

EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF SINGAPUR ROAD JN STATION (B.G)

Date of Issue: _____.

Date brought into Force:_____.

NO:WTF/5/SWR/SPRD

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

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

1. **STATION WORKING RULES DIAGRAM:**

The Station Working Rule diagram No.**SI-23074 Alt - G** based on CSTE/E.Co.Rly signalling and interlocking plan No. **SI- 23074 Alt –G** shows complete yard layout, normal position of points, signals, gradients within station limits, interlocking arrangements of the station, number of running lines, actual holding capacity in meters, name of adjacent block stations and inter distance between the respective centre line of station buildings etc.

2. **DESCRIPTION OF STATION:**

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

(a)	Name of the station	SINGAPUR ROAD JN
(b)	Class of station	‘B’ Class
(c)	Section	RAIPUR-VIZIANAGARAM
(d)	Double line/ Single line	Double line.
(e)	Electrified/Non Electrified	Electrified.
(f)	Railway	East Coast Railway
(g)	Route	‘D’ special.
(h)	Situated at	KM 333/1-3
(i)	Reckoned from	Raipur.& Koraput respectively
(i)	Number of cabins	Centrally operated Domino type full fledged Panel.

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

- a) SINGAPUR ROAD is situated between Block hut ‘B’ cabin of Tie Line in the West side at a distance of 3.965 Km and Rayagada in the East side at a distance of 9.225 KM and Block hut ‘A’ cabin at a distance of 2.333 KM on KR Line.

- (b) IBS/ IBH : IBH signal is provided between SPRD & RGDA stations on both UP & DN lines at Km: 338.184 & Km: 337.531 respectively.
Details of working of IBH are given in appendix –‘F’
- c) Automatic Signals : NIL
- d) Outlying Sidings : NIL
- e) D.K. Stations : NIL

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

Between Stations	The point from which the Block Section commences	The Limit at which Block section ends
SPRD-RGDA	a) From UP Advance starter No 15 of SPRD. b) From UP IB Home signal no. 17 of SPRD.	a) To a point 400M beyond UP IB Home signal no.17 of SPRD at km 338.184. b) To the first facing point no. 31A of RGDA.
	a) From DN Advance starter No.28 of RGDA. b) From DN IB Home signal no. 74 of RGDA.	a) To a point 400M beyond DN IB Home signal no. 74 of RGDA at km 337.531. b) To the first facing point no. 24A of SPRD.
SPRD-BLOCK HUT ‘B’ CABIN	a) The advance block section commence at Dn advanced starter signal No 16 of SPRD	Ends at facing point No 49A on Dn line at East end of Block Hut ‘B’ cabin.
	b) The rear block section commences at Up Advance starter signal No 43 of Block Hut ‘B’ cabin.	Ends at Facing point No 23A on Up line at SPRD station.
SPRD-BLOCK HUT ‘A’ CABIN	Up K.R Advanced Starter No 18 of SPRD	Down Advanced Starter No 16 of Block Hut ‘A’ CABIN

2.4 GRADIENTS IF ANY:

From the centre line of the Station building(CH:0.000)	From Chainage	To Chainage	Stretch	Gradient
SPRD – ‘B’ cabin (UP &DN Lines)				
	0.000	268.000	268	1 in 1000 Raising

	268.000	736.000	468	1 in 400 Falling
	736.000	1528.000	792	1 in 150 Falling
	1528.000	Into Section	---	Level
SPRD – RGDA (UP Line)				
	0.000	1070.000	1070	1 in 1000 Falling
	1070.000	1586.000	516	1 in 450 Falling
	1586.000	Into Section	---	Level
SPRD – RGDA (DN Line)				
	0.000	946.000	946	1 in 1000 Falling
	946.000	In to section	--	1 in 500 Falling
SPRD – ‘A’ cabin (K.R.Section)				
	0.000	741.530	741.530	1 in 400 Falling
	741.530	860.000	118.470	Level
	860.000	890.400	30.400	1 in 100 Raising
	890.400	1247.000	357.600	Level
	1247.000	2343.830	1096.830	1 in 100 Raising
	2343.830	Into Section	---	1 in 260 Raising

IBS ZONE:

i) TOWARDS SPRD END (DN LINE):

From km	To km	Stretch	Gradient
From section	339.243	--- ----	1 in 1000 falling
339.243	338.841	402M	Level
338.841	338.041	800M	1 in 175 Falling.
338.041	337.691	350M	1 in 200 Falling
337.691	337.451	240M	1 in 400 Falling
337.451	336.241	1210M	Level
336.241	Into section	---	1 in 150 falling

ii) TOWARDS SPRD END (UP LINE):

From km	To km	Stretch	Gradient
From section	336.429	---	1 in 200 falling
336.429	337.250	821M	1 in 125 raising.
337.250	337.937	687M	1 in 300 falling
337.937	339.160	1223M	1 in 200 falling
339.160	Into section	---	Level

Note: Shunting shall not be permitted unless the engine is leading towards falling gradient.

(A.K.SAINI)
DSTE/P/VSKP

(K.SIVA HARSHA)
DOM/WAT

2.5 (a) LAYOUT

SINGAPUR ROAD Station is provided with four running lines:

Line 1 (Common Loop)

Line 2 (UP Main)

Line 3 (DN Main)

Line 4 (Common Loop)

(b) SIDING

(i) M/S Straw Production Limited. (Private siding) takes off from UP Main line at Rayagada end of the yard which is isolated by Motor operated crossover NO. 22 at East end of the yard.

(ii) Track machine siding (shown as per WRD but work not commissioned).

(c) PLAT FORMS

Two high level passenger platforms are provided, one measuring 560 M x 12.2 M on Line No.1 and the other measuring 560 M x 16 M on Line No. 4..

2.5.1 RUNNING LINES, DIRECTION OF MOVEMENT AND HOLDING CAPACITY IN CSR:

- a) Trains coming from 'B' CABIN end and proceeding towards RGDA are UP trains.
- b) Trains coming from RGDA and proceeding towards 'B' CABIN end are down trains.
- c) Trains coming from 'A CABIN end and proceeding towards RGDA are Down trains and trains coming from RGDA and proceeding towards 'A cabin end are UP trains.
- d) Running Lines and their holding capacity:

Sl No	Line No	CSL in Mtrs
1	Line No. 1 (Common Loop)	697.2 M (Starter to Starter)
2	Line No. 2 (UP Main)	797.5 M (Starter to SH)
3	Line No. 3 (DN Main)	728.6 M (Starter to SH)
4	Line No. 4 (Common Loop)	706 .0M (Starter to Starter)

2.5.2 NON-RUNNING LINES AND THEIR CAPACITY IN CSL:

Non Running Lines	CSL
Track Machine Siding	250M

2.5.3 ANY SPECIAL FEATURES IN THE LAYOUT: NIL

2.6. LEVEL CROSSINGS:

S.No.	LC Gate No. with Classification and Department	Between stations with Location Km.	Type	Normal position	Whether interlocked	Provision of Telephone
1	RV-246 "C" Class Engineering	SPRD-RGDA KM 334/1-3 (UP), 334/2-4(DN)	Lifting barrier	Close to Road traffic	Non-Interlocked	Provided
2	RV-248 "C" Class Engineering	RGDA-SPRD 336/23-25(UP), 336/24-26(DN)	Lifting barrier	Closed to Road traffic	Non-Interlocked	Provided

(The Details of the Working of Level Crossing gates are given in Appendix 'A' of SWR).

3. SYSTEM AND MEANS OF WORKING:

Trains shall be worked in either direction under absolute Block System in single line between SPRD-'A' Cabin & double line working between RGDA-SPRD & B-Cabin SPRD in accordance with GR 8.01(1)(a)(c), 8.01(2)(b), 8.03(1)(a)(b)(c)(ii), 14.01 to 14.08, 14.10 to 14.13 and BWM Chapter-IV Part I & vide GR. 8.01(a) (b).

a) TYPE OF BLOCK INSTRUMENTS:

Single Line Token less Daido type instrument for section SPRD-'A' cabin is provided in SM's office in terms of GR 14.01(a), and BWM 4.04(2).

The Station Master on duty is the only authorized person to operate the instrument vide GR 14.12(a), 5.08 and its key shall be kept under his personal custody.

Double line Lock & Block instrument is provided for SPRD- RGDA and SPRD-'B' cabin in accordance with GR 8.01(a)(b), 8.01(2)(b), 8.03(1), 14.01 to 14.08(a), 14.10, 14.11, 14.13 and BWM Chapter-V

b) TYPE OF BLOCK INSTRUMENTS:

SGE type three position double line lock and block instruments are installed in SM's office. SS on duty is responsible to operate the instrument and their key shall be kept under his personal custody.

Taking 'OFF' of the last stop signal is a authority for LP to enter into the concerned block section in terms of GR 14.08(a).

c) CO- OPERATIVE / NON CO – OPERATIVE: Co – operative.**d) PROVISION OF BLOCK TELEPHONE:**

Telephone attached to Block instrument connecting the adjacent Block stations concerned.

e) **TRAIN WORKING AND MOVEMENTS OF TRAINS:**

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

4. **SYSTEM OF SIGNALLING AND INTERLOCKING:**

4.1 Standard of Interlocking: Standard. III

- a) Equipment of Signals: MACLS.
- b) Method of operation: Points and signals are operated from central SM's panel board.
- c) Provision of Axle Counter/Track Circuits on running lines:. Track circuits are provided in the yard as 1AT,1T1,1T2, 2AT, 2T1, 2T2, 3AT, 3T,15AT, 15T,16AT, 16T, 18AT, 21AT, 21BT, 22AXT, 22BT, 23AT, 23BT, 24AT, 25AT, 25BT, 26AT, 26 BT, 27BT, 28BT, 29AT,29BT, 30AT, 30BT, L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L4T1, L4T2, L4T3,33T,22AT.

Axle counters are also provided for SPRD-RGDA, SPRD-'B' cabin and SPRD-'A' cabin for Last vehicle verification. They are DRAXT and 28AXT(For DN line), 15AXT and UDAXT (for UP line) section SPRD-RGDA, URAXT, DDAXT for section SPRD-'B' cabin and (SPRD-A Cabin)BAXT for section SPRD-'A' cabin.

- d) Calling on Signals/IBS: Calling on signals are provided below both UP and DN Home signals, DN Starter signal Nos.10, 12, 14.
IBS signaling is not provided in the section.
- e) A Panel board installed in the SM's office for operation of points, signals and crank handles control etc. with a locking arrangement in order to prevent unauthorized accessibility to panel operation. The lock, effects the panel locking either in normal position or operating positions.
- f) CH1 controls 21 A/B,,27 A/B, CH2 controls 22 A/B,28 A/B, CH3 controls 23A/B, 25 A/B, CH4 controls 24 A/B, 26 A/B, & CH5 controls 29 A/B, & CH6 controls 30 A/B, CH 7 Controls 33.

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

Custody of Relay room key and procedure for its handover and taking over between SM and S&T staff has to follow the procedure as per JPO issued by COM and CSTE vide No. JPO/02/2012 dated 29.08.2012. Relay room is provided with two independent locks. The key of one lock shall be in the personnel custody of Station Master on duty and the key of other lock shall be in the custody of S&T Maintainer. In the event of necessity such as for attending failure, or regular maintenance, on being requisitioned by S&T maintainer, SM shall hand over the key to the Maintainer. On completion of the work, maintainer shall

lock the relay room and shall return the key to SM. The particulars of such transactions shall be entered by the SM in the relay room key register vide OM 2015 para No.13.16.

4.4.3 (A) **POWER SUPPLY:**

- i) CLS Auto Change Over panel with rotary change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. Luminous indicator's are provided above the circuit breaker for each supply to indicate the availability of the supplies.
- ii) Normally the rotary switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, the on duty SM must ascertain the power is available on the other AT e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- iii) During the non-availability of both the AT supplies SM on duty shall keep the rotary change over switch towards the local supply to feed available local supply to the Installation.
- iv) In case of failure of one of the AT supply without any power block, on duty SM has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies, the local supplies shall be utilized by operating the switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.
- v) For IPS system that provides to PI.
- vi) There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

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

- (a) 50% DOD (Depth of Discharge) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged with audio cut off.
- (b) 60% DOD (Depth of Discharge), which warns for emergency. The Alarm for this condition is same as for condition 1.
- (c) 70% DOD (Depth of Discharge), which signals system, shut down. In this condition Signal feed cut off and all DC-DC converters continue working. Audio alarm will continue till power supply restored.
- (d) Any of the Module fails, which calls for "Call S&T".
- (e) 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 AT's and make an entry in station diary duly initiating action for rectification of failure, if any.

5. TELECOMMUNICATIONS:

The details of telecommunication facilities are provided at the station for working trains are given in Appendix 'B'

- 1) Section Control Phone of RV line and SBP control phone.
- 2) Block telephones connected with adjacent stations.
- 3) Magneto Telephone with M/S Straw production limited siding.
- 4) Hot line phone between RGDA-SPRD, SPRD-'A' cabin and SPRD-'B' cabin. Parallel telephone communication provided between Station Master's office and UP and DN crank handle locations.
- 5) Telephone communication is provided between Station Master's office and Level crossing gate RV-246 & RV-248.
- 6) Auto Telephone
- 7) BSNL telephone is provided.
- 8) 25 watts VHF set is provided for emergency communication.
- 9) Provision of traction power control and loco control in the section RGDA-VZM.
- 10) Magneto phone is provided on UP IBS signal post at km: 338.184.

FAILURE OF COMMUNICATIONS:

1. In the event of partial failure of communications between the adjacent block stations, SR 6.02.06 shall be observed.
2. In the event of total failure of communications between the adjacent stations SR 6.02.04 shall be observed.

6. SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF:

Movement of trains is regulated by the Section Controller on duty whose orders must be carried out provided they do not in any way contravene any G&SR, BWM, OM and SWR. Where there is no control the station Master on duty shall work independently in conjunction with the Station Master of the adjacent block stations and shall be responsible for safe reception/dispatch of trains.

He shall ensure that preference is given to immediate trains without causing undue detention which occurs to other trains.

6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:

Station Superintendant/SM	1
TPM/TP	1

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

6.1.2 RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF THE LINE AND ZONES OF RESPONSIBILITY:

The verification of line clearance by SM 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 all obstructions for the passage of any train. The clearance of the route including over lap must be ensured by the SM on duty by indication on panel for all trains before reception of a train unless it is required to admit on blocked line.

When a train is to be dispatched from the station yard, the SM on duty must ensure that the route between the starter signals and the block section limits demarcated by the advanced starter is clear of any obstruction and which also includes points, zones, track circuits on the route before the train is dispatched

6.1.3 ASSURANCE OF STAFF IN ASSURANCE REGISTER:

Every train passing staff including newly posted staff at the Station or leave reserve staff or regular staff who has resumed duties after more than 15 days absence and if there is any change is made in Station Working Rules shall sign in the Assurance Register as a token of their having gone through and understood clearly the rules in connection with their duties vide SR 5.01.02.

The Dy.SS/SM in charge of the Station shall be personally responsible for maintenance of Assurance Register and must not allow any person connected with train passing duties to work independently unless he has given assurance as per SR 5.01.02.

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

a) The conditions laid in GR. 8.03(2)(a)(b)(c)(ii) shall be complied with the SM on

Duty before line is considered clear and line clear is granted.

b) DOUBLE LINE SECTION

Line shall not be considered clear and line clear shall not be given to 'B' cabin for UP trains unless.

i) The whole of the last preceding UP train has arrived complete inside the outermost facing point No. 23A.

ii) Up home signal / Calling – on signal No. 1A/B/C and / or C1 A/B/C is put back to ON and

iii) The line is clear up to facing point No. 23A as per GR 8.03(1).

The line shall not be considered clear and line clear shall not be given to RGDA for DN train unless.

- i) The whole of the last preceding DN train has arrived complete inside the outermost facing point No. 24A
- ii) DN home signal / Calling – on signal No. 2A/B/C and / or C2 A/B/C is put back to ON and
- iii) The line is clear up to outermost facing point No. 21B as per GR 8.03(1).
- iv) LC Gate no. RV-246 & RV-248 to be closed.

a) **SINGLE LINE SECTION: K-R**

The line shall not be considered clear and line clear shall not be given to 'A' cabin for DN train unless.

- i) The whole of the last preceding DN train has arrived complete.
- ii) DN home signal / Calling – on signal No. 3 A/B/C and / or C3 A/B/C is put back to ON and
- iii) The line is clear up to Advanced Starter No. 18 as per GR 8.03(2).

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

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE:

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

Safety point alarm:

A safety point alarm is provided on the panel board with different indications:

1. On complete arrival of a train at the station, the SM has to set the points immediately against the occupied line.
2. In case of SM forgets to alter the points, after a time lag of 02 minutes, an audible buzzer will be heard from this instrument along with the 'RED' indication of the line on which the train has arrived.
3. The SM shall then press 'ACK' button to mute the buzzer, and immediately set the required points against the line on which the train has arrived.
4. On setting the points against the occupied line, the RED indication will disappear.

If all the lines of 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 stabled load or a goods train in that order so that, in case of mishap, the chance of casualties are minimized [Refer SR.3.51.06 (b)]. In case of all the lines are occupied by Coaching train, points should be set for a loop line to negotiate with the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities.

6.2.1.1 RECEPTION OF TRAIN ON BLOCKED LINE:

- a) In case of reception of a train on an obstructed line the station master shall send the written permission referred in GR 5.09[2] [C] shall be sent on form T/509 and shall endorse the reason for such admission, the line number and the nature of obstruction on that line. The rules mentioned in GR 5.09 to be observed.
- b) Setting and locking of points shall be done as per SR 3.69.03.
- c) A stop hand signal shall be exhibited by Station Master at a distance of not less than 45meters from the point of obstruction to indicate to the loco pilot as to when the train shall be brought to a stand.

6.2.1.2 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

The rules laid down in GR 5.10 and 5.10.01 shall be followed

6.2.1.3 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:

The rules laid down in GR 5.11 and 5.11.1 shall be followed.

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

Not Applicable

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

SPECIAL RESTRICTIONS:

- a) Shunting in the face of an approaching train is prohibited towards Raipur end & Koraput end.
- b) Shunting shall not be permitted at Raipur end of the yard unless the engine is leading towards falling gradient.
- c) Route No 4 (Line No. 4) shall not normally blocked by stable load.

SPECIAL INSTRUCTIONS: -NIL

CONDITIONS FOR TAKING 'OFF' APPROACH SIGNALS:

- a) The conditions for taking 'OFF' approach signals are governed by relevant provisions of GR.3.40 (1) (a), 3.40(2) (a), 3.40(3) (b) and SR's thereto. The procedure prescribed under SR 3.68.01 shall be followed.
- b) **RECEPTION OF TRAINS:**

Reception of trains is governed by the relevant rules laid down in GR.3.36, 3.38, 3.40, 3.43, 3.48, and 4.17 with relevant SRs and SR 3.42.02(a)(iii) and SR 3.42.03. For taking off reception signals procedure detailed in SR 3.38.01 shall be followed. Ensure closure of LC gates no. RV-246 & RV-248.

c) **STOPPING OF SHUNTING OPERATIONS:**

The Station Master on duty shall ensure that all shunting on non isolated line is suspended and shunting authority issued to such operations with drawn and kept in his possession vide SR 5.13.02. The Station Master on duty shall also ensure from the gateman that the LC gate is closed and locked, supported by private number and then shall take off the concerned signals.

d) **PUTTING BACK SIGNALS:**

UP & DOWN Home, starters, advanced starters signals will go back to ON position after occupation of particular track circuits. SM on duty shall send TRAIN OUT OF BLOCK SECTION report to the Station Master in rear items of GR 14.01 and SR 4.17.01(e) (iii).

e) **ADEQUATE DISTANCE TO TAKE OFF HOME SIGNAL:**

To take off the home signal for admission of train, the adequate distance (overlap), as mentioned below shall be kept clear in terms of GR 3.40.01(a).

HOME SIGNALS OVERLAPS AT SINGAPUR ROAD JN. STATION VIDE GR 3.40(1)(a)(b):

CLEARING OF ADEQUATE DISTANCE				
LINE NO.	UP TRANS		DOWN TRAINS	
	FROM	TO	FROM	TO
1. (Common Loop)	Starter Signal No. 9	The end of Sand Hump OR UP Advanced starter Signal No. 15	Starter Signal No. 12.	The end of over run line OR Advanced starter signal No, 16 (R.V Line) OR Advanced starter No. 18 (K.R. Line).
2. (UP Main)	Starter Signal No. 13	Advanced Starter Signal No. 15	---	---
3. (DN Main)	---	---	Starter Signal No.14.	Advanced starter signal No, 16 (R.V Line) OR Advanced starter No. 18 (K.R. Line).

4. (Common Loop)	Starter Signal No. 11	The end of over run line OR Advanced starter Signal No.15.	Starter Signal No. 10	Advanced starter signal No. 16 (R.V Line) OR Advanced starter No. 18 (K.R. Line)
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6.3.1 **RESPONSIBILITY OF STATION MASTER FOR RESTORATION OF SIGNALS TO 'ON':**

Station Master should ensure that the signal is put back to 'ON' after passage of train as per GR 3.36(2)(b).

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

Simultaneous reception and dispatch of trains. In addition to the normal double line facility of receiving UP and DOWN trains independently the following existing interlocking at this Station permits simultaneous reception and dispatch of trains.

Reception of Down train from RGDA on Line No. 4 (Setting to KR line).	<u>AND</u>	Dispatch of another Down train from Line No. 3 OR from Line No. 1 to 'B' CABIN
Reception of Down train from RGDA on Line No.1 (Setting to over run Line).	<u>AND</u>	Dispatch of another Down train from Line No. 3 OR from Line No. 4 to 'B' CABIN or 'A' CABIN
Reception of an Up train from 'B' CABIN on Line No. 1 (Setting to Sand hump)	<u>AND</u>	Dispatch of another UP train from Line No. 2 OR from Line No. 4 to RGDA
Reception of an UP train from 'B' CABIN on Line No. 4 (Setting to over run line)	<u>AND</u>	Dispatch of another UP train from line No. 1 OR from line No. 2 to RGDA.
Reception of an DN train from 'A' CABIN on Line No. 1 (Setting to Sand hump)	<u>AND</u>	Dispatch of another UP train to RGDA from line No. 2 OR from line No. 4.
Reception of a DN train from 'A' CABIN on Line No. 4 (Setting to overrun Line.)	<u>AND</u>	Dispatch of another UP train to RGDA from line No. 1 OR from line No. 2.

6.5 **COMPLETE ARRIVAL OF TRAINS:**

The entire block section between SPRD-RGDA, SPRD-'B'CABIN and SPRD-'A' CABIN on both Up and Down Lines and on single line between SPRD-'A'CABIN respectively are monitored by axle counter system and the position of the block section whether 'Occupied' or 'Clear' is indicated on Panel at SM's office. As soon as train enters in to that block section the RED indication appears on Panel. After whole train

clears the block section GREEN indication appears on the 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 GREEN indication on the Panel.

In case of failure of Axle counter the SM on duty shall obtain Complete Arrival Certificate from the guard of the train in the 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 4.16.05 that the train arrived complete.

In case a train passes incomplete, action shall be taken as per SR.4.17.02, the "Train out of Block Section" report shall be withheld to the station in rear until Complete arrival Certificate is received from the station in advance supported by a private number. Train passing on adjacent line shall be stopped and Guard and Driver shall be issued with caution Order to proceed cautiously and stop short of any obstruction as per SR. 4.17.03. On occasions when motor trolley follows a train the points shall not be 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 DISPATCH OF TRAINS:

- a) Dispatch of trains is governed by the provisions of GR. 3.42 with and other relevant SRs and 3.36.04(b), 3.42.04 3.42.01(a) and BWM 2.07(5)(a)(b)(e)(f) & (g) and other relevant provisions of GR & SR, BWM and SWR. Ensure closure of LC gates RV-246 & RV-248 before taking off advance starter.

- b) **ISSUE OF CAUTION ORDERS:**

Whenever in consequences of the line being under repairs or for any other reasons, special precautions are necessary, a caution order detailing the kilometerage and speed at which the train shall run, reasons for taking such precautions shall be handed over to the driver in terms of GR 4.09 and SR thereto.

6.7 TRAINS RUNNING THROUGH:

- a) The provisions of GR 4.17, 4.42 with relevant SRs thereto and 3.36.04(b)(i) and 3.42.02(a)(iii) shall be followed. The UP and Down main lines are normally used for running through trains.
- b) The sequence of taking OFF reception and departure signals shall be followed as per SR 3.42.02(a)(iii).
- c) In every case in which trains are permitted to run through on a non-isolated line, all shunting shall be stopped and no vehicle-unattached to an engine or not properly secured in accordance with GR 5.23 may be kept standing on a connected line, which is not isolated from the through line vide GR 4.11(2).

- d) SS/SM on duty shall see the last vehicle as every train passing through at Station with a trail board or trail lamp or such other device vide GR 4.16 SR 4.17.01(a)

6.8 WORKING IN CASE OF FAILURE:

DEFECTIVE TRACK CIRCUITS

SS/Dy. SS shall follow procedure laid down in GR 3.51.04, 3.68.04

DEFECTIVE POINTS

Procedure prescribed in GR 3.77 and relevant SRs shall be followed.

DEFECTIVE AXLE COUNTERS

Detailed procedure laid down in GR 3.51.04 and 3.68.04 shall be followed.

FAILURE OF SIGNALS AND INTERLOCKING

SS/Dy. SS on duty shall be responsible and personally supervise the setting, clamping and pad locking of all required facing and trailing points for admission or dispatch of trains and procedure laid in GR 3.68 to 3.71 and SRs there to shall be followed

FAILURE OF BLOCK INSTRUMENT:

Rules vide SR 6.02.06 shall be followed

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

- a) Motor trolleys shall be worked as per GR 15.25, 15.26(b) and SR thereto, and circulars and orders issued from time to time BWM 5.11(2), 5.12 & 5.14(2).
- b) Material lorries shall be worked as per GR 15.27 and SRs thereto and BWM 5.11(2), 5.13 and 5.14(2) (b).
- c) The extant instructions and circulars regarding working or Motor Trolleys and Material Trolleys shall be followed.

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

7 (a) BLOCKING OF LINE:

Whenever a running line is blocked, the Station Master shall enter a clear remark in 'RED' ink in the Train Signal Register indicating date, time, and number of running line blocked by. A record thereof shall also be made in the Station diary vide SR 3.36.03(b), 3.51.06(a); 5.23.01(a) shall be followed.

(b) USE OF REMINDER COLLARS:

SM on duty whenever a running line is blocked for any reason shall place REMINDER COLLARS on the concerned Home signal and point button.

(c) **LOADING AND UNLOADING OF VEHICLE ON RUNNING LINES:**

Loading and unloading of vehicles on running lines Except 'Smalls' is prohibited unless specially permitted by DOM vide SR 5.19.01.

(d) **SECURING OF VEHICLES:**

Securing of vehicles is governed by GR 5.23, SR 5.23.01, 3.51.06 and OM 7.08 shall be followed.

Note: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding on running lines vide SR 5.23.01(b).

(e) **DETACHING OF VEHICLES ON RUNNING LINE:**

Detaching of vehicles on running lines is prohibited. Whenever any vehicle is detached on running line under unavoidable circumstances such rolling stock shall be placed opposite to Station Master's office as far as possible and secured properly and per SR 5.23.01.

8. **SHUNTING:**

8.1 **GENERAL PRECAUTIONS:**

- a) For double line the rules laid down in GR 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, to 5.23, 8.06, 8.14 and 8.15(c) with relevant SRs thereto and OM 7.01, 7.07 and BWM 5.15(1)(b), 5.15(2)(b) shall be followed.
- b) For single line the rules stipulated in 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 with relevant SRs thereto and OM 7.01, 7.07 and BWM 4.27 shall meticulously followed.
- c) All shunt movements shall be supervised by Guard of the train vide SR 5.14.05(a)(b) and in the event of a train without guard, the responsibility for supervision shunting devolves on Station Master or a competent Railway servant deputed by station Master vide SR 5.14.05(c).
- d) **SHUNTING NEAR LEVEL CROSSING:**
The Railway servant in charge of shunting shall ensure closing and locking of level crossing gate against road traffic before allowing any shunt movement near or across level crossing gate in terms of GR 5.17.
- e) **SHUNTING OUTSIDE HOME SIGNAL:**
 - i) When a line clear has been given, no obstruction shall be permitted in the block section in rear vide GR 8.05(2), 8.06(1) and GR 8.13.
 - ii) 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 vide GR 8.06(2)m, 8.12, 8.13, 8.15.01(a)(c) and BWM 5.15(1)(B) AND 4.27. Shunting or obstruction for any other purpose in the block section in advance is governed by GR 8.06(3) and BWM 5.15(2) (B).

8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approaching train is strictly prohibited towards Raipur end & KRPU end.

8.3 PROHIBITION OF SHUNTING - SPECIAL FEATURES:

- a) Hand shunting is prohibited at this station.
- b) Shunting shall not be permitted at Raipur end of the yard unless the engine is leading towards the falling gradient.

8.4 SHUNTING ON SINGLE LINE:

- i) Within Station section: Governed by GR 8.10.
- ii) Within last stop signal and opposite first stop signal: Governed by GR 8.12.
- iii) Beyond opposite first stop signal: unless the line is blocked back, the line outside the first stop signal shall not be obstructed vide GR 8.13.
- iv) During failure of block instrument: Block back messages shall be exchanged between station master at either end of such section which is intended to obstruct supporting private number. Both the station masters shall fix line by block labels on block instruments and shall continue shunting.

8.5 SHUNTING ON DOUBLE LINE:

- i) **BLOCK BACK:** Shunting in the block section in rear shall be governed as per GR 8.06(2) after blocking back.
- ii) **BLOCK FORWARD:** Shunting in the block section in advance shall be governed as per GR 8.06(3) after blocking forward.
- iii) Following a train travelling away is governed by GR 8.06(3).
- iv) **UPTO IBS:** Not Applicable
- v) **BEYOND IBS:** Not Applicable
- vi) **DURING FAILURE OF BLOCK INSTRUMENTS ON DOUBLE LINE SECTION:** During failure of block instrument shunting out side the station section may be continued provided the block instruments kept in TOL position if possible or keeping line blocked label on Block instruments. In both the cases the condition as per GR 8.06(2) and GR 8.06(3) shall be fulfilled.

8.6 SHUNTING IN THE SIDING TAKING OFF FROM STATION YARD / ENGG-SIDING.

- (a) While performing shunting in the siding it should be authorized by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines occupied in shunting. The relevant provisions of GR 5.14 and SR thereto shall be followed.

(b) **NON-SIGNALLED MOVEMENTS:**

All signalled movements in the yard either of train or an engine with or without vehicles shall be from one stop signal to the next stop signal and no half way movement are permitted and if such movements are unavoidable it should be considered as non-signalled move and precautionary measures should be taken, such as clamping and pad locking of points on the route both interlocked and non-interlocked points including derauling switches whether directly or locally operated with or without locks according to SR 5.14.03.

(c) **CUSTODY OF KEYS:**

The keys of the padlocks of such points shall be in the personal custody of the operating official vested with this responsibility of supervision lies till such time movements are completed. The operating official vested with the responsibility of supervising the non-signalled movement of the engine/ train/ vehicle must return the key along with pad locks to the Station Master on duty, after completion of the said movement or alternatively when such a move is cancelled which fact should be properly documented.

9. **ABNORMAL CONDITIONS.**a) **THE RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITIONS**i) **PARTIAL INTRRUPTION/ FAILURE OF BLOCK INSTRUMENTS:**

In the event of partial failure of electrical communication instruments trains shall be worked vide SR 6.02.06.

ii) **AUTHORITY TO PROCESS IN OCCUPIED BLOCK SECTION IN CASE OF OBSTRUCTION OF LINE OR ACCIDENT ETC:**

On block Ticket: (T/A 602). Rules and regulations in GR 6.02.05 shall be followed

iii) **TRAINS DELAYED IN BLOCK SECTION:**

When a train carrying passenger does not arrive within 10 minutes or a goods train within 20 minutes after allowing for its normal running time from the station in rear the station master at the station in advance shall immediately advise the station in rear and section controller on duty of this fact. The procedure laid down in GR 6.04 nd SR there to shall be followed. On double line/ Multiple line section the station master at either end of the block section shall immediately stop all trains proceeding into block section on the adjacent line/lines from either direction and warn the guard and driver of such delayed train by issue of suitable caution order and also to ascertain the where about of the delayed train vide GR 6.04(I).

iv) **FAILURE/PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT 'ON':**

Not Applicable

v) **FAILURE OF AXLE COUNTER BLOCK/BPAC:**

The rules laid down in GR. 3.51.04 and 3.68.04 shall be followed.

vi) **FAILURE OF MTRC:** Not Applicable

b) **PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE:**

i) When ever motor points cannot be operated from panel the same has to be operated by using crank handle. Seven crank handles CH1, CH2, CH3, CH4, CH5, CH6 and CH7 are provided and housed in RKT at locations/goomties at either end of the yard near to the point zone. The crank handle can be released by pressing the button on the panel. The detailed procedure is given at Appendix-‘B’ para 21.0

ii) **Procedure for emergency operation of point with axle counter/ track circuit.**

Whenever the point zone axle counter/track circuit fails the clearance of the zone must be ensured by physical verification before initiating any movement over the zone by SM on duty.

When it is clear the SM on duty shall resort for resetting process of axle counter and the point shall be clamped and pad locked for any movement over them and the procedure laid in SR 3.39.01, SR 3.39.03 & GR 3.77 with relevant SRs shall be followed.

c) **CERTIFICATION OF CLEARANCE OF TRACK BEFORE CALLING ON SIGNAL OPERATION IS INITIATED:**

Not Applicable

d) **REPORTING FAILURE OF POINTS, TRACK CIRCUITS, AXLE COUNTERS AND INTERLOCKING:**

All failure reports should be communicated by SS/SM on duty through a memo to maintain and SSE/SE/JE along with others vide GR 3.51.04, 3.68.04. SS/SM shall resume normal working only after receiving the memo after verifications from the maintainer. The entries in failure register to be done with message to section controller.

9.1 **TOTAL FAILURE OF COMMUNICATIONS:**

i) In the event of total failure of communications on double line trains shall work in terms of SR 6.02.03.

ii) In the event of single line working on double line section during total failure of communications the provisions laid down in SR 6.02.02 shall be followed.

9.2 **TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:**

In the event of single line working being introduced on double line when communications are available the provisions laid down in SR 6.02.01 and BWM Chapter-III part I shall be followed and when all the communications are failed SR 6.02.02 shall be observed.

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

In the event of total failure of communications on double line trains shall work in terms of SR 6.02.03.

- a) In the event of total failure of communications on Single line trains shall work in terms of 6.02.04.
- b) To assist the crippled train SR 6.02.05 shall be followed for both double line and single line on the authority of T/A 602.

10. VISIBILITY TEST OBJECT:

The aspects of UP starter signal No.9 and DN starter signal No. 12 of Common Loop (Line No 1) during day and their lights during night are earmarked to serve as Visibility Test object vide GR 3.61(2)(b)(ii).

11. ESSENTIAL EQUIPMENT AT THE STATION

The detailed list of essential equipment to be maintained at the station in good working order is given in Appendix-E vide OM 20.15, para no. 11.5.

12. FOG SIGNALS AND STAFF NOMINATED TO BE CALLED IN CASE OF FOG

During thick foggy or tempestuous weather, train shall be worked as per GR 3.61 and SR thereto. In Foggy or tempestuous weather or in dust storm when V.T.O. cannot be seen from the SM'S office, the SM shall send trained men to act as for signalmen. Instructions regarding their selection from Traffic and Engineering Departments, entry of their names in the Fog Signal Register and taking assurance by the SM to be mentioned clearly.

APPENDICES:

APPENDIX 'A'	Working or level Crossing gates.
APPENDIX 'B'	System of signalling and interlocking and Telecommunications
APPENDIX 'C'	Anti Collision Device (Raksha Kavach).
APPENDIX 'D'	Duties of train passing and Staff in each shift.
APPENDIX 'E'	Essential equipment at the Station.
APPENDIX 'F'	Working of DK stations, halts, IBH, IBS and outlying sidings.
APPENDIX 'H'	WORKING OF M/S J.K.CORPORATION LIMITED SIDING (PRIVATE SIDING)

CERTIFICATE

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

(A.K.SAINI)
DSTE/P/VSKP

(K.SIVA HARSHA)
DOM/WAT

EAST COAST RAILWAY
WALTAIR DIVISION
APPENDIX 'A'
WORKING OF LEVEL CROSSING GATES
SINGAPUR ROAD JUNCTION STATION

GATE WORKING RULES:

Working rule for 'C' Class manned level crossing gate situated at KM 334/1-3(UP), 334/2-4(DN) between SPRD-RGDA

GENERAL**1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:**

Following details shall be mentioned at all manned level crossing gates:

1.	Number of Level Crossing Gate:	<u>RV246</u>
2.	Engineering or Traffic Gate:	<u>ENGG. GATE</u>
3.	Under control of Station Master/ Sr. Section Engineer:	<u>SS/SPRD</u>
4.	Location at KM:	<u>334/4-5</u>
5.	At Station:	<u>SINGAPUR ROAD JUNCTION</u>
6.	In between stations	<u>SRPD-RGDA</u>
7.	BG/MG/NG:	<u>BG</u>
8.	Single line/Double line/Multiple line:	<u>DOUBLE LINE</u>
9.	Normal Position:	<u>CLOSED TO ROAD TRAFFIC</u>
10.	Interlocked/non-interlocked:	<u>NON-INTERLOCKED</u>
11.	Means of Interlocking:	-
12.	Provisions of Gate signal at Kms.	
	(i) Up Line	-
	(ii) Dn Line	-
13.	Signalling arrangements	-
14.	Means of Communication – Telephone/Bell etc:	<u>Telephone with SPRD Station.</u>
15.	Width of level crossing gate	<u>5.5 METERS</u>
16.	Type of Road (NH/SH/Others)	<u>OHTERS</u>
17.	Name of Road	
18.	Metalled/non-metalled	<u>METALLED</u>
19.	Approach road	<u>METALLED</u>
20.	Width of the road	<u>4.85 METERS</u>
21.	Angle of road crossing (In case of skew gates)	-
22.	Road gradient (if any)	
	(i) North/East side	<u>LEVEL</u>
	(ii) South/West side	<u>LEVEL</u>
23.	Road alignment (straight/curve)	
	(i) North/East side	<u>STRAIGHT</u>
	(ii) South/West side	<u>STRAIGHT</u>
24.	Provision of height gauges	<u>PROVIDED</u>
25.	Type of Barriers	<u>Coupled Lifting Type Barriers</u>
26.	Length of Check Rails	<u>7.5 METERS.</u>
27.	Road Surface in between L – Xing gates	<u>PROVIDED WITH C C BLOCKS</u>
28.	Length of Rumble strip/speed breakers	<u>4.85 METERS</u>
29.	Road signs	<u>AVAILABLE</u>
30.	Speed breaker indication board	<u>AVAILABLE</u>

31. TVU	<u>7935, 02/2016</u>
32. Census next due on	<u>02/2019</u>
33. Demarcation for placement of Detonators	<u>AVAILABLE</u>
34. No. of Gatemen working	<u>2</u>
35. Nearest Medical Assistance	<u>RGDA.</u>
36. Nearest Private Medical Assistance available (if any)	<u>SPRD.</u>
37. List of equipment available Yes/No	<u>YES</u>

1.2. **EQUIPMENT**

<u>ITEMS</u>	<u>QUANTITY/NUMBERS</u>
(1) LED Tri Colour Hand Signal Lamp	2
(2) Hand Signal Flag Green	1 Mounted on sticks
(3) Hand Signal Flag Red	6
(4) Banner Flag Red	5
(5) Posts for exhibiting red banner flag	4
(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 Bar	1
(11) Spade/Fowrah	1
(12) Rammer	1 (In case of asphalted road this may not be provided)
(13) Pick Axe	1 (In case of asphalted road this may not be provided)
(14) Tin case for flags	1
(15) Can of oil	1
(16) Water pot/Bucket	1
(17) Canister for Muster Roll	1
(18) Set of spare spectacles for 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) A small sized chain in case of failure	2

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi/English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language.
4. List of tools and books.

5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp, etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 **DUTIES OF GATE MAN:**

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. **COMPETENCY :**

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/SE (P.Way).

3 **POSITION DURING PASSAGE OF TRAINS:**

During passage of trains, gate man 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 with white light facing the track.
- iv) He shall keep the whistle slung around in his neck from a cord.

4 **ROUTINE DUTIES OF GATE MAN:**

- 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, and vehicle/wagon/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 other way.
- vii) If lifting barrier/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 Station Master, Gang mate or Sr. Section Engineer any defect in his gate or apparatus pertaining to it, as soon as possible.
 - ix) In the event of gate signal becoming defective the Gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
 - x) At the gate whose signal have become defective, the Gateman shall close and lock the lifting barriers/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 clean.
 - 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.

5) ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAINS:

In case Gateman observes any thing unusual with a passing train, he shall take following action.

- i) He shall take prompt action to warn the 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 endeavour 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 low as possible.
- vi) In case the train does not stop, shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

6) 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 connected on telephone, to take appropriate action, under

exchange of private number.

- iii) If there is no response from the Station aster/Switchman/Cabin man after two or three attempts, he shall first protect the gate and then inform of the phone.

The Gateman shall protect the line as under:

a) On Double Line Section

- 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 from 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, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600meters, on BG place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 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 intermediated 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) Thereafter, he shall stop the approaching train by waving this red flag by day red hand signal lamp by night repeatedly.

c) On single line section working:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters on BG and and place one 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 towards the other direction, 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 driver of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place

detonators on the line at a distance as far away as he can go.

c) 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 paras (a) and (b) 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 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 Loco Pilot, owner and relay these details to the nearest Station Master or Sr. Section Engineer regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

7 ENGINEERING ITEMS:

Please see paras 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approach roads of level crossings and census of traffic at level crossings.

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION “CLOSED TO ROAD TRAFFIC”

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

- (i) The normal position of the level crossing gate being “closed to Road Traffic” it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The station Master/Cabin 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/cabin Master in assurance of gate being closed and locked against road traffic.
- (iii) The Station Master /cabin 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 /cabin as per (d) above. Or
 - 2) If he has exchanged private number with the Station Master/Cabin Master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master /Cabin Master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent lines(s). Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at the 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 in his hand to stop approaching train if any.

2. Failure of Telephonic Communication:

- i) 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.
- ii) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- iii) The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
- iv) The driver shall be instructed to pass the gate cautiously, on being hand signaled by the gateman. If hand signal is not seen, driver should be prepared to stop short of the gate and depute his Assistant Driver to see the condition of the gate. If the gate is closed, the Assistant Driver will give the all right signal and if the gate is not closed the Assistant Driver must close the gate and then give all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of Assistant Guard / Guard. 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 driver

- before dispatching a train in the block section from his end.
- vi) Station Master shall also advise the gateman through gangman / patrolman or driver 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. **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 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 by night to the driver of the approaching train.
- v) Station Master on duty shall issue caution order to the driver 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 driver before dispatching a train in the block section from his end.
- vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection / fit memo for the same.

4. **Obstruction at the Gate:**

- i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately 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 defects / obstruction 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) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- vi) Thereafter he shall protect the gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers / leaf gates are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station

- Master accordingly, under exchange of private number.
- x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate 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 cabins and padlocks and there after exhibit green hand signal of the gate is not obstructed.
 - xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
 - xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

5. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of 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.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

ECOAST RAILWAY
WALTAIR DIVISION
APPENDIX 'A'
WORKING OF LEVEL CROSSING GATES
SINGAPUR ROAD JUNCTION STATION

GATE WORKING RULES:

Working rule for 'C' Class manned level crossing gate situated at KM 336/12-13(UP),336/14-16(DN) between SPRD-RGDA

1 GENERAL

1.2 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be mentioned at all manned level crossing gates:

- | | |
|--|--------------------------------------|
| 1. Number of Level Crossing Gate: | <u>RV248</u> |
| 2. Engineering or Traffic Gate: | <u>ENGG. GATE</u> |
| 3. Under control of Station Master/
Sr. Section Engineer: | <u>SS/SPRD</u> |
| 4. Location at KM: | <u>336/14-16</u> |
| 5. At Station: | <u>SINGAPUR ROAD JUNCTION</u> |
| 6. In between stations | <u>SRPD-RGDA</u> |
| 7. BG/MG/NG: | <u>BG</u> |
| 8. Single line/Double line/Multiple line: | <u>DOUBLE LINE</u> |
| 9. Normal Position: | <u>CLOSED TO ROAD TRAFFIC</u> |
| 10. Interlocked/non-interlocked: | <u>NON-INTERLOCKED</u> |
| 11. Means of Interlocking: | - |
| 12. Provisions of Gate signal at Kms. | - |
| (i) Up Line | - |
| (ii) Dn Line | - |
| 13. Signalling arrangements | - |
| 14. Means of Communication – Telephone/Bell etc: | <u>Telephone</u> |
| 15. Width of level crossing gate | <u>5.0 METERS</u> |
| 16. Type of Road (NH/SH/Others) | <u>OHTERS</u> |
| 17. Name of Road | |
| 18. Metalled/non-metalled | <u>METALLED</u> |
| 19. Approach road | <u>METALLED</u> |
| 20. Width of the road | <u>4.85 METERS</u> |
| 21. Angle of road crossing (In case of skew gates) | |
| 22. Road gradient (if any) | |
| i)North/East side | <u>LEVEL</u> |
| ii)South/West side | <u>LEVEL</u> |
| 23. Road alignment (straight/curve) | |
| i)North/East side | <u>STRAIGHT</u> |
| ii) South/West side | <u>STRAIGHT</u> |
| 24. Provision of height gauges | <u>PROVIDED</u> |
| 25. Type of Barriers | <u>Coupled Lifting Type Barriers</u> |
| 26. Length of Check Rails | <u>8.5 METERS.</u> |
| 27.Road Surface in between L – Xing gates | <u>PROVIDED WITH C C BLOCKS</u> |

28. Length of Rumble strip/speed breakers	<u>5.2 METERS</u>
29. Road signs	<u>AVAILABLE</u>
30. Speed breaker indication board	<u>AVAILABLE</u>
31. TVU	<u>7650 02/2016</u>
32. Census next due on	<u>02/2019</u>
33. Demarcation for placement of Detonators	<u>AVAILABLE</u>
34. No. of Gatemen working	<u>2</u>
35. Nearest Medical Assistance	<u>RGDA.</u>
36. Nearest Private Medical Assistance available (if any)	<u>RGDA</u>
38. List of equipment available Yes/No	<u>YES</u>

1.2 EQUIPMENT

<u>ITEMS</u>	<u>QUANTITY/NUMBERS</u>
(1) LED Tri Colour Hand Signal Lamp	2
(2) Hand Signal Flag Green	1 Mounted on sticks
(3) Hand Signal Flag Red	6
(4) Banner Flag Red	5
(5) Posts for exhibiting red banner flag	4
(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 Bar	1
(11) Spade/Fowrah	1
(12) Rammer	1 (In case of asphalted road this may not be provided)
(13) Pick Axe	1 (In case of asphalted road this may not be provided)
(14) Tin case for flags	1
(15) Can of oil	1
(16) Water pot/Bucket	1
(17) Canister for Muster Roll	1
(18) Set of spare spectacles for 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) A small sized chain in case of failure	2

1.3 RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi/English.

2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language.
4. List of tools and books.
5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp, etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 **DUTIES OF GATE MAN:**

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. **COMPETENCY :**

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/SE (P.Way).

3. **POSITION DURING PASSAGE OF TRAINS:**

During passage of trains, gate man 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 with white light facing the track.
- iv) He shall keep the whistle slung around in his neck from a cord.

4. **ROUTINE DUTIES OF GATE MAN:**

- 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, and vehicle/wagon/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 other way.
- vii. If lifting barrier/leaf gates get damaged or becomes out of order, the gateman shall use the

- viii. spare chain with disc and padlocks for securing the gate against road traffic.
- viii. Gateman shall report to the nearest Station Master, Gang mate or Sr. Section Engineer any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix. In the event of gate signal becoming defective the Gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x. At the gate whose signal have become defective, the Gateman shall close and lock the lifting barriers/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 clean.
- 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.

5) **ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAINS:**

In case Gateman observes any thing unusual with a passing train, he shall take following action.

- i) He shall take prompt action to warn the 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 endeavour 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 low as possible.
- vi) In case the train does not stop, 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 connected on telephone, to take appropriate action, under exchange of private number.
 - a. If there is no response from the Station aster/Switchman/Cabin man after two or three attempts, he shall first protect the gate and then inform of the phone.
 The Gateman shall protect the line as under:

a) On Double Line Section

- 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 from 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, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600meters, on BG place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 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 intermediated 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) Thereafter, he shall stop the approaching train by waving this red flag by day red hand signal lamp by night repeatedly.

b) On single line section working:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- viii) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters on BG and and place one 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.
- ix) Thereafter, he shall proceed towards the other direction, 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.
- x) Having returned to the gate, he must then take steps to remove the obstruction and warn

- the driver of the approaching train.
- xi) 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.

c) 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 paras (a) and (b) 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 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 Loco Pilot, owner and relay these details to the nearest Station Master or Sr. Section Engineer regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6 ENGINEERING ITEMS:

Please see paras 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approach roads of level crossings and census of traffic at level crossings.

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION “CLOSED TO ROAD TRAFFIC”

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

- (i) The normal position of the level crossing gate being “closed to Road Traffic” it should always be in closed condition against road traffic, except when, it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The station Master/Cabin 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/cabin Master in assurance of gate being closed and locked against road traffic.
- (iii) The Station Master /cabin 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 /cabin as per (d) above. Or
 - (2) If he has exchanged private number with the Station Master/Cabin Master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the Station Master /Cabin Master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent lines(s). Before opening the gate for road traffic, he shall display banner flag/danger signal at either side of the track at the 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 in his hand to stop approaching train if any.

2. Failure of Telephonic Communication:

- i) 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.
- ii) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
 - a. The caution order shall advise the driver to whistle continuously and approach the gate cautiously.
 - b. The driver shall be instructed to pass the gate cautiously, on being hand signaled by the gateman. If hand signal is not seen, driver should be prepared to stop short of the gate and depute his Assistant Driver to see the condition of the gate. If the gate is closed, the Assistant Driver will give the all right signal and if the gate is not closed the Assistant Driver must close the gate and then give all right signal. In the absence of the Assistant Driver, the Driver may take the assistance of Assistant Guard / Guard. 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.

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

6. 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 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 by night to the driver of the approaching train.
- v. Station Master on duty shall issue caution order to the driver 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 driver before dispatching a train in the block section from his end.
- vii. He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- viii. Normal working will be resumed only after maintenance staff rectify the lifting barriers / leaf gates and issue reconnection / fit memo for the same.

7. Obstruction at the Gate:

- i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately 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 defects / obstruction 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) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- vi) Thereafter he shall protect the gate from the other direction also.
- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers / leaf gates are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of

private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.

- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate 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 cabins and padlocks and there after exhibit green hand signal of the gate is not obstructed.
- xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

8. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of 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.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

EAST COAST RAILWAY**WALTAIR DIVISION****APPENDIX 'B'****SYSTEM OF SIGNALLING AND INTERLOCKING AND TELECOMMUNICATIONS****SINGAPUR ROAD JN STATION**

Details of Signalling and Interlocking installations, Telecommunication instructions for working them normally and in emergencies etc., including the power supply arrangements.

1. BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATION:

This is a 'B' Class Station with Standard-III interlocking (with isolation). The points and signals are power operated from a composite miniature 'DOMINO TYPE' full-fledged route setting type panel installed in the station master's office. This Station is equipped with multi aspect colour light signalling. The Daido type token less Single Line Block Instrument is provided in the SM panel room for section SINGAPUR ROAD-'A' CABIN of Tie line and Double line Lock and Block instruments are provided in the SM's Panel room for section SINGAPUR ROAD- RAYAGADA and SINGAPUR ROAD- 'B' CABIN of Tie line.

1.1. DISCRIPTION OF PANEL:

The yard layout is depicted on the panel board in a miniature form and is fixed parallel to the track, so that when the Station Master on duty faces this panel, the yard drawing on the panel corresponds to the actual field lay out in either direction.

1.2. POINT BUTTONS:

Each point is provided with Push button (Black in colour) for individual operation of Points. For operation of point to normal/reverse position, Point group push buttons (black with red dot) are provided. Point button and Point Group button normal/reverse shall be pressed simultaneously for operation of point to required position. To indicate the position of point, a white steady strip on normal point zone, and a white steady strip on reverse point zone is provided on the panel for actual layout.

1.3. When a point is set and locked correctly in normal position, a white steady strip indication on normal point zone appears suggesting that the point is in normal position.

1.4. When a point is set and locked correctly in reverse position, a white steady strip indication on reverse point zone appears suggesting that the point is in reverse position.

1.5. When the point is operated from reverse to normal position, a white strip indication on normal point zone will start flashing till the concerned point is set and locked in normal position.

1.6. When the point is operated from normal to reverse position, a white strip indication on reverse point zone will start flashing till the concerned point is set and locked in reverse position.

1.7. OPERATION OF POINTS:

Points are operated to normal or reverse by pressing individual point button in conjunction with the point group button. There by the white strip indication on normal point zone or reverse point zone as the case may be start flashing till the points are set to normal or reverse position and locked. Then the white steady strip indication on normal point zone or reverse point zone will appear as the case may be. During the automatic route setting of the train operation, the same indication will glow.

1.8. All running line points are operated by Electric point machine.

2. In the event of the point could not be set in the desired position, the said points are to be checked by the Station Master on duty according to G&SR 3.68.01(c) and if there is a defect other than obstruction the point has to be considered as defective and action shall be taken for clamping and pad locking these points in the desired position by the Station master on duty himself for all trains according to SR 3.69.03(c).

2.1 DESCRIPTION OF POINTS:

SL. NO.	POINT BUTTON NO.	COLOUR	DESCRIPTION
1	21	Black	Cross over point between KR line & Down main line at Raipur end.
2	22	Black	Cross over point between Up line & Private siding at RGDA end.
2	23	Black	Cross over point connecting Dn main line to Up main line at Raipur end.
3	24	Black	Cross over point between. Up and Dn main lines at RGDA end
4	25	Black	Cross over point connecting Up main line to Dn main line at Raipur end
5	26	Black	Cross over point connecting Up main line to Dn main line at RGDA end
6	27	Black	Cross over point connecting line No 4 to Dn main line at Raipur end
7	28	Black	Cross over Point between line No.1 to Up main line at RGDA end
8	29	Black	Cross over point connecting line No 1 to Up main line at Raipur end
9	30	Black	Cross over Point between line No.4 to Dn main line at RGDA end
8.	Point group button (Normal)	Black with red dot	Common button for normal operation of points.
9.	Point group button (Reverse)	Black with red dot	Common button for reverse operation of points.

3. SIGNAL BUTTONS:

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	C1	Red with white dot	UP calling 'ON' signal for Line No. 1,2, & 4
2	S1	Red	UP Home signal for Line No. 1,2, & 4
3	C2	Red with white dot	DN calling 'ON' signal for Line No. 1,3 & 4
4	S2	Red	DN Home signal for Line No. 1, 3 & 4
5	C3	Red with white dot	DN calling 'ON' signal of KR Line for Line No. 1,2 & 4
6	S3	Red	DN Home signal of KR Line for Line No. 1,2 & 4
7	SH 4	Yellow	Dn back Shunt signal for Line No 1, 2, 3, & 4
8	SH 5	Yellow	Up back Shunt signal for Line No 1, 2, 3, & 4
9	SH 7	Yellow	DN back Shunt signal on KR line for Line No 1, 2, 3, & 4
10	SH 8	Yellow	DN back Shunt signal on Private siding line for Line No 1, 2, 3, & 4
11	S9	Red	Up starter for line No.1
12	SH 9	Yellow	Up Shunt signal below Starter for Line No 1 lead to Private siding.
13	C10	Red with white dot	DN calling 'ON' signal below DN starter for line No.4 to lead to RV line or KR line
14	S10	Red	DN starter for line No.4 to lead to RV line or KR line
15	SH 10	Yellow	Dn Shunt signal below Starter for Line No 4 to lead to RV line or KR line .
16	S11	Red	UP starter for line No. 4
17	SH 11	Yellow	Up Shunt signal below Starter for Line No 4 to lead to Private siding.
18	C12	Red with white dot	DN calling 'ON' signal below DN starter for line No.1 to lead to RV line or KR line
19	S12	Red	DN starter for line No.1 to lead to RV line or KR line

20	SH 12	Yellow	Dn Shunt signal below Starter for Line No 1 to lead to RV line or KR line .
21	S13	Red	UP starter for line No.2
22	SH 13	Yellow	Up Shunt signal below Starter for Line No 2 to lead to Private siding.
23	C14	Red with white dot	DN calling 'ON' signal below DN starter for line No.3 to lead to RV line or KR line
24	S14	Red	DN starter for line No. 3 to lead to RV line or KR line
25	SH 14	Yellow	Dn Shunt signal below Starter for Line No 3 to lead to RV line or KR line .
26	S15	Red	UP Advanced starter
27	S16	Red	DN Advanced starter for RV Line
28	S18	Red	UP Advanced starter of SPRD cum up dist. Of TIE line 'A' cabin
29.	S17	Red	UP IBS signal of SPRD.

3.1 **SIGNAL INDICATION:**

The aspect of signal as obtained at any time is shown on the panel on the Signal indication (along side of the track)

4. **ROUTE BUTTONS:**

Route buttons are provided separately on each running line on the panel for indication of route (Viz. L1/1-UN, L1/2-UN, L2-UN, L3/1-UN, L3/2-UN L4/1-UN, L-4/2-UN). Common route buttons are also provided for taking off starter signals as 15A UN, 16A UN, 18A UN. For taking off Advanced starter signals 15UN, 16UN, 18UN are provided. SDG UN button is provided to take off Shunt signals in to the siding.. For clearing the signal, it is necessary to operate the signal button and the concerned route button concurrently.

4.1 **DESCRIPTIONS OF ROUTE BUTTONS:**

SL. NO.	BUTTON NO.	COLOUR	DESCRIPTION
1	L-1/1 UN	White with black dot	Common route button for UP and DN Home signal for line No. 1 setting overlap on Sand hump/Over run line and Up & Dn calling on signal for line no.1 and for shunt movement.
2	L-1/2 UN	White	Common route button for UP and DN Home signal for line No. 1 setting overlap on main line.

3	L-2 UN	White	Common route button for UP Home signal for line no.2 setting over lap on main line and Up & Dn.calling on signal for line no.2 and for shunt movement
4	L-3/1 UN	White with black dot	Common route button for DN Home signal and for line No. 3 setting overlap on RV line and Dn. Calling on signal for line no.3 and for shunt movement.
5	L-3/2 UN	White	Common route button for DN Home signal and for line No. 3 setting overlap on KR line
6	L-4/1 UN	White with black dot	Common route button for UP&DN home signal for line No.4 setting overlap on over line and Up & Dn calling on signal for line no. 4 and shunt movement.
7	L-4/2 UN	White	Common route button for DN home signal and for line No.4 setting overlap Up to S18.
8	15 A UN	White	Common route button for UP starters 9, 11& 13.
9	15 UN	White	Route button for UP advanced starter.
10	16 UN	White	Route button for DN advanced starter. of RV line
11	16 A UN	White	Common route button for DN starters, Calling-on and shunt movement of signal Nos 10,12 and 14 on RV line
12	18 A UN	White	Common route button for DN starters,Calling-on and shunt movement of signal Nos 10,12 and 14 on KR line
13	18 UN	White	Route button for UP advanced starter of KR line.
14	17 UN	White	Route button for UP IBS of SPRD.
15	SDG UN	White	Route button for Shunt SH9,SH11, SH13 to private siding.
16	Group (Trans)	White with black dot	Common Trans button for crank handle.
17	Group Release	White with black dot	Common release button for crank handle.

5.0 POWER FAILURE INDICATION/BUZZER AND POWER ACKNOWLEDGEMENT:

A) POWER SUPPLY ARRANGEMENT FOR THE SIGNALLING INSTALLATION

Power signalling and interlocking installations and the ancillary field units are fed from the following sources of power supply.

(A.K.SAINI)
DSTE/P/VSKP

(K.SIVA HARSHA)
DOM/WAT

- i) Normally supply from UP AT/DN AT connected to OHE Traction distribution [230 Stand by supply from Andhra Pradesh State Electricity Board (APSEB) [Single phase 230V-50Hz].
- ii) Normal power supply [Single phase 230V-50Hz] to the Signalling & Interlocking installation at the station is drawn from the traction power sources. Whenever traction power supply fails SS/Dy.SS on duty shall operate the Auto change over switch provided in the CLS power panel at SM's office connecting the power supply from the healthy sources to the installation.
- iv) The SS/Dy.SS on duty however maintain the record of power failures either of the traction supply or local supply and he must promptly report the failure of any one or both the power sources immediately through the section controller and to the concerned Electrical Staff and S&T maintenance staff.
- a) Auto change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. The availability of the supply is indicated by luminous indicator above the circuit breaker for each supply.
- b) Normally the switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, on duty SS/Dy.SS must ascertain the power is available on the other AT and change over the switch to desired position e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- c) In case of failure of one of the AT supply without any power block, on duty SS/Dy.SS has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies without any power block, the local supplies shall be utilized by operating the change over switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.
- d) Whenever there is a failure of power supply in one AT, the on duty SS/Dy.SS shall take prompt action to inform to all concerned for the rectification, The on duty SS/Dy.SS himself, during his daily checks, shall test the availability of power supplies on both AT's and make entry in station dairy duly initiating action for rectification of failure, if any.

5.0 (B) WORKING OF INTEGRATED POWER SUPPLY [IPS], INDICATIONS & ACTION TO BE TAKEN BY SS/DY.SS ON DUTY

- i) Power supply to the signalling installation is fed through IPS installed in the S&T power supply room. The IPS is normally fed through UP AT/DN AT traction power selected by SS/Dy.SS on duty. Standby power supply is through APSEB

local supply. Auto Change over Switch is provided in the SM's room for selection of output of either of the traction power supplies or local power supply. The available traction/local supply is fed to the IPS.

- ii) Auto Change over Switch [which can be operated manually also keeping it in Manual mode] which has been provided in SM/SS's room will automatically switch over to the other power supply mode in the absence of any power supply i.e UP AT/DN AT /Local Power Supply.
- iii) The IPS system is connected with Battery as a back-up power source for safe working during transition of power, in case when there is no power supply of 230v AC supply due to any reason.
- iv) In the event of failure of all the sources of 230V, 50 Hz AC supply, the signalling system shall be fed by power generated by back-up battery Bank connected to IPS. The health of battery bank is monitored through IPS monitoring Panel provided in the SM's room which shall display the voltage 110V DC [Battery bank provided as back-up for power supply]. Depending upon the health of the Battery Bank and the system, the following indication/alarm will appear on the Remote Monitoring Panel, their implications and action to be taken by SS/Dy.SS on duty is tabulated below.

SN	Instruction	Healthy of Battery Bank /Equipment	Visual Indication	Audio Indication	Action to be taken by SS/Dy.SS on duty
A	-	50% DOD (Depth of Discharge)	Red	Alarm	Alarm shall be acknowledged by SS/ Dy.SS on duty. Then inform to S&T Staff.
B	-	60% DOD	Red	Alarm	-Do-
C	System Shutdown	70% DOD	Red	Alarm	Signal feed cut off and all DC-DC converters to work. Audio alarm will continue till power supply is restored. Then inform to S&T Staff.
D	Call S&T Staff.	Equipment fault	Red	Alarm	Failure of any module will give the alarm in SM's panel. Alarm shall be acknowledged by SS/Dy.SS on duty for audio cut-off. Then inform to S&T Staff.

On duty SS/Dy.SS in each shift shall check and record the readings, indications, etc in the station dairy duly informing to ESM/SM on duty for rectification of failures of IPS system, if any.

In the event of failure of remote monitoring ASM console due to any reason or when both traction power and local power failed, the SS/Dy.SS on duty shall inform concerned

Electrical staff immediately. In case 'Call S&T staff' or 'System Shut Down' indication appear on the remote monitoring panel of IPS and/or mal-functioning of the remote monitoring panel SS/Dy.SS on duty shall inform the same to concerned S&T staff immediately.

NOTE: In case of failure of all AC supply sources IPS Battery Bank can provide power supply, before system shut down indication of IPS.

5.1 LED SIGNAL FAILURE INDICATION (RED SIGNAL LAMP MUTTING BUTTON RED WITH WHITE DOT):

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

5.2. BUTTON HELD INDICATION WHITE/BUTTON BUZZER WHITE WITH RED DOT:

Whenever any button remains held up in pressed condition 'Button Held' white. Indication starts flashing along with an audible buzzer. The Station Master on duty then acknowledge it by pressing the "Button Held" push button (white with red dot) the buzzer stops but the white indication continues to flash till the same is rectified.

6. TRACK CIRCUITS / AXLE COUNTERS:

Track circuits are provided in the yard as 1AT, 1T1, 1T2, 2AT, 2T1, 2T2, 3AT, 3T, 15AT, 15T, 16AT, 16T, 18AT, 21AT, 21BT, 22AXT, 22BT, 23AT, 23BT, 24AT, 25AT, 25BT, 26AT, 26 BT, 27BT, 28BT, 29AT, 29BT, 30AT, 30BT, L1T1, L1T2, L1T3, L2T1, L2T2, L2T3, L3T1, L3T2, L3T3, L4T1, L4T2, L4T3, 33T, 22AT.

Axle counters are also provided for SPRD-RGDA, SPRD-'B' cabin and SPRD-'A' cabin for Last vehicle verification. They are DRAXT and 28AXT(For DN line), 15AXT and UDAXT (for UP line) section SPRD-RGDA, URAXT, DDAXT for section SPRD-'B' cabin and (SPRD-A Cabin)BAXT for section SPRD-'A' cabin.

6.1. CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS :

Crank handle key of point machine is inter locked with the signalling and inter locking system at this station and the crank handle key of point machine which is normally locked in the RKT instrument at the East and West location can be taken out when the signals for the connected route, are in the normal position and the route is not locked for any reason. Even when the route is locked the crank handle key of point machine can be extracted from the RKT through emergency operation by pressing crank handle key of point machine button along with Group Trans button. The release can be affected by pressing the push button for its release and when this key is taken out the signals leading over the particular point in either direction cannot be taken off.

CRANK HANDLE CONTROL FOR OPERATION OF POINTS

S.No	Crank Handle	Control points
1	CH 1	21A/B, 27A/B

2	CH 2	22A/B, 28A/B
3	CH 3	23 A/B, 25A/B,
4	CH 4	24A/B, 26A/B,
5	CH 5	29A/B
6	CH 6	30 A/B
7	CH7	33

- 6.2. On account of the doubtful operation of any track circuit by light vehicle/ vehicle including self propelled vehicles such as motor trolley or a diesel shunting engine or a tower wagon, indication of the occupancy of the track it is necessary that the station master on duty satisfied himself that the said vehicle/ vehicles has/have cleared the point zone track circuits by observing the track indication of the tracks on either side of the cross over by positively checking of the ENTRANCE and EXIT track circuit are showing occupancy and clearance in accordance with the train movement.

7. **STATION MASTER'S KEY:**

The panel is also fitted with Station Master's lock up key to prevent unauthorized operation of this panel but with the arrangement to put back the signal to the ON position in the case of emergency without altering the route when the panel is in locked position.

8. **EMERGENCY OPERATIONS:**

The following are the instructions for Emergency operations.

8.1 **CANCELLATION BUTTON :**

For the purpose of the emergencies operations there is an emergency Route cancellation and also there is a counter for counting emergency operations involving the concurrent operation of the emergency route cancellation button. The station master on duty must press the emergency route button along with concerned signal button for which emergency route releases is required. A yellow indication will appear below the signal indicating that the timer has started operation and after lapse of 120 seconds. The desired route will be released provided all other conditions are favourable for the route release. The counter registers

- 8.2 The numbers on the veeder counter register the number of operations performed for such emergency cancellation and the station master on duty should specify the cause for such usage giving the particulars of cause and the time of operation as related to a particular train etc. in the train signal register. The detailed operation instructions are as follows:

8.3 **CANCELLATION OF UNINTENDED LOCKING OF POINTS:**

Whenever there is un intended locking of any points (indicated by RED indication lamp near the concerned point) such a locking has to be released (after the concerned signal are in the normal position) by concurrently pressing the Emergency Group cancellation button (provided at the counter of the panel) and the concerned signal button provided the track circuits are clear and are in working condition. This operation is counted on the veeder counter/counter as already pointer out.

8.4 CANCELLATION OF LOCKING OF ROUTE AND POINTS AFTER THE SINGAL HAS BEEN PUT BACK TO 'ON':

OR

THE SINGAL HAS GONE BACK TO ON EITHER AFTER THE MOVEMENT OF THE TRAIN IS CANCELLED:

OR

THE TRAIN HAS COME TO A STOP OUT SIDE THE STOP SIGNAL:

In case the route is set and the signal is taken off and if it is warranted that the signal has to be put back to ON and cancel the route.

- a). Firstly the signal has to be put back to the ON position
- b). Emergency route cancellation operation must be initiated as detailed in para 8.1.

9. EMERGENCY OPERATIONS:

Cancellation of the locking of points not released after the passage of the train for any reason.

If the locking of the route does not get released for any reason on the other after passage of the train, it is necessary to take recourse to the following emergency operations.

- a). Firstly, it must be ensured that the signal and signal buttons are in normal position
- b). Operation as detailed in para 8.1 to be followed..

10. EMERGENCY OPERATIONS OF POINT IN CASE OF POINT ZONE TRACK CIRCUIT FAILURE:

The Station Master on duty can operate points from panel in case of point zone track circuits fails. The Station Master on duty after physical verification insert the SM's emergency point key and turn into get the key. 'N' position keeping Emergency point key in that position the Station Master on duty must press the individual point button along with emergency point operation button (Black with Red dot). He shall then release the emergency point operation button only and press the point group Normal or Reverse button as per requirement keeping the individual point button is pressed condition. Points will be set to Normal or Reverse position as per operation. During the initiation on RED indication will appear above the emergency operation button. This operation will be registered in and emergency point operation counter placed above the emergency point operation button.

11. INTERLOCKING OF SIGNALS:

- 11.1** All running line points are fitted with point machine and are electrically detected by the relevant Home signals and starters.
- 11.2** Advanced starters are interlocked with respective Single line token block instrument in LINE CLEAR position.

11.3 Home signals are interlocked with respective Double line block instruments. The Block instruments cannot be made to normal unless the respective Home signals are in Normal position.

11.4 Signals once taken OFF can be put back to ON in case of emergency by pressing the concerned signal button in conjunction with signal cancellation button even when the panel is locked up with Station Master's key.

12. LOCKING OF RELAY ROOM:

12.1 Relay room at this station is provided with double locks (Two independent locks) as necessary vide OM 1.14, key of one lock shall be kept with the Signal Maintainer of the section and the key of the other lock with Station Master on duty. The relay room cannot be opened unless both keys are used.

12.2 The Station Master shall ensure that the Relay Room key is given to maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by the staff immediately after completion of their work and the documentation should be made in the Relay Room Key register maintained at the Station according to SR 3.51..05 and OM 1.14.

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

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

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

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

Whenever there is a failure of points, track circuits, signals, Axle counters or any other interlocking gears at the station, the failure report should be communicated by the Station Master on duty through a memo to the Sectional Maintainer and the Signal Engineer of the Section along with others as per G& SR 3.51.04 and 3.68.04 and document all such transactions.

14.1 INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:

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

14.2 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

It is only after receipt of this information the sectional maintainer (Electrical or Mechanical) shall attend to the failure after giving a disconnection memo. After rectification of the fault the sectional maintainer shall give a reconnection memo detailing rectification and it is only after the Station Master of duty has personally checked this defective gear and is satisfied that it is in good and proper working order, he shall resume the normal working of the said defective gear in terms of SR 3.64.04 (c) and (d).

15. PROCEDURE FOR CARRYING OUR PLANNED MAINTANANCE WORK:

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

16. EMERGENCIES:

Notwithstanding anything contained in above said Para Nos. 14 and 14.1 and 14.2, when a gear is found to be defective and unsafe for passage of trains, the Signal and Telecom. Staff shall at once suspend the working of such gear and the associated installation and issue a “Suspension Memo” explaining the seriousness of the defect or damage to the interlocking installation to the Station Master and obtain SM’s acknowledgement. After this, the usual practice of issuing disconnection memo and reconnection memo can follow and the Station Master must promptly act on such messages and take adequate precautions treating the S&T installations as defective and pass trains over the affected interlocking gears according to extant instructions as contain in GR 3.77 and SR thereto.

17. LIGHTING OF SIGNAL LAMPS AND THEIR MAINTENANCE:

The Station Master on duty at every shift must also ensure from the Panel Board that all the signals lights are burning properly and brightly. This fact must also be recorded in the diary under a separate entry and confirm to the section controller on duty as per instruction contained in Divisional Safety Circular No. 82/82, Dated 2.5.82 and GR 3.49(3) and SR thereto.

18. CORRECTING TIME IN STATION CLOCK:

The Station Master shall set the time on his clock according to the time signal given by the Section Controller on duty at 16.00 Hours. Every day according to SR 4.01.01 and 4.01.02.

19. NORMAL POWER SUPPLY AND STAND BY POWER SUPPLY:

The normal power supply is through AT Supply. The standby power supply is through OSEB & DG sets..

19.1 NORMAL POWER SUPPLY-MAINTANACNE OF POWER SUPPLY, POWER FAILURE AND REPORTING SUCH FAILURES:

The normal power supply is through AT Supply. The standby power supply is through OSEB & DG sets. The Station Master must however, maintain the record of the power failure of the local supply and he must promptly report the failure to the Section controller and the concerned Electrical and S&T maintenance staff.

20. WORKING OF POINTS – POSITION OF POINTS:

The normal position of all points shown in the Station Working Rule Diagram No. SI/WRD 23074 Alt-G and also in the mimic indication panel provided in the Station Masters office.

- 20.1** All crossover points and independent points on the running lines are worked by Electric Point Machines. The point machines have in-built locking and detection arrangements. These points are remotely controlled from the panel situated in the Station Master's office.
- 20.2** The operation and indication of the points and their route locking over them is already explained in earlier paras of Appendix-B.

21. PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL POINTS AND USE OF EMERGENCY CRANK HANDLE:

- 21.1** Whenever a Signal or a Point become defective, any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at Station.
- 21.2** In case of failure of Signal or a Point and in case the Point can not be operated from the Panel, the emergency Crank Handle which is interlocked with the system has to be extracted and the following procedure has to be observed.
- 21.3** The crank handle key can be extracted from concerned point crank handle RKT provided at location by pressing common trains button along with conceded crank handle button. After setting the point by crank handle the key will be inserted again into the concerned crank handle RKT and will be turned. Key indication will appear on panel and the SM has to press the common receive buttons along with concerned crank handle button for further normal operations.
- 21.4** The case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.
- 21.4.1** Whenever an emergency Crank handle is required to be used by a Signal Official for maintenance of work 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 acknowledgement of the Signal Official in the emergency Crank Handle Register and then handover to him the emergency Crank Handle for the Points concerned. All the concerned Points will be treated as defective till the Emergency Crank Handle is returned back to the Station Master on duty.
- 21.4.2** Emergency release of crank handle after the lapse of 120 sec., in case of emergency release of crank handle during any of the route remains locked.
- 21.5** Both parting with the emergency crank handle either for attending failure 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 of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions

over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The Station Master on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.

21.5.1 The Emergency Crank Handle Register is to be maintained in the following Performa by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded.

1. Date
2. Point Number, which failed or required to be tested.
3. Time of failure:
4. Disconnection memo number received from S&T staff:
5. Signature of SM/Signal official to whom the Emergency Crank Handle is handed over.
6. Time Emergency Crank Handle is sent out.
7. Individual Point numbers, and Line number nominated for admission or dispatch for which Points are set, Clamped and Padlocked.
8. Train number to be admitted or dispatched
9. Signature of the SM on duty to ensure correct setting, Clamping and Padlocking of the points,
10. Date & Time fault rectified.
11. Time of Emergency Crank Handle is received back by SM on duty.
12. Signature and Designation of the Signal Official who rectified the fault.
13. Remarks

22. INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

22.1 INTERLOCKING WITH HOME SIGNALS:

All the UP and DOWN Home signals are Electrically interlocked with the respective Single Line token less Block Instrument /DLBI so that before the handle of the instrument can be turned from TRAIN COMING FROM/TRAIN ON LINE position respectively to LINE CLOSED position, all the buttons controlling the Home Signals of UP or DOWN direction as the case may be must be in their NORMAL position.

22.2 The UP and DOWN Advanced Starter Signals are Electrically interlocked with the respective Single Line token less Block Instrument/DLBI so that these signals can not be taken OFF until the Handle of the concerned Block Instrument is in TRAIN GOING TO /LINE CLEAR position respectively.

22.3 SUSPENSION OF LAST STOP SIGNALS:

When the Token less Block Instrument/DLBI is suspended with its handle in TRAIN GOING TO/LINE CLEAR position respectively for whatever reason the concerned Last Stop Signals controlled by the Single Line token Block Instrument/DLBI must be treated as suspended and trains shall be Piloted Out.

23. BURNING OF SIGNAL LIGHTS:

The Station Master of duty shall not grant LINE CLEAR unless he has ensured that the lamps affixed signals that apply to the train are burning brightly. If the Signal Lights cannot kept burning the Station Master on duty shall before giving LINE CLEAR initiate action in accordance with the procedure prescribed in GR 3.68 to 3.71 and relevant SR's vide GR 3.49(4).

24 TELECOMMUNICATIONS:

- 1). Section Control Phone of RV line and SBP control phone.
- 2) Block telephones connected with adjacent stations.
- 3). Magneto Telephone with M/S Straw production limited siding.
- 4). Hot line phone between RGDA-SPRD , SPRD-'A' cabin and SPRD-'B' cabin.
Parallel telephone communication provided between Station Master's office and UP and DN crank handle locations..
- 5) Telephone communication is provided between Station Master's office and Level crossing gate RV-246 & RV-248.
- 6) Auto Telephone is provided.
- 7) BSNL telephone is provided.
- 8) 25 watts VHF set is provided for emergency communication.
- 9) Magneto telephone is provided on UP IBS signal post at KM: 338.184.

25.FAILURE OF COMMUNICATIONS – FAILURE OF BLOCK INSTRUMENTS:

- 1). In the event of suspension / failure of DLBI/Token Less Block instrument line clear transaction shall be made on block telephone attached to Block instrument exchanging identification number and supported by a Private number vide SR 6.02.06(1)(a).
- 2). In the event of. suspension / failure of DLBI/ Token Less Block instrument and Block telephone attached to Block instrument line clear transaction shall be made on station to station Magneto phone exchanging identification number and supported by a Private number vide SR 6.02.06(1)(a).
- 3). In the event of. suspension / failure of DLBI/ Token Less Block instrument, telephone attached to Block instrument and station to station magneto phone, line clear transaction shall be made on control telephone exchanging identification number and supported by a Private number vide SR 6.02.06(1)(a).(C).
- 4). In the event of. failure of all communications trains shall be worked in terms of SR 6.02.04.

26.0 (A) LAST VEHICLE VERIFICATION (LVV) BY BLOCK PROVING THROUGH AXLE COUNTER:

- Single Section Digital Axle Counter has been provided between dispatching station's advanced starter signal and first stop signal of receiving station's i.e between **SPRD-RGDA**

and **SPRD-SPRD 'B' cabin** sections on Up & Down lines and SPRD & SPRD A cabin sections. Complete arrival of trains at respective stations is proved by these devices (BPAC). The status of the block section that is occupied or clear is indicated by the indications provided on the domino panel and on reset box. The advanced starter is controlled by the Clearance of the LV Axle counter section (BPAC).

- Clearance of LV Axle counter section is proved in the respective Block control cct. (Circuit) as well as in block release cct. In case of failure of LV Axle counter line clear cannot be granted through block instrument. Also in case of such failures on arrival of train block instrument cannot be normalised.
- Whenever after complete arrival of train, the LVCD axle counter continue to show Red on the panel Board, the on duty SS/SM at **SPRD** station shall resort to the reset procedure of the axle counter.
- For this purpose SS/SM at **SPRD** Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SS/Dy.SS shall obtain signature from the Guard of stopping train on the train intact register [vide GR & SR No.4.17, 4.17.01) or by exchanging alright signal with the Guard of through train, so that he can ensure that the train has arrived completely before resetting of LVCD axle counter. SS/Dy.SS of **RGDA** for Up Block Section and **SPRD 'B' /SPRD 'A' CABIN** for DN block section.
- Before resorting to the resetting of the LV axle counter (BPAC) SS/Dy.SS of the receiving station shall ensure complete arrival of train by means of physical verification and as per the practice in vogue by deputing concerned operating official.
- One reset box for each LV axle counter (BPAC) has been provided in the panel room. There are three indications on the reset box i.e Red, yellow and Green. The clearance or occupation of the block section is proved by the Green or Red indications respectively as on the panel. Yellow indication which is called "PPR" indication proves that resetting operation has been initiated. One reset key and one reset button are also provided on the reset box for resetting.
- After complete train arrival is ascertained SS/Dy.SS on duty at receiving end shall confirm the same to the dispatching end SS/Dy.SS supported by a PN and shall request for preparatory resetting of axle counter. SS/Dy.SS on duty at both ends shall adopt the following procedure simultaneously.
- SS/Dy.SS on duty at both ends shall press the reset button, then turn and press the reset key, then first release the reset button and then release the reset key. After this operation is completed, at both ends of the station "PPR" indication (yellow) will appear on the reset box and one number will increase in the reset counter which is provided on the reset box at both stations. SS/Dy.SS shall record the counter number in the A/Creset register with reason for resetting.
- Whenever LV axle counter (BPAC) fails first train has to be piloted out after completion of the resetting procedure. On arrival of the first piloted train, the LV axle counter section will show clear automatically by indicating Green on Reset panel and on operating panel.
- Even after above resetting procedure, if the section is not shown clear, on duty SS/Dy.SS shall inform concerned S&T staff immediately. Till such time the system is rectified, the absolute block working shall be suspended and the trains shall be worked as per relevant para of G.SR & BWM.
- All reset keys shall be kept in the personal custody of SS/Dy.SS on duty.

26.1 LAST VEHICLE CHECKING DEVICE :

- 26.1.1 Axle counters are provided on UP and DN lines between SPRD –RGDA, SPRD-SPRD 'A' and SPRD-SPRD 'B' cabin Double line section for Block proving.
- 26.1.2 The occupation and clearance of the axle counter section are indicated on panel by 'Red' and 'Green' lights.

- 26.1.3 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 in either section.
- 26.1.4 Even after completion of reset operation, LVCD Axle counter will show clear only if next train is passed. The next train is to be piloted.
- 26.1.5 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 not taken 'OFF'.
- 26.1.6 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 at the receiving station and is certified in this respect by the SM at the receiving station through exchange of Private Number.
- 26.1.7 Reset arrangements are provided in the Reset Box in the SM's office for Sections SPRD-RGDA and SPRD-SPRD 'B'cabin, SPRD-SPRD 'A'cabin. The key for the Reset Box should normally be kept with SM, and for every such operation of the resetting the Axle Counter, the SM on duty shall record giving details of the date of use, train number, time, and number registered on the counter and reasons for resetting and initial each such entry.

27. **RESETTING OF LVCD AXLE COUNTER (DIGITAL):**

After complete arrival of train, if the Last vehicle axle counter of the section does not clear or Last vehicle Axle counter section free indication (Green) does not appear in the panel, The receiving station SM shall apprise the sending station SM through telephone for resetting giving details of last train that has arrived complete at his station and the block section is clear.

The receiving station shall inform the sending station as to whether the last train that entered into the section has arrived or not. And, if arrived fully shall so intimate authenticated by exchanging Private number with the sending station.

The status of the section LVCD i.e. Clear (GREEN), occupied (RED), preparatory reset (GREEN) and power on indications (WHITE) are provided in the reset box.

The procedure to be followed for re-setting by both of sending end and receiving end individually is as follows:-

- a) On being advised by SM of SPRD Station, SM of RGDA/'A'-Cabin/B-Cabin Station inserts the key in the Reset Box, turns right and presses both the key and the Push Button (Red) simultaneously with the SM of SPRD. The Counter on the Reset Box at SPRD Station and RGDA/'A'-Cabin/B-Cabin Station registers the next higher number and after five seconds miniature green Preparatory Reset indication appears on the Reset Box both at SPRD and RGDA/'A'-Cabin/B-Cabin Station. The step by step procedure shall be followed as given in "b" to "i".

- b) SM of SPRD Station and RGDA/'A'-Cabin/B-Cabin Station shall then Insert SM's LV reset key, and turn right.
- c) Press LV reset button provided on the panel.
- d) Release SM's LV reset key and reset button.
- e) Turn left the SM's LV reset key and remove it.
- f) The system obtains preparatory reset state and preparatory reset indication (Green) glows on the panel. The counter reading increases by one count after a gap of 5seconds approximately.
- g) The counter reading should be recorded.
- h) One train is to be piloted in the section to make the system normal.
- i) The SM on duty shall record it in the Train Signal Register indicating the resetting operations in detail i.e. train number, time, Private Number exchanged with SM of sending station and giving reasons for the resetting operation.
- j) If the axle counters functioning properly now, then Block Section cleared indication 'G' will appear on the panel and the concerned Block working will be normalized.
- k) If the LV axle counter section indication does not appear 'Green' and continues to show 'RED' indication, the concerned Block section shall be suspended and failure intimation to be given to sectional signal Maintainer/JE/SE (Signal) for early rectification.

EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'C'

ANTI COLLISION DEVICE (RAKSHA KAVACH).

SINGAPUR ROAD JUNCTION STATION

NOT APPLICABLE TO THIS STATION.

APPENDIX 'D'**DUTIES OF OPERATING STAFF IN EACH SHIFT.**
SINGAPUR ROAD JUNCTION STATION**1. DUTIES TO BE PERFORMED BY THE STAFF AT SINGAPUR ROAD STATION.****1) STATION SUPERINTENDENT:**

- i) Station incharge is responsible for the efficient discharge of duties by different members of staff at his station. (General Rules 5.01) and OM Para No. 2.02.
- ii. Ensuring that the general working of the Station is being carried out in strict accordance with the current rules, procedures and instructions.
- iii. Providing prompt and courteous service with utmost safety and security of passengers and employees.
- iv. Availability, helpfulness and good conduct of station porters.
- v. He shall be responsible for general up-keep of the station.
- vi. He shall be responsible for keeping the safety and operating literature including circulars, pamphlets, gazette etc. up to date and these must be explained to the staff working under him and got noted by them.
- vii. He shall maintain complete and up to date record of Engg/S&T/TRD restrictions. He shall be responsible for bringing forward the caution order register every Monday.
- viii. He shall be responsible for maintaining Accident Register and Accident Charts and keeping these up to date.
- ix. He shall maintain figures in respect of the stock and get them relayed to the control in time.
- x. He shall investigate all public complaints and send the extracts of the complaint with explanation of the staff and his own remarks to Divisional Office in time. In case of complaints concerning the other department, intimation may be given to the subordinate In-Charge of that department immediately so that action may be taken to avoid recurrence.

2. SM/ASM

- i) He shall come on duty after taking complete rest and shall not perform his duty under the influence of drugs or intoxicants.
- ii) When on duty or when called upon to do so, in case of emergency, he shall be responsible for obtaining and granting line clear to trains as per SWR & OM Para No. 2.02 (e).
- iii) He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate panel.
- iv) He shall keep the SM's control keys of control panel in his personal custody whenever, he is required to leave his office even for a short duration.
- v) While coming on duty, he shall ensure that all points and signals are in good working order and all the registers, records, pertaining to train passage are completed in all respect before taking over the charge.

- vi) He shall personally ensure that conditions for taking 'off' the reception signals are fulfilled and the clearance of line is verified as per SWR before actually pressing the relevant button for taking off the signals.
- vii) He shall ensure from indications available in the panel that the signals are burning brightly and are giving correct indications.
- viii) He shall ensure that proper indications of points, signals, track circuits, crank handle, level crossing gate etc., are displayed at their proper places.
- ix) He shall ensure that all Shunting operations are carried out as per extant orders and GR 5.19 and SRs thereof.
- x) He shall inform the Technician/JE/SE(sig) in writing or through a written message, any failure of track/signals/points/keys or panels etc. and shall invariably enter these failures in Signals Failure Register.

3. TRAFFIC POINTSMAN/TOKEN PORTERS:

- i) He shall obey all lawful orders of the ASM/SM/SS on duty or official in-charge supervising the shunting during the course of shunting operations including coupling or uncoupling of vehicles, wagons, fixing rubber washers, closing wagon doors, displaying hand signals etc.
- ii) He shall exhibit danger signal to the official supervising the shunting if vehicles are fouled during the shunting operation.
- iii) He shall pilot the trains in case of abnormal working and when ordered by the SS on duty.
- iv) He shall be in proper neat and clean uniform while on duty.
- v) He shall come on duty after taking complete rest and shall not perform duty under the influence of liquor, drugs, or intoxicants.
- vi) Neither shall he absent himself from duty nor shall he exchange his duty without prior permission of his superiors.
- vii) He shall not leave his duty unless properly relieved or authorized by his superiors.
- viii. He shall set the points properly in non-interlocked yard and man them for all shunting movements and shall not interfere with the points while the vehicles are standing and or passing over them.
- ix) He shall be responsible to see that fouling marks are kept clear after completion of shunting.
- x) He shall always commence his duty equipped with hand signal lamps during night and flags during day.
- xi) He shall verify the correct setting of route before delivering required papers to the Loco Pilot either through taking 'OFF' the relevant shunt signal or by personal observation.

EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'E'

SINGAPUR ROAD JUNCTION STATION

ESSENTIAL EQUIPMENT OF THE STATION

List of essential equipment is given below vide OM 2015, Pra no. 11.5 which shall be maintained in good working order.

Sl. No.	Equipment	Station
1.	Detonators	20
2	Tri Colour Lamps	3 (1 Spare)
3	Hand Signal flags	3 (1 Spare) Sets
4	Clamps with Padlocks	8
5	Safety chains with Padlocks	6
6	Fire and Sand Buckets	5
7	Fire extinguishers DCPT	2
8	Push button collars	6
9	Power block Reminder collars	2
10	First Aid-Box	1
11	Stretcher	1
12	Blanket	1
13	Iron Skids	6

EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'F'

SINGAPUR ROAD JUNCTION STATION

APPENDIX 'F' TO STATION WORKING RULES OF SINGAPUR ROAD STATION:

RULES OF WORKING OF DK STATION, HALTS, IBH, IBS AND OUTLYING SIDINGS:

1. RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN SPRD-RGDA:

The block section between SPRD-RGDA has been split into two block sections by providing Intermediate block stop signals at km: 337.531 (controlled by RGDA station) for DN line and on UP line at km: 338.184 (controlled by SPRD station). Intermediate block stop signals are controlled through Double line lock and block instruments at the respective receiving ends.

(a) The block working for section between SPRD-RGDA on UP and DN lines is controlled by the provision of DLBI (SGE type) and are provided at RGDA and at SPRD stations. The DN advanced starter signal no. 28 of RGDA and UP advanced starter signal no. 15 of SPRD are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB home signals are controlled in turn through the line clear position of respective DLBIs at the receiving stations.

(b) Trains between intermediate block signal to respective home signal of station in advance in both sides are worked by means of SGE type lock and block instruments SR 14.01.01(c) & BWM 5.01(a).

(c) Last stop signal to the intermediate block stop signal in both sides are controlled by Electronic axle counter and are worked under absolute block system in terms of G & SR 14.01(c). Indications on panel provided at SPRD station.

2. INDICATIONS PROVIDED ON PANEL FOR I.B. SECTION: The indications of signals, IB and Block sections in both up and down directions are shown in the following table:

SECTION SPRD-RGDA (DN DIRECTION):

Sl. No	Signal Aspect [S-28]	IB Section Indication [28 AXT]	IB Home Aspect [S-74]	Block Section Indication	Remarks.

1	Green	While Illuminated	-	-	Advance starter No:28 is taken off to dispatch a train up to IB Home.
2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	While illuminated.	IB Home taken off for train up to home of RGDA.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.4 SECTION SPRD-RGDA (UP DIRECTION):

Sl. No	Signal Aspect [S-15]	IB Section Indication [15 AXT]	IB Home Aspect [S-17]	Block Section Indication	Remarks.
1	Green.	While Illuminated.	-	-	Advance starter No: 15 is taken off to dispatch a train up to IB Home.
2	Red.	Red.	-	-	IB section occupied.
3	-	-	Green	While illuminated.	IB Home taken off for train up to home of SPRD.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.5 Buzzer/Bell:

a) One audio buzzer is provided in the SM room at SPRD to detect Train Entering section for outgoing trains. After train passes the intermediate block stop signal, the buzzer/bell will start ringing at SPRD station. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by clicking on train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the station master of the station in advance who shall turn commutator of the Double Line Lock and Block Instrument from the Line Clear position to 'Train On Line position' and acknowledge train entering section following the procedures laid down vide Block Working Manual.

Train Run-Away buzzer:

When a train passes IB signal at ON position SM/SPRD of dispatching station receives the train run away buzzer and displays flashing indication on the VDU. The SM/SPRD by Acknowledging the train run away button, the buzzer stops and the indication remains steady. After train passes IB signal and beyond 400mts the indication also disappears.

b) In the event of failure of I.B. track circuit [i.e. track clear indication not available] which shall not permit taking 'OFF' last stop signal, it should be ensured by Dy. SS/SM on duty at the dispatching station through exchange of private number with the Dy. SS/SM of the receiving station that the last train that passed the last stop signal of his station has fully arrived at receiving station, before allowing the next train to enter in to the section, RGDA-SPRD shall be treated as single section.

c) By issuing the pilot memo when normalization of the system is not possible, in such case, line clear has to be taken on lock and block instrument. Trains are to be dispatched from the station only after obtaining line clear till such time track circuit or last stop signal is restored to normal.

d) NORMALIZATION OF THE TRACK CIRCUIT AND OF BLOCK WORKING BY RESETTING FEATURE:

i] No train should be allowed to leave station in any particular direction unless I.B. track clear indication is available for the relevant track circuited portion of I.B. section and last stop signal cannot be taken off and provision stipulated in **Para g.III to be followed.**

ii] A Resetting arrangement for the resumption of I.B. Axle counter under failure condition through co-operative features of both the Dy. SS/SM on duty 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 Dy. SS/SM at the receiving station through exchange of private number.

iii] For monitoring of I.B. section working & re-setting of I.B. Axle counters, Track Indications and Re-setting arrangements are provided with button icons on the panel at SPRD station and at RGDA station. Counters are also provided for the purpose of recording the re-settings for the I.B. Axle Counters in case of failures in IB section. The Re-setting icon and permission granting buttons on the panel at RGDA should normally be kept sealed by the S&T staff and Dy. SS/SM will inform the Maintainer for resealing the same whenever the seal has been broken.

iv] The Dy. SS/SM on duty at SPRD station shall maintain a separate register for use of resetting at IB Axle Counters wherein every operation of the resetting button shall be recorded giving details of date of use, train, number, time, number registered in the counter on panel and reasons for resetting and initial each such entry.

v] The procedure for resetting of the I.B. Axle counters in terms of clause g.II above shall be as follows:

SECTION RGDA-SPRD ON DN LINE:

	DISPATCHING STATION [RGDA]		RECEIVING STATION [SPRD]
1	Dy.SS/SM on duty shall call the attention of SS/Dy.SS of SPRD station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	SS/Dy. SS on duty at SPRD after verifying that the said dispatched train arrives fully, shall exchange private number with Dy.SS/SM on duty at RGDA and gives permission to re-set by pressing the 'Permission Granting' button provided on the re-set panel.
2	On getting re-set permission on panel Dy. SS/SM on duty shall acknowledge by clicking on 'Permission received from SPRD' acknowledgement button on the panel. For each such operation the reset counter provided in panel shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.	2	SS/Dy. SS on duty at SPRD shall continue to press the 'Permission Granting' button.
3	Dy. SS/SM on duty then shall re-set the I.B. Axle counter by clicking on 'DN Re-set Key' and select 'Key In'. After which he shall press on the 'Re-set button', which will reset the Axle Counter.	3	SS/Dy. SS SPRD shall also press 'Re-set' button provided on re-set panel at SPRD station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on panel.	4	The SS/Dy. SS on duty at SPRD shall record in his train register the re-setting operation giving train number, time and private number exchanged with the Dy. SS/SM of RGDA station giving reasons for the re-setting operation.

2.5 SECTION SPRD-RGDA ON UP LINE:

	DISPATCHING STATION [SPRD]		RECEIVING STATION [RGDA]
1	SS/Dy .SS on duty shall call the attention of SS/Dy. SS of RGDA station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	Dy. SS/SM on duty at RGDA after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy. SS on duty at SPRD and gives permission to re-set by clicking the 'Permission Grant' push button [To SPRD] provided on the panel.
2	On getting re-set permission on re-set Panel SS/Dy.SS on duty shall acknowledge by pressing 'Permission received from RGDA' acknowledgement button. For each such operation the reset counter provided in Operating Panel shall increase by one digit. SS/Dy. SS on duty shall make an entry of changed Reset counter number in re-setting register.	2	Dy. SS/SM on duty at RGDA shall continue to press the 'Permission Granting' button'.
3	SS/Dy. SS on duty then shall re-set the I.B. Axle counter by turning 'UP Re-set Key' and press the 'Re-set button' on the re-set panel, which will reset the Axle Counter.	3	Dy. SS/SM RGDA shall also click 'Re-set' button provided on panel at RGDA station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on re-set panel.	4	The Dy. SS/SM on duty at RGDA shall record in his train register the re-setting operation giving train number, time and private number exchanged with the SS/ Dy. SS of SPRD station giving reasons for the re-setting operation.

2.6 DISPATCH OF TRAINS:

Dispatch of trains is governed by the provision of G & SR 3.42, 3.70 and Block working manual rules.

a) From SPRD towards RGDA:

(A.K.SAINI)
DSTE/P/VSKP

(K.SIVA HARSHA)
DOM/WAT

Train will be dispatched in accordance with the General Rules 3.42, 3.70., 3.75, 4.35 and 8.01 and subsidiary Rules thereto.

b) SPRD TO IBS ON UP AND DOWN LINES:

The Dy. SS/SM on duty shall ensure that the portion of line between Advanced Starter and 400 Mtrs beyond IBS at their respective ends is clear of obstruction and indication to this effect is available in the panel and shall also ensure any non-isolated shunting at their respective ends suspended and shunting authority issued if any is withdrawn and kept in his custody.

Advise the Station Master at the station in advance, of the train No. and description of such intended train to be dispatched and shall take his assent supported by Private Number and shall then set and lock the route and take off the Starter and Advanced Starter.

c) IBS SIGNAL TO THE STATION IN ADVANCE:

The Dy. SS/SM on duty shall obtain line clear over lock & Block instruments from the station in advance to dispatch a train past the IBS signal at the respective ends and shall take off the IBS signal by means of taking of signal No.15 of SPRD.

After the train passes the intermediate Block Stop signal of SPRD a buzzer will ring in the panel. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by pressing train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the Station master of the station in advance who in turn will turn commutator of the Double line Lock and Block Instrument from the line clear position to Train On Line position and acknowledge train entering section. After dispatch of a train from SPRD into the Block section between SPRD and intermediate Block Post in case when the intermediate stop signal is not taken 'off' but the buzzer has started ringing, this may be either due to the train passing intermediate Block stop signal at 'ON' position or due to failure of the track circuit in advance of that intermediate Block Signal and shall exchange Private Number with the Station Master in advance indicating the occurrence and the number of the train. On getting the information from the Station Master/RGDA, the Dy. SS/SM on duty at SPRD in turn will inform SCR on duty about this.

The procedure must be rigidly followed irrespective of the fact whether line clear for train has been received from station in advance or not and this must be recorded in the Train Register and Dy. SS/SM's diary book of both the Stations

D) DISPATCH OF TRAINS IN CASE OF FAILURE OF ADVANCED STARTER:

(i) Dispatch of trains towards SPRD in case of failure of the Down/UP Advanced Starter signal at SPRD Station due to failure of "Axle Counter" device or otherwise. If the failure of the Advanced starter of SPRD due to the failure of axle counting device or the indication lamp (repeated by indication lamp) showing 'Red' light either due to power failure or due to any other causes, the re-setting "Push Button" provided with

counter at the Dy. SS/SM's office for resorting the normal function of the signal, should be operated accordingly to the following instruction whenever the Advance starter signal of SPRD is found defective by the Station Master and the following procedure shall be adopted.

On receipt of this information, the Dy. SS/SM on duty after ensuring that all trains which had left his Block Station had arrived complete and intact at **RGDA** station (by exchange Private Number with the Dy. SS/SM **SPRD** confirming this), shall press the resetting button of the axle counter. When the resetting is successful, it shall be indicated by a green light in the resetting panel provided in the Dy. SS/SM's office at **SPRD**. The use of this resetting button is registered on the counter and the Dy. SS/SM should record this giving the details of the occasion with timings in the counter register kept in the station.

If it is not possible to restore normal working of the counter by use of the resetting button, the ESM-in-charge of the section shall be served with a written memo to attend the defective signal and rectify the same. The ESM-in-charge of the section on being served with a memo by the Dy.SS/SM, shall attend the failure and rectify the fault. The ESM after ensuring that all S&T gears relating to defective signal have been attended to and are in working order except the axle counter which needs re-setting shall establish communication with Dy. SS/SM concerned and ask him to reset the axle counter by pressing the reset push button. Where after the Dy. SS/SM on duty, after ensuring that all the trains which had left his Block Station had arrived complete and intact at **RGDA** (by exchanging of P.N with **SS/DY SS/RGDA** confirming this) shall press the resetting button provided in the VDU at **SPRD** station and resume the normal working.

e) DESPATCH OF TRAINS IN CASE OF FAILURE OF INTERMEDIATE BLOCK STOP SIGNAL:

[a] When a LP finds an intermediate Block Stop signal at 'ON' Position he shall stop his train in rear of the signal and advise the guard of the fact by sounding long continuous whistle and shall then contact the Station Master of the Block Station in rear over the signal post telephone provided for the purpose vide SR.3.75.01[i].

[b] If the Dy.SS/SM of RGDA station, on being contacted over Telephone by the LP, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorized the driver on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give LP the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance.

The Loco pilot shall then sound one short, one long and one short whistle and, on receipt of Guard's signal shall proceed ahead duly exchanging signals with him.

The station Master on being contacted by the Loco pilot on signal post telephone if he is unable to obtain "Line Clear" for the train due to total interruption of

communications, shall call for the Guard's through the Loco pilot and on being contacted by guard, he shall advise the guard of the circumstances and give a Private Number for the train to proceed up to the next block station.

The guard shall prepare a memo in duplicate authorizing the Loco pilot to proceed with the Private Number received from the Station Master. In such case the speed of the train shall be restricted as prescribed in GR 3.75(3).

[c] In such case the Loco pilot shall pass the IB signal at "ON" and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometers an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometers an hour and report the failure to the Station Master at the block station ahead.

While complying with the instructions contained in GR 3.75(3), when the Loco pilot has to pass IB signal at "ON" after waiting for 5 minute at the signal, he shall proceed cautiously preparing to stop short of any obstruction at a speed not exceeding 15KMPH when view ahead is clear and 8 KMPH when view ahead is not clear due to curve, obstruction, rain, fog or any other cause until he reaches the foot of the next stop signal and even the signal is "OFF" the Driver shall continue to look out for possible obstruction short of the same and will act upon its indication only after he has reached it. Before starting, the Loco pilot shall sound one long whistle which may be repeated as necessary and shall then start his train on receipt of Guard's signal. Thereafter he shall exchange signals with the Guard.

On reaching the block station ahead the Loco pilot shall report the failure of the signal to the Station Master. If, the telephone is provided at the intermediate Block Stop signal Post is out of order the Loco pilot ck station ahead, the Loco pilot shall report the failure of the signal to the Dy. SS/SM, Following train shall not be allowed to leave **SPRD** unless the complete arrival of the receiving train is certified by the SM on duty at **RGDA** under exchange of Private Numbers.

The station Master of the block station working the intermediate block stop signal on becoming aware that such a signal is defective shall, before dispatching the train, treat the entire section up to the block station immediately ahead of the intermediate block post as one block section and issue a written authority to the Loco pilot to pass the defective intermediate Block Stop Signal at "ON" without stopping at the signal. In accordance with the procedure prescribed by special instruction.

A written authority as mentioned in GR 3.75(4) shall be in Form T/369[3b] in which the Private Number and identification Number obtained from the station in advance in support of the "Line Clear" shall be recorded. Display of "Proceed hand signal at the foot of defective Intermediate Block Stop Signal may be dispensed with.

[d] However, if the DY.SS/SM on the Block station immediately in rear of an intermediate Block Signal is aware that UP/DN intermediate Block Signal is defective

shall before Dispatching a train shall verify that all trains which had left his Block Station had arrived complete and intact at **RGDA** station (by exchanging Private Number with SM- **RGDA**) shall press the resetting button of Axle counter equipment. Thereafter Loco pilot shall be handed over the authority of T-369[3b] to pass IBS Signal at “ON” position where in, the Private Number and indication number obtained for line clear, shall also be written. The use of this re-setting push button is registered on the counter and DY.SS/SM should record this usage giving details of the occasion with timings in the Counter/register and also train registers.

(f) INDICATION CUM RESETTING PROVISION IN THE Panel AT RGDA:

The Panel provided for following light indications:

- (i) Two green indications for the track- circuited portion by Axle Counter, which remain normally lit to indicate that the track is clear. These lamps extinguish no sooner the train passes the last stop signal and their place two red indications are lit to indicate that the track is occupied.
- (ii) Two red indications for the last stop signal replacement track circuit which remain lit so long this track- circuit is occupied or in under failure condition.
- (iii) Two red indication ahead of the IBS Signal, which are lit if the train passes the said signal in “ON” Position. These indications continue to glow till such time the lock and block working is resumed through emergence re-setting feature.
- (iv) Two red indications just ahead of IBS Signal for the IBS signal replacement track circuit. These indications normally remain dark and are lit either during occupation by a train or during failure of this track circuit.
- (v) Two red indications for the block section for receiving trains. These indications shall normally remain no indications and shall be lit only when the incoming train passes the IBS signal. It remains lit till such time train arrives fully and Block Instrument is normalized.

g) RE SETTING PROVISION IN THE PANEL AT SPRD STATION:

For resetting of I.B. Axle counter please refer page no. 55, Para No: 27 of Appendix ‘B’ of this SWR

h) SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBH AT ‘ON’ POSITION:

- i] In case train run away indication appears the Dy.SS/SM/Cabin Master receiving Station shall not turn the block instrument handle to line clear position and Dy.SS/SM at sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal in the ‘ON’ position has actually arrived and its complete arrival is verified by the receiving station.

- ii] Every case of a train passing IB signal at 'ON' position without strictly following the provision of GR 3.75 should be treated as a breach of block rule by the Loco pilot and action to be taken accordingly.
- iii] When train run away indication appears at the Dispatching Station without any train in the section, the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after duly taking line clear treating entire section as one Block section as per GR 3.75(4).
- iv] Whenever a train after having obtained line clear passes IBS (when not taken off) in "ON" position the train run away indication appears at the Dispatching station and train entering section indication appears at the receiving station, under such circumstances no further train shall be allowed in the section till the said train arrives completely at the receiving station i.e., station in advance, and its complete arrival received at the receiving station i.e. station in rear supported by Private Number treating the entire block section as single section.
- v] If any train passes IB Signal at 'ON' position when there is a train in the Section between IBS and the station ahead, the train run away indication will appear at both receiving and Dispatching station. Under such circumstances the Dy.SS/SM in the receiving station shall not turn the Block instrument to Line Clear position and Dy.SS/SM at sending station shall not take action to dispatch the (3rd) train, unless the 2nd train which passes the IBS in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.
- vi] Permission button to be pressed for the runaway train by break opening the seal only after verifying that the last vehicle of the runaway train has arrived in -tact and ensured by exchange of private number with the Dy.SS/SM of the sending station. In case of failure of Axle Counter equipment at the sending station, permission button may also be pressed for normalizing the system only after verifying that there is no train in the section and after duly exchanging Private number with the Dy.SS/SM of the sending station.
- vii] Whenever a train run away indication appears when there is a train in the section, no further train should be allowed in the section till resetting is done as per item No. 27 of appendix-B.
- viii] Before any re-setting operation is done, the Dispatching station should advise the receiving station giving details of the last train that has entered the section and should ensure by exchanging of private number that the last train has arrived complete at receiving station.

Every Case of re-setting shall be entered in a register in the following proforma.

Date and time	Train No. Last entered the block section	Private No. of station ahead for Complete Arrival of the train Under Col.2	Counter No Before resetting operation completed	Train No. Entering Block section Immediately after the resetting operation	Remarks	Signature of Dy. SS/SM
1	2	3	4	5	6	7

ix] If resetting is not possible under item as mentioned above, the system should be treated as failed and train will work treating the entire section up to the Block Station immediately ahead of the IBS Post as one block section as per GR 3.75(4).

x] Action to be taken when a train passes Intermediate Block Stop Signal at 'ON'

a) By Dy.SS/SM of Block Station in advance of the Intermediate Block Stop signal:

i] Shall not turn the Block Instrument commutator to "Line Closed" Position Unless the complete arrival of the train which passed IBS at "ON" position is ensured, without any exception even for such a train which leaves the rear station after obtaining line clear and passes IBS at "ON" position, since there is a chance of leaving a vehicle or vehicles in the Axle Counter area where the function of Axle Counter also fail when IBS is passed at "ON" position.

ii] In case the bottom needle of the SGE type block instrument is in its 'Line closed' position, action should be taken to turn the block instrument commutator to 'TOL' Position vide BWM 6.16 and must not turn to "Line closed" and then to "Line clear" position unless the train which had passed the "Intermediate Block Stop Signal" in the 'ON' position arrives complete and its complete arrival is verified.

b] By the Dy.SS/SM/ASM of Block Station in rear of the intermediate Block Stop Signal must ensure that last stop signal controlling entry of trains into the section between the last stop signal and the intermediate Block Stop Signal is in its 'ON' position and shall under no circumstances take 'OFF' or attempt to take 'OFF' the said last Stop signal even if the Axle counter/Track circuit section from his block station up to and including the adequate distance beyond the Intermediate Block Stop signal shows 'clear' unless the train which had passed the intermediate Block Stop signal in the 'ON' position arrives complete the block station in advance and its complete arrival is verified, and intimate the Dy.SS/SM/ASM of the block station in advance the number, description and the

departure time of the last train Dispatched from his block station under exchange of Private number.

c] By the Dy.SS/SM of both the block stations in rear and in advance of the intermediate Block Stop Signal:

i] After the complete arrival of the last train, according to the information received vide sub-para (b) above, the Dy. SS/SM of the block station in advance shall communicate the same to the Dy. SS/SM of the station in rear supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the Dy. SS/SM of the dispatching station and the Dy. SS/SM of the receiving station shall operate the 'Resetting' and 'reset' panel respectively in conjunction with the Dy. SS/SM of the Block Station in advance shall then take steps or authorized Dy. SS/SM of the receiving station supported by a Private Number to normalize the block instrument.

ii] Record of Private Number exchange and the number shown in the counters shall be maintained by the concerning Dy. SS/SM in the train signal (Cum log) Register/Trine Log Register.

It is to be noted that in terms of GR3.75 whenever intermediate block stop; signal is at 'on' the Loco pilot must stop his train in rear of the signal and contact the Dy.SS/SM of the block Station in rear on the telephone provided on the signal post who will authorize him to pass the signal in 'ON' position supported by Private Number and identification number which were taken for the line clear from the station in advance. If the telephone is not provided or is out of order, the Loco pilot, after waiting for 5minutes shall pass it at "ON" but he must report the failure to the DY SS/SM at the Block Station ahead after following the provision in GR.3.75(3). This would mean that the Loco pilot shall either get an authority on telephone from the station master or must report at the station ahead about the failure of the telephone. If none of those provisions are complied with, it should be taken as breach of Block Rules.

iii] In the event of failure of IBS signal in the "OFF" position or cannot resume to "ON" position immediately after it has been passed by a train, the station master controlling the signal shall take steps to put back the IBS signal to "ON" position and treat IBS signal failed and train shall be dispatched treating entire section between his station and station in advance as one Block section.

2.7 RUNNING OF MOTOR TROLLYS ON IBS ZONE:

i) While allowing motor trolley/4 wheeler tower wagon/material trolley etc., entire section between SPRD-RGDA shall be treated as one block section and shall be issued T-369 [3B] for passing IBS at "ON" position.

ii) After the complete arrival of the said Motor Trolley/4 wheeler tower wagon/material trolley etc., at the station ahead, Station Master at adjacent station shall exchange Private

Number in token of complete arrival and then shall resume normal working by resetting the Axle Counter as stated in the SWR.

iii) Motor Trolleys shall not be allowed on following line clear.

NOTE: - Backing of train on the portion of line after passing the intermediate Block Stop signal normally shall not be allowed, however, if it becomes inevitable to back, such backing may be done with great caution as mentioned in SR 3.75.04.

2.8 SIGNAL POST TELEPHONE:

A telephone socket (RE Type portable telephone kept with Loco pilots) with a RED Press button at the bottom is provided at the foot of each IB signal and is meant for Loco pilot to contact the DY.SS/SM in rear by pressing the RED button. The Loco pilot of the train encountering the IB signal at 'ON' position shall contact the station in rear to find out the occupancy or otherwise of the block section ahead.

3. NORMAL POWER SUPPLY TO IBS GOOMTY:

Normal power supply to the Signaling and Interlocking installation at the IBS goomty is drawn from the traction power sources (230V-50 HZ, AT1 and AT2) with auto-change over arrangement in IB Goomty through a panel. Whenever any traction power supplies fails, the auto-change over unit will automatically connected to the other available 'AT' supply.

EAST COAST RAILWAY
WALT AIR DIVISION

APPENDIX 'G'

SINGAPUR ROAD JUNCTION STATION

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS

EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'H'
SINGAPUR ROAD JUNCTION STATION

WORKING OF M/S J.K.CORPORATION LIMITED SIDING (PRIVATE SIDING)

PART – I

1. The siding consists of 3 spurs, terminated in dead ends inside the factory viz; (a) North spur
(b) Main spur and (c) South spur.

THE HOLDING CAPACITY OF EACH SPUR IN TERMS OF 4 WHEELERS IS AS FOLLOWS:

- | | | |
|------------------------------|-----------|-------|
| a) North spur | 55 Wagons | 495 M |
| b) Main spur (with platform) | 50 Wagons | 450 M |
| c) South spur. | 50 Wagons | 450 M |
2. To work the siding the Station Master on duty will advise the Yard Supervisor of SPL siding over Magneto phone about the pilot and the nature of work to be done, to set the route and lock the points including the siding entrance points for the passage of the pilot, authenticated by private number.
 3. The Station Master on duty will set the route and take off the concerned shunt signal .
 4. The Station Master on duty after setting the route and take off the concerned shunt signal make over the written shunting authority T/806 and hand over to the guard who in turn hand over the same to the driver of the pilot. The driver with the possession of the written shunting authority T/806 and observing the 'OFF' aspect of the shunt signal and the green hand signal from the guard will start the pilot. After the pilot entered the siding line, the siding points will be set back to normal position by SM on duty..
 5. Driver will stop, at the stop board provided at the factory gate and give long whistle. The factory representative will board hand over memo to the guard permitting the pilot to enter into factory area. Then the guard shall give pilot hand signal to the driver of the pilot to enter into the factory premises.
 6. The pilot will enter the siding by pushing the wagons and return with engine leading.
 7. Speed of the pilot should not exceed '8' Kmph.
 8. Not more than one engine should be allowed, to work in the factory at a time.
 9. While returning from the siding the pilot will stop short of shunt signal No.8 and give a long whistle to draw the attention of the station Master.. The Station Master on duty will consult the Section Controller on duty and if he is in a position to receive the pilot into the yard, Station Master will set the route and take off concerned Shunt signal.. After complete arrival of the pilot into the yard the Station Master ensure the clearance of fouling on the Panel board and shall normalize the points concerned.

APPENDIX 'H'**PART – II****SECURING OF VEHICLES IN PRIVATE SIDING****EXTRACT OF RULE NO. 7.10 OF OPERATING MANUAL)**

- a) Users of assisted and private sidings are responsible for safety of the vehicles placed at such sidings intended for them (for loading or unloading) and the derailment or damages.
- b) The responsibility of the user begins from the time the Railway locomotive leaves the sidings after placing the vehicles. The user's representative will thereafter take necessary precautions.
- c) During the season when storms are prevalent the user shall adopt the following special precautions.
 - i) The hand brake of all wagons must be firmly applied and the levers pinned down.
 - ii) The end vehicles should be secured by safety chains.
 - iii) Hand shunting should not be performed during storm.
 - iv) Doors of covered wagons should not be kept open during storm.
 - v) Before commencing hand shunting the hand breaks of the wagons must be tested to see that they are in good working order. A responsible person must always supervise hand shunting.
 - vi) Wagons should not be uncoupled unless required to be moved before uncoupling wagons the hose pipes must be un-coupled on the dummy plugs.
 - vii) Particular care must be taken to remove the chains and sprags before the wagons are coupled up to the train. The user's representative will remove the chains and sprags if any used just before the Railway engine enters the siding but the brakes of all the wagons must be kept on. He must also see that there is no one either under the wagons or in any position where he is likely to be injured by the movements of the wagons.