANCE OF THE STAFF IN THE ASSURANCE REGISTER:

All staff before taking up independent charge of their duties at this station shall make a written declaration in the Assurance Register that they have read the SWR thoroughly and understood the system of working in force at the station and must sign such declaration.

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

The SS is personally responsible for maintaining the Assurance Register and for obtaining declaration from the staff working under him. The Assurance Register must be maintained in two parts one for Group-'C' staff and other for Group-'D' staff & duplicate copy of the Assurance Register must be maintained and kept in the personal custody by the SS.

The declarations are to be renewed in the following cases:

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

6.1.4 USE OF PRIVATE NUMBER BOOKS AND IDENTIFICATION NUMBER SHEETS:

Sufficient private number books and identification number sheets in sealed covers shall always be kept in stock by SS, under lock and key by maintaining one register for this purpose.

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

Before granting line clear to a train, the SM on duty shall ensure that:

- (i) The whole of the last preceding train has arrived complete.
- (ii) All necessary signals have been put back to 'ON' behind the said train.

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- (iii) The line is clear up to the UP BSLB on UP Line for UP trains and up to DN BSLB on DN Line for DN trains.
- (iv) All signal lights pertaining to the train are burning properly.

NOTE:

- (i) If the light of the reception signal is found not burning, line clear shall not be granted for train till such time it is ensured that the concerned Loco Pilot is notified of the fact in writing by the Station Master of the station to which such line clear is to be granted.
- (ii) Before granting line clear to a DN Train, the SM on duty at DNM shall ensure the closure of the L.C. Gates at Km. 374/18-14 and Km. 376/12-10 from the gatemen on duties under exchange of private numbers separately.

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

NIL

6.2.1.1 **SETTING OF POINTS AGAINST BLOCK 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, the points in rear shall be set against the blocked line except when shunting or any other movement is required to be done on-that line. [Refer SR 3.51.06 (a)].

If all the lines at a station happen to be blocked, when line clear has been granted to a train, the point should be set for the line occupied by a stabled load or a Goods train.[Refer SR. 3.51.06 (b)].

The above precautions shall be taken in addition to the observance of other precautions. [Refer SR 5.04.01 & SR 5.23.01].

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

Whenever trains are to be admitted on an obstructed line the Calling-on signal may be taken off. If the Calling-on signal failed then the SM on duty shall authorize the on duty TPM with from T/509, indicating the reason for such admission the line number and the nature of obstruction on that line.

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

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

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

Before receiving a train on non-signaled line, the SM shall ensure that

- a. The train is brought to a stand at the first stop signal.
- b. The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
- c. All points over which the train has to pass are correctly set, the facing points and trailing points clamped and padlocked and
- d. The Loco Pilot is authorized to pass the approach stop signals at 'ON' through a written authority i.e. T/369 (3b). [Refer GR 5.10].

6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:

Whenever a train is to be dispatched from a non-signaled line, a starting order on form T-511 shall be given to the Loco Pilot to start from the non-signaled line. Before handing over the authority, the SM shall depute his pointsman at the foot of the concerned point. The TPM on duty shall clamp and padlock the same after setting the point in the desired direction under the supervision of SM on duty then after handing over the authority he shall show the proceed hand signal to the Loco Pilot. [Refer SR.5.11.1].

6.2.1.5 DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:
NIL**6.2.1.6 ANY OTHER SPECIAL CONDITIONS SHOULD BE MENTIONED:**

- a. For receiving UP & DN trains on line No. 1, 4, 5 & 6, the clearance of the Over Run line should be ensured.
- b. All running lines are track circuited/axle countered. In case of failure of track circuits/axle counter, the clearance of the nominated line has to be ensured physically before piloting 'IN' a train.

6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNALS:

The reception of trains is governed by GR 3.36, 3.38, 3.40, 3.47, 4.17 & SR 3.36.01, 3.36.02, 3.36.04, 3.42.02 (a) (iv), 3.42.03 & other relevant Rules of General and Subsidiary Rules, Block Working Manual and Station Working Rules. The SM on duty shall nominate a clear line not only up to the Starter but also for an adequate distance beyond it for reception of train.

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

If a signal once taken 'OFF' for reception/dispatch of a train, has to be, in an emergency put back to 'ON' In case of reception signal, the route over which the train would pass shall not be altered until after the train has come to stand unless the route has to be altered to avert an accident. In case of departure signal, before changing the points or allowing any other movements the "Authority to Proceed" if any, handed over to the Loco Pilot must be withdrawn and the Loco Pilot of the train concerned shall be advised of the change in writing and his acknowledgement will be obtained in a memo. [Refer SR 3.36.02 (a) & (b)]

6.4 SIMULTANEOUS RECEPTION/DESPACTH OF TRAINS:

The following simultaneous reception and dispatch facilities are provided at this station.

a.	Reception of an UP train on Line No. 1 (Common Loop).	Dispatch of an UP train from Line No. 2 or 4 or 5 or 6 OR Reception/Dispatch of a DN train on/from Line No. 3 or 4 or 5 or 6.
b.	Reception of an UP train on Line No. 2 (UP Main).	Reception/Dispatch of a DN train on/from Line No. 3 or 4 or 5 or 6.
c.	Reception of an UP train on Line No. 4 (Ore line No. 1).	Dispatch of an UP train from Line No. 1 or 2 OR Reception of a DN train on Line No. 1.
d.	Reception of an UP train on Line No. 5 (Ore line No. 2).	Dispatch of an UP train from Line No. 1 or 2 OR Reception of a DN train on Line No. 1.
e.	Reception of an UP train on Line No. 6 (Ore line No. 3).	Dispatch of an UP train from Line No. 1 or 2 OR Reception of a DN train on Line No. 1.
f.	Reception of a DN train on Line No. 1.	Dispatch of a DN train from Line No. 3 or 4 or 5 or 6 OR Reception of an UP train on Line No. 4 or 5 or 6.

g.	Reception of a DN train on Line No. 3.	Reception/Dispatch of an UP train on/from Line No. 1 or 2.
h.	Reception of a DN train on Line No. 4 (Ore line No. 1).	Dispatch of a DN train from Line No. 1 or 3 OR Reception/Dispatch of an UP train on/from Line No. 1 or 2.
i.	Reception of a DN train on Line No. 5 (Ore line No. 2).	Dispatch of a DN train from Line No. 1 or 3 OR Reception/Dispatch of an UP train on/from Line No. 1 or 2.
j.	Reception of a DN train on Line No. 6 (Ore line No. 3).	Dispatch of a DN train from Line No. 1 or 3 OR Reception/Dispatch of an UP train on/from Line No. 1 or 2.

ADEQUATE DISTANCE (SIGNAL OVERLAP):

To take 'OFF' the Home signals for admission of a train, the adequate distance (Over Lap) as mentioned below shall be kept clear. [Refer GR 3.40 and SR thereto].

CLEARANCE OF ADEQUATE DISTANCE (SIGNAL OVERLAP)					
Line No.	Nomenclature	For UP Trains		For DN Trains	
		From	To	From	To
1.	Common Loop	Starter signal No. 5	Far end of the Over Run Line OR Advanced Starter Signal No. 13 when crossover point No. 27 is reversed.	Starter Signal No. 6	Far end of Over Run Line with KL point No. 34 is open.
2.	UP Main Line	Starter signal No. 3	Advanced Starter Signal No. 13.	---	---
3.	DN Main Line	---	---	Starter Signal No. 4	Advanced Starter Signal No.14
4.	Ore line No. 1	Starter signal No. 7	DS No. 33, keeping it in open condition.	Starter Signal No. 8	Far end of Over Run Line OR DN Advanced Starter Signal No. 14.
5.	Ore line No. 2	Starter signal No. 9	DS No. 33, keeping it in open condition.	Starter Signal No. 10	Far end of Over Run Line OR DN Advanced Starter Signal No. 14.
6.	Ore line No. 3	Starter signal No. 11	DS No. 33, keeping it in open condition.	Starter Signal No. 12	Far end of Over Run Line OR DN Advanced Starter Signal No. 14.

6.4.1 RECEPTION OF TRAINS:

Before admitting a train on any line, it must be ensured that the correct route setting indication for the respective line shows "WHITE" indication in the Central Panel Diagram. To receive a train for which line clear is given, the SM on duty shall nominate a clear line in consultation with the section controller on duty. He shall personally satisfy himself that the nominated line is clear and free from all obstructions by verifying the track indication in the panel or by physical verification or the nominated route in case of failure of track circuit. He shall suspend all non isolated shunting and there after set the points of the nominated route

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by means of push button switches provided on the Control Panel/VDU. He shall then verify from the visual indication available in the panel that points are set to the desired route.

Unless the track circuit indication on the panel of the concerned line is clear, even with the other conditions satisfied the operation of panel button by the SM on duty will not permit the concerned Home Signal to be taken off. In such case the train can be admitted with calling on signal provided below Home Signal unless the first track circuit in rear of Home signal does not show "RED" indication.

After correct setting of points the SM on duty shall operate the concerned push button on the control panel for clearing the reception signal. He shall verify on the panel that the correct reception signal is cleared. Alternatively point operation and signal clearing shall be done by one operation by pressing signal button and route button. If for any reason after a clearing a signal it is required to put back the signals and after the route in terms of SR 3.36.02 a time delay of 2 minutes shall be observed before the points can be altered. Immediately on arrival of the train the points should be set to a clear line and reminder collars be used by the SM on duty on the concerned push button.

6.5 **COMPLETE ARRIVAL OF TRAIN:**

The entire block section between DNM-BRTG & DNM-HDS are monitored by Axle Counter system and the position of the block sections, whether occupied or clear is indicated in the panel board as well as block panel at SM's office. As soon as a train enters into that block section, the 'RED' indication appears in the block panel. After the whole train clears the block sections, 'GREEN' indication appears on the block panel. This confirms the complete arrival of train and the SM on duty shall give 'train out of block section' report on seeing the section clear indication (Green) on the block panel as well as control panel.

In case of failure of Axle Counter, the SM on duty shall obtain complete arrival certificate from the Guard of the train in the train Complete Arrival Register (T/1410) maintained at the station for stopping train. For through passing train, the SM on duty shall satisfy himself the complete arrival of the train by verification of the last vehicle indicator vide SR 4.16.04 that the train arrived complete.

If a train passes the station without confirming the Last Vehicle Indicator, then the SM on duty shall advise the Station in advance to stop the train to see the complete arrival of the train under exchange of private number and he need not withhold closing of Block section vide GR 4.17 (3). After obtaining confirmation about the complete arrival of the said train under exchange of private number he may send another train into the concerned block section.

In case a train passes incomplete, action shall be taken as per SR 4.17.02. The 'train out of block section' report shall be withheld to the station in rear until complete arrival certificate is received from the station in advance supported by a Private Numbers. Train passing on adjacent line in double line section shall be stopped and Guard and Loco Pilot shall be issued with Caution Order to proceed cautiously and stop short of any obstruction as per SR 4.17.03.

On occasions when Motor Trolley follows a train, the points shall not be altered until the following Motor Trolley is admitted on the same line. In the event of Motor Trolley delayed in the section, the SM on duty shall take action in terms of SR 15.05.03 (b) (vi).

6.6 DESPATCH OF TRAINS:

To dispatch a train, the Station master on duty having obtained line clear for that train, shall set the route for the outgoing train correctly and satisfy him by observing the visual indication on the panel board. He shall suspend all non-isolated shunting and the Station Master will ensure that the Level Crossing Gate is closed against road traffic and then shall take 'OFF' the concerned route Starter and Advanced Starter Signal. The 'OFF' aspect of the route starter and Advanced Starter is the authority to proceed into the block section. [Refer GR 3.38, 3.42, SR 3.36.04 (b), 3.42.04 and BWM 2.07.5 (a)]

The Station Master on duty shall watch the safe passage of the train with its last vehicle indicator. After the train passes the advanced starter complete, he shall send the train entering block section signal to the station in advance. If a train worked without Guard or Brakevan, the instruction laid down in Subsidiary Rules shall be followed. The level crossing gates shall remain closed against road traffic. [Refer SR 4.23.02 & 4.25.02]

NOTE

- (i) Before dispatching an UP train, the SM on duty shall ensure the closure of the L.C. Gates at Km. 374/15-17 & 376/9-11 from the gatemen on duties under exchange of Private Numbers separately.
- (ii) Before dispatching an UP train, the SM on duty shall ensure the closure of the L.C. Gate at Km. 378/1-3 from SM/BRTG under exchange of Private Number.

6.7 TRAINS RUNNING THROUGH:

The procedure detailed in Para 6.4 & 6.6 shall be observed. The Station Master is responsible to observe/watch the condition of the vehicles on a passing train and shall wave green hand signal horizontally until anything wrong is noticed on train. For this purpose the Station Master on duty shall stand in such a position that he sees a clear view of the passing train and that his hand signals can clearly be seen by the Loco Pilot and Guard of the train. [Refer GR 3.42, 4.17, 4.42 & 4.42.2]

He shall also depute his point man on duty to the other side for passing the train. The TPM on duty shall be responsible to observe/watch condition of the passing train and shall wave 'GREEN' hand signal horizontally until anything wrong is noticed on the train. If he notices anything which is unsafe for the passing train then he shall at once show danger hand signal and report 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. [Refer GR 4.17, SR 4.17.02 and 4.17.03]

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

In the event of failure of track circuit/ axle counter in the yard train shall be admitted into the yard after piloting 'IN'. Before piloting a train in to the yard the clearance of the track must be ensured by physical verification.

In the event of failure of track circuits in the advance of Advanced Starter and in the rear of Home signals then Lock and Block working will be remained suspended with the concerned adjacent stations till its rectification and trains shall be piloted 'IN'/'OUT' as the case may be.

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b. **AXLE COUNTER:**

In the event of failure of axle counter of concerned block section, initiation will be taken for resetting after ensuring the complete arrival of the train by either end of SM. After resetting, the first train will be piloted 'OUT' to the concerned Block section for normalizing the system of working. Details of operations involved in resetting of axle counter are given in AppX-'B'.

c. **BLOCK INSTRUMENT(S):**

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 GR 6.02.03 and SR 6.02.06].

During this period of time the authority will be T/369 (3b) with identification number and Private Number issued from the station in advance written both in figures and words.

d. **RECEPTION OF TRAIN ON OBSTRUCTED LINE:**

Whenever a train is admitted on an obstructed line G & SR 5.09 shall be followed.

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

Before receiving a train on non-signaled line, the SM shall ensure that

- i) The train is brought to a stand at the first stop signal.
- ii) The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
- iii) All points over which the train has to pass are correctly set & both, the facing and trailing end of the points are clamped and padlocked and
- iv) The Loco Pilot is authorized to pass the approach stop signals at 'ON' through a written authority i.e. T/369 (3b). [Refer GR 5.10].

f. **DEFECTIVE SIGNALS:**

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

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

g. **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Master irrespective of the position of the switches point laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01 (b)]

Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49 (4) and 3.68, 3.77]

h. **DEFFECTIVE INTERLOCKING:**

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

i. **DEFFECTIVE/DAMAGED POINTS:**

When any point fails to operate normally by the route setting operation or through the concerned point button through panel, it is inevitable to operate the points with crank handle. Station Master on duty shall personally ensure clamping and padlocking all facing and trailing points enroute. Crank handles are interlocked with signals and interlocking system. The CH push button (Blue) and group button (white with black dot) is provided at the top of the panel board. This button has two indications, viz., 'WHITE' and 'RED'. The 'WHITE' indication suggests that the crank handle key is in its interlocked position of the panel. This is called 'Crank Handle Key' 'IN' indication.

The 'RED' indication suggests that the crank handle key is locked and not free for extract from RKT. This is called 'Crank handle key locked' indication. The Crank Handle is normally kept in a locked glass fronted wooden box in panel room and the key is with SM on duty. This crank handle is Common to all points and is to be taken along with CH key for manual operation of point.

For extracting CH key from RKT SM has to press relevant CH button and group Trans button simultaneously, the white light besides the CH button starter flashing. After extraction of CH key from RKT at Location box flashing white light disappears. On extraction of CH key from RKT, the points in that particular group are in operation from the panel. After completion of point operation the CH key will be retransmitted to the station electrically by inserting the CH key in RKT at Location box and turned. The white flashing indication appears on the panel board. The flashing will be stopped and steady indication appears on pressing concerned CH button and group release button (white with black dot).

6.9 PROVISIONS FOR WORKING OF TROLLIES/ MOTOR TROLLIES/MATERIAL LORRIES ETC.:

Motor trolleys are to run in accordance with rules laid down in SRs. Material Lorries will work in accordance with SR. [Refer SR 15.25.03 to 15.25.07 & 4.30 of BWM]

- i) Trolleys, Motor Trolleys, Lorries which are not insulated, shall not be allowed to run except on Line clear.
- ii) Motor Trolleys/Tower Wagon/Material Lorries are not likely to actuate the Axle Counter correctly.
- iii) In all other respects the working of a light motor trolley shall conform to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley.

7.0 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 and the concerned berthing route button (UN OR UN1) and group "TRANS" button is to be pressed to inactivate the concerned route button. A RED flashing indication appears near the route button on panel/VDU. To activate the route button concerned route button along with the Group 'RELEASE' button is to be pressed. After route button is activated the flashing indication will disappear. And also reminders collars shall be placed on the concerned point push button controlling the blocked line. 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]

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 SM on duty shall be responsible to secure the vehicle/stable loads to prevent rolling down of vehicles and arrest obstruction and fouling. [Refer GR 5.23 & SR 5.23.01]

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, the reminder collars shall be used by the SM on duty on the push button concerned. [Refer SR 3.36.03 (b)]

ALTERATION OF A POINT TO A CLEAR LINE WHENEVER A RUNNING LINE IS BLOCKED:

- (a) When a running line is blocked by stable load, wagon, vehicles or by a train, which is to cross or to give precedence to another train or immediately after the arrival of a train at the station etc, the points at either end should immediately be set against the blocked line except when any shunting or any other movement is required to be done immediately in that direction on that line.
- (b) If all the lines at a station happen to be blocked, when "Line Clear" has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order, so that in case of any mishap, the chances of causalities are minimized. In case all the lines are occupied by passenger carrying trains, points should be set for a loop line to negotiate of which the speed of the incoming train would be reduced, which in turn would minimize the consequences/causalities. While doing so, points may be set for a loop occupied by a train, if any, whose engine is facing the direction of approach of the incoming train rather than for a loop occupied by a train whose passenger coach will in case of collision, receive the impact.

LOADING & UNLOADING OF VEHICLES ON RUNNING LINES:

Except small loading and unloading of vehicles on running line is prohibited unless permitted by DOM vide SR 5.19.01

8.0 SHUNTING:**8.1. GENERAL PRECUATIONS:**

Shunting will be carried out at the station in accordance with General Rule and relevant Subsidiary Rules and Block Working Manual. [Refer GR 5.13, 5.14, 5.16, 5.19, 5.20 to 5.23, 8.09 to 8.15]

The Guard/ SM/Traffic pointsman on duty is authorized to supervise shunting operation. Normally caution aspect of starter signals, Shunt signals provided below Starter signals and back shunt signals shall be used for shunting operations. The official supervising shunting shall ensure the correct setting, clamping and padlocking of points in case of non-signaling movements.

The SM on duty and the official supervising shunting shall co-operate with each other regarding shunting operations. Neither reception signals nor departure signals shall be taken 'OFF' unless the shunting is isolated and the path of incoming/outgoing train is free from obstructions. The over-run line may be used as shunting neck.

8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approaching train is prohibited.

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8.3 PROHIBITION OF SHUNTING SPECIAL FEATURE IF ANY:

Hand shunting/Fly shunting/Loose shunting is prohibited at both end of the yard.

8.4 SHUNTING OUTSIDE THE STATION SECTION:

- a. When line clear has been given, no shunting shall be permitted in the Block section in rear.
- b. Shunting or obstruction for any other purpose shall not be permitted in the Block section in rear unless it is clear and is blocked back.
- c. Shunting or obstruction for any other purpose shall not be permitted in the Block section in advance unless it is clear and is blocked forward vide GR 8.06 (3).

SHUNTING WITHIN STATION SECTION:

If necessary signals are kept at 'ON' shunting may be carried on within the station section but this shall be done only when there is no approaching train since shunting in face of an approaching train is prohibited at this station.

8.5. SHUNTING IN THE SIDING:

While shunting in the siding, it should be authorized by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in shunting. The relevant provisions in GR 5.14 and SR's thereto shall be meticulously followed for shunting operations.

TRAFFIC SIDING:

The Traffic siding at VSKP end of the yard with both sides entries are taken off from line No.1 (Common loop). The entrance point & corresponding derailing switches are coupled & operated by an arc lever at site. Both the entrance points are fitted with hand plunger locks. These hand plunger locks are unlocked by Traffic siding keys 'A & B' & released by pressing the button No. 35 provided on the panel/VDU at SM's office. Reception signals i.e. S1B, C1B in UP direction & S2B, C2B in DN direction, shunt signal No.18B & 15B and Starter signal No. 5 & 6 are electrically interlocked in such a way that these signals cannot be taken 'off' if the Traffic siding keys are taken 'OUT' from the RKT provided at SM's Office.

ENGINEERING SIDING:

Engineering siding is provided in continuation of common loop at HWH end and isolated by derailing switch. The derailing switch is provided with a lock and key 'C' is obtainable from station by pressing the control button No. 34 on the panel board.

SHUNTING NECK:

The Shunting Neck siding at VSKP end is an extended portion of ore Line No. 3 and is isolated from ore line with derailing switch point No. 33. The train movement to and from will be controlled by pressing the concern shunt signal button and the relevant Route button provided on the panel/VDU.

9.0 ABNORMAL CONDITION:**i. PARTIAL FAILURE:**

In the event of suspension of Lock and Block Instrument and during partial failure of other available means of communication, the procedures detailed below shall be followed for working of trains in different situations.

- A. Failure/Suspension of Block Instrument or Track Circuit or Axle Counters-
Line Clear shall be obtained on the Telephone attached to the Block Instrument exchanging ID number and supported by Private Number.
- B. Failure/Suspension of Block Instrument or Track Circuit or Axle Counters or telephone attached to the Block Instruments:
'Line Clear' shall be obtained on Railway auto phone or BSNL phone by exchanging Identification Number supported by a Private Number.

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C. Failure/Suspension of Block Instrument or Track Circuit or Axle counters or telephone attached to the Block Instruments or Railway auto phone or BSNL phone.
'Line Clear' shall be obtained on control phone by exchanging Identification Number supported by a Private Number.

D. Failure/Suspension of Block Instrument or Track Circuit or Axle counters or Telephone attached to the Block Instruments or Railway auto phone or BSNL phone or control phone.

'Line Clear' shall be obtained on the VHF sets by exchanging identification Number supported by a Private Number.

The authority to proceed for the Loco Pilot is T/369(3b) bearing identification Number and Private Number received from the station in advance written both in figure and words. [Refer SR 6.02.06 & Chapter-IV of BWM]

ii. **THE AUTHORITY TO PROCEED IN OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT:**

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

After sending a train on Block ticket, a following train shall not be dispatched in the same direction unless:

- (a) The previous block ticket is collected & cancelled, or
- (b) Necessary endorsement is given on the previous block ticket with the advise to wait at the site for a next train to follow, or
- (c) The previous train has met with an accident or has been disabled, or
- (d) The block ticket has been collected from the Loco Pilot of the previous train by the official in-charge at the site & kept in the personal custody & shall be kept until the arrival of the next train & such assurance is given over the telephone installed at the site quoting the serial number of the Block Ticket so collected.
- (e) SM will suspend the absolute block system of working and both SM's concerned should arrange for running of trains on the authority of Block Ticket.
- (f) SM at the dispatching end will hand over to the Loco Pilot the BLOCK TICKET as the authority, which shall include.
 - a. **Caution Order:** Existing speed restriction shall be indicated in the Caution Order portion. The speed restriction to 15 KMPH during clear visibility and 10 KMPH when visibility is obstructed shall be clearly indicated.
 - b. An authority to pass the stop signals at 'ON' position.
- (g) Before resumption of normal working a message between the SM's of the concerned station shall be exchanged with private number. [Refer SR 6.02.05 (d) (vi)].

The block ticket so issued must be collected by SM of either end with a certificate about the complete arrival of the train with its time and the section is clear of all obstructions from the Loco Pilot/Guard of the train and cancels it.

iii. **TRAINS DELAYED IN BLOCK SECTIONS:**

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

- iv. **Failure of Axle Counter Block/BPAC:** Procedure for working in case of failure of axle counter has been explained in preceding chapters.
- i. **Procedure for emergency operation of points by crank handle.**
 - a. The detailed procedure for emergency operation of points by Crank Handle of motor operated points is illustrated above of Main body.
 - b. Procedure for emergency operation of points with point zone axle counter/Track circuits failure and emergency route release. [GR 3.39 & GR 3.77].
 - 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.
 - d. Reporting of failure of points, Track circuits/axle counter or any interlocking- Whenever there is a failure of points, Track circuits/ axle counter or any interlocking gear at station, the failure should be reported by SM on duty to the concerned Signaling Maintenance Staff on duty responsible for attending to the failure and only after receipt of the written memo from the Signaling Maintainer for rectification of the fault. SM should restore the normal working.

The entries in failure registers are to be done with message to the Section Controller.

9.1 **TOTAL FAILURE OF COMMUNICATION:**

In the event of total failure of communications between DNM-BRTG and DNM-HDS i.e. when line clear cannot be obtained by any one of the following means stated in order of preference viz.

- A. Block Instruments, Track Circuits or Axle counters.
- B. Telephone attached to the Block Instruments.
- C. Fixed telephones such as Railway auto phones & BSNL phones.
- D. Control telephone.
- E. VHF sets.
- (i) Each train before being allowed into the Block Section should be stopped and the Guard and Loco Pilot of the train apprised of the situation.
- (ii) The SM shall give an authority (T/C 602) for working of trains during total interruption of communication on Double line section to the Loco Pilot of each train which shall include-
 - a) Authority to proceed without 'Line Clear'.
 - b) Authority to pass the Last Stop Signal at its "ON" position.
 - c) A caution order restricting the speed to 25KMPH by day when view ahead is clear and 10KMPH when view ahead is not clear.
- iii) No train shall be allowed to enter the Block Section until there is a clear interval of 30minutes between the train about to leave and the train, which has immediately proceeded.
- iv) Fixed signals except the last stop signal may be taken "OFF" for the dispatch of the train and for the reception of the train at the next block station and reception signals may be taken only after the train has been brought to a stand outside it.
- v) On arrival at the next block station the Loco Pilot shall hand over the authority to proceed without line clear to the SM on duty who will preserve the same for further inspection. Before resuming normal working when any means of communication is established. SM of either end must satisfy that there is no train in the block section. [Refer SR 6.02.03].

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

During temporary single line working, when one line is obstructed either between DNM-HDS and DNM-BYY, trains shall be worked as per the procedure as detailed below. Since BRTG is a 'C' class station, it shall be closed & temporarily single line working shall be introduced between DNM-BYY. [Refer SR 6.02.01]

- i) Before introducing single line working the SM on duty must satisfy that the line on which single line will be introduced is clear and free from all obstructions.
- ii) The Lock and Block instrument will be suspended.
- iii) The SM proposing single line working must issue a message with the cause of introduction of single line working, Line on which the single line will be introduced, Source of information about the clearance of the line on which single line will be introduced, Place of obstruction, restriction of speed, if any, assurance about keeping the last stop signal at 'ON' position if the train runs on right lines and in case of wrong line all signals are to be kept at 'ON' position, the number and the timings of last train which arrived or left the Block station issuing the message.
- iv) SM of the other end block section will acknowledge the message and confirm the same by a Private Number.
- v) After obtaining line clear for the train from the Advance station the Loco Pilot must be given the following documents.
 - a) An authority for TSL working on double line (T/D 602) indicating there in.
 - (i) The line on which single line is introduced.
 - (ii) The kilometerages of obstruction.
 - (iii) Any other speed restriction existing, in the section.
 - (iv) Endorsement to inform all Gang man and Gateman about the single line working (for the first train only).
 - (v) The speed of the first train to be restricted to 25 KMPH subject to other speed restriction.
 - (vi) An authority to pass the last stop signal at its 'ON' position. The approach stop signals at the station in advance may be taken "OFF". In case a train proceeding on wrong line, the train shall be piloted out and at the receiving station, the train shall be piloted 'IN', on the authority of T/369 (3b).

On being ensured that the obstructed line is clear of all obstructions, SM will resume normal working after exchanging message with the SM of the other concerned end supported by private number in consultation with the SCR on duty.

A goods train or an engine may be allowed on wrong line by blocking back the section without introducing single line working. [Refer SR. 6.02.05 (g)(i)].

Whenever total interruption of all communication occurs during single line working on double line the procedure detailed in GR should be followed [Refer SR 6.02.01].

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

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

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After sending a train a Block ticket, a following train shall not be dispatched in the same direction unless:

- (a) The previous block ticket is collected & cancelled, or.
- (b) Necessary endorsement is given on the previous block ticket with the advice to wait at the site for a next train to follow, or.
- (c) The previous train has met with an accident or has been disabled, or
- (d) The block ticket has been collected from the Loco Pilot of the previous train by the official in-charge at the site & kept in the personal custody & shall be kept until the arrival of the next train & such assurance is given over the telephone installed at the site quoting the serial number of the Block ticket so collected.
- (e) SM will suspend the absolute block system of working of both SM's concerned should arrange for running of trains on the authority of block ticket.
- (f) SM at the dispatching end will hand over to the Loco Pilot the BLOCK TICKET as the authority which shall include.
- (i) Caution Order: Existing speed restriction shall be indicated in the caution order portion. The speed restriction to 15Kmph during year visibility and 10 kmph when visibility is obstructed shall be clearly indicated.
- (ii) An authority to pass the stop signals at 'ON' position.
- (g) Before resumption of normal working a message between the SM's of the concerned station shall be exchanged with private number. [Refer SR 6.0.2.05(d)(vi)].
The block ticket so issued must be collected by SM of either end with a certificate about the complete arrival of the train with its time and the section is clear of all obstructions from the Loco Pilot/Guard of the train and cancels it.

10. **VISIBILITY TEST OBJECT:**

The signal lights of Common loop starter signal No. 5 & 6 during day and night are the visibility test objects for UP & DN lines 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:
FOG SIGNALLING:**

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

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

STATION DETONATOR REGISTER (OPT/124):

A Register regarding detonator is maintained at the station.

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. As soon as a man is posted to or detailed for duty at a station as a Fog Signalman, the Station Master must satisfy himself that the man is fully acquainted with and understands the rules relating to the placing of detonating (fog) signals at stations during thick or foggy weather. As an assurance of this, the Station Master shall take the signature or thumb impression of such men in the appropriate column of Part - I of this register.
- c. 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.
- d. 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.

APPENDICES

- APPENDIX-A : WORKING OF LEVEL CROSSING GATES.
- APPENDIX-B : SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
- APPENDIX-B1 : STAND BY OPERATION OF SIGNALS, POINTS, L.C.GATES, CRANK HANDLES, SIDING POINTS BY VDU (P.C).
- APPENDIX-C : ANTI COLLISION DEVICE (RAKSHA KAVACH).
- APPENDIX-D : DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.
- APPENDIX-E : LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION.
- APPENDIX-F : RULES OF WORKING OF DK STATION, HALTS, IBH, IBS AND OUTLYING SIDINGS.
- APPENDIX-G : RULES FOR WOKING OF TRAINS IN ELECTRIFIED SECTIONS.

APPENDIX 'A' TO STATION WORKING RULES OF DHANMANDAL STATION**1.0 WORKING OF 'C' CLASS MID-SECTION INTERLOCKED LEVEL CROSSING GATE NO. 161 SITUATED AT KM. 370/29-31 (UP) & 370/32-30 (DN) BETWEEN DNM-HDS:****1.1 BRIEF DESCRIPTION:**

1.	No. of Level Crossing Gate	161
2.	Engineering or Traffic gate	Engineering
3.	Under control of station master or permanent way inspector.	SE/P.Way/HDS
4.	Location at Km.	370/29-31 (UP) & 370/32-30 (DN)
5.	At station	---
6.	In between station	DNM-HDS
7.	BG/MG/NG	BG
8.	Single line/double line/multiple line	Double line
9.	Normal position	Open
10.	Interlocked/ Non-Interlocked	Interlocked
11.	Means of Interlocking	Gate Stop Signal
12.	Provision of gate signal at Km.	Gate Stop Signal in both UP & DN direction
13.	Signaling arrangement	Gate Stop Signal in both UP & DN direction
14.	Means of communication Telephone.	Telephone with SM/DNM
15.	Width of the level crossing gate	6.0 m
16.	Type of road	Other
17.	Name of road	Village Road
18.	Metalled /Non-Metalled	Non-Metalled
19.	Approach road	Metalled
20.	Width of the road	6.0 m
21.	Angle of road crossing (in case of the SKEW gates)	---
22.	Road gradients (if any)	[a] North/ East Side. : 1 : 30 [b] South/ West Side.: 1 : 30
23.	Road alignment (straight/Curve)	[a] North /East Side : Straight [b] South /West Side : Straight
24.	Provision of height gauges	Yes
25.	Type of barriers	Lifting
26.	Length of check rails	8.85 m
27.	Road surface in between level crossing gates.	C.C. Block
28.	Length of rumble strip/ speed breakers.	6.0 m
29.	Road signs	Yes
30.	Speed breakers indication board	Yes
31.	TVU	12595, on October 2009
32.	Census next due on	October 2012
33.	Demarcation for placement of detonators.	Available
34.	No. of gateman working	Two
35.	Nearest Railway Medical Assistance	Bhadrak
36.	Nearest Private Medical Assistance available (if any)	Chandikhoh.
37.	List of equipment available (Yes/No)	Yes

1.2.A. EQUIPEMENT TO BE AVAILABLE AT THE GATE:

1.	Battery Operated LED based flashing lamp	3
2.	Hand Signal Flag Green	1 mounted on stick
3.	Hand Signal Flag Red	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/ Fowrah	1
12.	Rammer	1
13.	Pick Axe	1
14.	Tin Case for Flags	1
15.	Cane for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of gateman wearing glasses	1
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small Chain with padlock	2

B. RECORDS TO BE KEPT AT GATE LODGE

In addition to the above equipment, following records shall also be kept at the Gate Lodge.

- i) Gate Working Instructions in Hindi/English.
- ii) Gate Working, Instructions in local vernacular language.
- iii) Gateman Rule Book in local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-data particulars of Gatemen, including date of passing vision test, initial/refresher course, safety camp, etc.
- viii) Accident Register.
- ix) Record of last census of road traffic at Level Crossing gate.
- x) Public Complaint Book.
- xi) Inspection Book.
- xii) S&T register.

1.3. INTERLOCKING AND NORMAL WORKING:

This gate is interlocked with independent Gate Stop signals. The interlocking is achieved by mechanically Ground lever frame & closure of the L.C. Gate Boom. The normal position of the gate is open. A four lever ground frame is provided at the gate lodge. When it is necessary to close the gate for passage of a train, the SM on duty shall inform the Gateman to close and lock the gate. The function of the lever frames are illustrated below:

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Lever No. 1 DN Gate Stop Signal
 Lever No. 2 Boom locking lever
 Lever No. 3 UP Gate Stop Signal
 Lever No. 4 Spare

The Gateman on duty shall then close the barriers of the L.C. Gate by operating winch. The key is to be extracted from the winch, which will be inserted in the lever of 2GF. When 2GF reversed locks the booms of the gates and releases UP and DN Gate Stop signals 3GF & 1GF respectively. After passage of the train this signal levers to be normalized and this lock lever to be made normal. This will be inserted in the winch and unlock to open the gate by operating the winch.

To avoid the detention to the road traffic at the Level crossing gate, the gate signals should not be taken off too early in advance and LC gate should not be kept closed for more than 10minutes at a stretch.

1.4. INTIMATION TO GATEMAN:

- i) SM shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of the passage of the train at the gate.
- ii) If the actually running time of the train from either end of the section is less than 10 minutes, SM will convey this advice to the gateman before obtaining /granting line clear.
- iii) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

1.5 DUTIES OF GATEMAN:

1) ALERTNESS:

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

2) POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

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

3) ROUTINE DUTIES OF GATEMAN:

- i) Gateman shall place red banner flag during emergencies and obstruction on the track.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.

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(B.SAI RAJU)
DEN (EAST)/KUR

(B.PANDA)
DOM/KUR

- vii) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest SM, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock and lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clear.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

4) **ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN :**

- In case gateman observes anything unusual with a passing train, he shall take following action.
- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
 - ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
 - iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.
 - iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
 - v) He shall endeavor to attract the attention of the Loco Pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
 - vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

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

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connecting by telephone, regarding the defects/obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- a) The gateman shall protect the line as under:-

- i) If both lines are obstructed the gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, Battery Operated LED based flashing lamps and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the Battery Operated LED based flashing lamp to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(b) OTHER ACTION TO BE TAKEN BY GATEMAN:

- i) At night gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub Para (a) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the Driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6 FAILURE OF TELEPHONIC COMMUNICATION:

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

- i) If the telephone fails at the gate connected with the Station at the dispatching end, station master shall then issue a caution order to the Loco Pilot of the departing train.
- ii) Station master shall advise the Loco Pilot to whistle continuously and proceed cautiously while approaching the gate.
- iii) In case the gate signal is ON he should stop short of gate signal and follow the procedure laid under GR 3.73.
- iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number that the telephone at the gate has failed.
- v) The Station Master at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station master will also advise the gateman through gang man/patrolman/Loco Pilot of the first train that the telephone has become defective.
- vii) Station master should also advise S & T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

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

1.7 FAILURE OF LIFTING BARRIERS OR LEAF GATES:

- i) When the gate cannot be closed due to failure of lifting barriers or leaf gates, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure the lifting barriers or leaf gates do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the Loco Pilot of the approaching train.
- v) Station Master on duty shall issue caution order to the Loco Pilot of departing trains.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vii) Station Master shall advise maintenance staff responsible for maintenance of lifting barriers/ leaf gates to repair the defect at the earliest.
- viii) Normal working will resumed only after maintenance staff repair the lifting barrier/ leaf gates and issue reconnection/ fit memo for the same.

NOTE:

Authority to pass signals at "ON" position as per rules shall also be issued to the Loco Pilots of both departing and arriving trains.

1.8 FAILURE OF GATE KEY WITH THE GATE IN CLOSED POSITION, WHEN GATE KEY CANNOT BE EXTRACTED FOR OPENING THE GATE:

- i) If the gate key cannot be extracted from the winch, the gate leaves or the key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange private number.
- ii) If Emergency Key is available at the gate lodge, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic. (In this gate the emergency key is not available)
- iii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/ dispatch of trains as prescribed for non-interlocked gates, should be adopted.
- iv) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- v) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station Master shall advise S & T staff responsible for maintenance of winch/gate leaves/key transmitter to rectify the defect at the earliest.
- vii) Normal working will be resumed only after S & T staff repairs the winch/gate leaves/key transmitter and issue reconnection/ fit memo for the same.

1.9 FAILURE OF GATE KEY WITH THE GATE IN OPEN CONDITION:

- i) If the gate key cannot be extracted from the winch, gate lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception/ dispatch of trains as prescribed for non-interlocked gates should be adopted.
- iii) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.
- iv) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.

- v) He shall also advise the Station Master at the dispatching end, under exchange of private number to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station Master shall advise S & T staff responsible for maintenance of winch/gate leaves/key transmitter to rectify the defect at the earliest
- vii) Normal working will resumed only after S & T staff repair the winch/gate leaves/key transmitter and issues reconnection/ fit memo for the same.

1.10 DEFECTIVE GATE SIGNALS:

- i) The gateman shall treat the gate signal as defective and must not lower them under following circumstances:
- ii) If gate signals can be taken "OFF" without closing the gate, or
- iii) The key can be extracted from the operating winch when the gate is in open condition, or
- iv) If the Gate or the Gate Signal or Distant Signal becomes defective in "OFF" position, the gateman will make all efforts to put it at "ON" position even by cutting signal wires, if necessary.
- v) The gateman will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals.
- vi) Thereafter, the gate must be treated as non interlocked and procedure for reception/ dispatch of trains as prescribed for non-interlocked gates should be adopted.
- vii) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- viii) Station Master on duty will issue caution order to the Loco Pilot of a departing train.
- ix) He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- x) Station Master shall advise S & T staff responsible for maintaining the gate signal to repair the same at the earliest
- xi) Normal working will be resumed after S & T staff rectifies the defective gate signal and issue reconnection/ fit memo for the same.

1.11 OBSTRUCTION AT THE GATE:

- i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/ leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, Battery Operated LED based flashing lamp and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect gate vide GR 16.07.
- vi) Thereafter he shall protect the gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers/ leaf gates are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.

- x) Station Master shall then issue a caution order to Loco Pilot of all trains to proceed cautiously, and pass the reception/departure signal at "ON" position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gate to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staffs rectify the defective lifting barriers/ leaf gates and issue reconnection/ fit memo for the same.

1.12 **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:**

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No. 1.11 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

2.0 WORKING OF 'C' CLASS LEVEL CROSSING GATE NO. 162 SITUATED AT KM. 374/15-17 (UP) & 374/18-14 (DN) BETWEEN STATIONS DNM-BRTG:

2.1 BRIEF DESCRIPTION:

1.	No. of Level Crossing Gate	162
2.	Engineering or Traffic gate	Engineering.
3.	Under control of station master or permanent way inspector.	SSE/P.Way/HDS
4.	Location at Km	374/15-17 (UP) & 374/18-14 (DN)
5.	At station	-
6.	In between station	DNM-BRTG
7.	BG/MG/NG	BG
8.	Single line/double line/multiple line	Double Line
9.	Normal position	Open to Road Traffic
10.	Interlocked/ Non-Interlocked	Non-interlocked.
11.	Means of Interlocking	---
12.	Provision of gate signal at Km.	---
13.	Signaling arrangement	---
14.	Means of communication Telephone.	Telephone with SM/DNM
15.	Width of the level crossing gate	5.50 m
16.	Type of road	others
17.	Name of road	Village Road
18.	Metalled /Non-Metalled	Metaled
19.	Approach road	Metaled
20.	Width of the road	6.0 m
21.	Angle of road crossing (in case of the SKEW gates)	---
22.	Road gradients (if any)	[a] North/East Side : Level [b] South/West Side : Level
23.	Road alignment (straight/Curve)	[a] North/East Side : Straight [b] South/West Side : Straight
24.	Provision of height gauges	Yes
25.	Type of barriers	Lifting barrier.
26.	Length of check rails	8.10 m
27.	Road surface in between level crossing gates.	C. C. Block
28.	Length of rumble strip/ speed breakers.	5.0 m
29.	Road signs	Yes
30.	Speed breakers indication board	Yes
31.	TVU	10560, on October 2009
32.	Census next due on	October 2012
33.	Demarcation for placement of detonators.	Yes
34.	No. of gateman working	Two
35.	Nearest Railway Medical Assistance	Bhadrak
36.	Nearest Private Medical Assistance available (if any)	Chandikhol
37.	List of equipment available (Yes/No)	Yes

2.2.A EQUIPEMENT TO BE AVAILABLE AT THE GATE:

1.	Battery Operated LED based flashing lamp	3
2.	Hand Signal Flag Green	1 mounted on stick
3.	Hand Signal Flag Red	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/ Fowrah	1
12.	Rammer	1
13.	Pick Axe	1
14.	Tin Case for Flags	1
15.	Cane for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of gateman wearing glasses	1
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small chain with pad lock	2

B RECORDS TO BE KEPT AT GATE LODGE

In addition to the above equipment, following records shall also be kept at the Gate Lodge.

- i) Gate Working Instructions in Hindi/English.
- ii) Gate Working, Instructions in local vernacular language.
- iii) Gateman Rule Book in local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-data particulars of Gatemen including date of passing vision test, initial/refresher course, safety camp, etc.
- viii) Accident Register.
- ix) Record of last census of road traffic at Level Crossing gate.
- x) Public Complaint Book.
- xi) Inspection Book.

2.3 MODE OF OPERATION**NORMAL WORKING OF THE LEVEL CROSSING GATE (NON-INTERLOCKED)**

The level crossing gate is normally kept open against road traffic and is closed only when it is necessary. The Gateman on duty shall be alert entirely depending on the information of the Station Master to close the level crossing gate.

2.4 DUTIES OF GATEMAN:

- (1) **ALERTNESS:** The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

(A.K.JENA)
DSTE/KUR

(B.SAI RAJU)
DEN (EAST)/KUR

(B.PANDA)
DOM/KUR

(2) POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

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

(3) ROUTINE DUTIES OF GATEMAN:

- (i) Gateman shall ensure that red banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- (ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- (iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- (iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- (v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- (vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.
- (vii) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- (viii) Gateman shall report to the nearest SM, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- (x) At the gate whose signal have become defective, the gateman shall close and lock and lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clear.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- (xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- (xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

(4) ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

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DEN (EAST)/KUR

(B.PANDA)
DOM/KUR

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

- (i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- (ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- (iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the Station Master if connected on telephone, to take appropriate action, under exchange of private number.
- (iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- (v) He shall endeavor to attract the attention of the Loco Pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- (vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

(5) **ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connecting by telephone, regarding the defects/obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

(a) **The gateman shall protect the line as under:-**

- i) If both lines are obstructed the gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, Battery operated LED based flashing lamps and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall 'proceed' on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the Battery operated LED based flashing lamp to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

(b) **OTHER ACTION TO BE TAKEN BY GATEMAN:**

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DEN (EAST)/KUR

(B.PANDA)
DOM/KUR

- i) At night gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub Para (a) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the Driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

2.5 EXCHANGE OF PRIVATE NUMBER:

- a) The gate is having telephonic communication with SM/DNM.
 - i) Before dispatching an UP train, SM/DNM shall advise the gateman the number description, direction and expected time of the passage of the train at the gate under exchange of private number.
 - ii) Such advice shall be given before taking 'OFF' departure signals or giving an authority to proceed to the Loco Pilot.
 - iii) The gateman on receipt of the advice shall close the gate well in time and confirm the same under exchange of private number.
 - iv) Station Master will take 'OFF' the departure signals after getting the private number of the gateman.
 - v) The gateman shall be authorized to open the level crossing after complete passage of the train from the gate by observing tail board/tail lamp. The gateman before opening the gate shall ensure that SM has not advised him to keep the gate closed for any other train from the same direction or from other direction. He shall display a banner flag across the track while the gate is in open condition.
- b)
 - i) Before dispatching a DN train, SM/BRTG shall advise SM/DNM the number description, direction and expected time of passage of the train at the gate under exchange of private number.
 - ii) Such advice shall be given before obtaining line clear.
 - iii) SM/DNM shall in turn convey the same advice to the gateman, under exchange of private number.
 - iv) Gateman shall close the gate and thereafter give his private number to the SM/DNM.
 - v) Only then shall the SM/DNM grant line clear to SM/BRTG. [Refer SR 16.03.03 (c) (a) & (b)]

2.6 FAILURE OF TELEPHONIC COMMUNICATION

- When telephonic communication fails or it does not get any response from gateman despite 2 or 3 attempts, the following procedure should be adopted:
- (i) Station Master at dispatching end shall issue caution order to the Loco Pilot before dispatching a train in the block section from his end.
 - (ii) The caution order shall advise the Loco Pilot to whistle continuously and approach the gate cautiously.
 - (iii) The Loco Pilot should be instructed to pass the gate cautiously, on being hand signaled by the gate man. If hand signal is not seen, the Loco Pilot should prepare to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If gate is closed, the Assistant Loco Pilot will give all right signal and if the gate is not closed the Assistant Loco Pilot must close the gate and then give all right signal. In the absence of the Assistant Loco Pilot, the Loco Pilot may take the assistance of Assistant Guard/Guard and shall stop clear of the level crossing to pick up the Asst. Loco Pilot who will reopen the gate for the passage of road traffic.
 - (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number that the telephone at the gate has failed.

- (v) The Station Master at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) The Station Master shall advise the gateman through trackman/patrol man or the Loco Pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.

2.7 FAILURE OF LIFTING BARRIERS OR LEAF GATES:

- (i) When the gate cannot be closed due to failure of lifting barriers or leaf gates, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers or leaf gates do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, he shall show green hand signal flag by day and green light at night to the Loco Pilot of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco Pilot of departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of lifting barriers/ leaf gates to rectify the defect at the earliest.
- (viii) Normal working will resumed only after maintenance staff rectify the lifting barrier/ leaf gates and issue reconnection/ fit memo for the same.

2.8 OBSTRUCTION AT THE GATE:

- (i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/ leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defects / obstructions at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) Gateman shall then rush with detonators, Battery operated LED based flashing lamp, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for the duties of gateman under Item No. 2.4 (5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers/ leaf gates are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but clear of any obstruction.

- (xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal, if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gate to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/ leaf gates and issue reconnection/ fit memo for the same.

2.9 OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No. 2.8 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

**3.0 WORKING OF 'C' CLASS NON INTERLOCKED LEVEL CROSSING GATE NO.164
SITUATED AT KM. 376/9-11 (UP) & 376/12-10 (DN) BETWEEN STATIONS DNM-BRTG:**

3.1 BRIEF DESCRIPTION:

1.	No. of Level Crossing Gate	164
2.	Engineering or Traffic gate	Engineering.
3.	Under control of station master or permanent way inspector.	SSE/P.Way/HDS
4.	Location at Km.	376/9-11 (UP) & 376/12-10 (DN)
5.	At station	---
6.	In between station	DNM-BRTG
7.	BG/MG/NG	BG
8.	Single line/double line/multiple line	Double Line
9.	Normal position	Closed
10.	Interlocked/ Non-Interlocked	Non-Interlocked.
11.	Means of Interlocking	---
12.	Provision of gate signal at Km.	---
13.	Signaling arrangement	---
14.	Means of communication Telephone.	Telephone with SM/DNM
15.	Width of the level crossing gate	7.50 m
16.	Type of road	Others
17.	Name of road	Panchayat Road
18.	Metalled /Non-Metalled	Metalled
19.	Approach road	Metalled
20.	Width of the road	5.50 m
21.	Angle of road crossing (in case of the SKEW gates)	-
22.	Road gradients (if any)	[a] North/East Side : 1:30 [b] South/West Side : 1:30
23.	Road alignment (straight/Curve)	[a] North/East Side : Curve [b] South/West Side : Curve
24.	Provision of height gauges	Yes
25.	Type of barriers	Lifting
26.	Length of check rails	9.50 m
27.	Road surface in between level crossing gates.	C. C. Block
28.	Length of rumble strip/ speed breakers.	10 m
29.	Road signs	Available
30.	Speed breakers indication board	Available
31.	TVU	7920 on October 2009
32.	Census next due on	October 2012
33.	Demarcation for placement of detonators.	Yes
34.	No. of gateman working	Two
35.	Nearest Railway Medical Assistance	Cuttack
36.	Nearest Private Medical Assistance available (if any)	Barachana
37.	List of equipment available (Yes/No)	Yes

3.2.A EQUIPEMENT TO BE AVAILABLE AT THE GATE:

1.	Battery Operated LED based flashing lamp	3
2.	Hand Signal Flag Green	1 mounted on stick
3.	Hand Signal Flag Red	3 mounted on sticks
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	Gate lamps	2
9.	Tommy Bar	1
10.	Mortar Pan	1
11.	Spade/ Fowrah	1
12.	Hammer	1
13.	Pick Axe	1
14.	Tin Case for Flags	1
15.	Cane for oil	1
16.	Water pot/Bucket	1
17.	Canister for Muster Roll	1
18.	Set of spare spectacles of gateman wearing glasses	1
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
20.	Basket	1
21.	Whistle	1
22.	Wall clock	1
23.	Small chain with pad lock	2

B RECORDS TO BE KEPT AT GATE LODGE

In addition to the above equipment, following records shall also be kept at the Gate Lodge.

- i) Gate Working Instructions in Hindi/English.
- ii) Gate Working, Instructions in local vernacular language.
- iii) Gateman Rule Book in local vernacular language.
- iv) List for tools and books.
- v) Duty Roster.
- vi) Certificate for working as gateman.
- vii) Bio-data particulars of Gatemen, including date of passing vision test, initial/refresher course, safety camp, etc.
- viii) Accident Register.
- ix) Record of last census of road traffic at Level Crossing gate.
- x) Public Complaint Book.
- xi) Inspection Book.

3.3. MODE OF OPERATION:**NORMAL WORKING OF THE LEVEL CROSSING GATE (NON-INTERLOCKED):**

The level crossing gate is normally kept closed against road traffic and it will be opened for passage of road traffic only when it is necessary and safe to do so. The Gateman on duty before opening the gate shall ensure that he has not exchanged any Private Number with the station or if he has exchanged Private Number with the station, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master has not exchanged Private Number with him for any movement immediately in the rear of that train or on the adjacent line (s). Before opening the gate, he shall display a banner flag across the track.

(A.K.JENA)
DSTE/KUR

(B.SAI RAJU)
DEN (EAST)/KUR

(B.PANDA)
DOM/KUR

3.4 DUTIES OF GATEMAN:**(1) ALERTNESS:**

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

(2) POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

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

(3) ROUTINE DUTIES OF GATEMAN:

- (i) Gateman shall ensure that red banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- (ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- (iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- (iv) Except where otherwise prescribed under special instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- (v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, any vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- (vi) Gateman shall also be prepared to repeat any signal which guard may give to Loco Pilot on walkie – talkie or in any other way.
- (vii) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- (viii) Gateman shall report to the nearest SM, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- (ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- (x) At the gate whose signal have become defective, the gateman shall close and lock and lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- (xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- (xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- (xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- (xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- (xv) Gateman shall see that the channel for the flange of the wheel is kept clear.
- (xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- (xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

- (xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- (xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

(4) **ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN :**

- In case gateman observes anything unusual with a passing train, he shall take following action.
- (i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
 - (ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
 - (iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.
 - (iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
 - (v) He shall endeavor to attract the attention of the Loco Pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
 - (vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

(5). **ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:**

- (I) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- (II) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connecting by telephone, regarding the defects/obstructions at the gate, under exchange of private number.
- (III) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

(a)

- (i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which h a train is expected to arrive first.
- (ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.
- (iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- (iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters on BG and place on detonator an the line.
Thereafter he shall proceed to a distance 1200 meters on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- (v) Thereafter he shall proceed on the other line, showing red hand signal, similarly place detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- (vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.

- (vii) In case the gateman observes or hears train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- (viii) Thereafter, he shall light up battery operated LED based flashing lamp to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by light repeatedly.

(b) **OTHER ACTION TO BE TAKEN BY GATEMAN:**

- (i) At night gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub Para (a) above.
- (ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers / leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- (iii) He shall note down the particulars of the road vehicle, vehicle number, name of the Driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

3.5 **EXCHANGE OF PRIVATE NUMBER:**

- (i) The normal position of the level crossing gate is "Closed to Road Traffic".
- (ii) The Station Master before permitting each train to enter into the block section, shall ask Gateman on the telephone by giving a Private Number whether, gate is closed against road traffic for the passage of train. The Gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a Private Number to the Station Master in assurance of gate being closed & locked against road traffic.
- (iii) The Station Master shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of Private Number.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
 - (1) He has not exchanged any private number with the station as per 3.5 (ii) above, or
 - (2) If he has exchanged private number with the Station Master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent line (s).

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

- (v) In case the Gateman is not responding on the telephone or incase the telephone becomes defective or private number is not received from the Gateman, the Station Master shall adhere to the procedure prescribed in SR 16.03.04.
- (vi) In the event of failure of telephone, if the gate is required to be opened for the passage of road traffic, the gateman shall look out in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He will thereafter, open the gate for passing the road traffic keeping a red flag/red hand signal lamp ready in his hand to stop approaching train if any.

3.6 FAILURE OF TELEPHONIC COMMUNICATION

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

- (i) Station master at dispatching end shall issue caution order to the Loco Pilot of the departing train.
- (ii) The caution order shall advise the Loco Pilot to whistle continuously and approach the gate cautiously.
- (iii) The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signaled by the gate man. If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and depute his assistant Loco Pilot to see the condition of the gate. If gate is closed, the assistant Loco Pilot will give all right signal and if the gate is not closed the assistant Loco Pilot must close the gate and then give all right signal. In the absence of the assistant Loco Pilot, the Loco Pilot may take the assistance of assistant guard/guard.
- (iv) In case of an approaching train, the station master shall advise the station master at the dispatching end, under exchange of private number that the telephone at the gate has failed.
- (v) The station master at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) The station master shall advise the gateman through gangman/patrol man or the Loco Pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection/fit memo for the same.

3.7 FAILURE OF LIFTING BARRIERS OR LEAF GATES:

- (i) When the gate cannot be closed due to failure of lifting barriers or leaf gates, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers or leaf gates do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light at night to the Loco Pilot of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco Pilot of departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vii) Station Master shall advise maintenance staff responsible for maintenance of lifting barriers/ leaf gates to rectify the defect at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barrier/ leaf gates and issue reconnection/ fit memo for the same.

3.8 OBSTRUCTION AT THE GATE:

- (i) If the gate is broken by a road vehicle which is fouling the track or if lifting barriers/ leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defects / obstructions at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

- (v) Gateman shall then rush with detonators, Battery operated LED based flashing lamp, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate vide GR.16.07.
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the Driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers/ leaf gates are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to Loco Pilots of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal, if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers/leaf gate to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers/ leaf gates and issue reconnection/ fit memo for the same.

3.9 **OBSTRUCTION ON THE TRACK NEAR LEVEL CROSSING GATE:**

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No. 3.8 above. If the obstruction fouls the Level Crossing Gate, gate man must keep the gates closed against road traffic till the track is cleared of the obstruction.

APPENDIX 'B' TO STATION WORKING RULES OF DHANMANDAL STATION**1.0 SYSTEM OF SIGNALING, INTERLOCKING & COMMUNICATION ARRANGEMENTS AT THE STATION**

This is a 'B' class station Standard-II (R) Interlocked station (with isolations and is provided with solid state interlocking system). The points and Signals etc. are power operated from composite miniature central panel or VDU installed in the Station Master's Office. The Station is equipped with Multiple Aspect Colour Light Signaling.

1.1 DESCRIPTION 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 of the panel corresponds to the actual layout. A Visual Display Unit (Computer) is provided in the SM's office as a stand by option.

(The description and function of Visual Display Unit is given in APPENDIX-"B-1")

1.2 POINT PUSH BUTTON:

Points are normally operated automatically along with route setting operation. However, required points can be operated individually also. For this point push buttons, BLACK in colour is fitted over the point layout on the panel board. The individual operation of the electric point machine is controlled by these point push buttons in conjunction with the point group button (black with red dot) (N) or (R) as per requirement, fitted on the top of panel board.

1.2.1 When a point is set and locked in Normal position, a 'WHITE' strip light on straight line indication appears suggesting that the point is in NORMAL position.

1.2.2 When a point is set and locked in REVERSE position, a 'WHITE' strip light in reverse indication appears suggesting that the point is in REVERSE position.

1.2.3 When the points of any route have been correctly set and relevant signal is taken 'OFF', 'RED' indication appears near the points indicating that the concerned points are locked either in NORMAL or REVERSE.

1.2.4. When the points are neither set nor locked either in NORMAL or in REVERSE correctly, the normal and reverse indication will not be there but the indication will start flashing till such time the point is housed and locked properly in one of the positions. In such case points are to be set both ways by crank handle and clamped and padlocked. This indication will flash during point operation also.

1.2.5 All points over running lines are operated by electric point machines.

1.2.6 The cause for non setting of the point in the desired position shall be checked up by the Station Master on duty according to GR and SR. [Refer GR & SR 3.68.01(c)].

If there is a defect other than an obstruction, this point shall be considered defective and action shall be taken for clamping and padlocking of these points in the desired position by the Station Master on duty himself for all trains according to SR. In such case both ends of the point shall be clamped and padlocked. [Refer SR 3.69.03 (c)]

1.2.7 DESCRIPTION OF POINT PUSH BUTTON:**a) VSKP END POINTS:**

Sl. No.	Button No.	Colour	Description
1.	27	BLACK	Crossover point between UP main and Common loop lines.
2.	28	BLACK	Crossover point between UP and DN main lines.
3.	29	BLACK	Point connecting ore line 2 to ore line 1.
4.	30	BLACK	Point connecting ore line 1 to ore line 3.
5.	31	BLACK	Crossover point connecting ore lines to DN main lines.
6.	32	BLACK	Crossover point between UP & DN main lines.
7.	33	BLACK	Derailing switch point isolating ore lines with shunting neck.

b) HWH END POINTS:

Sl. No.	Button No.	Colour	Description
1.	21	BLACK	Crossover point between UP and DN main lines.
2.	22	BLACK	Crossover point between UP and DN main lines.
3.	23	BLACK	Crossover point connecting ore lines to DN main lines.
4.	24	BLACK	Crossover point between UP main and Common loop line.
5.	25	BLACK	Point connecting ore line 2 to ore line 3.
6.	26	BLACK	Point connecting ore line 1 to ore line 2.

1.2.8 DESCRIPTION OF POINT GROUP BUTTON:

These are two buttons at the top of panel one for Normal and one for Reverse. These are coloured Black with red dot. The button is operated in conjunction with point button to operate the concerned point to the required setting.

1.3 SIGNAL PUSH BUTTON:

These are RED coloured push button on the panel near the stop signals on the panel. These are operated in conjunction with Route button (white coloured) to take 'OFF' the signals.

1.3.1 DESCRIPTION OF SIGNAL BUTTONS:

Sl. No.	Button No.	Colour	Description
1.	C1 A/B/C/D/E	RED with WHITE Dot	UP Calling-on signal for UP Main, Common loop lines and ore lines.
2.	1 A/B/C/D/E	RED	UP Home signal for UP main, Common loop lines and ore lines.
3.	2 A/B/C/D/E	RED	DN Home Signals for DN Main, Common loop line and ore lines.
4.	C2 A/B/C/D/E	RED with White Dot	Down Calling-on signal for DN Main, Common loop lines and ore lines.
5.	3	RED	UP Main line starter.
6.	4	RED	DN Main line starter.

7.	5	RED	UP Common loop line starter.
8.	6	RED	DN Common loop line starter.
9.	7	RED	UP ore line 1 Starter.
10.	8	RED	DN ore line 1 Starter.
11.	9	RED	UP ore line 2 Starter
12.	10	RED	DN ore line 2 Starter.
13.	11	RED	UP ore line 3 Starter.
14.	12	RED	DN ore line 3 Starter.
15.	13	RED	UP Advanced Starter.
16.	14	RED	DN Advanced Starter.
17.	15 A/B/C/D/E	YELLOW	UP Shunt signal for common loop, UP main, DN main, ore line 1, 2 & 3.
18.	16 A/B/C	YELLOW	Shunt signal on shunting neck at VSKP end for ore lines 1, 2, & 3.
19.	18 A/B/C/D/E/F	YELLOW	DN shunt signal for DN Main, Common loop line, UP main line and ore lines 1, 2 & 3.
20.	SH7	YELLOW	Shunt signal below UP starter signal No. 7 for shunting neck.
21.	SH9	YELLOW	Shunt signal below UP starter signal No. 9 for shunting neck.
22.	SH11	YELLOW	Shunt signal below UP starter signal No. 11 for shunting neck.

1.3.2 **SIGNAL INDICATIONS:**

The aspects of the signals as obtained at any time are shown on the panel on the signal indication along side of the track.

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 signals, it is necessary to operate the signal buttons and the concerned route button simultaneously.

1.4.2 **DESCRIPTION OF ROUTE BUTTONS:**

Sl. No.	Button No.	Colour	Description
1	L2-UN	WHITE	UP route button for UP Home/UP Calling-on/Shunt signal 15 or 18 for UP main line.
2	L3-UN	WHITE	DN route button for DN Home/UP Calling-on/Shunt signal 15 or 18 for DN main line.
3	L1-UN	WHITE	Route button for both UP & DN Home signal for common loop line over lap set to concerned main line.
4	L1-UN1	WHITE WITH BLACK DOT	Route button for both UP & DN Home/Calling-on/Signals overlap set concerned overrun line or shunt signal No. 15 or 18 for common loop line.
5	L4-UN	WHITE	Route button for both UP & DN Home for ore line 1.
6	L4-UN1	WHITE WITH BLACK DOT	Route button for both UP & DN Calling-on signals/DN Home set to overrun or shunt signal 15 or 18 for ore line 1.
7	L5-UN	WHITE	Route button for both UP & DN Home for ore line 2.

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8	L5-UN1	WHITE WITH BLACK DOT	Route button for both UP & DN Calling-on signals/DN Home set to overrun or shunt signal 15 or 18 for ore line 2.
9	L6-UN	WHITE	Route button for both UP & DN Home for ore line 3.
10	L6-UN1	WHITE WITH BLACK DOT	Route button for both UP & DN Calling-on signals/DN Home set to overrun or shunt signal 15 or 16 or 18 for ore line 3.
11	13ATUN	WHITE	Common route button for UP main starter No. 3 & UP Common loop starter No. 5 or UP ore line starter No. 7 or UP ore line starter No. 9 or UP ore line starter No. 11.
12	13 UN	WHITE	Route button for UP Advanced Starter No. 13.
13	14AT UN	WHITE	Common route button for DN main starter No. 4 & DN common loop starter No. 6 or DN ore line starter No. 8 or DN ore line starter No. 10 or DN ore line starter No. 12.
14	14 UN	WHITE	Route button for DN Advanced Starter No. 14.
15	SH 7/9/11 UN	WHITE WITH BLACK DOT	Common route button for shunt signal No. 7 or shunt signal No. 9 or shunt signal No. 11.

1.5 **MICROLOCK INDICATION:**

A Microlock Indication is provided on the top of the panel for noting the failure of the Micro Lock of SSI unit. This SSI unit consists of two Microlocks called system 'A' and system 'B'.

These two systems status ('ON'/'OFF') will be indicated separately on the panel. If the Microlock unit is 'ON', 'GREEN' indication will appear and if OFF 'RED' indication appears. If any one of the 'ON' line system fails automatically 'OFF' line system will change to 'ON' line with a gap of 120 seconds. A system failure buzzer is provided on the panel board. To stop the Microlock unit buzzer, SM on duty has to press the system failure acknowledgement button provided on the top of the panel and intimate the same to ESM/JE/SE in charge for rectification of failure.

1.6 **POINT FAILURE INDICATION (RED) /POINT FAILURE BUZZER/POINT FAILURE MUTING BUTTON (RED WITH WHITE DOT):**

Whenever there is failure of point due to non-setting, point failure indication flashing light appears near the point failure-muting button besides audible Buzzer. The buzzer stops when the point failure-muting button is pressed, but the flashing light above the muting 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 muting button will disappear.

1.7 **FAILURE OF LED SIGNAL AND MUTING BUTTON:**

LED signals have been used at this station. Failure of signals will be indicated by the flashing indication of the concerned signal and appearance of 'RED' light on indication panel along with audible buzzer, which can be stopped by pressing the acknowledgement button. But, the 'RED' light will glow until the LED signal is replaced. For rectification of failure SM on duty should inform the ESM/JE/SE (Sig) about the failure.

1.8 EMERGENCY ROUTE RELEASE COUNTER:

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

1.9 EMERGENCY ROUTE RELEASE INDICATION (WHITE) EMERGENCY ROUTE RELEASE BUTTON (WHITE WITH RED DOT):

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 simultaneously pressing the signal cancellation button and the concerned signal button.

After this first the emergency route release button (white with red dot) positioned in the top of panel to be pressed and subsequently the concerned signal button is to be pressed releasing the emergency route release button. A Yellow light will lit indicating that the timer is working. After 120 seconds, the 'YELLOW' light along with the 'YELLOW' strip of light will disappear suggesting the route has been released. In case the route illumination (YELLOW strip lights) does not disappear, it suggests that the route is not released/cancelled. In such case the concerned S&T staff should be advised immediately to get the emergency route release button sealed after rectification of fault if any.

Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary and in the train signal register.

1.10 EMERGENCY POINT OPERATIONS (BLACK WITH RED DOT):

Emergency point operation facility is provided to operate the point from the panel in case of failure of track circuit. A push button [Black with Red dot] is provided on the panel. If such operation is necessary, the SM on duty after ensuring that emergency point key is 'IN' & no vehicle is standing on the concerned point shall press the emergency point operation button along with relevant point button simultaneously. Then retaining point button pressed emergency point button to be released and the point group normal button or point group reverse button is to be pressed for operating the point to 'Normal' or 'Reverse'. The on duty SM should keep a proper record of all such operations.

1.11 BUTTON HELD ACKNOWLEDGE (WHITE WITH RED DOT):

All push button 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 button gets stuck in pressed condition, a buzzer will sound along with flashing white light indication. The SM shall stop the buzzer by pressing the button held acknowledgement button (white with Red dot). The buzzer will stop but the flashing white light 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.

1.12 OVERLAP 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 overlap. This indication light will glow when overlap is locked by any Home Signal route and there will be no light when 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 release of 120 seconds the white flashing light will disappear indicating concerned overlap is free.

1.13 **TRACK CIRCUITS:**

Both UP & DN main lines are Track Circuited between fouling marks. Point Zones are also Track Circuited except Zone No. 29/30 & 23/25/26. All the three ore lines & common loop line are Axle Countered between the fouling marks.

In addition there are (short length) track circuits near Advanced Starter Signals in both the directions and Home signal tracks are also provided. Calling-on signal (7 Rail length) track circuits are also provided in rear the Home signals in both directions. From last trailing point/fouling mark to Advanced Starter Signal are also track circuited in both directions (i.e. 13AT & 14AT in UP and DN directions respectively). Indications for the above track circuits are available on panel at SM's office. White light on panel indicates route set and track clear and Red light indicates track occupied condition.

Normally, the panel is dark except for point and block section indication. The positions of running lines are indicated in the illuminated diagram in the Station Master's office. It shows "RED" when the line is occupied and "WHITE" when the route is set and the signal is cleared. The position of points at either end is also indicated in the illuminated diagram. Whenever a signal is cleared, the route set indication "WHITE" appears for the particular route set and as the train occupies the track circuit, the "WHITE" indication disappears and "RED" indication appears.

AXLE COUNTER:

- (i) Line No. 1, 4, 5, 6 & Point zone Nos. 29/30 & 23/25/26 are provided with Axle Countered to count the axle IN & OUT which indicates whether the said line/zone monitored by axle counter are cleared or occupied.
- (ii) **FOR SEC: BRTG-DNM:** A pair of analog axle counter is provided between BRTG-DNM on UP line one just beyond UP Advanced starter signal of DNM and another pair is on track circuit No. 3T1 i.e. 400 mtrs. beyond the UP home signal at BRTG. Similarly, a pair of analog axle counter is provided between BRTG-DNM on down line one just beyond DN Home Signal of BRTG and another pair is on track 2T1 i.e. beyond DN Home signal of DNM.
- (iii) **FOR SEC: DNM-HDS:** A pair of Analog Axle Counter is provided between DNM-HDS on UP line one just beyond UP Advanced Starter Signal of HDS and another pair is on track 1T1 i.e. beyond the UP Home Signal of DNM. Similarly, a pair of Analog Axle Counter is provided between DNM-HDS on DN line one just beyond DN Advanced Starter of DNM and another pair is on track 2T2 i.e. beyond DN Home signal of HDS.

The position of the Block section whether cleared or occupied are reflected in the panel diagram for section DNM-HDS & DNM-BRTG provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters in to the Block Section, "Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as Block Instrument failure for the particular section and necessary action as per GR 14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If axle counter fails, Advanced Starter Signal shall not come to 'OFF' and the concerned instrument shall remain locked in last operated position.

A resetting arrangement for resumption of the system in case of failure of axle counter has been provided in the SM office of the adjacent Block stations after being assured by both the SM that the last vehicle has arrived complete at the receiving station by exchanging Private Number then resetting to be complied with. (Details of resetting procedure given in APPENDIX-'B' of this SWR)

NOTE:

Before taking off reception and dispatch signals for UP and DN directions the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication. The indication of track will exhibit Red Light when track is occupied and White light when track is clear. There will be no track indication when any route is not set.

2.0 **STATION MASTER'S PANEL CONTROL KEY:**

The panel is fitted with SM's lock up key to prevent any simultaneous operation of the panel. The SM on duty is the only authorized person to operate the panel and the panel key must always remain in his personal custody vide SR 3.36.03 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 operating concerned signal button and signal cancel button without releasing the panel locks also. However, the provisions, of SR 3.36.02 shall be followed while replacing the signals to 'ON'.

2.1 **CRANK HANDLES:**

When any point fails to operate normally by the route setting operation or through the concerned point button through panel, it is inevitable to operate the points with crank handle. Station Master on duty shall personally ensure clamping and padlocking of all facing and trailing points enroute. Crank handles are interlocked with signals and interlocking system. The CH push button (Blue) and group button (white with black dot) is provided at the top of the panel board. This button has two indications, viz. 'WHITE' and 'RED'. The 'WHITE' indication suggests that the crank handle key is in its interlocked position of the panel. This is called 'Crank Handle Key' 'IN' indication. The Red indication suggests that the crank handle key is locked and not free for extract from RKT. This is called 'Crank handle key locked' indication. The Crank Handle is normally kept in a locked glass fronted wooden box in panel room and the key is with SM on duty. This crank handle is common to all points and is to be taken along with CH key for manual operation of point.

For extracting CH key from EKT, SM has to press relevant CH button and group trans button simultaneously. The white light besides the CH button starts flashing. After extraction of CH key from EKT at Location box flashing white light disappears. On extraction of CH key from EKT, the points in that particular group are in operation from the panel. After completion of point operation the CH key will be retransmitted to the station. Electrically by inserting the CH key in EKT at Location box and turned the white flashing indication appears on the panel board. The flashing will be stopped and steady indication appears on pressing concerned CH button and group release button (white with black dot).

2.2. **SETTING OF ROUTE AND TAKING OFF RECEPTION SIGNALS:**

For setting a route all the concerned points must be set by operation of relevant point button and group button one at a time in the desired position or by operating signal button and route Button. As soon as the required points are set to the required position, the concerned signal for the route will clear and a 'WHITE' strip of light will appear on the entire route confirming that the Route is set and locked. The signal 'OFF' indication will appear on the panel.

2.3. SETTING OF ROUTE AND TAKING OFF DEPARTURE SIGNALS:

For setting a particular route for departure of a train, all the concerned points must be set by operation of point button and group button one at a time in the desired position or by operating signal button and route button.

To take off advanced starter, line clear must be obtained from the concerned block station in advance. Then the concerned advance starter signal button shall be pressed along with the advanced starter route button for two to three seconds and released. This will clear the advance starter signal and a White strip of light will appear on the panel.

To take off the starter signal the concerned signal button to be pressed and at the same time common Route button to be pressed for two to three seconds and released. This will clear starter signal and a White strip of light will appear on the route from the concerned starter to the advanced starter.

2.4. TAKING OFF CALLING-ON SIGNAL:

Miniature Colour light Calling-on Signal is provided below the UP and DN Home Signals and DN Starter Signals in terms of SR 3.13 (6) (b). A Calling-on Signal shows no light when 'ON' and when taken 'OFF'; it shows miniature 'Yellow' light. 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 provided in rear of the signal. When a train occupies the track circuit, a 'RED' light strip will appear in the panel. The particular route on which train is intended to be received shall be set by operating the panel push button and group button or by signal and route button or by crank handling in the event of failure of operation of points through panel. After the route is set, the Calling-on Signal button shall be pressed simultaneously along with concerned route button for 2-3 seconds and released. 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.

NOTE:

SM on duty is to ensure that no through signals are given while receiving a train on Calling-on.

2.5. RELEASE/CANCELLATION OF ROUTE:

Normally when a train is received on any route and dispatched, the route illumination will disappear automatically after passage of the train suggesting that the route is released.

NOTE:

UP and DN Calling-on signals and UP & DN Advanced Starters are to be manually cancelled after passage of the train to cancel the route.

2.6. REPLACEMENT OF SIGNALS TO 'ON':

Signals are replaced to 'ON' automatically by the passage of a train pass 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 button and the signal cancellation button (RED) to be pressed simultaneously.

2.7 PILOTING OF TRAINS IN TO STATION YARD:

Whenever Home signal becomes defective, trains can be admitted by taking off Calling-on signal. When both Home and Calling-on signal failed, trains can be piloted 'IN' in terms of SR 3.69.3 (a) & (c). The SM on duty shall nominate a clear line and shall set the nominated route correctly from the panel or shall advise the TPM on duty to set the nominate route correctly with the help of crank handle during failure of points. He shall clamp and padlock both the facing and trailing end points in both cases under the supervision of SM on duty.

Then the SM on duty shall then hand over the written authority T/369 (3b) to the TPM for "piloting IN" the train. While going towards home signal the TPM will satisfy himself that the points have been correctly set, clamped and padlocked. After the train has brought to a dead stop at the home signal the TPM shall hand over the pilot memo to the Loco Pilot, board the engine and display 'proceed' hand signal to pass the defective home signal.

NOTE:

- (1) The Station Master on duty shall personally supervise the correct setting, clamping and padlocking of both end points for admission of trains.
- (2) The keys of padlock used for clamps on the points shall be kept in the personal custody of the Station master on duty till such movement is either completed or alternatively cancelled.

PILOTING OF TRAINS - OUT OF STATION YARD:

When starter signal has becomes defective the SM on duty shall set the points correctly from the panel or advise the TPM to set the concerned points correctly for the outgoing train with the help of crank handle. The TPM on duty shall clamp and padlock both facing and trailing end points under the supervision of SM on duty in both the cases. The SM on duty shall then authorize the TPM on duty to hand over the pilot memo T/369 (3b) along with other authorities if any to the Loco Pilot of the train. Thereafter he shall display proceed hand signal at the foot of the starter signal vide SR 3.70.01.

In case of advance starter signal becomes defective such signal shall be passed on the written authority on the form T/369 (3b), proceed hand signal shall not be displayed vide SR 3.70.02. The TPM shall hand over the pilot memo in form T/369 (3b) to the Loco Pilot after the train stopped.

NOTE:

- (1) The Station Master on duty shall personally supervise the correct setting, clamping and padlocking of the facing points, if any and ensure clearance on the nominated route vide SR [Refer SR 3.69.03 (c)].
- (2) The keys of padlock of the clamps put 'ON' to the points on the route for piloting 'OUT' shall be in the personally custody of the SM on duty or any other authorized operating officials such time the train / engine / vehicle has utilized the route or alternatively such movement cancelled.

2.8 SHUNTING:

For shunting, caution aspect of starter signals shall be used.

For back shunting individual shunt signal No. 15 and 18 are provided at North and South side of the yard respectively for shunting back to the station yard in desired direction. The particular route on which it is intended to do shunting is to be set by operating the desired points individual from the point or by pressing the shunt signal button and the required route button simultaneously for 2-3 seconds. When the route is set and locked correctly Yellow strip of lights will appear on the route and the concerned shunt signal shall display 'OFF' aspect.

3.0 **DESCRIPTION OF SIDING:**

TRAFFIC SIDING:

The Traffic siding at VSKP end of the yard with both sides entries are taken off from line No. 1 (Common loop). The entrance point & corresponding derailing switches are coupled & operated by an arc lever at site. Both the entrance points are fitted with hand plunger locks. These hand plunger locks are unlocked by Traffic siding keys 'A & B' & released by pressing the button No. 35 provided on the panel/VDU at SM's office. Reception signals i.e. S1B, C1B in UP direction & S2B, C2B in DN direction, shunt signal No.18B & 15B and Starter signal No. 5 & 6 are electrically interlocked in such a way that these signals cannot be taken 'off' if the Traffic siding keys are taken 'OUT' from the RKT provided at SM's Office.

ENGINEERING SIDING:

Engineering siding is provided in continuation of common loop at HWH end and isolated by derailing switch. The derailing switch is provided with a lock and key 'C' is obtainable from station by pressing the control button No. 34 on the panel board.

SHUNTING NECK:

The Shunting Neck siding at VSKP end is an extended portion of ore Line No. 3 and is isolated from ore line with derailing switch point No. 33. The train movement to and from will be controlled by pressing the concern shunt signal button and the relevant Route button provided on the panel/VDU.

LEVEL CROSSINGS:

- i) There is a 'C' class mid-section interlocked level crossing gate No. 161 situated at Km. 370/29-31 (UP) & 370/32-30 (DN) between HDS and DNM. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- ii) There is a 'C' class non-interlocked level crossing gate No. 162 situated at Km. 374/15-17 (UP) & 374/14-18 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- iii) There is a 'C' class non-interlocked level crossing gate No. 164 situated at Km. 376/9-11 (UP) & 376/12-10 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at DNM.
- iv) There is a 'C' class non-interlocked level crossing gate No. 165 situated at Km. 378/1-3 (UP) & 378/4-2 (DN) between DNM and BRTG. Telephone communication is provided between the Gate lodge and the SM's office at BRTG.

4.0 **VERIFICATION OF LINE CLEARANCE BY STATION MASTER ON DUTY FOR RECEPTION OF TRAIN INTO STATION YARD:**

In the Station yard, a route on the running line comprises of entrance, berthing and dispatch portion of the yard and this portion of the yard should be clear of any obstruction for the passages of any train or for any other movements. The clearance of the route including overlap must be ensured by the Station master on duty personally through Luminous indications of track before any movement of trains are permitted on the concerned route subject to the other conditions such as locking of the point's etc.

4.1. **CRANK HANDLING EMERGENCY OPERATION OF POINTS:**

Crank handle operation is interlocked with the Signaling and interlocking system at this station. Key for Crank handles are normally locked inside the RKT instrument at the Location box, can be taken out only when all the signals leading are in the 'normal' position and the route is not blocked for whatever reasons. Crank handle can be released by operating common 'TRANS' push button and control push button simultaneously. When this key is taken out, no signal to the concerned point can be taken 'OFF' in the yard. This key can be electrically transmitted at both ends of the yard.

- 4.2 On account of the doubtful operation of any track circuit by a light vehicle including self-propelled vehicle such as motor trolley or light engine or tower wagon, indicating the occupancy of track, it is necessary that the Station Master on duty satisfies himself that the said vehicle has cleared the point zone track circuits/Axle Counter by observing the track indications of the track on either side of the crossovers by positively checking the 'entrance' and 'exit' track circuits/Axle Counter are showing occupancy and clearance in accordance with the train movement.
- 4.3 **INSTRUCTIONS REGARDING STABLING OF TRAINS ON RUNNING LINES:**
When a train is stabled on a running line for a duration exceeding ten hours, the use of the said running line for passing the trains 'IN' 'THROUGH' or 'OUT' at the station shall be done with a lot of care and diligence. Station Master on duty shall meticulously observe the proper functioning of the relevant track circuits (occupancy/clearance) while admitting a train. Such observance should continue for a minimum of four to five trains thereafter. If the Station Master on duty is not satisfied with the proper functioning of the track circuits on which the train was earlier stabled, the signals leading on the line shall be suspended and the S & T maintenance staff be informed for attending to this.
- 5.0. **EMERGENCY OPERATIONS:**
The following are the instructions for emergency operations.
- 5.1. **CANCELLATION BUTTON AND VEEDER COUNTER:**
For the purpose of emergency operations there is an emergency 'Route cancellation'. There is a 'Veeder counter' for counting emergency operations involving operation of the emergency route cancellation button (provided at the top of the panel). The Station Master on duty must press the emergency route cancellation button and the signal button for which emergency route release is desired.
An indication will appear indicating that the timer has started operating and after a lapse of 120 seconds, the desired route will be release, provided all other conditions are favorable for route release.
- 5.2 The veeder counter registers the number of such emergency cancellation operations. Station Master on duty should specify the cause for its usage giving the particulars of causes and the time of operation as related to a particular train etc., in the train signal register as well as in a separate register meant for this purpose. The detailed operational instructions are as follows:
- 5.3 **EMERGENCY OPERATIONS – CANCELLATION OF THE LOCKING OF POINTS NOT RELEASED AFTER THE PASSAGE OF THE TRAIN FOR WHATEVER REASON:**
If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operations.
- (a) Firstly, it must be ensured that the signal is in the normal position.
(b) Operation as detailed in the above Para to be followed.
- 6.0 **MAINTENANCE OF S & T INSTALLATION & ADHERENCE TO MAINTENANCE SCHEDULES:**
- 6.1 Regular maintenance of the S&T installations, adherence to schedules of maintenance testing of points, track circuits, level crossing gates, associated interlocking apparatus cables and the interlocking functional tests is must for safe and satisfactory working of these installations at this station.

- 6.2 The tests, checks and replacements etc. shall confirm to the schedules of maintenance as indicated in the Signal Engineering Manual as also as per the current and extant instructions/circulars on the subject.
- 7.0. **PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF AN INTERLOCKING GEAR:**
In case of failure of any interlocking gear at the station, the failure report should be communicated by the Station Master to the sectional Maintainer, the signal inspector of the section and others through a memo. [Refer GR and SR 3.51.04 and 3.68.04]
- 7.1 **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**
Before declaring a signal as defective, the setting of the point on the route to which it applies shall be inspected by the Station Master on duty irrespective of the position of the buttons.
- 7.2 **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 Reconnection Memo detailing the rectification. Thereafter the Station Master on duty shall personally check this defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR. [Refer SR 3.68.04 (c) and (d)]
- 8.0. **PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:**
Whenever any normal maintenance or special works for major renewals etc., are involved, the Signal and Telecom should preplan these works. Field staff and the Inspector of the section should give to the Station master in writing 'Advance Intimation' about this work in terms of G and SR. [Refer GR and SR 15.08.01]
- 9.0 **EMERGENCIES:**
Notwithstanding, anything contained in the aforesaid paras when equipment is found defective and unsafe for passage of trains, the Signal and Telecom staff must at once suspend the working of the equipment and associated installations and issue 'Suspension Memo' explaining the seriousness of the defect or damage to the interlocking installation to the Station master and take the Station Master's acknowledgement. After this, the usual practice of exchange of disconnection memo and reconnection memo can follow. The Station Master must act promptly on such messages and take adequate precaution treating the S&T installation as defective and pass trains over the affected interlocking equipment's according to extant instructions. [Refer GR and SR 3.77.]
- 10.0 **PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNALS AND POINTS AND USE OF CRANK HANDLE:**
- 10.1 When the crank handle key is removed from RKT for operation of the defective motor operated points, the responsibility for its safe custody rests with the Station Master on duty, till it is replaced back in RKT.
- 10.2 The cases of failure of motor operated points should be promptly reported to the concerned Signal maintainer/Signal Inspector for rectification.
- 10.3 Whenever an Emergency Crank Handle is required to be used by a signal official for maintenance work or attending to failure, the signal official will give a disconnection memo to the Station master on duty and after making necessary entries in the

Emergency Crank Handle Register. The Station master on duty will obtain the acknowledgement of the signal official in the Emergency Crank Handle Register and then hand over to him the Emergency Crank Handle. The points will be treated as defective until the Emergency Crank Handle is returned back to the Station Master on duty.

- 10.4 Before parting with the Emergency Crank Handle either for attending failures or for maintenance work by Signal maintenance officials, the Station Master on duty will ensure that the reception and departure signals are put back to 'ON' position. The points for the affected lines should be treated as non-interlocked. The Station Master on duty is responsible for introduction of non-interlocked working and the trains will be piloted 'IN and 'OUT' duly clamping and padlocking both facing and tailing points over which the train is to pass. [Refer GR 3.69 and 3.70]
The Station Master on duty will be personally responsible for setting and locking of points for reception and despatch of all trains.
- 10.5 The Emergency Crank Handle Register is to be maintained vide OM 20.06 note (d) by the Station Master on duty wherein the particulars of the usage of the Emergency Crank Handle must be recorded.
- 11.0 **SUSPENSION OF LAST STOP SIGNALS:**
When the Block Instrument is suspended for whatever reason, the concerned last stop signal controlled by the Block Instruments must be treated as suspended and trains shall be piloted 'OUT'.
- 11.1 The Station Master on duty shall not grant 'LINE Clear' unless he has ensured that the lamps of fixed signals which apply to the train are glowing. If the signal lights cannot be kept burning, the Station Master on duty before giving 'LINE CLEAR' shall initiate action in accordance with the procedure prescribed in GR & SR [Refer GR.3.61 to 3.72 and SRs there to GR 3.49 (4)].
- 12.0 **NORMALISATION OF THE BLOCK AXLE COUNTER AND OF BLOCK WORKING BY RESETTING FEATURE:**
- 12.1 Analog Axle Counters are provided on both Up and Down line Block Sections between DNM-BRTG and DNM-HDS.
- 12.2 The occupation and clearance of the axle counter section are indicated on the panel by 'RED' and 'GREEN' light.
- 12.3 If any Block proving Axle Counter section fails, the Last Stop Signal at the rear station cannot be taken 'OFF' and Block instrument at Advance Station cannot be turned to 'Line Closed' position after arrival of a train.
- 12.4 Even after completion of reset operation, LVCD Axle Counter will show clear only if next train is passed. The next train is to be piloted 'OUT'
- 12.5. No train should be allowed on signal to leave a station in any particular direction unless:-
Track clear indication is available for the relevant Axle Counter track circuited portion and Last Stop Signal is taken OFF.
- 13.0 **RESETTING OF AXLE COUNTER WHEN FAILED**
After a train has been received at the receiving end station or when no train has entered in to the Block section or after any block forward or block back operation is completed, if the "Line Occupied (RED)" indication still persists, then receiving station SM and sending

station SM shall adopt the following procedure for resetting the axle counter. Dispatching end station will give permission for resetting.

ACTION TO BE TAKEN BY THE SS ON DUTY AT DESPATCHING END STATION.	ACTION TO BE TAKEN BY THE SS ON DUTY AT RECEIVING END STATION.
1.	After complete arrival of train vide SR 4.17.01, if the Axle counter of the section does not clear or Axle counter free indication (G) does not appear in the panel he shall inform the station in rear through telephone giving details of last train that has arrived complete at his station and the block section is clear.
2.	The receiving station shall inform the sending station as to whether the last train that entered into the section has arrived or not and if arrived fully then he shall exchange private number with the sending station and ask for granting permission for resetting the axle counter.
3.	On getting advice from the receiving station for resetting the sending station pushes the "Permission Granted" button and presses keeping it for some time.
4.	An indication lamp provided in the panel for permission received shall lit up. Then insert the reset key, turn, press the permission acknowledgement button and keep it for some time.
5.	The RED indication does not change to "GREEN".
6.	Veeder counter provided on Block Panel shows next higher number. The same may be recorded in the reset register
7.	The dispatching station will 'Pilot Out' the first train to the concerned Block Section.
8.	After complete arrival of the first train at the receiving Piloted out at the station" in rear, the "GREEN" indication appears on the Panel and RED indication disappears.
9.	Observes "GREEN" indication on Block Panel.
10	Block Instruments on block panel can be normalized

If the axle counter section indication does not appear 'GREEN' after complete arrival the first train piloted out the dispatching end. The concerned Block section shall be suspended and failure intimation to be given to ESM/JE/SE(S) for early rectification.

14.0 **ANALOG AXLE COUNTER and DESCRIPTION OF RESETTING EQUIPMENT (WITH STATION YARD):**

The station yard is provided with multi entry axle counters over point zones in lieu of track circuits. Axle counters of each point zone are grouped as 23/25/26AXT & 29/30AXT. Common loop and three ore lines are provided with axle counters and is grouped as L1AXT, ORL-1AXT, ORL-2AXT & ORL-3AXT respectively.

Whenever a particular Axle counter zone is occupied or failed, a visual 'RED' indication appears on the panel at station and when verified for clearance and initiated for resetting, a 'YELLOW' indication appears in the panel and when once the resetting is completed, then appears 'GREEN' indication and the 'YELLOW' indication extinguishes. A panel with indications, Veeder counter for each Axle counter zone, SM's key common push button along with one individual push button for loop lines/point zones for resetting is installed at station to indicate the occupation/clearance of track circuit/Axle counters of the full yard.

15.0 **PROCEDURE FOR RESETTING IN THE EVENT OF FAILURE OF AXLE COUNTER (WITHIN STATION YARD):**

Whenever, any axle counter in any point zone fails 'RED' indication will appear in the panel at the station. The on duty Station Master shall send a traffic points man for physical verification of the zone at site. After physical verification if there is no obstruction over the axle counter zone the traffic pointsman will inform the fact to the Station Master over telephone. The Station Master will advise the traffic pointsman to press the verification button. On receipt of the zone verified indication i.e. 'YELLOW', the Station Master shall press the concerned reset button with Station Master's axle counters common reset key 'IN' provided on the panel to initiate resetting. When once thus pressed the 'YELLOW' indication which appeared previously extinguishes and after completion of resetting and the zone is clear a 'GREEN' indication appears in the panel.

When Common loop/Ore line berthing zone Axle Counter fails, 'RED' indication will appear in the SM's panel. The Station Master on duty shall then physically verify the particular section. After physical verification if there are no obstructions over the line he shall advise on duty TPM to open the line, Verification box located by the side of the track and press the reset key. One 'YELLOW' indication appears in the panel. He shall then press line nominated button along with SM's axle counter common reset key 'IN' provided on the panel. The 'RED' and 'YELLOW' indications will disappear from the panel and 'GREEN' indication will appear.

The Veeder Counter provided on the panel will record next higher number indicating the number of such operations for the particular axle counter section. If 'GREEN' indication does not appear on the reset panel and 'RED' indication continues to appear, the sectional ESM/JE(S)/SE(S), may be advised that the concerned Axle Counter has failed and to attend for rectification.

The Station Master shall pilot the trains if any, till the rectification.

Separate register shall be maintained in the Station to record every operation of resetting and the number in the veeder counter in addition this should be recorded in TSR. While taking over/handing over duties the SM shall record in the TSR the number displayed in the veeder counter and shall acknowledge the same.

16.0 **SIGNAL LIGHTS:**

The Station Master on duty at 00.00 hours (2nd night shift) must also 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.

17.0 **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 hours every day according to G and SR 4.01.01 and 4.01.02

18.0 **TELECOMMUNICATIONS:**

- a) The Station is connected to BHC-JKPR-NYG Control Circuit.
- b) Telephone attached to Block Panels for sections DNM-HDS and DNM-BRTG.
- c) Railway Auto Telephone is provided at the station.
- d) Telephone communication is provided between Station Master on duty to all Crank handle Locations.
- e) Telephone attached to L.C. Gate at Km. 370/29-31 (UP) & Km. 370/32-30 (DN), and 374/15-17 (UP) & Km. 374/18-14 (DN), Km. 376/9-11 (UP) & 376/12-10 (DN).
- f) BSNL phone is provided at this station.
- g) The station is connected to BHC-BRAG traction power control circuit.
- h) VHF set is provided at the station.

NOTE

1. For obtaining line clear VHF should be used as a last alternative and not as a sole means of communication.
2. VHF & Walkie-Talkie sets should not be used for unnecessary discussion with Loco Pilot/ Guards and any other staff.

APPENDIX 'B-1'

APPENDIX 'B-1' TO STATION WORKING RULES OF DHANMANDAL STATION

1.0 STAND BY OPERATION OF SIGNALS, POINTS, CRANK HANDLES, SIDING POINTS BY VDU (PC):

1.1 One VDU (PC) is provided as stand by for operation of signals, points, Crank Handles, siding points with track diagram. A Yard miniature diagram will be displayed on the VDU (PC), which is exact replication of operation cum indication panel and suits the yard plan as per SI Plan No. 21007 ALT-C. Key board/Mouse is provided to operate VDU (PC). One two-position switch is provided on the panel board as a means of change over from operation cum indication panel to VDU (PC). Whenever the switch is turned to extreme right, it will enable SM to operate all functions from VDU and on the other hand when it is kept in the centre position the VDU will be inoperative and operation of all function will be possible from operation cum indication panel.

2. GRAPHICAL USER INTERFACE:

On the main window of the VDU, controls are provided to invoke all the functions including some to change the size and shape of the window itself. The main Window consists of:

- Main Title Bar
- Display Area
- Status Bar
- Menu Bar

2.1 MAIN TITLE BAR:

The main title bar is seen on the topmost part of the application window wherein the name of the application is displayed.

2.1.2 DISPLAY AREA:

The Display Area of the screen is used by VDU to display the various information pertaining to its operation. The ASM may select the information to be displayed such as the Control Cum-Indication Panel using the Menu Bar.

2.1.3 STATUS BAR:

The status bar, at the bottom of the frame window, displays three panes. The left pane shows the status of Caps-Lock key, the middle pane shows the status of Num-Lock key and the right panel shows the status of Scroll-Lock key respectively.

2.1.4 THE MENU BAR:

The Menu bar is displayed below the main title bar. This contains a number of pop up menus, which when opened show the different options an SM can select to invoke a VDU function. The Menu bar displays the following menus.

- Main
- Display
- Window
- About

...Main	Display	Window	About.....
Exit Ctrl+X	Control Cum-Indication Panel Ctrl+C	Cascade	About VDU ...
		Title	Horizontally
		Title	Vertically

Each of the menus can be selected by clicking the left mouse button or by using the 'Alt key' associated with the menu items. When, the SM selects the menu, the corresponding submenu pops up. The SM can select the choice by moving the cursor over the submenu and left clicking mouse button or by using the 'Ctrl key' associated with submenu items.

2.2 **EXIT:**

This option is provided for the SM to exit from the VDU (PC) system.

- (a) Whenever SM desire to change over from VDU to panel board, the pointer to be tracked to "LOCAL VDU CHANGEOVER" icon and click left of the mouse.
- (b) Turn the three position switch provided on the panel board to centre position. Now SM will be able to operate all functions from the panel board.
- (c) Further the pointer to be tracked to "DISPLAY" option appearing on the top of the VDU and click left button of the mouse. By this operation sub menu bar is displayed as shown in Para 2.1.4 above. After clicking the mouse button on the 'EXIT', SM can switch off the VDU (PC).

2.3 **CONTROL CUM-INDICATION PANEL:**

The Control Cum-Indication Panel diagram will appear on the display area as the Selecting the Control cum-Indication Panel chooses VDU application Sub menu option from the display menu.

2.4 **VDU PANEL OPERATION PROCEDURE:**

Controls from the VDU panel are possible by clicking left button of a pointing device (mouse). When the operator clicks on the control device (e.g. Point, signal etc.), a pop up menu appears nearby the control device on the VDU. The pop-up menu displays all the possible commands for the control device. The operator can track his pointing device on the pop-up menu to point to the commands he intends to give. The tracked command is high -lighted on the pop-up menu. The operator will click the left mouse button on the command he intends to give.

2.4.1 **START-UP:**

- (a) On turning the three position switch to extreme left, the VDU will start and window of VDU will display the main window with main menu as described in Para 2.1.4.
- (b) On main menu SM need to track pointer to "DISPLAY" and click left button of the mouse and by this operation control cum indication panel will appear on VDU (PC).
- (c) As and when control cum indication panel sub menu appears on the VDU (PC), on duty SM/ASM need to track the pointer by operating mouse/Keyboard to "CONTROL CUM INDICATION PANEL" and left click on the mouse and thereby exact replica of operating cum indication panel will appear on the VDU (PC).
- (d) To restart the operations from the VDU, on duty SM need to left click on the "SM- key" icon. With this a menu password will appear. SM need to enter the password through Key Board and press the Enter Key provided on the keyboard. This will enable SM to do all the operations from VDU.
- (e) On duty SM need to track the pointer to the concerned signals, points and other controls required to be operated.

2.4.2 TO OPERATE A POINT:

The SM need to track the pointer to concern point and left click the mouse and then operator has to click the point group button reverse or normal or emergency normal/reverse whatever be the case may be clicking the left button of the mouse within 10 seconds.

(a) REVERSE TO NORMAL SETTING:

Pointer to be tracked to NORMAL and left click the mouse and then operator has to click the point group button normal by clicking the left button of the mouse within 10 seconds. A flashing indication will appear on it in horizontal line. Steady indication will appear when point will set and locked in NORMAL condition.

(b) NORMAL TO REVERSE SETTING:

Pointer to be tracked to REVERSE and left click the mouse and then operator has to click the point group button reverse by clicking the left button of the mouse within 10 seconds. A flashing indication will appear on it in horizontal line. Steady indication will appear when point will set and locked in REVERSE condition.

(c) EMERGENCY NORMAL:

This operation need to be resorted to when point zone track circuit/axle counter has failed and point is free. Operator has to click the required point button by left click the mouse and then operator has to click the point group button emergency normal by clicking the left button of the mouse in 10 seconds. A flashing condition will appear on it in horizontal line. Steady indication will appear when point will set and locked in NORMAL condition. This operation is possible when Point is not locked by signal route. The emergency point operation veeper counter provided in the panel board will change to next higher number and this number should be recorded in the register provided for this purpose.

(d) EMERGENCY REVERSE:

This operation need to be resorted to when point zone track circuit/axle counter has failed and point is free. Operator has to click the required point button by left click the mouse and then operator has to click the point group button emergency REVERSE by clicking the left button of the mouse in 10 seconds. A flashing condition will appear on it in horizontal line. Steady indication will appear when point will set and locked in REVERSE condition. This operation is possible when Point is not locked by signal route. The emergency point operation veeper counter provided in the panel board will change to next higher number and this number should be recorded in the register provided for this purpose.

2.4.3 SIGNAL CONTROLS (Setting and Canceling a route)

To operate a signal, SM needs to track the pointer to the concerned signal and left click the mouse. By this operation signal menu with signal number along with route and calling-on signal, shunt signal if any, will appear on same signal menu.

(a) SETTING A ROUTE:

To set a route of a signal, click the left button of the mouse on the concerned signal. The appearing signal pop up menu will give details of all the routes on the signal. SM needs to track the pointer to the required route and left click on it. A flashing indication will appear on the required route. A steady indication will appear after the required route is set and locked and signal is cleared. A white light track indication will appear on the route so set. This indication will turn to red when the train occupies the track circuit.

(b) **CANCELING A ROUTE:**

To cancel a signal route already set, click the left button of the mouse on the concerned signal. The appearing pop-up menu gives details of all the possible commands on the signal. The SM will select the required signal to be cancelled and click the left button of the mouse; the selected route will be cancelled.

(c) **EMERGENCY CANCELLATION OF ROUTE:**

To resort this operation SM has to track click the left button of the mouse on the concerned signal and then operator has to click the concerned emergency route cancellation button by clicking the left button of the mouse within 10 seconds the selected signal route will be cancelled.

The route will be cancelled after laps of two minutes and veeder counter provided on the panel board will change to next higher number, which should be recorded in the Train Signal Register provided for this purpose.

2.4.4 **CRANK HANDLE:**

To 'Transmit' or 'Release' control for Crank Handle, click the left button of the mouse on the concerned Crank Handle and then operator has to click the concerned button (TRANS/RELEASE whatever be the case may be) by clicking the left button of the mouse within 10 seconds.

If the SM has click on the 'TRANS' in case Crank Handle key is to be transmitted by this operation key can be extracted from EKT. On the other hand SM has clicked on the "RELEASE CONTROL" when crank handle key is returned back in the EKT. Key in, key lock and flash indication will appear on the VDU in the same manner as described in Para 4.1 of Appendix-'B'.

2.4.5 **SM'S KEY ON VDU:**

To prevent the unauthorized operation by other than on duty SM from VDU this facility is provided on VDU. On duty SM need to track the pointer to the "SM key" icon and click left button of the mouse. By this a menu "Password" will appear. SM need to enter the password through Key Board and press the enter key provided on the Key Board. This will lock all the operations.

To restart the operations from the VDU, on duty SM need to left click on the "SM key" icon. With this a menu password will appear. SM need to enter the password through Key Board and press the Enter Key provided on the keyboard. This will enable ASM to do all the operations from VDU.

2.4.6 **BUTTON HELD ACK:**

During operation if any function is held up, SM needs to press Alt, Ctrl and Delete keys at a time from the keyboard. A menu "End Task to last" will appear on the screen and SM needs to click on it. This will enable SM to do all the operations again on VDU.

2.4.7 **POINT LOCK, OVERLAP LOCK AND SIGNAL LOCK INDICATION:**

All the above indication will appear on VDU as mentioned in Appendix-'B'.

APPENDIX 'C' TO STATION WORKING RULES OF DHANMANDAL STATION

ANTI COLISION DEVICE (RAKSHA KAVACH)

=== NIL ===

(A.K.JENA)
DSTE/KUR

(B.PANDA)
DOM/KUR

APPENDIX 'D' TO STATION WORKING RULES OF DHANMANDAL STATION

(Operating and Commercial duty amalgamated)

1. STATION SUPERINTENDENT:

He is In-charge of the station. He is responsible for the efficient discharge of duties devolving upon all the Staff employed at the station according to rules, safe working instructions and Station Working Rules. He shall see that all signals, points and whole machinery at the station are in proper working order. He shall report all defects to the concerned officials. He shall get himself well conversant with the detailed working of Station and panel, points and signals etc.

He is responsible for maintaining the Assurance Register up to date. He shall conduct surprise night inspection and safety meetings/fire drills etc. as per instructions issued from time to time. He shall see that all the departments under his control are functioning efficiently and staff working safely according to the rules in force.

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

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

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

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

He shall frequently visit the Platform, Panel Room, etc. in order to maintain an effective supervision over the said staff and their working. He shall see that station premises are kept neat and clean.

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

He shall see that all equipment, apparatus and instruments including signal and interlocking gears are in proper working order and all failures are promptly reported to officials concerned for repairs/rectifications.

He shall pay special attention towards passenger amenities & coaching trains punctuality and yard feasibility. He shall endeavor for minimizing detention to freight trains by judicious planning of train staff. He shall pay attention to smooth functioning of goods train to eliminate detentions.

He shall ensure compliances of all Operating, Safety and Commercial records maintained at the station. He is responsible for overall supervision of the station.

(B.PANDA)
DOM/KUR

1.1.1 ASSURANCE REGISTER:

All staff before taking up independent charge of their duties at this station shall make a written declaration in the Assurance Register that they have read and thoroughly understood the system in force and must sign such declaration.

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

The SS is personally responsible for maintaining the Assurance Register and for obtaining declaration from the staff working under him. The Assurance Register must be maintained in two parts one for Class-III staff and other for Class-IV staff. A duplicate copy of the Assurance Register must be maintained and kept in the personal custody by the SS In-charge.

The declaration is to be renewed in the following cases:

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

1.2 USE OF PRIVATE NUMBER BOOKS AND IDENTIFICATION NUMBER SHEETS:

Sufficient private number books and identification number sheets in sealed covers shall always be kept in stock by Station Supdt., under lock and key by maintaining one register for this purpose.

The SM on day shift duty shall test the working of the reception signals and emergency cross over daily during the day when there is no train due to arrive/leave the station and record the results in the SM's diary.

1.3 ACCIDENTS:

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

1.4 TESTING OF POINTS AND SIGNALS:

The SS shall test the working of the reception signals daily during the day when there is no train due to arrive/leave the station. He shall also test the working of points, crossing etc. and record the result in the Station Master's diary.

2. SM/ASM:

He shall work in train passing duties and booking of traffic, coaching returns and other statements shall be prepared and submitted by him in time.

The SM/ASM on duty shall record in the diary the condition of all the running lines, siding and the caution orders in force at the time of handing over charge.

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These entries shall be countersigned by the SM/ASM coming on duty and taking over charge. This will not however relieve the SM of his responsibility to ensure by physical check that the respective line is clear of obstruction before admission of any train on it. The SM on duty who makes an entry in the train signal register shall continue till all the pertaining to the trains are completed vide SR 14.07.01. The SM is responsible for safe reception and dispatch of trains, operation of panel, operation block instruments strictly in accordance with the procedure and rules as laid down in Chapter-IV of the Block Working Manual. He is responsible for ensuring deficiency to the concerned official for early rectification. He shall not allow any unauthorized persons to enter into the station or allow him, allow them to interfere in the panel and block instrument. He shall not leave his duty spot till relieved by a competent railway servant. He shall exchange signals with the train staff to take action as required under rules. He shall see that safety equipments are available in good working order. Inspection Register, failure register and safety equipment chart are to be maintained up to date.

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 duty of SS will devolve on him. His special attention is drawn to Chapter-II of G & SR 2010 (Revised) and GR 5.01 to 5.08 with relevant SRs as an assistant to SS given to him by the SM/ASM.

3. **HANDING OVER AND TAKING OVER CHARGE:**

The SS/SM/ASM on duty shall record all movements in the diary. The condition of running lines the caution orders in force and private number used last at the time of handing over charge. These entries must be checked and counter signed by the SS is incoming on duty and taking over charge. This will not however relieve any one of the SS/SM/ASM of his responsibility to ensure by physical check that the nominated line is clear of all obstruction before admission of any train on it.

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

He shall work under the instructions of SS/SM/ASM on duty and follow the GR 02.05 to 2.11 and other relevant rules laid down in GR and SR.

He shall be remain responsible for:

- (a) Correct setting and locking and crank handling of points for reception/dispatch and shunting operation.
- (b) Coupling and un-coupling of vehicles.
- (c) Protection of line in an emergency
- (d) Piloting and hand signaling of trains of trains when necessary and handing over caution orders/or any other line clear authorities to the Loco Pilot and Guards of the trains.
- (e) Attending off side to observe safe running of run through trains at stations and correct display of hand signals and ringing the station bell.
- (f) Securing of vehicles, as directed, protection of vehicles of a train.
- (g) Being conversant with the layout of the yard and compliance of rules relating to shunting operation.
- (h) Observing General Rules 5.13 to 5.21 and relevant subsidiary Rules during shunting.
- (i) Cleaning of hand signal lamps if required, oiling of clamps and padlocks if necessary.
- (j) Loading and un-loading of parcels and luggage's, packages goods and guards boxes to and from the trains and watching the packages and other materials by properly stocking in the station premises.

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- (k) Cleaning and Dusting of SM's office room furniture.
- (l) Carrying messages cell books etc where a separate call boy messengers are not posted.
- (m) Working as fog signal man as and when required.
- (n) Filling up the fire buckets with sand.
- (o) Getting train interact arrival register (T/1410) signed by the Guard as and when required.
- (p) Any other duties entrusted to him by the SS/SM/ASM on duty from time to time.

GENERAL

1. A set of flags and LED based battery operated flashing signal lamps will be part of the essential equipment of the staff while on duty. He shall not leave the station except when required by the SS/SM/ASM on duty or with his permission and shall comply with Subsidiary Rules 4.42.02 (b) (i) and (d).
2. Staff working at the station must be able to distinguish UP and DN lines and educated in distinguishing other operational forms and documents, delivered to Loco Pilots and Guards and must also know how and when to ring the station bell.

APPENDIX 'E' TO STATION WORKING RULES OF DHANMANDL STATION

A list of Essential Safety Equipment's which should be kept readily available in good working order with necessary relief stock.

Sl. No.	Description	Station
1.	Detonator Signals	20
2.	LED based battery operated flashing lamps	6
3.	Hand Signal Flags	6 set
4.	Safety chain with Padlocks.	6
5.	Clamps with Padlocks	12 (4 at station and 4 in each goomty)
6.	Skids	6
7.	Fire and Sand Buckets.	7
8.	Reminder Collar	8
9.	Motor Trolley on line label.	2
10.	Fire extinguisher	2 (DCPT).
11.	First Aid Box	1
12.	Stretcher	1
13.	Block Suspension Board	3
14.	Power Block Collar	3

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DSTE/KUR

(B.PANDA)
DOM/KUR

APPENDIX 'F' TO STATION WORKING RULES OF DHANMANDAL STATION

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

1.1 **MID-SECTION OUTLAYING SIDING:**

There is no mid-section siding on either end of block section.

1.2. **IBH, IBS/DK STATION:**

BARITHENGARH (Code: BRTG) IBH is situated at a distance of 6.35 Km. from DNM in South side.

1.3 **PASSENGER HALT:**

NIL

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