

NO.17

STATION WORKING RULES OF BYREE STATION

BG Station

Date of Issue: 06.06.13

Date brought into force: 07.06.13

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/21127 based on CSTE/East Coast Railway's Signal Interlocking Plan No. SI/21127 ALT-C shows the complete layout of the yard, siding, normal position of points, the Signalling and Interlocking arrangements, Gradients and Level Crossings within the station limits. This must be referred to for giving details of the point numbers and signals when reporting accidents.

2. **DESCRIPTION OF STATION:**

2.1. **LOCATION:**

BYREE (Code: BYY) is a Class 'B' four lined station on the Howrah – Visakhapatnam Double line electrified (BG) section of East Coast Railway. It is situated at Km. 383.757 from Howrah. The station is provided with Standard-III (R) Interlocking and equipped with VDU and Multiple Aspect Colour Light signals. The station is worked under Absolute Block System of GR & SRs.

[Refer 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, 14.08 (a)]

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:**

BYREE (Code: BYY) station is situated between BARITHENGARH (Code: BRTG) in the North side at a distance of 4.46 Km. and KAPILAS ROAD (Code: KIS) in the South side at a distance of 10.112 Km.

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

NIL

2.2.iii **PASSENGER HALT:**

Sri Jhadeswar (Code: SJDR) PH at Km. 387.06 from HWH is situated between Byree and Kapilas Rd. station.

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
BRTG-BYY UP Direction	400 M beyond the UP Home Signal of BRTG.	Outermost facing point No. 21A of BYY.
BYY- BRTG DN Direction	DN Advanced Starter Signal of BYY station	400 M beyond the DN Home Signal of BRTG.

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BYY-KIS UP Direction	UP Advanced Starter Signal of BYY station.	Outermost facing Point No.19A on UP Line at KIS station.
KIS-BYY DN Direction	DN Advanced Starter Signal of KIS station	BSLB on DN Line at BYY station.

b. **STATION SECTION:**

Station Section	The Point from which the 'Station Section' Commences	The Point at which the 'Station Section' end
UP Line	Outer most facing point No. 21A on UP line at HWH end.	UP Advanced Starter No.9.
DN Line	BSLB on DN line at VSKP end.	DN Advanced Starter No.8.

c. **STATION LIMIT:**i. **UP LINE:**

UP Inner Distant Signal of BYY to UP Advanced Starter Signal No. 9.

ii. **DN LINE:**

DN Inner Distant Signal of BYY to DN Advanced Starter Signal No. 8.

2.4 **GRADIENTS:**a) **TOWARDS HWH END:(FOR UP LINE)**

From	To	Gradient
CSB	CH: 736.50.4M	LEVEL
CH: 736.50.4M	CH:1965.350M	1 in 242 'R'
CH:1965.350M	CH:6354.47M	LEVEL

TOWARDS HWH END:(FOR DN LINE)

From	To	Gradient
CSB	CH: 716.28M	LEVEL
CH: 716.28M	CH: 868.68M	1 in 400 'F'
CH: 868.68M	CH: 1081.43M	1 in 200 'F'
CH: 1081.43M	CH: 1607.21M	1in 250 'F'
CH: 1607.21M	CH: 1782.47M	LEVEL
CH: 1782.47M	CH: 2125.37M	1 in 250 'F'
CH: 2125.37M	CH: 2361.59M	LEVEL
CH: 2361.59M	CH: 2529.84M	1in 250 'R'
CH: 2529.84M	CH: 3435.100M	LEVEL

c) **TOWARDS VSKP END: (UP LINE)**

From	To	Gradient
CSB	CH: 503.53M	LEVEL
CH: 503.53M	CH: 843.18M	1 in 400 'F'
CH: 843.18M	CH: 1213.65M	1 in 243 'F'
CH: 1213.65M	CH: 1905.61M	LEVEL
CH: 1905.61M	CH: 2972.41M	1 in 250 'R'

b) **TOWARDS VSKP END: (DN LINE)**

From	To	Gradient
CSB	CH: 503.53M	LEVEL
CH: 503.53M	CH: 843.18M	1 in 400 'F'

CH: 843.18M	CH: 1213.65M	1 in 233 'F'
CH: 1213.65M	CH: 1905.61M	LEVEL
CH: 1905.61M	CH: 2972.41M	1 in 250 'F'

b) **FOR OCL LINE**

From	To	Gradient
From Take off point	CH: 150.00M	1 IN 400 'R'.
CH: 150.00M	CH: 960.00M (VSKP side)	1 in 402.98 'R'
From Take off point	CH: 612.332M (HWH side).	1 in 400 'F'
CH: 150.0M	CH: 960.00M (HWH side).	1 in 402.98 'R'
CH: 960.00M	Towards in-plant yard.	1 in 164.426 'R'

2.5. **LAYOUT:**

The station is provided with four running lines in the Main yard (namely Common Loop Line, DN Main Line, UP Main Line, UP Loop Line and three non-running line (i.e. Hot Axle siding, OCL Goods Loop-1 & OCL Goods Loop-2).

i. **HOT AXLE SIDING:**

The hot Axle siding at VSKP end of the yard is taken off from line No.1 (UP loop) with single end entry. The entrance point & corresponding derailing switch are coupled & operated by an arc lever at site. The entrance point is fitted with hand plunger locks. The hand plunger lock is unlocked by Hot Axle siding key 'P'. & released by pressing the button No.28 & common group trans button provided on panel/VDU at SM's office. Reception signals (i.e. 1B, C1B in UP direction) & shunt signal No.10D & Starter signal No. 5 are electrically interlocked in such a way that these signals can not be taken 'off' if the Hot Axle siding key is taken 'OUT' from the RKT provided at Hot Axle siding location box at site.

b. **PLAT FORMS:**

- i) Plat form No. 1(UP loop) : R.L.P.F (351.120M X 4M)
- ii) Plat form No. 2(UP Main) : R.L.P.F.(351.120M X 4.57M)
- iii) Plat form No. 3 (DN Main) : R.L.P.F. (351.120M X 4.57M)
- iv) Plat form No. 4 (Common Loop) : R.L.P.F. (351.120M X 8.3M)

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

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

2.5.2. **HOLDING CAPACITIES:**

Line No.1	UP Loop	726 M	(Electrified).	From Starter to SB
Line No.2	UP Main	751 M	(Electrified).	From Starter to SB
Line No.3	DN Main	780 M	(Electrified).	From Starter to SB
Line No.4	Common loop	690 M	(Electrified).	From Starter to Starter
	OCL Goods Loop-1	686.5 M	(Electrified)	From Starter to Starter
	OCL Goods Loop-2	1062 M	(Electrified)	From Starter to Starter

2.5.3. **NON RUNNING LINES:**

- 1. Hot Axle siding 40 M (Electrified). From BJ to DE

(a) **ANY SPECIAL FEATURES IN THE LAYOUT:**
NIL

(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/Sand Hump must not be used for stabling of vehicle or harboring an engine with or without vehicle.
- iv) UP Trains running through Line No. 4 (common loop) at this Station is strictly prohibited. In case it unavoidable to pass through the train admitted over common loop it should brought to a stop at the starter signal before the same is taken off.
- v) While performing shunting engine shall be leading towards KIS as well as BRTG end due to falling gradient.

[c] **SPECIAL INSTRUCTIONS:**

- 1 Whenever a non-signal movement has taken place over motor operated point whether facing or trailing direction, the SM on duty shall operate the point to normal or reverse setting for the purpose of testing the points. After clamping and padlocking both the facing and trailing points and the indications are correctly available, further movement may be permitted over the point.
2. All the four berthing lines (L1, L2, L3 & L4) are track circuited. In case of failure of track circuit, the clearance of the nominated line has to be ensured physically before piloting 'IN' the train.
3. Movement of non-insulated trolleys/motor trolleys/lorries are prohibited between KIS-BYY and BYY-BRTG sections vide SR 15.25.04 (c)
4. Incase of failure of 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.
5. Speed over turn outs on directional loop line No. 1 & Line No.4 is 30 KMPH as per CRS sanction No. 695 Dtd. 24.09.2009.

2.6 **LEVEL CROSSINGS:**

- i) There is a 'A' class interlocked level crossing gate No. 169 situated at Km. 383/15-17 (UP) and 383/18-16 (DN) in between DN starters and DN Advanced Starter at HWH end of the Station yard & directly operated by means of a winch from Gate Lodge. Telephone communication is provided between the Gate lodge and the SM/BYY.
- ii) There is a 'C' class non-interlocked level crossing gate No. 170 situated at Km. 386/25-27 (UP) and 386/28-26 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/BYY.
- iii) There is a 'C' class non-interlocked level crossing gate No. 171 situated at Km. 387/37-388/1 (UP) and 388/2-387/32 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/BYY.
- iv) There is a 'C' class non-interlocked level crossing gate No. 172 situated at Km. 392/13-15 (UP) and 392/16-14 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/KIS.

3. **SYSTEM AND MEANS OF WORKING:**

Trains are worked under Absolute Block System by means of Block Panel (axle counter double line) for BRTG-BYY & KIS-BYY sections. The Block Panel shall be operated by Station Master on duty and keys of the Block Panels 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 Panels 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 Panel.

4. SYSTEM OF SIGNALLING AND INTERLOCKING:

4.1 This Station is provided with Standard-III (R) interlocking with Multiple Aspect Colour Light Signalling 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 (EI) interlocking and having no end cabins. All signals and points are electrically operated from the central panel/VDU provided at SM's Office. Operation of EI from Visual Display Unit (VDU) is available as stand by option. 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, Gate 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)

(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/VDU 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	21A/B.
CH-2	22 A/B, 24 A/B.
CH-3	23 A/B,25 A/B,29 A/B,30 A/B
CH-4	26 A/B
CH-5	31 A/B, 32.

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals are not taken 'OFF' and the route is not locked for whatever reasons. Crank Handle can be released by pressing common 'TRANS' push button and concerned Crank Handle control push button simultaneously. When the keys are taken out no signal can be taken "OFF" over the particular route on the points nominated by that Crank Handle. This key can be electrically transmitted at both ends locations of the yard for manual operation of the defective points.

SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SM on duty at the station as per Para 20.06 (d) of the Operating Manual. Correct setting, clamping and padlocking of the points devolve on the SM on duty. (Details of use of Crank Handle are as per Appendix-'B').

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

[b] TAKING OFF CALLING-ON SIGNAL:

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

To take "OFF" Calling-on signal the train must come to a stop at the foot of the Home signal, occupying the track circuit in rear of the signal. When a train occupies the track circuit a RED light strip will appear on the panel. The particular route on which train is intended to be received shall be set by operating the point push button and group button individually or by signal and route button pressing or by crank handling in the event of failure of operation of points through panel/VDU. After the route is set, the Calling-on signal switch 'C1A/B/C/D – 'C2A/B/C (Red with White dot) (as the case may be), shall be pressed simultaneously along with the 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. Every such operation has to be recorded by the on duty SM along with the reasons to do so. The calling-on signal route can be released after the signal cancellation button is pressed after complete arrival of the train.

NOTE:

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

[c] SHUNT SIGNALS:

Shunt signal No. 13 & 14 below Dummy starter signal No.13 & 14 and independent Back shunt signal No. 10, 11 & 16 are provided for shunting purpose.

[d] EMERGENCY CROSS OVER:

One 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. A push button (Black with Red dot) is provided on the top of the panel. If such operation is necessary, the SM on duty, after ensuring that SM's emergency point key is 'IN' and 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'. All such operations will be registered in the emergency point operation counter Register. 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 release the route and seal the emergency route release button.

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.

[i] **TRACK CIRCUITS:**

Entire station section in either UP and DN directions are track circuited except Hot Axle Siding.

In addition there are short length track circuits in advance of Advanced Starter Signals and Home signal in both the directions are also provided. For Calling-on signals (7 Rail length) track circuits are also provided in rear of the Home signals in both directions. From last trailing point/fouling mark in either side of Yard to Advanced Starter Signals are also track circuited (i.e. 9AT and 8AT in UP and DN directions respectively). Indications for the above track circuits are available on panel/VDU at SM's office. Yellow light on panel indicates track clear and Red light indicates track occupied condition.

[j] **AXLE COUNTER:**

Entire Block Section between BYY-BRTG and BYY-KIS are provided with Block Panel with Analog axle counter.

FOR SEC: BYY-BRTG: A pair of electronic axle counter is provided between BYY-BRTG on UP line one just beyond 400 m of UP Home signal of BRTG and another pair is on track 1T1 i.e. beyond the UP home signal at BYY. Similarly, a pair of electronic axle counter is provided between BYY-BRTG on DN line one just beyond DN Advanced Starter of BYY and another pair is beyond 400 m of DN Home signal of BRTG.

FOR SEC: BYY -KIS: A pair of electronic axle counter is provided between BYY-KIS on UP line one just beyond UP Advanced Starter BYY and another pair is on track 1T2 i.e. beyond the Up home signal of KIS. Similarly, a pair of electronic axle counter is provided between BYY-KIS on DN line one just beyond DN Advanced Starter of KIS and another pair is on track 2T1 i.e. beyond DN Home signal of BYY.

The position of the Block section whether cleared or occupied are reflected in the Block panel 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 Instrument 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 'yellow' light when track is clear. There will be no track indication when any route is not set.

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 and the other key with the signal maintainer. Whenever required the SM shall hand over 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 is to be properly recorded in the basement/relay room key register maintained at the station and duly signed by the SM and maintainer respectively.

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.
Eg.: 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. For IPS system that provides to SSI auto-change over has been provided.
5. 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
6. One indication Panel for monitoring of IPS voltage has been provided in the SM's room. The indication panel shall display the voltages 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 are given below:-

SM INDICATION PANEL FOR IPS

An indication panel for IPS is provided at the station master room which gives audio visual indications depending upon the condition of the IPS & IPS Battery voltage. The different indications available in the Panel are as mentioned below.

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 indications 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 SM shall acknowledge the alarm by pressing the push button provided on the Panel. Pressing of 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 KIS-BHC, JKPR-NYG Control Circuit.
- b) Telephone attached to Block Panels for sections BYY-KIS and BYY-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. 383/15-17 (UP) & Km. 383/18-16(DN), 387/37-388/1(UP) & 388/2-387/32 (DN) and Km. 386/25-27 (UP) & 386/28-26 (DN).
- f) Telephone communication is provided between SM's office and HA siding location box.
- g) BSNL phone is provided at this station.
- h) The station is connected to BHC-BRAG traction power control circuit.
- i) VHF set is provided at the station.
- j) Telephone communication is provided between SM on duty & the authority of M/s OCL India Ltd.

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.
3. Telephone communication is provided between SM on duty and the authority of M/s OCL India Limited.

6. **SYSTEM OF TRAIN WORKING:**

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

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

6.1 **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	1 (One)	in each day shift
SM/ASM	1 (One)	in each Night shift
Traffic Points Man	1 (One)	in each shift
Traffic Gateman	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 Supdt's office and in Gate lodge for traffic gate man (Details duties are given in Appendix-'D').

i. **RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF LINES AND ZONES OF RESPONSIBILITY.**

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

ii. **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 Station Superintendent.

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
- iii. **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 key by maintaining register for this purpose.

6.2. CONDITIONS FOR GRANTING LINE CLEAR:

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

- (i) The whole of the last preceding train has arrived complete in side the BSLB in DN direction and the outermost facing point No. 21A in UP direction.
- (ii) All necessary signals have been put back to 'ON' behind the said train.
- (iii) The line is clear up to the BSLB on DN Line for DN trains and up to Point No. 21A on UP Line for UP 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 BYY shall ensure the closure of the L.C. Gates at Km. 386/28-26 & 388/2-387/32 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

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].

1.2. RECEPTION OF A TRAIN ON BLOCK LINE:

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

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 and trailing points are clamped and padlocked and
- d) The Loco Pilot is authorized to pass the approach stop signals at 'ON' through a written authority. [Refer GR 5.10].

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. [Refer SR 5.11.1]

1.5. **DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:**
NIL

- 1.6 UP Main, UP loop, DN main, Common loop are track circuited. In case of failure of track circuits, 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 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 trains. [Refer GR 3.36, 3.38, 3.40, 3.47, 4.17 and SR 3.36.01, 3.36.02, 3.36.04, 3.40.01, 3.40.02, 4.17.02, and Block Working Manual].

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 with drawn 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/DESPATCH AND PRECEDENCE OF TRAINS:**

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

1.	While Receiving of an UP train on line No.1 (UP loop)	Receiving/dispatching of a DN train on line No. 3 or 4 OR dispatching of an UP train from line No. 2 or 4 and dispatching of a DN train from OCL Goods Loop -2 and receiving/dispatch of a UP/DN train from OCL Goods Loop -1.
2.	While Receiving an UP train on line No.2 (Up main line)	Receiving/dispatching of a DN train on line No. 3 or 4 and receiving /dispatch of a UP/DN train from OCL Goods Loop -1 or dispatching a DN train from Goods Loop-2.
3.	While Receiving an UP train on line No.4 (Common Loop)	Dispatching of an UP train from line No.1 or 2 and receiving of a DN train on OCL Goods Loop -2 . and receiving /dispatch of a UP/DN train from OCL Goods Loop -1
4.	While Receiving an UP train on OCL Goods Loop -2	Dispatching of an UP train from line No.1, 2 or 4. and receiving /dispatch of a UP/DN train from OCL Goods Loop -1
5.	While Receiving of a DN train on line No.3 (DN Main)	Receiving/dispatching of an UP train on line No. 1 or 2 and receive of an DN train on OCL Goods Loop -1.

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6.	While Receiving of an DN train on line No.4 (Common Loop)	Receiving/dispatching an UP train on line No.1 or 2 dispatching a DN train from Line No. 3 and receive of a UP/DN train on OCL Goods Loop -2 or Goods Loop-1.
7.	While Receiving a DN train on OCL Goods Loop -1.	Receiving/dispatching of an UP train on line No. 1 or 2 or 4. OR dispatching of a DN train from line No. 3 and receive/dispatch of an UP/DN train from OCL Goods Loop -2

ADEQUATE DISTANCE(SIGNAL OVERLAP):

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

CLEARANCE OF ADEQUATE DISTANCE (SIGNAL OVERLAP)

FOR UP TRAINS		
1. UP Loop	UP Loop Starter signal No. 5	Up to the end of sand hump or up to the UP Advanced str. No. 9.
2. UP Main	UP Main starter signal No.3	Up to the UP Advanced str. No.9.
4. common loop	Common Loop starter signal No.7	Up to the UP Advanced str. No.9 OR up to the end of the Over Run Line.
FOR DN TRAINS:		
Line Number	From	To
3. DN Main	DN main line starter signal No.4	Up to the edge of L.C. Gate at Km. 383/15-17 (UP) & 383/18-16 (DN) [Keeping the Gate in open condition]
4. Common Loop	DN starter Signal No.6	Up to the end of over run line OR up to the edge of the L.C. Gate at Km. 383/15-17 (UP) & 383/18-16 (DN) [Keeping the Gate in open condition.
FOR OCL GOODS LOOP		
OCL Goods Loop -1	Starter signal No.14	Up to the end of over run line.
OCL Goods Loop -2	Starter signal No.13	Up to the end of over run line. DS Point No.32 keeping in open condition.

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 "Yellow" indication. 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 by means of push button switches provided on the control panel. He shall then verify from the visual indication available in the panel that points are set to the desired route. The interlocked L.C. Gate is to be closed and the key is to be transmitted to panel through EKT.

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. The SM on duty shall ensure the closure of the level crossing gate against road traffic before taking off UP Home signal.

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 magnetic collars be used by the SM on duty on the concerned push button.

6.5 **COMPLETE ARRIVAL OF TRAINS:**

The entire block section between BYY-KIS and BYY-BRTG on both UP and DN Lines are monitored by axle counter system with block panel and the position of the block section whether ‘Occupied’ or ‘Clear’ is indicated in panel board at SM office. As soon as train enters into that block section the RED indication appears on block panel. After whole train clears the block section 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.

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 in rear. 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 of failure of axle counter between BYY-BRTG, the traffic gate man on duty shall ensure that the train has arrived complete and shall give one private number to SM on duty vide SR 4.17.01 (e) (vi). In case of failure of Axle counter between BYY-KIS the SM on duty shall obtain Complete Arrival Certificate from the guard of the train in the 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.

In case a train passes incomplete action shall be taken as per SR. 4.17.02 and 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 number.

Train passing on the adjacent line 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 until complete arrival of the said train is received.

On occasions when motor trolley follows a train the points shall not be operated until the following motor trolley is admitted on the same line. In the event of motor trolley is delayed in the section the SM on duty shall take action in terms of SR 15.25.03 (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 himself 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 Brake Van the instruction laid down in Subsidiary Rule shall be followed. The interlocked level crossing gate shall remain closed against road traffic for dispatch of trains. [Refer SR 4.23.02 & 4.25.02].

NOTE :

- (i) Before dispatching an UP train, the SM on duty shall ensure the closer of the L.C. Gates at Km. 387/37-388/1 (UP) & Km. 386/25-27 (UP) from the gatemen on duties under exchange of Private Numbers separately.
- (ii) Before dispatching an UP train, the SM on duty shall ensure the closer of the L.C. Gate at Km. 392/13-15 from SM/KIS under exchange of Private Number.

6.7 TRAINS RUNNING THROUGH:

The procedure detailed in Para 6.4, 6.5 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 any thing wrong is noticed on train. For this purpose the Station Master on duty shall stand in such a position that he sees a clear view of the passing train and that his hand signals can clearly be seen by the Loco Pilot and Guard of the train.

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

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

6.8 WORKING IN CASE OF FAILURE:

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

A. TRACK CIRCUITS:

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

B. AXLE COUNTER:

In case of failure of axle counter in the block section, resetting procedure will be adopted as per SWR (Appendix-B). if the axle counter indication does not appear 'Green after the 1st train passed & continues to show 'RED' condition after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional Signal Maintainer /JE/SE (Signal) for rectification.

C. BLOCK INSTRUMENTS

In the event of partial/total failure of block instrument the concerned block instrument shall be suspended till its rectification and trains shall work as per GR. [Refer 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 figure 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

- 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 & both, the facing and trailing points are clamped and padlocked.
- d. The Loco Pilot is authorized to pass the approach stop signals at 'ON' through a written authority. [Refer GR 5.10].

F. DEFECTIVE SIGNALS:

When signals become defective, the procedure laid down in G & 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. DEFECTIVE 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 through panel/VDU 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. These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals are in Normal Position and the route is not locked for whatever reasons.

Crank Handle can be released by pressing Common 'TRANS' push button and concerned Crank Handle control push button simultaneously. When the keys are taken out no signal can be taken "OFF" over the particular route on the points nominated by that Crank Handle. This key can be electrically transmitted at both ends locations of the yard for manual operation of the defective points.

SM on duty shall personally ensure the clamping and padlocking of all facing and trailing points. An emergency Crank handle register shall be maintained by the SM on duty at the station as per Para 20.06 (d) of the Operating Manual. Correct setting clamping and padlocking of the points devolve on the SM on duty. (Details of use of Crank Handle are as per Appendix-'B').

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

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. [Rules laid down in BWM. 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 confirm 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. Reminder 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 GR 5.23 and SR 5.23.01]

A. SECURING OF VEHICLES:

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

NOTE

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

B. USE OF REMINDER BLOCK COLLARS:

Whenever any running line is blocked or when a train is stopped to cross another train or detained for any other reason, even for a short while or during shunting operations, the reminder collars shall be used by the SM on duty on the push button concerned. [Refer SR 3.36.03 (b)]

C. ALTERATION OF A POINTS 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 incase, of collision, receive the impact.

D. LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES:

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

8. SHUNTING:**8.1. GENERAL PRECAUTIONS:**

Shunting will be carried out at the station in accordance with General Rule and relevant Subsidiary Rules and Block working Manual. [Refer GR 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.19, 5.20 to 5.23, 8.09 to 8.15]

The Guard/SM/Traffic Pointsman on duty is authorised to supervise shunting operation. Normally back shunt signals and caution aspect of starter signals shall be used for shunting operations. The official supervising shunting shall ensure the correct setting, clamping and padlocking of points incase 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.

NOTE

For any signal movement physical verification of the clearance of the cross over points shall be ensured by the Guard/SM/Traffic Pointsman on duty for supervising shunting operation.

8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approaching train is prohibited.

8.3 PROHIBITION OF SHUNTING SPECIAL FEATURE IF ANY:

Hand/Fly/Loose shunting is prohibited at both ends of the yard. Shunting in the face of an approaching train is prohibited.

8.4(A) 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)

B] 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 provision of GR 5.14 and SRs thereto shall be meticulously followed for shunting operations.

i. HOT AXLE SIDING:

The hot Axle siding at VSKP end of the yard is taken off from line No. 1 (UP loop) with single end entry. The entrance point & corresponding derailing switch are coupled & operated by an arc lever at site. The entrance point is fitted with hand plunger locks. The hand plunger lock is unlocked by Hot Axle siding key 'P'. & released by pressing the button No.28 & common group trans button provided on panel/VDU at SM's office. Reception signals (i.e. 1B, C1B in UP direction) & shunt signal No.10D & signal No. 5 are electrically interlocked in such a way that these signals can not be taken 'off' if the Hot Axle siding key is taken 'OUT' from the RKT provided at Hot Axle siding location box at site.

9.0(a) 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 or station telephone 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 or station fixed telephones-

- 'Line Clear' shall be obtained on Railway auto phone or BSNL phone by exchanging Identification Number supported by a Private Number.
- 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 on double line territory 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 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 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.
- i). 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.
- 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 6.02.05 (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 OR if a goods train does not arrive within 20 minutes after allowing for its normal running time from the station in rear, the SM at the station in advance shall immediately advise the station in rear and the control this fact. There after SMs at either end of the Block section shall immediately

stop all trains proceeding in to the block section on adjacent line in either direction and warn the Loco Pilots and Guards of such trains by issue of suitable Caution Orders. [Refer GR 6.04 & SRs thereto]

9.1 **TOTAL FAILURE OF COMMUNICATION:**

In the event of total failure of communications between BYY-BRTG and BYY-KIS i.e. when line clear can not 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) An authority to proceed without 'Line Clear'.
 - b) An authority to pass the Last Stop Signal at "ON" position,
 - c) A caution order restricting the speed to 25 KMPH by day when view ahead is clear and 10 KMPH 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, reception signals may be taken off only after the train has been brought to a stand out side it.
 - v]. On arrival at the next block station the Loco Pilot shall hand over the authority to proceed with out 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 on one clear line when one line is obstructed either between BYY-DNM and BYY-KIS since (BRTG is a 'C' class station, it will be remained closed during temporary single line working between BYY-DNM) , trains shall be worked as per the procedure as detailed below. [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 Block panel 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) The 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 SM shall give following documents.
 - A) An authority for Train Single Line working on double line (T/D 602) indicating there in.
 - (i) The line on which single line is introduced.
 - (ii) The kilo - meterages 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]

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 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 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.
- i). 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.
- ii). An authority to pass the stop signals at 'ON' position.
- (h) 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.

10. **VISIBILITY TEST OBJECT:**

The signal lights of starter signal No. 6 & 7 during day and night are the visibility test object 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 Gang man and must not be substitutes or casual labour but regular employees of the railway.

STATION DETONATOR REGISTER (OPT/124)

A Register regarding detonator is maintained at the station.

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.

13. **WORKING OF TRAINS BETWEEN BYY AND THE PRIVATE SIDING OF OCL INDIA**

LTD.

DESCRIPTION OF IN-PLANT YARD:

The in-plant yard consists of three lines.

<u>SI No</u>	<u>Line</u>	<u>CAL</u>	<u>From</u>
1	Pre Tippling Line	727.0 Meters	PT to FM

2	Post Tippling Line	739.386 Meters	PT to DE
3	Engine Reversal Line	235.57 Meters	FM to FM

14. **Details for working of OCL Siding:**

- (a) The siding takes off from the (i) point CH: 647.62 m F/CSB from Down Main (Line No.3) at VSKP end (ii) point CH: 457.20 m F/CSB from DN Loop line (line No.4) at HWH end of BYY station yard & is terminated with a dead end CH: 4562.833 mtr inside the in-plant yard.
- (b) All the points in the in-plant yard are non-interlocked hand operated points.
- (c) The movement of inward and outward traffic of the private siding complex of the in plant yard shall be undertaken by Railway locomotives.
- (d) The movement of pilots between BYY and the plant yard will be controlled by the SM on duty, at BYY station.
- (e) Signal No. SH 16 A/B is provided towards the in-plant yard end to control reception of outgoing pilots from the siding.
- (f) Shunt Signal No.13 and 14 are provided on Goods Loop-2 and Goods Loop-1 respectively towards the in plant yard end for dispatch of pilots to the siding.
- (g) One supervisor of OCL will be available round the clock for giving line clear as well as supervise the other shunting operations in the in-plant yard.
- (h) Movement inside the in-plant yard shall be controlled by the siding supervisor on spot. Loco Pilot will observe the traffic signal given by the staff deputed by the siding authority for the movement with necessary Safety precautions.

15. **RECORD MAINTENANCE:**

- (a) A separate shunting order book shall be exclusively maintained at BYY station for pilot movements. This shunting order will be issued to the pilots when they are allowed from Goods Loop.1/2 to in-plant yard in case of failure of shunt signals.

(b) **WAGON TURN ROUND REGISTER:**

Two separate registers for inward & outward traffic are to be maintained by SM/BYY with the following columns- Date, Pilot No., Load, Empty/Load rake departure time, Placement time, Loading/release time, Placement to release/loading time, Power arrival time, EOT time,

Pressure ready time, dispatch time, release to departure time, Arrival time/Departure time of BYY turn round hours of the rake & remark.

16. **COMMUNICATION:**

- (i) Magnet Telephone has been provided between the Station Master on duty and the supervisor of OCL siding.
- (ii) VHF set has been provided between the Station Master on duty and the OCL authority with separate channel.
- (iii) DTMF equipment is provided to have direct communication with section controller on duty.
- (iv) Walkie-Talkie Sets is provided to the on duty Guard to communicate with the on duty SM at BYY as well as the supervisor of inplant yard authority.

17. **RECEPTION OF PILOTS TO OCL SIDING:**

17.1 **RECEPTION OF DOWN PILOTS INTO OCL GOODS LOOP-1 (KIS END):-**

Pilot from KIS end, meant for OCL siding will proceed on line clear. After granting line clear to KIS, Down Home Signal No.2C at BYY will be cleared after reversing point no.30A/B. The pilot will be received on Goods Loop-1. The pilot will stop clearing starter signal no.15 towards station end. After complete arrival of the pilot in Goods Loop-1

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crossover no.30 A/B will be normalized. Before allowing the pilot to the siding, SM/BYY shall obtain line clear from supervisor of OCL siding supported by a private number. After obtaining line clear private number, SM on duty at BYY shall take off SH-14. Before taking off SH-14, the SM on duty at BYY shall ensure that point no.31 A/B is set correctly observing the indication on the central panel/VDU. Observing the "off" aspect of Shunt Signal No.14 the Loco Pilot will proceed up to the Stop Board provided just before the non-interlocked hand operated point at In-plant yard and stop there till "Piloted" by the staff deputed by the siding authority. After setting the nominated Route and locking the desired points, the siding staff shall exhibit proceed hand signal. Observing the proceed hand signal, the pilot will proceed and stop on the pre tripling line clearing the fouling mark. The guard shall ensure the clearance of the FM. Then he shall give intact arrival report to SM/BYY supported by a Private No. over Walkie-Talkie. There after brake van and engine will be reversed and unloading will be carried on by tipping of the wagons. After completion of unloading, the empty rake will be dispatched from the post tripling line as per programme.

17.2 RECEPTION OF UP PILOTS INTO OCL GOODS LOOP-2 (BRTG END): -

Pilot from BRTG end, meant for OCL siding will proceed on line clear. After granting line clear to SM/BRTG, Up Home Signal No.1D will be cleared after reversing point no.21 A/B, 23 A/B & 29 A/B from central panel/VDU and will be received in Goods Loop-2. The pilot will stop clearing starter signal no.18. After complete arrival of the pilot, the concerned points can be normalized. Before allowing the pilot to the siding SM/BYY shall obtain line clear from supervisor of OCL siding supported by private number. After obtaining line clear private number, SM on duty at BYY shall take off SH-13. Before clearing SH-13 the SM on duty shall ensure that point no.31A/B & DS No.32 are set correctly from Central Panel/VDU. Observing the "off" aspect of Shunt Signal No.13 the pilot will proceed up to the Stop Board provided just before the non-interlocked hand operated point and stop there till "Piloted" by the siding authority. After setting and locking the desired points the siding staff shall exhibit proceed hand signal. Observing the proceed hand signal, the pilot will proceed and stop on the pre tripling line clearing the fouling mark. The guard shall ensure the clearance of the FM. Then he shall give intact arrival private number to SM/BYY supported by Private No. over Walkie-Talkie. There after brake van and engine will be reversed and unloading will be carried on by tipping. After completion of unloading, the empty/ loaded pilot will be dispatched from the post tripling line.

18. The movement of power inside the in-plant yard will be done under the direct supervision of Guard. The staff deputed by the in-plant yard authority shall set, clamp & padlock the desired points. The siding staff yard authority will exhibit hand signal as per the instruction of Guard. The said power will clear load/empty from the in-plant yard as per programme, or otherwise return light.

19. SECURING OF VEHICLES AT THE INPLANT YARD:-

The In-plant yard authority will be responsible for securing of vehicles in the in-plant yard.

20. DISPATCH OF PILOT FROM OCL SIDING:-

A. TOWARDS KIS:-

To dispatch a train from the OCL siding, the supervisor of OCL siding shall satisfy that the pilot is ready in all respect. The Guard of the pilot shall ensure that the pilot has the prescribed air pressure vacuum and brake power and it is ready in all respect including pressure/vacuum continuity. The Guard of the pilot shall inform the above to the supervisor of OCL siding and to the SM on duty at BYY. The siding supervisor shall

inform to the SM/BYY regarding the readiness for dispatch of the pilot from the siding and ask for line clear. Thereafter, SM on duty at BYY shall grant line clear to the outgoing pilot supported by a private number to supervisor of OCL siding. The non-interlocked hand points over which the outgoing pilots will run shall be set and locked by the siding staff. However, after getting proceed hand signal from the siding staff, the Loco Pilot shall start the pilot and proceed. Observing the 'off' aspect Shunt Signal No.16 A/B the pilot will proceed on Goods Loop-1 and will obey the off aspect of Starter and Advanced Starter for further movement to KIS.

B. TOWARDS BRTG:-

To dispatch a train from the OCL siding, the supervisor of OCL siding shall satisfy that the pilot is ready in all respect. The Guard of the pilot shall ensure that the pilot has the prescribed air pressure vacuum and brake power and it is ready in all respect. The Guard of the pilot shall inform the above to the supervisor of OCL siding and accordingly SM on duty at BYY will be informed by them. Thereafter, SM on duty at BYY shall grant line clear to the outgoing pilot giving a private number to supervisor of OCL siding. The non-interlocked desired hand points for the outgoing pilots shall be set and locked by the staff deputed by the siding authority. However, after getting proceed hand signal from the staff deputed by the siding authority, the Loco Pilot shall start the pilot and proceed. Observing the 'off' aspect Shunt Signal No.16 A/B the pilot will proceed on Goods Loop-2 and will obey the 'OFF' aspect of starter and Advanced starter for further movement to BRTG.

21. BACK LOADING: If any incoming rake is allotted for back loading the placement of the empty rake will be given placement on loading line by Railway locomotive. Supervision of shunting operations will be by Guard of the train and point operations will be by OCL yard staff. Exhibition of signal by yard staff of OCL will be as per instruction of train guard.

22. FAILURE OF SHUNT SIGNAL:

In case of failure of SH signal for reception or dispatch of pilot to & from OCL siding the Loco Pilot shall stop at the foot of the shunt signal. He will inform the matter to SM on duty BYY and OCL siding supervisor. If concerned interlocked point No. 31A/B & 32 are correctly set in favour of the movement of the train, then both end of the point are to be clamped and padlocked by siding staff under the supervision of siding supervisor and ALP.

Then siding supervisor depute his staff to exhibit proceed hand signal. Then Loco Pilot will proceed and stop at the stop signal ahead if not taken off.

If the said point is not set in favour of the direction of the movement then the matter will be communicated to SM on duty BYY over Walkie-Talkie or other available means.

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 AND SIDING POINTS BY VDU (PC).
- 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-H : WOKING FOR MOVEMENT OF TRAINS BETWEEN BYREE STATION & M/s OCL INDIA LIMITED.

1.0 WORKING OF 'A' CLASS MANNED INTERLOCKED LEVEL CROSSING GATE No.169 SITUATED AT KM. 383/15-17 (UP) AND 383/18-16 (DN) AT BYREE STATION.

1.1 BRIEF DESCRIPTION:

1	No. of Level Crossing Gate	:	169
2	Engineering or Traffic gate	:	Traffic
3	Under control of Station Master or Permanent Way Inspector.	:	SM/BYY
4	Location at Km.	:	Km. 383/15-17 (UP) & 383/18-16 (DN)
5	At station	:	BYY
6	In between station	:	-
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	:	EKT
12	Provision of gate signal at Km.	:	---
13	Signaling arrangement	:	Station Stop Signal
14	Means of communication Telephone.	:	Telephone with SM/BYY
15	Width of the level crossing gate	:	7.0 m
16	Type of road	:	Others
17	Name of road	:	Chhatia Karakla Rd.
18	Metalled /Non-Metalled	:	Non-Metalled
19	Approach road	:	Non-Metalled
20	Width of the road	:	6.0m
21	Angle of road crossing (in case of the SKEW gates)	:	-
22	Road gradients (if any)	:	[a] North/ East Side : 1:20
		:	[b] South /West Side :1:20
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	:	9.0 m
27	Road surface in between level crossing gates.	:	Moorum
28	Length of rumble strip/ speed breakers.	:	6.0 m
29	Road signs	:	Yes
30	Speed breakers indication board	:	Yes
31	TVU	:	31985 on December - 2012
32	Census next due on	:	December - 2015
33	Demarcation for placement of detonators.	:	Available
34	No. of gateman working	:	Three
35	Nearest Railway Medical Assistance	:	CUTTACK
36	Nearest Private Medical Assistance available (if any)	:	CHHATIA
37	List of equipment available (Yes/No)	:	Available

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

1.	LED tri-color hand signal 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 Loge.

- (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.

1.3 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.

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(3) ROUTINE DUTIES OF GATEMAN:

- (i) Gateman shall place red banner flag across the track during emergencies and obstruction on track.
- (ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- (iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, if it is necessary to leave the gate in 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 the 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 OF 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.

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- (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 DN 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) The 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, LED tri-color hand signal lamp 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 LED tri-color hand signal 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.

1.4 INTERLOCKING AND NORMAL WORKING:

This gate is interlocked with all UP reception signals and DN dispatch signals. The interlocking is achieved by means of Electrical Key Transmission System. The normal position of the gate is open. A seven lever (IRS direct) type frame is provided at the gate lodge (cabin). The key of the L.C. Gate remains in the winch when the gate is opened. When it is necessary to close the gate for taking off signals or for shunting operation the Station Master on duty shall inform the Gateman to close and lock the gate.

The Gateman on duty shall then close the barriers of the L.C. Gate by operating winch. The key 'G' is to be extracted from the winch, which will be inserted in the Lever No. 7. When Lever No. 7 reversed locks the booms of the gates and releases Key 'H' and Lever No. 3 & 4'. This key 'H' will be inserted in the EKT and then Lever No. 3 will be reversed for taking "OFF" UP Home signal 1/C1A/B/C/D or SH-11 OR Lever No. 4 will be reversed for taking "OFF" DN Starter Signal No. 4, 6 & 18. Station Master on duty will press level crossing control button No. 12 (Chocolate) and group button (release), L.C. Gate closed indication will appear in the panel and concerned signals automatically get released.

After the passage of train or completion of shunting the Station Master on duty shall inform the Gateman and press L.C. Gate controlling button No.12 and group button (Trans) and keep it pressed till such time the Gateman extracts the gate control key 'H' from the EKT instrument. After getting the Key 'G' the Gateman will open the L.C. Gate by normalizing the levers.

Emergency gate release operation facility is provided in the panel when the route gets locked due to some failure. For emergency release of gate, the SM on duty shall press signal cancellation button and then emergency gate release button and gate button No.12. A red flashing (Gate lock) indication will appear and after a lapse of 120sec. Gate lock indication will disappear and a white light will glow over the emergency gate release button indicating that the operation is matured. The SM on duty shall then operate push button for gate 12 and group Trans button to release the key from EKT in gate Lodge. All such operation will be registered in the emergency gate operation counter. All such emergency operation shall be recorded in the station diary and in the register meant for it.

Lever No. 3/4 is provided at the gate lodge to put back the concerned UP/DN signal to danger in case of emergency by pulling the lever No. 3/4 to normal position. Once the gate is closed and locked against road traffic and the signal is taken off the signal should not be put back to danger and gate barriers should not be opened for the road traffic unless the said train passes safely over the L.C. or unless the Station Master permitted to do so for passing the road traffic.

The level crossing gate shall be so worked as to cause the least possible inconvenience to vehicular traffic consistent with safety according to SR 16.03.01 (a). 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 L.C. Gate should not be kept closed for more than 10 minutes at a stretch according to SR 16.03.01 (b).

1.5 INTIMATION TO GATEMAN:

- (i) Before taking off reception/departure/Shunt signals, SM shall inform the gateman, the number, description and direction of the train.
- (ii) The gateman shall close the gate and transfer the key to the SM.
- (iii) The reception/departure/shunt signals will be taken "OFF".
- (iv) In order to ensure that road traffic is not held up for a long time, the SM must ensure that the trains ready for departure in all respects before he advises the gateman for closing the gate.

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

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

1.7 **FAILURE OF LIFTING BARRIERS**

- (i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange 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. Station Master shall advise maintenance staff responsible for maintenance of lifting barriers/ leaf gates to repair the defect at the earliest.
- (vii) 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 lever or the key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange private number.

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- (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.
- (iii) The record of the date and time of breaking the sealed cover of emergency key box shall be recorded and signed with reasons.
- (iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception/dispatch of trains as prescribed for non-interlocked gates should be adopted.
- (v) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vii) Station Master shall advise S & T staff responsible for maintenance of winch/gate lever/key transmitter to rectify the defect at the earliest.
- (viii) Normal working will be resumed only after S & T staff repairs the winch/gate lever/key transmitter and issue reconnection/ fit memo for the same.
- (ix) After rectification, the emergency shall be replaced in the emergency key box and resealed by the S&T maintainer.

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 lever/key transmitter to rectify the defect at the earliest
- (vii) Normal working will resume only after S & T staff repairs the winch/gate lever/key transmitter and issues reconnection/ fit memo for the same.
- (viii) After rectification, the emergency shall be replaced in the emergency key box and resealed by the S&T maintainer.

1.10 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, LED tri-color hand signal 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.

1.11 **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. 1.10 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 FOR 'C' CLASS MANNED NON-INTERLOCKED LEVEL CROSSING GATE NO. 170 SITUATED AT KM. 386/25-27 (UP) & 386/28-26 (DN) BETWEEN KIS-BYY.

2.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

1	No. of Level Crossing Gate	:	170
2.	Traffic / Engineering Gate	:	Engineering
3.	Under Control of Station Master & Permanent Way Inspector.	:	SE/P.Way/HDS
4.	Location at Km.	:	Km. 386/25-27 (UP) & Km. 386/28-26(DN)
5.	At Station	:	---
6.	In between station.	:	Byree-Kapilas Rd.
7.	BG/ MG/ NG -----	:	BG
8.	Single line / Double line/ Multiple line	:	Double Line
9.	Normal Position	:	Open to road traffic
10.	Inter locked / Non Interlocked	:	Non-interlocked
11.	Means of interlocking	:	-
12.	Provision of gate signal	:	-
13.	Signal arrangement	:	-
14.	Means of communication	:	Telephone with SM/BYY
15.	Width of level crossing gate	:	7.50 m
16.	Type of Road	:	Others
17.	Name of Road	:	Village Road
18.	Metalled / Non-Metalled	:	Non-Metalled
19.	Approach Road	:	Non-Metalled
20	Width of the road	:	5.50 m
21	Angle of road crossing	:	-
22.	Road gradient	:	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: Straight/Curve
24.	Provision of height gauge	:	Provided
25.	Type of Barriers	:	Lifting
26.	Length of check rail	:	9.50 m
27.	Road surface in between level crossing gate.	:	C.C. Block
28.	Length of Rumble Strip / Speed Breakers	:	10.0 m
29.	Road Sign.....	:	Yes
30.	Speed Breaker indication Board	:	Yes
31.	TVU	:	10317 on November - 2012
32.	Census next due on	:	November - 2015
33.	Demarcation for placement of detonators.	:	Provided
34.	No of Gatemen working	:	2
35.	Nearest Railway Medical Assistance.	:	Cuttack
36.	Nearest Private Medical Assistance available (if any)	:	Tangi
37.	List of equipment available (Yes / No)	:	Yes

2.2 A. EQUIPMENT TO BE AVAILABLE AT THE GATE:

Sl. No.	Names of the equipments	Quantity.
1	LED tri-color hand signal 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	Post for exhibiting 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	Can for oil	1
16	Water pot/Bucket	1
17	Canister for Muster Roll	1
18	Set of spare spectacles of Gateman wearing glasses	1
19	Board demarcating protection of level crossing records gate diagram in case of obstruction on gate	1
20	Basket	1
21	Whistle	1
22	Wall Clock	1
23	Small size chain with padlock	2

B. RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipments, 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) Gate Rule Book in local vernacular language.
- (iv) List of tools and books.
- (v) Duty Roster.
- (vi) Certificate for working as Gateman.
- (vii) Bio-date particulars of Gateman, 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
- (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.

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(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:

- 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 DN 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, LED tri-color hand signal lamp 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 LED tri-color hand signal 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.

2.5 EXCHANGE OF PRIVATE NUMBER:

- a) The gate is having telephonic communication with SM/BYY.
 - i) Before dispatching an UP train, SM/BYY 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/KIS shall advise SM/BYY 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/BYY 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/BYY.
 - v) Only then shall the SM/BYY grant line clear to SM/KIS. [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, LED tri-color hand signal 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.

(A.K.JENA)
DSTE/KUR

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Sr.DEN(E)/KUR

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- (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 FOR 'C' CLASS MANNED NON-INTERLOCKED LEVEL CROSSING GATE NO. 171 SITUATED AT KM. 387/37-388/1 (UP) & 388/2-387/32 (DN) BETWEEN KIS-BYY.

3.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

1	No. of Level Crossing Gate	:	171
2.	Traffic / Engineering Gate	:	Engineering
3.	Under Control of Station Master & Permanent Way Inspector.	:	SE/P.Way/HDS
4.	Location at Km.	:	Km. 387/37-388/1 (UP) & Km. 388/2-387/32 (DN)
5.	At Station	:	---
6.	In between station.	:	Byree-Kapilas Rd.
7.	BG/ MG/ NG -----	:	BG
8.	Single line / Double line/ Multiple line	:	Double Line
9.	Normal Position	:	Closed
10.	Inter locked / Non Interlocked	:	Non-interlocked
11.	Means of interlocking	:	-
12.	Provision of gate signal	:	-
13.	Signal arrangement	:	-
14.	Means of communication	:	Telephone with SM/BYY
15.	Width of level crossing gate	:	7.50 M
16.	Type of Road	:	Others
17.	Name of Road	:	Santhapur Road
18.	Metalled / Non-Metaled	:	Metaled
19.	Approach Road	:	Bituminous
20	Width of the road	:	5.50 m
21	Angle of road crossing	:	-
22.	Road gradient	:	1:223
		:	Level
23.	Road Alignment (Straight / Curve)	:	Straight
		:	Straight
24.	Provision of height gauge	:	Provided
25.	Type of Barriers	:	Lifting
26.	Length of check rail	:	9.50 m
27.	Road surface in between level crossing gate.	:	C.C. Block
28.	Length of Rumble Strip / Speed Breakers	:	8.50 m
29.	Road Sign.....	:	Yes
30.	Speed Breaker indication Board	:	Yes
31.	TVU	:	14250 on November – 2012
32.	Census next due on	:	November - 2015
33.	Demarcation for placement of detonators.	:	Provided
34.	No of Gatemen working	:	2
35.	Nearest Railway Medical Assistance.	:	Cuttack
36.	Nearest Private Medical Assistance available (if any)	:	Tangi PHC
37.	List of equipment available (Yes / No)	:	Yes

3.2A EQUIPMENT TO BE AVAILABLE AT THE GATE:

Sl. No.	Names of the equipments	Quantity.
1	LED tri-color hand signal 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	Post for exhibiting 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	Can for oil	1
16	Water pot/Bucket	1
17	Canister for Muster Roll	1
18	Set of spare spectacles of Gateman wearing glasses	1
19	Board demarcating protection of level crossing records gate diagram in case of obstruction on gate	1
20	Basket	1
21	Whistle	1
22	Wall Clock	1
23	Small size chain with padlock	2

B RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipments, 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) Gate Rule Book in local vernacular language.
- (iv) List of tools and books.
- (v) Duty Roster.
- (vi) Certificate for working as Gateman.
- (vii) Bio-date particulars of Gateman, 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
- (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.

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 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, LED tri-color hand signal lamp 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 on 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 LED tri-color hand signal 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 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.
- (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 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, LED tri-color hand signal 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.

**SYSTEM OF SIGNALLING, INTERLOCKING AND COMMUNICATION
ARRANGEMENTS AT BYREE THE STATION.**

This is a class 'B' Standard-III (R) Electronic Interlocking station with Route setting type panel. 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 OPERATION CUM INDICATION 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. All the points and signals are operated from the panel placed centrally at the station. 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-"B1")

1.2 POINT OPERATION:

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 are 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) (Normal) or (Reverse) as per requirement, fitted on the top of panel.

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.

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 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 3.69.03 (c). In such case both ends of the point shall be clamped and padlocked.

1.2.7 DESCRIPTION OF POINT PUSH BUTTON:

a) **HWH END POINTS:**

Sl.No.	Button No.	Colour	Description
1.	21A/B WN	BLACK	Crossover point between UP and DN main lines.
2.	22 A/B WN	BLACK	Crossover point between UP Loop and UP Main Lines.

3.	23 A/B WN	BLACK	Crossover point between Common Loop and DN main line.
4.	29 A/B WN	BLACK	Crossover point between Common Loop and OCL Goods Loop-2 line.
5.	31 A/B WN	BLACK	Crossover point between OCL Goods Loop-1 and OCL Goods Loop-2 line.
6.	32 WN	BLACK	DS on OCL Goods Loop-2 line.
7.	CONTROL 12	CHOCOLAT E	Control on LC Gate at Km. 383/15-17 (UP) and Km. 383/18-16 (DN).

b)

VSKP END POINTS:

Sl. No.	Button No.	Colour	Description
1.	24 A/B WN	BLACK	Crossover point between UP Loop and UP Main Lines.
2.	25 A/B WN	BLACK	Crossover point between Common Loop and DN main line.
3.	26 A/B WN	BLACK	Crossover point between UP and DN Main Lines
4.	30 A/B WN	BLACK	Crossover point between Common Loop and OCL Goods Loop-1 line.
5.	CONTROL 28	BLACK	Control for Hot Axle siding.

1.2.8 DESCRIPTION OF POINT GROUP BUTTON:

There are two point group buttons (Black with red dot) at the top of panel one for Normal and one for Reverse operation of points. The button is operated in conjunction with point button to operate the concerned point to the required setting.

1.2.9 MANUAL OPERATION OF POINTS (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. This operation is only possible when concerned route is not set and crank handle lock indication is not lit. For manual operation of points, relevant crank handle key has to be extracted from the RKT location. 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 box fitted 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 starts flashing. After extraction of CH key from RKT by deputing an operating staff at concerned crank handle

Location box flashing white light disappears. On extraction of CH key from RKT, the points in that particular group can not be operated 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). Points for manual operation are grouped into four crank handle zones.

1.2.10 **CRANK HANDLE PUSH BUTTON:**

1.	CH-1	BLUE	To be pressed to extract Crank Handle Key for operation of Point No. 21A/B along with "TRANS" Push Button
2.	CH-2	BLUE	To be pressed to extract Crank Handle Key for operation of Point No. 22 A/B and 24 A/B along with "TRANS" Push Button.
3.	CH-3	BLUE	To be pressed to extract crank handle key for operation of point No. 23A/B, 25A/B, 29A/B & 30A/B along with "TRANS" push button.
4.	CH-4	BLUE	To be pressed to extract crank handle key for operation of point No. 26A/B along with "TRANS" push button.
5.	CH-5	BLUE	To be pressed to extract crank handle key for operation of point No. 31A/B & 32 along with "TRANS" push button.

1.2.11 **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 when the concerned point is free. 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 insert the emergency point operation key and press the emergency point operation button (Black with Red dot) 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.

1.3 **ROUTE SETTING AND INDICATION:**

Route buttons are provided separately on each running line on the panel for initiation of route. 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 for taking "OFF" concerned signal. This will set the points of intended route including overlap. When the route is correctly set and signal is taken off yellow strip of light indication appear on track circuits over the route set. These track indications will turn to red as and when the train occupies the track circuit.

1.3.1 **DESCRIPTION OF ROUTE BUTTONS:**

Sl. No.	Button No.	Colour	Description
1	UL-UN	WHITE	Route button for UP Home Signal for UP Loop Line, overlap set to Main Line.

2	UL-UN1	WHITE with BLACK DOT	Route button for UP Home signal, overlap set to Over Run line /UP Calling-on/Shunt signal Nos.10 for UP loop line.
3	UM-UN	WHITE	Route button for UP Home/Calling-on/Shunt Signal No.10 for Up main Line.
4	DM-UN	WHITE	Route button for DN Home/Calling-on/Shunt signal No.10/ Shunt signal No.11 for DN main line.
5	CL-UN	WHITE	Route button for Up/Down-Home for Common Loop line, overlap set to Main Line.
6	CL-UN1	WHITE with BLACK DOT	Route button for DN Home (overlap set to sand hump)/ shunt signal No. 10 for Common Loop line
7	9AT- UN	WHITE	Common route button for UP main Starter Signal No.3, Common loop Starter Signal No. 7 and UP loop Starter Signal No. 5.
8	8AT-UN	WHITE	Common route button for DN Main Starter Signal No.4 and Common Loop Starter Signal No.6.
9	9 UN	WHITE	Route button for UP Advanced Starter Signal No.9.
10	8UN	WHITE	Route button for DN Advanced Starter Signal No.8.
11	GL1-UN	WHITE	Route button for DN Home/Calling-on/Shunt Signal No. 10 for OCL Goods Loop-1.
11	GL2-UN	WHITE	Route button for UP Home/Calling-on/Shunt Signal No. 11 for OCL Goods Loop-2.
12.	OCL-UN1	WHITE	Route button for Shunt Signal No. (13, 14).

1.4 **SIGNAL BUTTONS:**

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.

1.4.1 **DESCRIPTION OF SIGNAL BUTTONS:**

Sl. No.	Button No.	Colour	Description
1.	C1	RED with WHITE Dot	UP Calling-on signal for UP Main, UP Loop and Common Loop.
2.	S-1	RED	UP Home signal for UP Main, UP Loop and Common Loop.
3.	S-2	RED	DN Home Signals for DN Main and DN Loop.
4.	C2	RED with White dot.	DN Calling-on signal for DN Main and DN Loop.
5.	SH 11	YELLOW	Shunt signal for DN Main and DN Loop & OCL-Goods Loop-2.
6.	SH 10	YELLOW	Shunt signal for UP Main, UP Loop line, Common loop, DN main line & OCL-Goods Loop-1.
7.	S-5	RED	UP Loop Line starter.
8.	S-7	RED	Common loop line starter.
9.	S-3	RED	UP Main line Starter.
10.	S-6	RED	DN Loop line Starter
11.	S-4	RED	DN main line Starter
12.	S-9	RED	UP Advanced Starter.

13.	S-8	RED	DN Advanced Starter.
5.	SH 13	YELLOW	Shunt signal for OCL Goods Loop line-2.
5.	SH 14	YELLOW	Shunt signal for OCL Goods Loop line-2.
7.	S-15	RED	OCL Goods Loop line-1 starter.
5.	SH 16	YELLOW	Shunt signal to OCL- Goods Loop-1 & 2.
7.	S-18	RED	OCL Goods Loop line-2 starter

1.4.2 **SIGNAL CLEARANCE AND INDICATION:**

Signal clears automatically as per operation stated vide 1.3 as per route setting. For clearing the calling on signal, calling on signal button along with the nominated route button to be pressed.

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

1.4.3 **MISCELLANEOUS PUSH BUTTONS AND KEYS**

1.	SM'S EMERGENCY POINT OPERATION KEY		This Key is to be inserted and operated in the event of Emergency Point operation.
2.	SM'S PANEL KEY.		To lock the control panel to prevent unauthorized operation.
3.	GROUP TRANS BUTTON	WHITE WITH BLACK DOT.	To be pressed to initiate Slot of Crank Handle OR L.C. Gate operation along with concerned Slot / Crank Handle / L.C. Gate Button.
4	GROUP RELEASE PUSH BUTTON	WHITE WITH BLACK DOT.	To be pressed to withdraw / Normalize the control of slot / Crank Handle/ L.C Gate operation along with concerned Slot/ Crank Handle/L.C Gate push Button.
5	POINT GROUP NORMAL PUSH BUTTON	BLACK WITH RED DOT.	To be pressed to initiate "NORMAL" setting of point along with concerned point push button.
6	POINT GROUP REVERSE PUSH BUTTON	BLACK WITH RED DOT.	To be pressed to initiate "REVERSE" setting of point along with concerned point push button.
7	EMERGENCY ROUTE RELEASE PUSH BUTTON	WHITE WITH RED DOT.	To be pressed for emergency Route Release.
8	SIGNAL CANCELLATION PUSH BUTTON	RED	To be pressed for canceling a signal which is already taken "OFF" or to release Adv. Starter and calling on routes after passage of train.
9	SIGNAL LAMP FAILURE / POINT	RED WITH	To be pressed for acknowledging signal lamp failure/ point failure Buzzer one for

	FAILURE ACKNOWLEDGEMENT	WHITE DOT	signal & another for point.
10	EMERGENCY POINT OPERATION BUTTON	BLACK WITH RED DOT	To be pressed to operate the point when concerned point zone track circuit/ axle counter fails.
11	BUTTON HELD ACKNOWLEDGEMENT PUSH BUTTON	WHITE WITH RED DOT.	To be pressed for silencing button Held Buzzer in case of any push button remains pressed after the button is released.
12	EMERGENCY GATE RELEASE BUTTON FOR L.C. GATE AT Km. 383/15-17 (UP) and Km. 383/18-16 (DN)	CHOCOLATE WITH RED DOT.	To be pressed for emergency Gate Release at Km. 383/15-17 (UP) and Km. 383/18-16 (DN)
13	L.C. GATE CONTROL 12 PUSH BUTTON	CHOCOLATE	To be pressed for extending Control to open L.C. Gate at Km. 383/15-17 (UP) and Km. 383/18-16 (DN)
14	H/A SIDING CONTROL POINT NO.28 PUSH BUTTON.	BLACK	To be pressed along with TRANS button for extracting key from RKT to operate the H/A siding point.
16	GFRR OF LX-12	WHITE	White indication will come when Lever No. 1 of LC Gate at Km. 383/15-17 (UP) and Km. 383/18-16 (DN) is reversed.
17	Panel/PC switch		Required for selection of operation from PC or Panel.
18	System failure acknowledgement	GREEN WITH RED DOT	To stop the system failure buzzer.

1.5 **MICROLOK INDICATION**

A micro lock Indication is provided on the top of the panel for indicating which system of micro lock is working. This EI unit consists of two Micro lock systems called system 'A' and system 'B'. These two systems status (ON/OFF) will be indicated separately on the panel. If the Micro lock 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 Micro lock 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. Whenever the system changes from A to B or B to A, SM on duty has to release all crank handles LC Gate and siding controls.

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

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

identify the defective point. After the failure is rectified, the flashing light above the ACK button will disappear.

1.7 **FAILURE OF TRIPLE POLE SIGNAL LAMP AND ACKNOWLEDGEMENT BUTTON.**

Triple pole double filament signal lamps have been used at this station. In case main filament fuses auxiliary filament will automatically lit up with same intensity. However failure of main filament will be indicated by the appearance of 'RED' light on panel along with audible buzzer, which can be stopped by pressing the acknowledgement button. But the RED light will glow until the lamp is replaced. For rectification of failure SS/SM on duty should inform the ESM/JE/SE about the group which has failed. For the purpose of giving main filament failure indication the following groups are formed on either side.

- UP Distant and Inner distant.
- UP Home & DN Advanced Starter.
- DN Starters.
- UP Starters.
- DN Home & UP Advanced Starter.
- DN Distant and Inner Distant.

1.8 **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.

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' 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 flashing white light above the emergency route release button will lit indicating that the timer has started. After 120 seconds, the white 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 **SEQUENTIAL (AUTOMATIC) ROUTE RELEASE:**

The Signal routes are automatically released by the passage of train over the route. All the routes will be released on occupation of the berthing track circuit and clearance of the

track circuit behind except Calling-on signal and advanced starter signals for which concerned signal button & Signal cancellation button are to be pressed in addition.

1.10 **EMERGENCY GATE RELEASE OPERATION (CHOCOLATE WITH RED DOT):**

Emergency gate release operation facility is provided in the panel when the route gets locked due to some failure. For emergency release of gate, the SM on duty shall press signal cancellation button and then emergency gate release button and gate button No. 12. A red flashing (Gate lock) indication will appear and after a lapse of 120sec. Gate lock indication will disappear and a white light will glow over the emergency gate release button indicating that the operation is matured. The SM on duty shall then operate push button for gate and group Trans button to release the key from RKT in gate Lodge. All such operation will be registered in the emergency gate operation counter. All such emergency operation shall be recorded in the station diary and in the register meant for it.

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 point, route or signal button gets stuck in pressed condition, a buzzer will sound along with flashing white light indication. The Station master shall stop the buzzer by pressing the button held acknowledgement button (white with Red dot). The buzzer will stop but the flashing white light of either point, route or signal will continue to glow until the pressed button is normalized. SM on duty shall try to find out the pressed button for normalization or otherwise inform the maintenance staff to rectify.

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:**

Entire station section in either Up and Down directions are track circuited except goods siding & hot axle siding.

In addition there are short length track circuits in advance of Advanced Starter Signals and Home signal in both the directions are also provided. For Calling-on signals (7 Rail length) track circuits are also provided in rear of the Home signals in both directions. From last trailing point/fouling mark in either side of Yard to Advanced Starter Signals are also track circuited (i.e. 9AT and 8AT in UP and DN directions respectively). Indications for the above track circuits/Axle Counters are available on panel/VDU at SM's office. Yellow light on panel indicates track clear and Red light indicates track occupied condition.

1.15. **AXLE COUNTER:**

- (i) Entire Block Section between BYY-BRTG and BYY-KIS are provided with Block Panel with Analog axle counter.

FOR SEC: BYY-BRTG. A pair of electronic axle counter is provided between BYY-BRTG on UP line one just beyond 400 m of UP Home signal of BRTG and another pair

is on track 1T1 i.e. beyond the UP home signal at BYY. Similarly, a pair of electronic axle counter is provided between BYY-BRTG on DN line one just beyond DN Advanced Starter of BYY and another pair is beyond 400 m of DN Home signal of BRTG.

FOR SEC: BYY -KIS. A pair of electronic axle counter is provided between BYY-KIS on UP line one just beyond UP Advanced Starter BYY and another pair is on track 1T2 i.e. beyond the UP home signal of KIS. Similarly, a pair of electronic axle counter is provided between BYY-KIS on DN line one just beyond DN Advanced Starter of KIS and another pair is on track 2T1 i.e. beyond DN Home signal of BYY.

The position of the Block section whether cleared or occupied are reflected in the Block panel 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 Instrument 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 are 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 yellow 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 Station Master's lock up key to prevent any unauthorized operation of the panel. The Station master on duty is the only authorized person to operate the panel and the panel key must always remain in his 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 SM's key also. However, the provisions, of SR 3.36.02 shall be followed while replacing the signals to 'ON'.

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 Yellow 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 advanced starter signal button shall be pressed along with the advanced starter route button for two to three seconds and released. This will clear the advanced starter signal and a yellow 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 yellow 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 Home signals in terms of GR 3.13 (6) (b). A Calling-on signal shows no light in the 'ON' position and Yellow in OFF position. A Calling-on signal is 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 stop at the foot of the home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit, a RED light strip will appear on the panel. The particular route on which train is intended to be received shall be set by operating the point push button and group button individually or by pressing 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 'C1'/'C2' (Red with white dot) (as the case may be), shall be pressed simultaneously along with the concerned route button for 2-3 seconds and released. After a lapse of 120 seconds, the Calling-on signal clears i.e. 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 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 and DN Advanced Starters are to be manually cancelled after the passage of the train to release the route.

2.6. **REPLACEMENT OF SIGNALS TO 'ON':**

Signals are replaced to 'ON' automatically after passage of a train. 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 **INTERLOCKING OF SIGNALS/POINTS:**

All running line points are fitted with facing point locks in the point machine and are electrically by the relevant Home signal and starters.

- 2.7.1. Advanced starter is interlocked with respective Block Instrument in Line Clear Position. The Block Instrument cannot be made normal unless the respective Home signal is put back to 'ON' aspect and the respective block section monitored by axle counter is clear of trains. Signals once taken 'OFF' can be put back to danger in case of emergency by pressing concerned signal button and signal cancellation button even when the panel is locked up with Station Master's key.

2.8 **STOP BOARDS:**

One stop boards at the VSKP end of the station yard and two Stop Board at HWH end of the yard are provided. At VSKP end, one at end of DN Main line to demarcate DN Main line position up to which shunting can be performed (with SH-11).

At HWH end the stop board is provided at the end of UP main line to demarcate UP main line position up to which shunting can be performed (with SH- 10). Another at end of UP loop near the FM on UP loop line to demarcate UP loop line position up to which shunting can be performed (with SH-11) at VSKP end.

2.10 **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 (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 nominated route correctly with the help of crank handle during failure of points. He shall clamp and padlock both facing and trailing end points in both cases under the supervision of SM on duty at station.

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 to the Home signal the TPM will satisfy him self 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. In case of Goods train, trains may be admitted as per SR 3.69.2 (a) (iii).

NOTE:

- (1) The Station Master on duty shall personally supervise the correct setting, clamping and padlocking of both end for admission of the train.
- (2) The keys of padlocks used for on the points shall be kept in the personally custody of the SM on duty till such movement is either completed or alternatively cancelled.
- (3) The SM on duty shall ensure the closure of the interlocked gate from the Gateman on duty under exchange of Private Number.

PILOTING OF TRAINS - OUT OF STATION YARD:

When the starter signal has become defective, the Station Master shall set the points correctly from the panel or advise the TPM to set the concerned points correctly for the outgoing train with help of crank handle. The TPM on duty shall clamp and padlock both

the facing and trailing end points under the supervision of SM on duty in both cases. He shall also advise the gateman to close the level crossing gate/gates on the route for dispatch of a train. 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. There after 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 SM on duty shall personally supervise the correct setting clamping and padlocking of the facing points and ensure the clearance of any obstruction including level crossing gates on the concerned route for dispatch of a train.
2. The keys of the padlock used for clamps on the points shall be kept in the personally custody of the SM on duty till such movement is either completed or alternatively cancelled.
3. The SM on duty shall ensure the closure of the interlocked gate from the Gateman on duty under exchange of Private Number.

3.0. **SHUNTING:**

For shunting, shunt signal, back shunt signals and caution aspect of starter signals shall be used.

For back shunting individual shunt signal No. 10 & 11 at yard 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.

3.1 **DESCRIPTION OF SIDING:**

While shunting in the Goods siding/Hot axle 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 there to shall be meticulously followed for shunting operations.

HOT AXLE SIDING:

The hot Axle siding at VSKP end of the yard is taken off from line No.1 (UP loop) with single end entry. The entrance point & corresponding derailing switch are coupled & operated by an arc lever at site. The entrance point is fitted with hand plunger locks. The hand plunger lock is unlocked by Hot Axle siding key 'P'. & released by pressing the button No.28 & common group trans button provided on panel/VDU at SM's office. Reception signals (i.e. 1B, C1B in UP direction) & shunt signal No.10D & signal No. 5 are electrically interlocked in such a way that these signals can not be taken 'off' if the Hot Axle siding key is taken 'OUT' from the RKT provided at Hot Axle siding location box at site.

3.2 **LEVEL CROSSINGS:**

- i) There is a 'A' class interlocked level crossing gate No. 169 situated at Km. 383/15-17 (UP) and 383/18-16 (DN) in between DN starters and DN Advanced Starter at HWH end

of the Station yard & directly operated by means of a winch from Gate Lodge. Telephone communication is provided between the Gate lodge and the SM/BYY.

- ii) There is a 'C' class non-interlocked level crossing gate No. 170 situated at Km. 386/25-27 (UP) and 386/28-26 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/BYY.
- iii) There is a 'C' class non-interlocked level crossing gate No. 171 situated at Km. 387/37-388/1 (UP) and 388/2-387/32 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/BYY.
- iv) There is a 'C' class non-interlocked level crossing gate No. 172 situated at Km. 392/13-15 (UP) and 392/16-14 (DN) between BYY and KIS. Telephone communication is provided between the Gate lodge and the SM/KIS.

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.

4.2 **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 to attend.

6.0 **LOCKING OF RELAY ROOM:**

The relay room should be kept locked with two separate locks. The arrangement should be such that one key is kept with the on duty SM and the other key with the signal maintainer. Whenever required the SM shall hand over 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 is to be properly recorded in the basement/relay room key register maintained at the station and duly signed by the SM and maintainer respectively.

7.0 **MAINTENANCE OF S & T INSTALLATION and ADHERENCE TO MAINTENANCE SCHEDULES:**

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.

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.

8.0. **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 as per GR and SR 3.51.04 and 3.68.04 and document all such transactions.

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.

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 3.68.04 (c) and (d).

9.0. **PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:**

Whenever any normal maintenance or special works for major renewals etc., are involved, the Signal and Telecom department 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 15.08.01.

10.0 **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 as contained in GR and SR 3.77.

PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNALS AND POINTS AND USE OF CRANK HANDLE:

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.

The cases of failure of motor operated points should be promptly reported to the concerned Signal maintainer/Signal Inspector for rectification.

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.

Before giving 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, as per GR 3.69 and 3.70 with relevant SRs. The Station Master on duty will be personally responsible for setting and locking of points for reception and dispatch of all trains.

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.

12.0 **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'.

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 letting. If the signal lights can not be kept burning, the Station Master on duty before giving 'LINE CLEAR' shall initiate action in accordance with the procedure prescribed in GR 3.61 to 3.72 and relevant SRs vide GR 3.49(4).

13. **NORMALISATION OF THE BLOCK AXLE COUNTER AND OF BLOCK WORKING BY RESETTING FEATURE:**

- 13.1 Analog axle Counters are provided on both UP and DN line Block Sections between BYY-BRTG, BYY-KIS.
- 13.2 The occupation and clearance of the axle counter section are indicated on the panel/Block Panel by 'RED' and 'GREEN' light.
- 13.3 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 and in such case, resetting of last vehicle Checking Device is to be resorted to either Section.
- 13.5. 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.
- 13.6. A resetting arrangement for the resumption of the track circuit by means of Axle counter under failure condition at either end Station of the Block section is provided, which should only be resorted to after the train that was lastly sent, arrives fully at the receiving

station and is certified in this respect by the SM on duty at the receiving station through exchange of Private Number.

- 13.7. Reset arrangements are provided in the operation cum indication panel in the SM's office for sections BYY-BRTG and BYY-KIS with Block Panel,. The UP & DN resetting key along with reset push button for either sections are provided on the resetting Panel for resetting the axle counter in case of its failure. Every such operation of the resetting button and shall be recorded giving details of date of use, train number, time, number registered on the counter and reasons for resetting and initial each such entry.

13.8 **RESETTING OF BLOCK PROVING OF AXLE COUNTER WHEN FAILED:**

After a train has been received at the receiving end station or when no train has entered into the block section or after any block forward or block back operation is completed, if the "Line Occupied" indication still persists, then receiving station SM and sending station shall adopt the following procedure for the resetting the axle counter:

- (i) Verify, that the block section is clear of vehicles, by any one of the following means:
- (ii) Observe the procedure laid down in G & SR 4.17.01 and relevant SRs there under. The complete arrival of a train to the station in advance will be ascertained by the station master at the receiving station by sending the complete arrival register (T/1410) with time but if the train was running with L.V No. the station master himself will verify the last vehicle no. personally.
- (b) By checking of from the train signals register, the details of the last train passed through that block section and finding out from SM of the station in advance or from the controller that the last train that has passed, has arrived completely.
- (ii) The axle counter is to be reset by receiving station. The receiving station SM after satisfying that no vehicle is left behind in the block section, advises the full facts to the sending station SM and request him to co-operate in resetting of axle counter.
- (ii) The sending station SM presses the 'RSB" push button provided on his block panel.
- (iii) On getting yellow Reset co-operation indication the receiving station SM inserts turns, and presses the "RSK" key on the panel for resetting the axle counter.
- (iv) The reset counter increases by one number. On release of pressure of the RSK key 'Line free' green indication appears and 'Line Occupied' Red indication disappears on block panels at both ends.
- (v) The first train is to be piloted out to normalize the system.
- (vi) This increment of counter should be recorded in TSR along with exchange of private number for every reset of axle counter done manually. The receiving end SM should then extract the RSK key and keep it in safe custody. At The receiving end a counter register to be maintained at the station for each resetting of axle counter.

14.0 **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.

15.0 **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 GR and SR 4.01.01 and 4.01.02.

16.0 TELECOMMUNICATIONS:

- a) The Station is connected to KIS-BHC, JKPR-NYG Control Circuit.
- b) Telephone attached to Block Panels for sections BYY-KIS and BYY-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. 383/15-17 (UP) & Km. 383/18-16(DN), 387/37-388/1(UP) & 388/2-387/32 (DN) and Km. 386/25-27 (UP) & 386/28-26 (DN).
- f) Telephone communication is provided between SM's office and HA siding location box.
- g) BSNL phone is provided at this station.
- h) The station is connected to BHC-BRAG traction power control circuit.
- i) VHF set is provided at the station.
- j) Telephone communication is provided between SM on duty & the authority of M/s OCL India Ltd.

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.
3. Telephone communication is provided between SM on duty and the authority of M/s OCL India Limited.

VISUAL DISPLAY UNIT (VDU)

NOTE:

The stand by system (VDU) is also provided with the Conventional panel for the operation of Signals, Points, L.C Gates, Crank Handles, Siding Controls and Resetting of all type of Axle counters.

1.0 SYSTEM OVERVIEW:

In addition to the panel, an operator console (VDU) consists of a Pentium-4 CPU with a high resolution 21" colour monitor, keyboard and pointing device (mouse) are provided. Both the serial ports (Com1 and Com2) in the CPU are connected to the Microlok II CPU board for exchange of control and indication messages. The Software is installed to display the Station Yard Mimic Panel diagram on the VDU and that it allows access to all functions through pop-up menus. When a particular function is selected, an appropriate Menu will appear on the screen by selecting a required operation clicking by the Left button of the pointing device (mouse) a function (Signal clear and cancellation, Route release, Point operation, Gate release etc.,) can be executed.

The Computer (VDU) or panel any one may be used for controlling and monitoring the station, however indications on the Station yard mimic diagram of VDU and panel will be dynamically updated.

1.1 SELECTION OF CONTROL:

This VDU (Computer) is provided as a stand by of conventional panel for the operation of signals, points, L.C. gates, crank handles, siding controls From the Mimic panel diagram. A Mimic panel diagram will be displayed on the VDU, which is an exact replica of operation cum indication panel and suits the yard plan as per SI Plan 21127 ALT-C.

One two-position switch (Red colored) is provided on the conventional panel along with the SM's Key used for selection of Panel or VDU called PANEL/ PC Change over switch.

SM of the station can select any of the controls, for the selection of one control to another there are certain procedures to be followed for the control transfer. The procedure to be followed as mentioned below.

PANEL/ PC KEY and PC CONTROL KEY:

To prevent the unauthorized operation by other than on duty SM in VDU this facility is provided on VDU. On duty SM need to track the pointer to the "PC CONTROL KEY" icon and click the KEY OUT menu by the left button of the mouse, by this a Password window will appear. SM need to enter the password and press the OK Button provided on the Password window. This will lock all the controls in VDU except the Signal cancellation of All Cleared Signal routes. The PC CONTROL Key is nothing but a SM's KEY in the conventional panel.



PANEL TO VDU (PC-COMPUTER) CHANGE OVER:

1. Ensure that SM's Key is in ON position.
2. Ensure that PANEL/ PC Change over switch is in PANEL mode.
3. Click the PANEL/ PC key provided in the left top corner of the VDU. (A pop-up menu will appear)



4. Click the first Menu – PC REQUEST. (A password required window will appear in the centre of the screen).
5. Enter the proper USER NAME and PASSWORD in the required text boxes by selecting with mouse, after entering so click the OK button.
6. Now both the PANEL and PC indications will start Flashing.
7. Change the PANEL/ PC change over switch to PC mode in the conventional panel.
8. Now the PC indication will steady and Panel indication will disappear.
9. Click the PC CONTROL KEY and click the KEY IN menu. (A password required window will appear in the centre of the screen).



15. Enter the USER NAME and PASSWORD and click the OK button. Now the Over all control is transferred to VDU, The entire operation can be possible from the VDU.

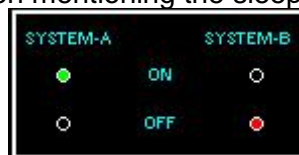
VDU (PC-COMPUTER) TO PANEL CHANGE OVER:

1. Turn the PANEL/ PC change over switch to PANEL mode.
2. Now both the PANEL and PC indications will start Flashing.
3. Click the PANEL/ PC key provided in the left top corner of the VDU. (A pop-up menu will appear)
4. Click the second Menu – PANEL ACKNOWLEDGE. (A password required window will appear in the centre of the screen).
5. Enter the proper USER NAME and PASSWORD in the required text boxes by selecting with mouse, after entering so click the OK button.
6. Now the PANEL indication will be steady and the PC indication will disappear.

Now the Over all control is transferred to PANEL, The entire operation can be possible from the PANEL.

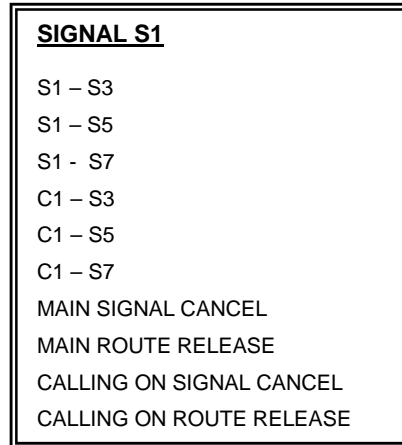
OPERATIONAL PROCEDURE:**VDU INDICATIONS:****MICROLOK II (SSI) INDICATIONS:**

In Panel/ PC there are two system indication, Green indication mentioning the On-line system and the Red indication mentioning the sleep mode system.



SIGNAL OPERATION:

To Take-Off a Signal with the desired route the SM needs to track the mouse pointer over the concerned Signal on the VDU, after clicking by the left button on the mouse a popup menu will appear as below:

**(a) SETTING A ROUTE:**

To set a route of a signal, click on a possible route of the signal, after done so the route initiated Red indication will appear on the replacement track of the signal. And all the relevant points Normal/ Reverse set indications will starts flashing if it is not available in the required position. After setting of point in the route required condition (Flashing indication will be steady) a complete yellow route set indication will appear from the Replacement Track of the signal to the last track of overlap of the route also the points will be locked (A Point locked can be ensured from the Red Steady indication will appear near the point). Finally a Route locked Yellow Steady indication will appear on the just bellow the signal. The signal will be Taken-Off now. The yellow route set indication will turn to red when the train occupies the track circuit.

CONDITIONS FOR SETTING A ROUTE:

The following condition to be ensured before setting the route by the SM.

1. All the Crank handles of the required route related points to be in Key in condition.
2. All the related Siding control keys to be in Key in condition.
3. If any Level Crossing gates are falling under the route that should be locked (KEY IN) and signal slot lever of the gate to be in reverse position (Can be ensured from the Yellow steady indication just near the L.C. Gate control).
4. All the related siding points should be in normal position (can be ensured from yellow steady indication at the siding point on the route)

(b) CANCELING A ROUTE/ EMERGENCY ROUTE RELEASE:

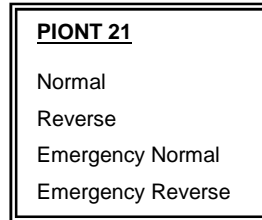
To cancel a signal route when the route is set and the signal in taken-off, click on the signal cancellation menu (Main/Calling-on) of the concerned signal, the signal will immediately go to 'ON' aspect, after doing so click on the Route release menu the route locked indication will starts flashing for 120 sec, After the completion of 120 sec the locked route will be released and veeder counter provided for the route release in the conventional panel will change to next higher digit which should be recorded by SM .

SHUNT SIGNAL OPERATION:

To setting and Canceling the signal route for the shunt signal the same procedure shall be followed as explained in Signal Operation.

POINT OPERATION:

To Operate the Point the SM needs to track the mouse pointer to concerned point's Normal/Reverse indications on the VDU, after clicking by the left button on the mouse a popup menu will appear as below:

**(a) REVERSE TO NORMAL OPERATION:**

Track the pointer to NORMAL menu and click, a Normal flashing indication will appear, the indication will be steady after the point is set to Normal.

(b) NORMAL TO REVERSE OPERATION:

Track the pointer to REVERSE menu and click, a Reverse flashing indication will appear. The indication will be steady after the point is set to Reverse.

(c) EMERGENCY NORMAL OPERATION:

When the Point zone Track circuits/ Axle counters failed without any Point lock condition by any signal routes, a point can be operated by the Emergency Point operation.

Before doing the emergency operation A Emergency Point Operation Key to be KEY IN by clicking the KEY IN menu, after the completion of the Emergency point operation, the Key to be KEY OUT by clicking KEY OUT menu.

Track the pointer to EMERGENCY NORMAL menu and click, a Normal flashing indication will appear, the indication will be steady after the point is set to Normal.

After the Emergency point operation a specific veedor counter provided in the Domino panel board will change to its next higher digit and this number should be recorded in the register provided for this purpose by the SM.

(d) EMERGENCY REVERSE OPERATION:

When the Point zone Track circuits/ Axle counters failed without any Point lock condition by any signal routes, a point can be operated by the Emergency Point operation.

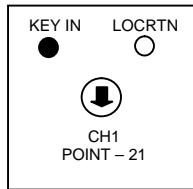
Before doing the emergency operation A Emergency Point Operation Key to be KEY IN by clicking the KEY IN menu, after the completion of the Emergency point operation the Key to be KEY OUT by clicking KEY OUT menu.

Track the pointer to EMERGENCY REVERSE menu and click, a Reverse flashing indication will appear, the indication will be steady after the point is set to Reverse.

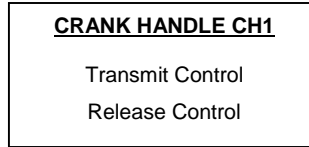
After the Emergency point operation a specific veeder counter provided in the Domino panel board will change to its next higher digit and this number should be recorded in the register provided for this purpose by the SM.

CRANK HANDLE & SIDING CONTROL OPERATION:

To Transmit or Release control of the Crank Handle, click on the crank handle/ Siding control button provided like the following button on the VDU.



The appearing pop-up menu gives details of the possible commands on the Crank Handle



For Transmitting the Crank Handle KEY to the field personnel SM has to click transmit control menu. After transmission the KEY IN indication will starts flashing, now the KEY can be extracted from the RKT. After extracting the key from the RKT, the key IN indication will disappear.

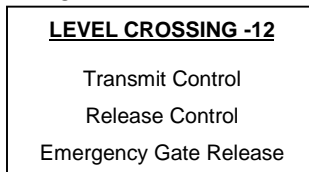
When the Manual point operation is over, after putting the KEY in the RKT, A KEY IN flashing indication will appear on the panel, Now the SM has to Release the control for the Steady indication by clicking release control menu

A Crank handle locked indication will appear when the particular point has locked by any of the possible signal routes.

LEVEL CROSSING GATE OPERATION:

To Transmit or Release control of the Level crossing gate, click on the Level crossing control button provided like the following button on the VDU.

The appearing pop-up menu gives details of the possible commands on the Level crossing gate.



For Transmitting the LC KEY to the Gate man, SM has to transmit the control by clicking, after transmission the CLOSED indication will starts flashing, now the KEY can be extracted from the RKT.

When the gate has been closed, locked & slot lever is in reverse position, after putting the key in the RKT, A closed flashing indication will appear on the panel. Now the SM has to release the control for the steady indication.

The locked indication will appear when the LC Gate has locked by any of the possible signal routes.

EMERGENCY GATE OPERATION:

If suppose the L.C. Gate has locked by the any of the signal route, For releasing the gate by the Emergency operation the SM has to cancel the signal by signal cancellation control of the relevant signal. Then he has to click the Emergency Gate release control in the Gate pop-up menu. This will take 120 sec of time to release the gate. After the time lapsed the KEY can be extracted from the RKT at Gate Lodge and concerned Veeder counter provided on the panel board will change to next higher digit number, which should be recorded in the register provided for this purpose.

APPENDIX 'C' TO STATION WORKING RULES OF BYREE STATION

ANTI COLISION DIVICE (RAKSHA KAVACH)

=== NIL ===

(A.K.JENA)
DSTE/KUR

(B.PANDA)
DOM/KUR

1. STATION SUPERINTENDENT

He is in-charge of the Station. He performs day shift duty for train passing duties in turn with his assistants. He is responsible for the efficient discharge of duties devolving upon all the staff employed at the station according to rules, safe working instructions issued from time to time and Station Working Rules. He shall see that all signals, points, L.C. Gates and whole machinery at the station are in proper working order. He shall report all defects to the concerned officials. He shall satisfy himself that the staff employed under him at this station are thoroughly conversant with Station Working Rules and perform their duties correctly. It is his personal responsibility to maintain the station working rules, other rule books and the Assurance Registers up to date. He shall see that all records of the station are properly maintained and due statements returns and other corresponding documents are up to date. He shall see that the staff are civil courteous and help full to all users of railway. He shall see that all station premises are kept neat and clean. He is responsible for booking off all Group-‘C’ and Group-‘D’ staff for PME and refresher course/safety camp in their due time.

His special attention is drawn to Chapter-II of GR and SR and GR 5.01 to 5.08 with relevant SRs, Chapter-XXII of Operating Manual. He shall follow the instructions laid down in SR 3.68.01 (c) & (d) and SR 14.07.01 Para 2.09 (e) of Block Working Manual. He shall supervise the works of staff and conduct night inspections. Safety Meetings and Fire Drills and report lapses of staff working under him. He shall also ensure that the safety equipment in the station and gate lodge as mentioned in the station working rules are supplied in full and they are good working order with necessary relief stock.

The SS’s special attention is drawn to the GR 5.01 to 5.23 where details are indicated.

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 Manager 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 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 Superintendent, under lock and key by maintaining one register for this purpose.

1.3 ACCIDENTS:

Accidents shall be reported and immediate action shall be taken by the Station Manager, in accordance with the instructions laid down in the Accident Manual. Whenever the Station Superintendent, 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 The SMR shall test the working of the reception signal and emergency crossovers daily during the day when there is no train due to arrive/leave the station and record the results in the SM's diary.

2. SM/ASM:

He shall work in train passing duties. The SM/ASM on duty shall record in the diary the condition of all the running lines, siding, the caution orders in force at the time of handing over charge. These entries shall be countersigned by the Station Master coming on duty and taking over charge. The Station Master on duty who makes an entry in the train signal register shall continue till all the entries pertaining to the trains are completed vide SR 14.07.01. 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 SS.

3. TRAFFIC POINTSMAN:

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

He shall remain responsible for:

- i). Correct setting and locking and crank handling of points for reception/dispatch and shunting operation.
- ii). Coupling and un-coupling of vehicles.
- iii). Protection of line in an emergency.
- iv). Piloting and hand signalling of trains when necessary and handing over caution orders/or any other line clear authorities to the Loco Pilot and guards of the trains.
- v). Attending off side to observe safe running of run through trains at stations and correct display of hand signals and ringing the station bell.
- vi). Securing of vehicles, as directed, protection of vehicles of a train.
- vii). Being conversant with the layout of the yard and compliance of rules relating to shunting operation.
- viii). Observing General Rules 5.13 to 5.21 and relevant subsidiary Rules during shunting.
- ix). Cleaning and lighting of hand signal lamps if required cleaning and oiling of clamps and padlocks if required.
- x). 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.
- xi). Cleaning and Dusting of SM's office room furniture and equipments Office.

- xii). Carrying messages call books etc where a separate call boy messengers are not posted.
- xiii). Working as fog signal man as and when required.
- xiv). Filling up the fire buckets with sand/water.
- xv). Getting train intact arrival register (T/1410) signed by the Guard as and when required.
- xvi). Any other duties entrusted to him by the SM on duty from time to time.

GENERAL

- 1) A set of flags and LED tri-color hand signal lamp will be part of the essential equipment of the staff while on duty. He shall not leave the station except when required by the SM on duty or with his permission and shall comply with Subsidiary Rules 4.42.02 (b) (i) & (d).
- 2) Staff working at the station must be able to distinguish UP and DN line clear tickets 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 BYREE 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 tri-color hand signal lamp	6
3.	Hand signal Flags	6 set (3 Red & 3 Green)
4.	Safety chain with Padlocks.	6
5.	Clamps with padlocks	16 (4 at station and 4 in each goomty)
6.	Skids	Wooden – 4 Iron – 4
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

(A.K.JENA)
DSTE/KUR

(B.PANDA)
DOM/KUR

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

There is no IBH or IBS or DK station on either end of block section

1.3. **HALT STATION:**

Sri Jhadeswar (Code: SJDR) PH at Km. 387.0 from HWH is situated between Byree and Kapilas Road station.

(A.K.JENA)
DSTE/KUR

(B.PANDA)
DOM/KUR

APPENDIX 'H'**STATION WORKING RULES OF BYREE IN CONNECTION WITH PRIVATE SIDING OF OCL INDIA LIMITED SIDING AT BYREE****1. DESCRIPTION OF IN PLANT YARD:**

- (a) The in plant yard consists of three lines.

<u>SI No</u>	<u>Line</u>	<u>CAL</u>	<u>From</u>
1	Pre Tippling Line	727.0 Meters	PT to FM
2	Post Tippling Line	739.386 Meters	PT to DE
3	Engine Reversal Line	235.57 Meters	FM to FM

2. Details for working of OCL Siding:

- (a) The siding takes off from the (i) point chainage 647.62 m F/CSB from Down Main (Line No.3) at VSKP end (ii) point chainage 457.20 m F/CSB from Down Loop line (line no.4) at HWH end of BYY station yard & is terminated with a dead end CH 4562.833 mtr inside the inplant yard.
- (b) All the points in the inplant yard are non-interlocked hand operated points.
- (c) The movement of inward and outward traffic of the private siding complex of the in plant yard shall be undertaken by Railway locomotives.
- (d) The movement of pilots between BYY and the plant yard will be controlled by the SM on duty, at BYY station.
- (e) Signal No. SH 16 A/B is provided towards the inplant yard end to control reception of out going pilots from the siding.
- (f) Shunt Signal No.13 and 14 are provided on Goods Loop-2 and Goods Loop-1 respectively towards the in plant yard end for dispatch of pilots to the siding.
- (g) One supervisor of OCL will be available round the clock for giving line clear as well as supervise the other shunting operations in the in-plant yard.
- (h) Movement inside the inplant yard shall be controlled by the siding supervisor on spot. Loco Pilot will observe the traffic signal given by the staff deputed by the siding authority for the movement with necessary Safety precautions.

3. RECORD MAINTENANCE:

- (a) A separate shunting order book shall be exclusively maintained at BYY station for pilot movements. This shunting order will be issued to the pilots when they are allowed from Goods Loop.1/2 to inplant yard in case of failure of shunt signals.

(b) WAGON TURN ROUND REGISTER:

Two separate registers for inward & outward traffic are to be maintained by SM/BYY with the following columns- Date, Pilot No., Load, Empty/Load rake departure time, Placement time, Loading/release time, Placement to release/loading time, Power arrival time, EOT time,

Pressure ready time, dispatch time, release to departure time, Arrival time/Departure time of BYY turn round hours of the rake & remark.

4. COMMUNICATION:

- (i) Magnet Telephone has been provided between the Station Master on duty and the supervisor of OCL siding.
- (ii) VHF set has been provided between the Station Master on duty and the OCL authority with separate channel.

(T.LAHIRI)
DSTE/KUR

(D.NAYAK)
DOM/KUR

- (iii) DTMF equipment is provided to have direct communication with section controller on duty.
- (iv) Walkie-Talkie Sets is provided to the on duty Guard to communicate with the on duty SM at BYY as well as the supervisor of inplant yard authority.

5. RECEPTION OF PILOTS TO OCL SIDING:

A. RECEPTION OF DOWN PILOTS INTO OCL GOODS LOOP-1 (KIS END) :-

Pilot from KIS end, meant for OCL siding will proceed on line clear. After granting line clear to KIS, Down Home Signal No.2C at BYY will be cleared after reversing point no.30A/B. The pilot will be received on Goods Loop-1. The pilot will stop clearing starter signal no.15 towards station end. After complete arrival of the pilot in Goods Loop-1 crossover no.30 A/B will be normalized. Before allowing the pilot to the siding, SM/BYY shall obtain line clear from supervisor of OCL siding supported by a private number. After obtaining line clear private number, SM on duty at BYY shall take off SH-14. Before taking off SH-14, the SM on duty at BYY shall ensure that point no.31 A/B is set correctly observing the indication on the central panel/VDU. Observing the "off" aspect of Shunt Signal No.14 the Loco Pilot will proceed up to the Stop Board provided just before the non-interlocked hand operated point at Inplant yard and stop there till "Piloted" by the staff deputed by the siding authority. After setting the nominated Route and locking the desired points, the siding staff shall exhibit proceed hand signal. Observing the proceed hand signal, the pilot will proceed and stop on the pre tripling line clearing the fouling mark. The guard shall ensure the clearance of the FM. Then he shall give intact arrival report to SM/BYY supported by a Private No. over Walkie-Talkie. There after brake van and engine will be reversed and unloading will be carried on by tripling of the wagons. After completion of unloading, the empty rake will be dispatched from the post tripling line as per programme.

B. RECEPTION OF UP PILOTS INTO OCL GOODS LOOP-2 (BRTG END): -

Pilot from BRTG end, meant for OCL siding will proceed on line clear. After granting line clear to SM/BRTG, Up Home Signal No.1D will be cleared after reversing point no.21 A/B, 23 A/B & 29 A/B from central panel/VDU and will be received in Goods Loop-2. The pilot will stop clearing starter signal no.18. After complete arrival of the pilot, the concerned points can be normalized. Before allowing the pilot to the siding SM/BYY shall obtain line clear from supervisor of OCL siding supported by private number. After obtaining line clear private number, SM on duty at BYY shall take off SH-13. Before clearing SH-13 the SM on duty shall ensure that point no.31A/B & DS No.32 are set correctly from Central Panel/VDU. Observing the "off" aspect of Shunt Signal No.13 the pilot will proceed up to the Stop Board provided just before the non-interlocked hand operated point and stop there till "Piloted" by the siding authority. After setting and locking the desired points the siding staff shall exhibit proceed hand signal. Observing the proceed hand signal, the pilot will proceed and stop on the pre tripling line clearing the fouling mark. The guard shall ensure the clearance of the FM. Then he shall give intact arrival private number to SM/BYY supported by Private No. over Walkie-Talkie. There after brake van and engine will be reversed and unloading will be carried on by tripling. After completion of unloading, the empty/ loaded pilot will be dispatched from the post tripling line.

- 6.** The movement of power inside the inplant yard will be done under the direct supervision of Guard. The staff deputed by the inplant yard authority shall set, clamp & padlock the desired points. The siding staff yard authority will exhibit hand signal as per the instruction of Guard. The said power will clear load/empty from the inplant yard as per programme, or otherwise return light.

7. SECURING OF VEHICLES AT THE INPLANT YARD:-

The Inplant yard authority will be responsible for securing of vehicles in the inplant yard.

8. DISPATCH OF PILOT FROM OCL SIDING:-**A. TOWARDS KIS:-**

To dispatch a train from the OCL siding, the supervisor of OCL siding shall satisfy that the pilot is ready in all respect. The Guard of the pilot shall ensure that the pilot has the prescribed air pressure vacuum and brake power and it is ready in all respect including pressure/vacuum continuity. The Guard of the pilot shall inform the above to the supervisor of OCL siding and to the SM on duty at BYY. The siding supervisor shall inform to the SM/BYY regarding the readiness for dispatch of the pilot from the siding and ask for line clear. Thereafter, SM on duty at BYY shall grant line clear to the out going pilot supported by a private number to supervisor of OCL siding. The non-interlocked hand points over which the outgoing pilots will run shall be set and locked by the siding staff. However, after getting proceed hand signal from the siding staff, the driver shall start the pilot and proceed. Observing the 'off' aspect Shunt Signal No.16 A/B the pilot will proceed on Goods Loop-1 and will obey the off aspect of Starter and Advanced Starter for further movement to KIS.

B. TOWARDS BRTG:-

To dispatch a train from the OCL siding, the supervisor of OCL siding shall satisfy that the pilot is ready in all respect. The Guard of the pilot shall ensure that the pilot has the prescribed air pressure vacuum and brake power and it is ready in all respect. The Guard of the pilot shall inform the above to the supervisor of OCL siding and accordingly SM on duty at BYY will be informed by them. Thereafter, SM on duty at BYY shall grant line clear to the out going pilot giving a private number to supervisor of OCL siding. The non-interlocked desired hand points for the outgoing pilots shall be set and locked by the staff deputed by the siding authority. However, after getting proceed hand signal from the staff deputed by the siding authority, the driver shall start the pilot and proceed. Observing the 'off' aspect Shunt Signal No.16 A/B the pilot will proceed on Goods Loop-2 and will obey the 'OFF' aspect of starter and Advanced starter for further movement to BRTG.

9. BACK LOADING: If any incoming rake is allotted for back loading the placement of the empty rake will be given placement on loading line by Railway locomotive. Supervision of shunting operations will be by Guard of the train and point operations will be by OCL yard staff. Exhibition of signal by yard staff of OCL will be as per instruction of train guard.

10. FAILURE OF SHUNT SIGNAL:

In case of failure of SH signal for reception or dispatch of pilot to & from OCL siding the driver shall stop at the foot of the shunt signal. He will inform the matter to SM on duty BYY and OCL siding supervisor. If concerned interlocked point No.31A/B & 32 are correctly set infavour of the movement of the train, then both end of the point are to be clamped and padlocked by siding staff under the supervision of siding supervisor and ALP.

Then siding supervisor depute his staff to exhibit proceed hand signal. Then Driver will proceed and stop at the stop signal ahead if not taken off.

If the said point is not set in favour of the direction of the movement then the matter will be communicated to SM on duty BYY over Walkie-Talkie or other available means.

(T.LAHIRI)
DSTE/KUR

(D.NAYAK)
DOM/KUR