

EAST COAST RAILWAY
WALTAIR DIVISION

STATION WORKING RULES OF VISAKHAPATNAM (ROUTE RELAY INTERLOCKING)

Date of Issue:-

Date of brought in force:-

Ref: Rly. Bd. Lr. No: 2000/Safety/A&R/19/36, Dt: 27-10-2005.

NOTE: -

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

1.	STATION WORKING RULE DIAGRAM:			
	a)	Station Working Rule Diagram : SI/23029, ALT-'I'.		
	b)	Signal Interlocking Plan : SI/23029,ALT-'I'.		
	c)	Date up to which corrected :		
2.	GENERAL LOCATION:			
	a.	Name of the Station:	:	VISAKHAPATNAM
	b.	Class	:	Spl. Class
	c.	Name of the section	:	Chennai - Howrah
	d.	Double/Single/Multiple Line	:	Double Line
	e.	Electrified / Non-Electrified	:	Electrified
	f.	Gauge BG/MG/NG	:	BG
	g.	Railway	:	East Coast Railway
	h.	Route	:	'B'-Route
	i.	Situated at	:	878.890
	j.	Reckoned from		HOWRAH
	k.	Operation	:	Centrally operated Panel with Route Relay Interlocking.
	l.	Standard of Interlocking		1R
2.1	DESCRIPTION OF STATION:			
	VISAKHAPATNAM (Code: VSKP) is a 'Spl.' class terminal station on Chennai-Howrah Double line electrified (BG) section of East Coast Railway on 'B' route. It is situated at KM: 878.890 from Howrah provided with RRI.			
2.2	BLOCK SECTIONS ON EITHER SIDE AND THEIR DISTANCE & OUTLAYING SIDINGS			

	S. No.	ADJACENT BLOCK STN		DISTANCE			DIRECTION	
	A	GOPALPATNAM	:	7.067 KM.			HWH END	
		CONTAINER SIDING	:	3.11 KM.			VIZAGPATNAM END	
	B	Provision of IBS:	:	NIL				
	C	Automatic signals	:	VSKP - GPT	UP	SA-31, AS-1, AS-3, AS-5,		
					DN	SA-60, AS2, AS4, AS6		
D	D.K Stations / Outlaying siding	:	MARRIPALEM PH Between VSKP-GPT				6.6 KM	
2.3 BLOCK SECTION LIMITS ON EITHER SIDE OF THE STATION ON DIFFERENT DIRECTIONS:								
		Between Stations	The point from which the Block sections commences			The point at which Block Sections ends.		
	1	GPT-VSKP UP LINE	UP Auto Signal No. SA-31 of GPT.			Facing Point No. 101A of VSKP.		
	2	VSKP-GPT DN LINE	DN advanced starter signal No: SA-60 of VSKP.			Facing point no. 54-A of GPT.		
2.4 GRADIENTS								
	Station between		Chainage in Mtrs.		Stretch in Mtrs.	Gradient		
			From	To				
1.	VSKP-Loco Yard Engine siding		0.00 (CSB)	475	475	Level		
			475	---	---	1 in 1000 falling		
2.	VSKP- Engine line /Shunting Neck		000	731.5	731.5	Level		
			731.5	1006	274.5	Level		
			1006	1280	274	1 in 200 Falling		
			1280	Into Section	--	Level		
3.	VSKP-Yard All lines		0.00(CSB)	134	134	Level		
	VSKP-GPT Up & DN lines		134	850	716	1 in 2310 Raising		
	VSKP-GPT Up & DN lines		850	1100	250	1 in 400 Raising		
	VSKP-GPT Up & DN lines		1100	1584	484	1 in 268 Raising		
	VSKP-GPT Up & DN lines		1584	2681.50	1097.5	1 in 150 Raising		
	VSKP-GPT Up & DN lines		2681.50	3900.50	1219	1 in 1000 Raising		
	VSKP-GPT Up & DN lines		3900.50	--	--	Level		
4.	VSKP Shunting		000	671.17	671.17	Level		

	Neck on South side					
	VSKP Shunting Neck on South side		671.17	881.47	210.30	1 in 100 falling
	VSKP Shunting Neck on South side		881.47	Into Section	- -	1 in 150 falling
2.5	<u>LAYOUT:</u>					
	a)	i)	VISAKHAPATNAM (VSKP) is a terminal station provided with Eleven lines, Out of Eleven lines 10 lines are terminal yard lines and are meant for dealing coaching trains.			
		ii)	Line No: 1, 3, 4, 5, 6, 9, 10 & 11 are passenger carrying train lines provided with high level passenger plat forms with reception and dispatch signals.			
		iii)	Line no: 2 is Non Platform, Engine run line.			
		iv)	Line no: 7& 8 are terminal yard lines.			
	b)	A high level passenger platform of 649 Mtr. X 15 Mtr. Is provided for Line No.1.				
	c)	An Island platform of 601 Mtr. X 9.4 Mtr. is provided for Line No. 3 & 4.				
	d)	An Island high level passenger platform of 686 Mtr. X 10.6 Mtr. is provided for Line no:5 & 6.				
	e)	An island high level platform of 534.722 Mtr. X 10.86 Mtr is provided for L/9 and 10				
	f)	A high level passenger platform of 652 Mtr. & 12 Mtr. Is provided from Line No:11.				
	g)	A saloon Siding of CAL 83.5 Mtr. (SH-SB) is provided at GPT end of yard takes off from Point no: 125A. The movements from & to Siding governed by Shunt Signal No.s SH-8 (A-D) & SH-3A, 9A, 11A, 13A, 15A, 19A, 21A respectively.				
	h)	A goods/Parcel van siding of CSL 112.25 Mtr. (SH-SB) is provided at South End of the yard. The movements from & to Siding governed by Shunt Signal No.s SH-29 & SH-4E respectively.				
	i)	A Shunting neck No:1 of CSL-784.5 Mtrs. (SH-SB) is provided at South end of the yard takes off from Point no:151 with an isolation of Point no:155. The movements from & to Siding governed by Shunt Signal No.s SH-6 (A-F) & SH-41B, 43B, 45B, 47B, 53B, 55B respectively.				
	j)	Container siding presently utilizing for empty rake stabling provided towards south end of the yard is isolated by DS No:156 at South end of the yard. The movements from & to Siding governed by Shunt Signal No.s SH-2(A-H) & SH-27A, 39A, 41A, 43A, 45A, 47A, 53A, 55A respectively.				
	k)	A shunting neck no:2 of CSL 340 Mtrs. (SH-SB) is provided at the North end of the yard towards WAT MYD and is isolated from DS no:107A. The movements from & to Siding governed by Shunt Signal No.s SH-15(A-H) & SH-48A, 50A respectively.				
	l)	A Shunting neck no:4 of CSL 145 Mtrs. Is provided at the North end of the yard and GPT is taken off from UP line through Point no:103 on UP				

		line and 103A as loco yard Line no:1. The movements from & to Siding governed by Shunt Signal No.s SH-5(A-I) & SH-50E, SH-52 respectively	
	m)	ARME siding of CAL 83.5 Mtr. (SH-SB) is provided at GPT end of yard takes off from Point no: 123. The movements from & to Siding governed by Shunt Signal No.s SH-16 (A-D) & SH-3A, 9A, 11A, 13A, 15A, 19A, 21A respectively.	
2.5.1	<u>RUNNING LINE:</u>		
	The station is provided with 11 running lines.		
	<u>DIRECTIONAL MOVEMENT</u>		
	The Trains arriving at this station from Gopalapatnam are UP trains. The trains leaving this station proceeding towards Gopalapatnam are DN trains.		
	<u>HOLDING CAPACITY OF LINES:</u>		
	i)	Line no:1	CSL 608 Mtr. (Starter to SH)
	ii)	Engine Line no:2	CSL 412 Mtr. (SH to SH)
	iii)	Line no:3	CSL 591.2 Mtr. (Starter to SH)
	iv)	Line no:4	CSL 655.10 Mtr. (Starter to SH)
	v)	Line no:5	CSL 850 Mtr. (Starter to SH)
	vi)	Line no:6	CSL 803 Mtr. (Starter to SH)
	vii)	Line no:7	CAL 383 Mtr. (Starter to SH)
	viii)	Line no:8	CAL 382 Mtr. (Starter to SH)
	ix)	Line no:9	CAL 514.5 Mtr. (Starter to SH)
	x)	Line no:10	CSL 638.5 Mtr. (Starter to SH)
	xi)	Line no:11	CSL 809 Mtr. (Starter to SH)
2.5.2	<u>NON RUNNING LINES AND THEIR CAPACITY IN CSR:-</u>		
	Sl. No:	Non Running Lines	CAPACITY
	1	Saloon Siding	83.5 Mtr. (SH to SB)
	2	Goods/Parcel Van Siding	112.25 Mtr. (SH to SB)
	3	Shunting Neck-1	784.5 Mtr. (SH to SB)
	4	Shunting Neck-2	340 Mtr. (SH to DE)
	5	Tower Wagon siding	47 Mtr. (FM to DE)
	6	ARME siding	83.5M (SH to SB)
	7	Shunting Neck-4	145 Mtr. (SH to DE)
2.5.3	<u>ANY SPECIAL FEATURES IN THE LAYOUT:-</u>		
	i)	Auto signaling is provided between VSKP and GPT UP & DN lines and 2 lines are provided between E/Cabin and VSKP {(one line being unidirectional to receive trains from E/Cabin and another line being bidirectional are provided for both side movements (Ex VSKP-E/Cabin & vice-versa)}	
	ii)	A Coaching complex is provided via H-Goomty for washing maintenance of coaches and for marshalling and drawn out of coaching	

		rakes. The spurs are provided for maintenance/repairs/washing/stabling of coaches.
2.5.4	<u>DESCRIPTION OF SIDINGS</u>	
	<u>NORTH END</u>	
	i)	<u>SALOON SIDING:</u>
		It takes from Point no: 125 and terminates in to a dead end towards the station Building and is isolated from Line no.1 by a derailing switch 125B. Point No. 125 operated from the panel by Elect. Point Machine. From & to movements over the saloon siding is governed by Shunt Signal No.s SH-8(A-D) & SH-3A, 9A, 11A, 13A, 15A, 19A, 21A respectively.
	ii)	<u>ARME SIDING:</u>
		This siding takes off from point No. 123 and terminates into a dead end towards the station building and is isolated from Line No.1 by a derailing switch 125B. Point No.s 123 and 125 are operated from the panel by Elect. Point machines. The movement over the ARME siding is governed by SH-8(A-D) & SH SH-3A, 9A, 11A, 13A, 15A, 19A, 21A respectively.
	iii)	<u>SHUNTING NECK No.2</u>
		The Shunting neck takes off from Point No:107 at the North end of the yard towards Waltair MYD. The siding is isolated by a derailing switch 107 DS. The Point No.107 is operated electrically from panel by electrical point machine and the movements over the shunting neck are governed by shunt signals SH-15(A-H) & SH-48A, 50A.
	iv)	<u>SHUNTING NECK No.4</u>
		The Shunting neck takes off from Loco yard line no:1 and from UP line towards GPT end of the yard through Point no:103. The Point no:103 is operated electrically from panel by electrical point machine and the movements over the shunting neck are governed by shunt signal no. SH-5(A-I) & SH-50E, 52. The shunting neck is also connected from loco yard line no:2 through hand operated key locked point controlled by control no:141 from panel.
	v)	<u>Locos Stabling lines (Old steam loco yard):</u>
		It is provided North end of the VSKP yard besides UP line. Inside lines are utilized for stabling incoming locos of various coaching trains and connecting them to outgoing coaching trains. All the points inside this yard are hand operated points and non-interlocked motor operated points (Push button operations provided at the location box). The movements over these points are to be conducted by clamping and padlocking. The incoming and outgoing movements over these lines are governed by shunt signal no.s SH-19(A-F), SH-21(A-B-D), SH-5(A-I), SH-8C/D, SH-10C/D, SH-12 C/D, SH-14C & SH-18C from VSKP RRI..
	vi)	<u>TOWER WAGON SIDING:</u>
		It is provided North end of the VSKP yard besides Loco stabling line

		lines. The points of this yard are hand operated points. The movements over these points are to be conducted by clamping and padlocking. The incoming and outgoing movements over this line are governed by shunt signal no.s SH-21 (A/B/D), SH-8D, SH-10C/D, SH-12 C/D from VSKP RRI.
	vii)	ENGINEERING SIDING LINES:
		It is provided North end of the VSKP yard besides Loco stabling line lines. These lines of Engg. Siding lines are excluding utilized for stabling empty coaches/BT or track machines. The points of this yard are hand operated points. The movements over these points are to be conducted by clamping and padlocking. The incoming and outgoing movements over this line are governed by shunt signal no.s SH-21 (A/B/D), SH-8D, SH-10 D, SH-12 D from VSKP RRI.
		<u>SOUTH END:</u>
	i)	<u>GOODS/PARCEL VAN SIDING:</u>
		It takes off from Line no:1 from point No.147A and is isolated by a derailing switch 147B DS. Point No. 147 is operated from the panel by Elect. Point Machine and the movements over the siding are governed by Shunt signal No. SH-29 & SH-4E.
	ii)	<u>SHUNTING NECK NO:1</u>
		The shunting neck takes off from Point No.151 B at the South end of the yard and is isolated by a derailing switch 155. These points No.151 & 155 is operated electrically from panel by electrical point machine and the movements over the shunting neck are governed by shunt signal no. SH-6 (A-F) & SH-41B, 43B, 45B, 47B, 53B, 55B.
	iii)	<u>CONTAINER SIDING (UTILIZING FOR STABLING EMPTY COACHING RAKES):</u>
		The container siding having 2 lines takes off from Point No.151 of south end of the yard and is isolated by derailing switch 156. These two points 151 & 156 are operated from the RRI cabin and the movements over the container siding are governed by Shunt signal No. 27A, 39A, 41A, 43A, 45A, 47A, 53A, 55A & SH 2(A-H). Detail Working procedures are available in Appendix-H.
2.6		<u>LEVEL CROSSINGS:</u> ---N I L---
3		<u>SYSTEM AND MEANS OF WORKING:</u>
		System of Working in force:
	i)	Automatic Block System (between VSKP-GPT) in accordance GR 9.01(1)(a) (b) (c), I, II, 9.01 (2), 9.02(1) (2) (3) (4) (5) and SR's there to 9.09, 9.10(1) (2), 9.11(1) (2) and SR's there to 9.12 and SR's thereto 9.14 and SR's thereto and 9.15 and Block working Manual chapter-VI.
	ii)	The movement between 'E' cabin of MYD and VSKP RRI are considered as inter yard movements and such movements are conducted by taking off concerned shunt signals by SS/ SM on duty at 'E' cabin and VSKP

		RRI. Line clear is obtained through Magneto phone supported by Private Number. Inter slotting arrangement are given between VSKP and 'E'-cabin WMY for unidirectional (E-cabin to VSKP) and bidirectional lines (VSKP-E/cabin & vice-versa). After getting slot, Concerned shunt signals will be taken off for dispatching trains from E/cabin of WMY or VSKP RRI. SH-48 & SH-50 are provided at VSKP for dispatching trains towards E-Cabin via unidirectional and bidirectional lines. SH-12 & SH-11 are provided at E-Cabin for dispatching trains from Unidirectional line & Bidirectional line respectively.
4.	<u>SYSTEM OF SIGNALLING AND INTERLOCKING:</u>	
	a)	VSKP is a 'Spl.' class station with Standard - 1R interlocking.
	b)	Centrally operated Route Relay Interlocked Panel is provided to operate multi aspect colour light signaling in accordance with GR No. 3.07 (4), (5), (6) and (7), 3.08 (4) (b) and (c), 3.09, 3.10, 3.17, 3.19, 3.20, 3.24(4), 3.27(b), 3.32(2) to govern the movement of trains in and out of the yard. All running line points are provided with Elect. Point Machines which have got in built locking and detection arrangement and operated from the Central operating panel.
	c)	Calling on signals in accordance with the GR No.3.13(1), (b), 3.13(2), (3), (4), (6)(b) are provided below the Home and Starter signals for receiving/dispatching a train to pass stop signals in the ON position.
	d)	Shunt signals are provided for controlling shunting movement in the yard in accordance with GR 3.14
	e)	All running lines and siding points in the yard are motor operated except where otherwise marked as HP and electrically detected by the relevant signals governing the movement of train over them.
	f)	In case of emergency signals once taken off for a train can be put back to 'ON' even though the panel is in locked condition, but route cannot be altered without complying the due process of emergency cancellation.
	g)	<u>Operating Panel:-</u> A compact miniature domino type panel is installed in the control room of RRI cabin to operate all points and signals in the entire yard.
	h)	<u>Indication Panel:-</u> A domino type full panel is installed in the RRI cabin to indicate all signals, track circuits and points position of the entire yard. This will indicate position of signals and points in conjunction with the operating panel.
4.1.2	<u>CRANK HANDLE:</u>	
	When any point fails to operate normally by the Route Setting operation or through the concerned point button through Panel, it is inevitable to operate the points with crank handle. The SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system.	

	When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle for motor operated points shall be followed as per operating manual para-2.19.	
	Crank Handles	Points
	CH1	101
	CH2	102
	CH3	106, 111
	CH4	104, 105, 107
	CH5	110, 113, 131
	CH6	115, 121
	CH7	116
	CH8	132, 133, 134, 135, 136, 137
	CH9	120
	CH10	119, 125, 126, 127
	CH11	103
	CH12	145, 146, 147, 148, 149
	CH13	152, 153, 154, 157, 158, 159
	CH14	150, 151, 156
	CH15	155
	CH17	123
4.1.3	<u>CALLING ON SIGNALS:</u>	
	Miniature calling on signals are provided below UP Home signals and starter signals in terms of GR.3.13 (1) (b), (2) (3) (4) & (6) (b). Calling on signal is taken off for reception of trains or dispatch of trains when the Home signal or Starter signal above it cannot be taken off due to failure or any other reason or for admission of train on to a blocked line. (Details of signaling and interlocking given in Para No. 20 & 20.1.1 of Appendix - 'B').	
4.1.4	<u>Emergency Point operation:</u>	
	Emergency point operation facility is provided to operate the point from the Panel in case of failure of point controlling track circuit. Detail procedure for Emergency operation of point shall be followed as per Para No. 26 of Appendix-B. Each operation of emergency point operation shall be recorded in the station diary and in the register meant for this purpose.	
4.1.5	<u>Emergency route release indication:</u>	
	This panel interlocking is based on the principle of 'DEAD APPROACH LOCKING'. As such, when a route is set and signal is taken off on the route, the route gets locked. Normally the route is released by the passage of the train over the route. When it becomes necessary to alter the route after the signal has been taken off vide SR 3.36.02 (a), the concerned signal must be put back to danger by pressing the Signal cancellation button and the concerned signal button. Then the emergency route release button (white with red dot) positioned in the top of panel is to be pressed by breaking the seal and subsequently the concerned signal button pertaining to the route is to be pressed. A white light will flash (Up or Down) indicating that the timer is working. After 120 seconds, the white light along with the white strip of	

	light will disappear suggesting the route has been released. In case the route illumination (a white strip of lights) does not disappear, it suggests that the route is not released/cancelled. In such case the emergency cancellation of route has to be resorted to. The concerned S&T staff should be advised immediately to get the emergency route release button resealed after rectification of fault if any. Each operation of emergency cancellation of route is recorded in the emergency route release counter by registering the next higher number. All such operations and the new number should be recorded in the station diary and in the train signal register.
4.1.6	<u>Track Circuit :</u>
	Track circuits are provided between Home and Adv. Starter on both UP & DN lines including berthing track circuits on all running lines except berthing portion of Line No. 2 (Engine Line) as follows: 151/155T, 150/151/156T, 4/27 AT, 147/149 T, 148T, 152T, 153/154T, 157T, 158/159T, 145/146T, L1T, L3T, L4T, L7T, L8T, L9T, L10T, L11T1, L6T1, L6T2, L5T1, L5T2, L11T2, L11T3, 123T, 125/126T, 119/120T, 120A/121AT, 115AT, 132T, 133/134T, 131AT, 121BT, 127T, 135T, 111BT, 23AT, 106AT, 104/105/107T, 105AT, 101BT, 102/106T, 110A/111AT, 113AT, 103AT, 110BT, 113BT, 101AT, 103BT, 52AT, 60AT, 60T1, 60T2, 1T2, 1T1, 1AT, 5AT3, 5AT2 & 5AT1.
4.1.8	<u>Axle Counters :</u>
	<p>HASSDAC (51 AXT) is provided for Unidirectional line between VSKP and H-goomty of E-Cabin/WMY for last vehicle verification. The position of the section whether cleared or occupied is reflected in the axle counter reset box provided at VSKP Station Master's office and H-goomty, which shows 'GREEN' when the Section is clear and 'RED' when occupied. Whenever a train enters in to the Section, "'GREEN' indication disappears and 'RED' indication appears. After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as failure for the particular section and necessary action as per GR.14.13 is to be followed. The axle counters are interlocked with the respective Shunt Signals for that section. If axle counter fails, Shunt Signals will also be failed. Shunt Signal cannot be taken off for next train.</p> <p>A resetting arrangement is provided in the SM office of VSKP & H-goomty to reset the system to normal position in case of failure of Axle counter. The resetting to be initiated by the SM at the receiving station only after physical verification of complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the section. Details of resetting procedure is given in Para 31 of Appendix-'B'.</p> <p>Note: Before taking off reception signal for trains/Locos from Coaching complex/E-Cabin WMY direction the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication.</p>
4.2	<u>CUSTODY OF RELAY ROOM KEY/RELAY HUBS/GOOMTIES/GATE GOOMTIES/CABIN HOUSING ETC. AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN STATION MASTER AND S&T</u>

	<u>MAINTENANCE STAFF:</u>		
	Custody of Relay room key/relay hubs/goomties/Gate goomties/cabin housing 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 and JPO issued by AM/Traffic & AM/Signal vide No. 2021/Sig/21/Safety Performance dated 10.06.2023. Relay room/ relay hubs/goomties/Gate goomties/cabin housing are 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/ relay hubs/goomties/Gate goomties/cabin housing 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 and in case of relay hubs/goomties/Gate goomties/cabin housing in the register meant for this purpose.		
4.3	<u>POWER SUPPLY:</u>		
	Integrated Power Supply system (IPS) has been provided at this station. All outdoor and Indoor signaling gears are fed through the IPS. The IPS is fed from the following sources of power supply.		
	i)	Normal	3 phase 50Hz power supply from APEPDCL
	ii)	Stand by -I	UP AT
	iii)	Stand by - II	DN AT
	iv)	Stand by - III phase 400V -	01 No. of Diesel Generator power supply - 3Phase 50Hz 30 KVA.
	A manual change over selection switch of UP AT and DN AT has been provided in the Panel Room. In the event of failure of main power supply, SM on duty shall select the power supply source as UP AT or DN AT as per availability of AT supply and turn the changeover to required position. In the case of normal power supply and both AT supplies fails the SM on duty shall arrange to start the Diesel Generator (DG) provided in the Generator room adjacent to the RRI building. A change over switch is provided in the DG room. Before starting of the Generator, SM on duty shall ensure that the change over switch is kept in the neutral (middle) position. After starting the DG in no load condition and when the DG runs in full speed. SM on duty shall rotate the change over switch to the desired position. The DG can be started both manually or electrically through self starting mechanism with the help of keys provided for this purpose.		
	SM on duty shall maintain procurement, accountal and consumption details of diesel oil in the Diesel Generator log book provided for the purpose. In the event of failure of main power supply as well as all stand by sources the signaling system shall work with the help of Battery back up through IPS. One SM monitoring panel for IPS has been provided in the panel room for continuous monitoring of the healthy condition of the IPS by on duty SM. The details of power supply is given in Appendix-'B' of this SWR.		

	<u>REMOTE MONITORING ASM BOX:</u>	
	<p>(a) Remote monitoring ASM Box gives alarm to the ASM for the following fault conditions:-</p> <p>(b) 50% depth of discharge (DOD) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.</p> <p>(c) 60% DOD, which warns for emergency. The alarm for this condition is same as for condition.</p> <p>(d) 70% DOD, which signals system, shut-down. In this condition signal feed is cut-off and all DC-DC converters continue working. Audio alarm continues till power supply is restored.</p> <p>(e) Any of the module fails, which calls for 'call S&T'.</p> <p>(f) Whenever there is a failure of power supply in one AT the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of power supply on both ATs and make an entry in the Station Diary duly initiating action for rectification of failure, if any.</p>	
5.0	<u>TELECOMMUNICATION:</u>	
	i)	Electronic communication instrument (Magneto Phone) is provided between VSKP RRI GPT RRI, E-Cabin & H-goomty of WMY.
	ii)	RRI VSKP and Center SS/SM's office is connected to DVD-VSKP-KTV section control.
	iii)	The RRI VSKP is connected to DVD-VSKP -PSA traction power control circuit.
	iv)	Telephone communications are provided between Center SS and VSKP RRI.
	v)	Telephone communications are provided between RRI cabin and 'E' cabin of WMY.
	vi)	RRI cabin is equipped with public Announcement (PA) system for controlling yard and bahar line movement.
	vii)	Auto Telephone (of Main auto exchange) are provided at RRI cabin and Center SS's office.
	viii)	Intercom Telephone are provided at RRI cabin and Center SS's office.
	ix)	25W VHF set is provided at RRI cabin.
	x)	CUG phone is provided at Center SS's office and RRI.
5.1	<u>FAILURE OF COMMUNICATIONS - FAILURE OF AUTOMATIC BLOCK SIGNALS:</u>	
	In the event of failure of all or series of signals worked under Automatic Block signaling system the concerned official of signal department shall take immediate steps to inform all concerned, and the procedure detailed in there rules shall be adopted for train passing as per GR:9.12 & SRs thereto and BWM CH. VII.	
5.2	<u>FAILURE OF COMMUNICATION BETWEEN RRI CABIN (VSKP) AND 'E' CABIN (WMY)</u>	

		In the event of failure of Magneto phone line clear will be obtained on auto phone/BSNL Phone/ VHF set by exchanging private number.
6.0		SYSTEM OF TRAIN WORKING: Movement of trains is regulated by the Section Controller on duty whose orders must be carried out provided they do not contravene any G&SR, BWM, OM, SWR or any other safe working principles. In the event of suspension of control working, the SS/SM on duty shall work independently in consultation with the Station Master of the adjacent block station and shall be responsible for reception and dispatch of train. He shall ensure that preference is given to important trains and at the same time no undue detention occurs to other train vide OM 2.14 & 2.24(a).
6.1		DUTIES OF TRAIN WORKING STAFF:
6.1.1		TRAIN WORKING STAFF IN EACH SHIFT:
	1	SS In-Charge (General shift)
	2	SS -1 (Center) Continues Roster
	3	SS/SM-02 (RRI) Intensive Roster
	4	CYM-1 (NCC) (General shift)
	5	YM-01 (NCC) Continues Roster
	6	STJM-2 (NCC-1, South Engine-1) Continues Roster
	7.	TPM- 1(RRI)+1 (Caution order)+ 3 (South engine)+ 2 (Steam Shed)+ 4 (NCC)=10 {Continues Roster}
		NOTE: The above staff shall work as per roster issued from time to time by Divisional Railway Manager (P) and these rosters shall be conspicuously displayed in the Station Superintendent's office (details duties are given in APPENDIX-'D').
6.1.2		RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF THE LINE AND THE ZONES OF RESPONSIBILITY:
	i)	The SS/SM on duty is responsible to nominate a clear line free of any obstructions from the Home signal to the shunt signal on the nominated line at South end yard for admission of trains vide 3.40(1)(a) and 3.40(2)(a).
	ii)	The clearance of the running line for the reception of the train is to be verified by the SS/SM on duty by verifying luminous indication provided on the panel board.
	iii)	Sufficient Private Number books and identification number sheets in sealed covers shall always be kept in stock by SS on duty under lock and Key by maintaining register for this purpose.
6.1.3		ASSURANCE OF STAFF IN THE ASSURENCE REGISTER:
		All staff before taking up independent charge of their duties at this station shall, make a written declaration in the Assurance Register that they have read the SWR thoroughly and understood the system of working in force at the station and must sign such declaration.
		No Railway servant shall be entrusted with any duty involving the safety

	<p>of the public unless the SM (In-Charge) is satisfied that the concerned staff is competent for the post. No Railway servant unless duly examined and certified shall be allowed to work the points and signals. The SM (In-Charge) is responsible to see that all the staff are well conversant with the Station Working Rules of the Station and their signature obtained in the Assurance Register after he is satisfied that they have thoroughly understood the working Rules of the Station. In case of Class-IV staff, their signature/thumb impression must be obtained after explaining full about their duties and responsibility.</p> <p>The SM (In-Charge) is personally responsible for maintaining the Assurance Register and for obtaining declaration from the staff working under him. The Assurance Register must be maintained in two parts one for Group-‘C’ staff and other for Group-‘D’ staff & duplicate copy of the Assurance Register must be maintained and kept in the personal custody by the SM (In-Charge).</p> <p>Fresh assurance shall be obtained in the Assurance Register when:</p> <ol style="list-style-type: none"> 1. He joins at the station as a new member. 2. There is any change in the Station Working Rules. 3. He resumes duty at the station after an absence of 15 consecutive days or more.
6.2	<u>CONDITIONS FOR GRANTING LINE CLEAR:</u>
	Under Automatic Block system for section VSKP-GPT, Trains shall work in accordance with BWM 7.05(1), GR 9.01(1) (a) (b)(c), i, ii, 9.01(2), 9.02 (1) (2)(3)(4)(5), 9.10(1)(2), 9.12 9.14 and Block Working Manual Chapter No VII.
6.2.1	<u>SPECIAL CONDITIONS TO BE OBSERVED WHILE RECEIVING OR DESPATCHING A TRAIN : NIL</u>
6.2.1.1	<u>SETTING POINTS AGAINST BLOCKED LINE:</u>
	VSKP RRI is a terminal yard. In this yard continues shunting operations are taking place like attachment and detachment of Locos from incoming/outgoing trains, placement & drawn out of Empty coaching rakes, etc.. So, to avoid detention of trains, the sectional route release is provided. The setting of route against the blocked line is dispensed with.
6.2.1.2	<u>RECEPTION OF TRAINS ON BLOCKED LINE:</u>
	Trains are to be admitted on a blocked line, by taking off calling-on signal as per GR 5.09(2)(a) or if calling on signal cannot be taken off, trains are to be piloted in on a written authority on Form T/509 given by SM on duty and delivered by a competent railway servant to the Loco pilot of the train as per GR 5.09 (2)(c)(3)(4)(5) and SR 5.09.01.
6.2.1.3	<u>RECEPTION OF TRAINS ON NON-SIGNALLED LINE -</u>
	<p>Before receiving a train on non-signaled line, the SM shall ensure that -</p> <ol style="list-style-type: none"> a) The train is brought to a stand at the first stop signal. b) The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a

	stand. c) All points over which the train has to pass are correctly set, the facing and trailing points are clamped and padlocked and d) The Loco pilot is authorized to pass the approach stop signals at 'ON' through a written authority. [Refer GR 5.10].
6.2.1.4	<u>DESPATCH OF TRAINS FROM NON SIGNALLED LINE :</u>
	Whenever a train is to be dispatched from a non-signaled line, a Starting Order on form T-511 shall be given to the Driver to start from the non-signaled line. [Refer SR.5.11.1]
6.2.1.5	<u>DESPATCH OF TRAINS FROM LINE PROVIDED WITH COMMON STARTER:</u> -Nil-
6.2.1.6	<u>ANY OTHER SPECIAL CONDITIONS SHOULD BE MENTIONED GIVING REFERENCE TO THE G & SR.</u>
	<u>(A) SPECIAL RESTRICTIONS:</u>
	<ul style="list-style-type: none"> i) Shunting in the face of an approaching train is governed vide BWM 7.07 and GR: 8.09 and SRs thereto. ii) Hand shunting is governed vide GR:5.20. iii) Fly shunting is prohibited vide SR:5.21.01(c). iv) Shunting shall not be permitted at south end of the yard unless the Engine is leading towards falling gradient. v) VSKP being a terminal yard, loco pilots of incoming trains must control their trains suitably to stop short of the Red Stop signals at the terminal end.
	<u>(B) SPECIAL INSTRUCTIONS:</u>
	<ul style="list-style-type: none"> i) The movement between VSKP RRI and 'E' Cabin of MYD are considered as inter yard movements and such movements are authorized by taking off shunt signals, ii) Provision of inter slotting with axle counters and track circuiting arrangements are available between VSKP RRI and E-cabin for unidirectional and Bi-directional lines respectively. In case failure of axle counter or track circuit SS/SM on duty at VSKP RRI and E-cabin are personally responsible to verify the intact arrival of the trains in terms of G&SR 4.17. iii) All lines except Line No. 2 (Engine line) berthing portion are track circuited. In case of failure of track circuit the clearance of concerned line should be ensured physically before a train is piloted 'IN' over that line. iv) The zone between starter and Advanced starter are track circuited. In case of failure of track circuit, trains should be piloted 'OUT' after physical verification.
6.3	<u>CONDITION FOR TAKING OFF APPROACH SIGNALS:</u> The SM on duty shall nominate a clear line not only up to the starter but also for an adequate distance beyond it for reception of trains. [Refer GR

	3.36, 3.38, 3.40, 4.17 and SR 3.36. 01, 3.36.02, 3.36.04, 3.40.01, 3.40.02, 3.47.01, 4.17.02, and Block Working Manual]		
6.3.1	<u>RESPONSIBILITY OF SS/SM FOR RESTORATION OF SIGNALS TO ‘ON’:</u>		
	If a signal once taken ‘OFF” for reception/dispatch of a train, and in emergency it required to put back to ‘ON’ in case of reception signal, the route over which the train would pass shall not be altered until the train has come to stand unless the route has to be altered to avert an accident. In case of departure signal, before changing the points or allowing any other movements the “Authority to Proceed” if any, handed over to the LP must be withdrawn and the Driver of the train concerned shall be advised of the change in writing and his acknowledgement will be obtained in a memo. [Refer SR 3.36.02 (a) & (b)].		
6.4	<u>SIMULTANEOUS RECEPTION/DESPATCH, CROSSING & PRECEDENCE OF TRAINS.</u>		
6.4.1	The interlocking at the station permits the following simultaneous reception and dispatch of trains.		
	Reception of an UP train on line No.1 or 3 or 4 from GPT when point No. 131, 113, 121, 110, 101 are in normal.	And	Reception of another Train/Engine from ‘E’ cabin of MYD to Line no:5 or 6 or 7 or 8 or 9 or 10 or 11. OR Dispatch of trains from line no.5 or 7 or 8 or 9 or 10 or 11 to GPT or ‘E’ cabin of MYD.

6.4.1.1 RECEPTION OF UP TRAINS AND SIMULTANEOUS SHUNTING IN THE YARD:

Sl. No:	Reception of Up trains	Simultaneous Shunting Permitted	
		Shunt signal No.	Shunting Permitted up to
1	Reception of an Up train on Line no:1	SH 2	SH4, Line no: 5 to 11
		SH 4	L2
		SH 6	L6 to L11
		SH 18	SH 50
		SH 20, SH 22, SH23,	SH48 SH50
		SH-27,33,35,37, 39,41, 43,45,47,53, 55,34,36, 38,42,44,48,54	Free
		SH 50	MYD, S/Neck & S60
		SH5	Loco yard
		SH9, 11, 13, 15	Line no: 5 to 11
2	Reception of an Up train on Line no:3.	SH2,5,32,34,36,38,42,44, 8,54,21,23,27,29,31,33,3 7,39,41,43,45,47	Free
		53, 55	Goods/Parcel Van sdg.
		SH4	Line no: 1 & 2
		SH8,10,12	Loco in Bahar line
		SH18, 20	SH50
		SH5	Loco Yard

3	Reception of an Up train on Line no:4	SH9,11,3,15	Line no: 5 to 11
		SH50	MYD, S/Neck & S60
		SH2,6,34,36,38,42,44,48,54,21,23,27,29,31,33,35,39,41,43,45,47	Free
		53, 55	Loco in Bahar Line
		SH8, 10	In & Out Bahar Line
		SH12	Out Bahar Line
		SH14	SH50
		SH20	Loco Yard
		SH5	Line No:5 to 11
		SH9,11,13,15	MYD, S/Neck & S60
		SH50, SH-19	Saloon sdg., Line no:1,2 & 3
4	Reception of an Up train on Line no:5	SH2	SH4 & Line No:6 to 11
		SH4	Goods/Parcel Van Sdg.,
		SH6,22,34,36,38,42,44,48,54,19,21.	Line no:1,2 & 3
		23,27,29,31,33,35,37,41,43,45,47, 53,55	Free
		SH8,10,12	Loco in Bahar Line
		SH14, 18	Loco Out Bahar Line
		SH5	Loco yard
		SH9, 11, 13, 15	Line no: 6 to 11
		SH50	MYD, S/Neck & S60
5	Reception of an Up train on Line no:6	SH2	SH4 & Line no: 6 to 11
		SH4	Goods/Parcel Van sdg.
		SH6	Line no: 1,2,3 & 4
		SH8,10,12	Line No: 7 to 11
		SH14,18	Loco in Bahar Line
		SH5	Loco out Bahar Line
		SH54,3,19,21,27,29,31,33,35,37,3	Loco yard
		9,43,45,47,53,55	Free
		SH50	
6	Reception of an Up train on Line no:7	SH2	SH4 & Line No 7 to 11
		SH4	Goods/Parcel Van sdg.
		SH6	Line no:1,2,3 & 4
		SH8,10,12	Line no: 6, 8 to 11
		SH14, 18	Loco in Bahar line
		SH54,3,19,21,27,29,31,35,37,3	Loco Out Bahar line
		9,41,45,47,53,55	Free
		SH5	Loco yard
7	Reception of an Up train on Line no:8	SH2	SH4 & Line No.6,7&9 to 11
		SH4	Goods/Parcel Van sdg.,
		SH6	Line no: 1,2,3 & 4
		SH8,10,12	Line no:6,7,9 to 11

8	Reception of an Up train on Line no:9	SH14, 18	Loco in Bahar Line
		SH54,3,19,21,27,29,31,33,35,37,3,9,41,43,47,53,55	Loco Out Bahar Line Free
		SH5	Loco Yard
		SH2	SH4 & Line No.6,7,8,10 & 11
		SH4	Goods/Parcel Van sdg.,
		SH6	Line no: 1,2,3 & 4
		SH8,10,12	Line no:6,7,8, 10 & 11
9	Reception of an Up train on Line no:10	SH14, 18	Loco in Bahar Line
		SH54,3,19,21,27,29,31,33,35,37,3,9,41,43,47,53,55	Loco Out Bahar Line Free
		SH5	Loco Yard
		SH2	SH4 & Line No.6,7,8,9&11
		SH4	Goods/Parcel Van sdg.,
		SH6	Line no: 1,2,3 & 4
		SH8,10,12	Line no:6,7,8 9 & 11
		SH14, 18	Loco in Bahar Line
		SH54,3,19,21,27,29,31,33,35,37,3,9,41,43,47,55	Loco Out Bahar Line Free
		SH5	Loco Yard

10	Reception of an Up train on Line no:11	SH2	SH4 & Line No.6 to 10
		SH4	Goods/Parcel Van sdg.,
		SH6	Line no: 1,2,3 & 4
		SH8,10,12	Line no:6 to 10
		SH14, 18	Loco in Bahar Line
		SH54,3,19,21,27,29,31,33,35,37,3,9,41,43,47,53	Loco Out Bahar Line Free
		SH5	Loco Yard

6.4.2	<u>CROSSING OF TRAINS:</u>
	VSKP being a terminal station, crossing of trains does not arise at this station.
6.4.3	<u>PRECEDENCE OF TRAINS</u>
	VSKP being a terminal station, precedence of trains does not arise at this station. But however preference of departure of trains is controlled by SCR and CHC coaching.
6.4.4	<u>RECEPTION OF TRAINS:</u>
a)	Reception of trains is governed by the rules laid down in GR 3.36, 3.38, 3.40, 4.17 and SR 3.36.01, 3.36.02, 3.36.04, 3.40.01, 3.40.02, 3.47.01, 4.17.02, and Block Working Manual and other relevant provisions of G & SR, BWM, OM and SWR shall be followed.
b)	The movement between 'E' cabin of MYD and VSKP RRI are considered as inter yard movements and such movements are taking off concerned shunt signals by SS/ SM on duty at 'E' cabin and VSKP RRI. There is a provision for inter cabin slotting between VSKP-RRI and 'E' cabin for the above movements which shall be supported by Private Numbers. Both the SS/ SM on duty at VSKP RRI and 'E' cabin are personally responsible to ensure the complete arrival of the train with its last vehicle in terms of SR 4.17 before allowing each successive movement in either direction and this fact shall be supported by exchanging private numbers.
6.4.5	<u>PUTTING BACK OF SIGNALS:</u>
	UP home and DN starters, UP & DN calling on, Shunt Signals and DN advance starter signals will go back to 'ON' after occupation of track circuit.
	<u>CONDITIONS FOR TAKING OFF APPROACH SIGNALS:</u>
	The condition for taking off approach signals shall be governed by GR 3.4(1).
6.4.6	<u>ADEQUATE DISTANCES:</u>
	To take off the Home signal for admission of a train keeping the adequate distance (Signal over lap) clear of any obstruction does not apply at this station as this is a terminal station vide GR.3.40(1). The SS/SM on duty as VSKP RRI shall ensure that the nominated line is free and clear of any obstruction from Home signal to the UP shunt signals at the South end of the Yard in the direction of the train before taking off the Home signal.

Sl. No:	Description of Home signal	Distance to be kept clear
1	UP home signal for Line no:1	Between signal No:1 and UP shunt signal No:31 of South end of the yard.
2	UP home signal for Line no:3	Between signal No:1 and UP shunt signal No:35 of South end of the yard.
3	UP home signal for Line no:4	Between signal No:1 and UP shunt signal No:37 of South end of the yard.
4	UP home signal for Line no.5	Between signal No:1 and UP shunt signal No:39 of South end of the yard.
5	UP home signal for Line no:6	Between signal No:1 and UP shunt signal No:41 of South end of the yard.
6	UP home signal for Line no:7	Between signal No:1 and UP shunt signal No:43 of South end of the yard.
7	UP home signal for Line no. 8	Between signal No:1 and UP shunt signal No:45 of South end of the yard.
8	UP home signal for Line no. 9	Between signal No:1 and UP shunt signal No:47 of South end of the yard.
9	UP home signal for Line no. 10	Between signal No:1 and UP shunt signal No:53 of South end of the yard.
10	UP home signal for Line no. 11	Between signal No:1 and UP shunt signal No:55 of South end of the yard.

6.5	<u>COMPLETE ARRIVAL OF TRAINS:</u>
	<p>Since, the Section between GPT-VSKP, VSKP-GPT and VSKP-E Cabin (Bi directional line) consists of series of continuous track circuits provided which are depicted in RRI sub panel board. Complete arrival of the train is ascertained through indication on panel board. However, whenever track circuit failed due to failure, rail fracture or the other reasons the SS on duty shall send one of his station staff with prescribed complete arrival register on form No: T/1410 to the Train Manager and ensure complete arrival vide GR.4.17 & SRs thereto.</p> <p>The responsibility of verifying complete arrival is devolved on the on duty SS in the RRI cabin by physically checking the 'Clear' indication of track circuits. In case the track circuit continues to show 'Occupation' in red even after arrival of the train, the station master on duty shall advise his staff for last vehicle verification and he need not to withhold closing of block section in rear. SM in rear shall obtain confirmation under exchange of private number about the complete arrival of the train with its last vehicle from the station in advance and subsequent trains may be dispatched with caution order. [Refer SR 4.17.02 and 4.17.03].</p> <p>On duty SS in RRI cabin shall satisfy himself that the train arrived is complete, either by physically checking the LV indication or obtaining the complete arrival report from the TMR of the train in complete arrival register on form No:T-1410. SM on duty shall also inform to the S&T & Engg. officials by serving a memo for attending the failure of track circuit.</p>

	<u>DESPATCH OF TRAINS:</u>
a)	Dispatch of trains under Automatic Block system between VSKP-GPT & GPT-VSKP section shall be governed in accordance with the provisions contained in G&SR Para Nos. 9.01(1)(a)(b)(c), i, ii, 9.01(2), 9.02(1)(2)(3)(4)(5) and SRs there to 9.09, 9.10(1)(2) and SRs there to 9.12 and SRs there to 9.14 and SRs there to and 9.15 and Block Working Manual Chapter No.VII.
b)	<p><u>Dispatch of trains to 'E' cabin/WMY either into DYD or coaching complex:</u></p> <p>When a train/Engine is ready for WMY/Coaching complex, the SS/SM on duty of VSKP RRI shall obtain permission from SS/SM of 'E' cabin supported by a private number.</p> <p>The SS/SM on duty at 'E' cabin if he is in a position to receive the said train/Engine, permission will be given by releasing the concerned slot supported by private number.</p> <p>On getting slot indication on panel and the private number in support of it from the SS/ SM of VSKP RRI shall stop all non isolated shunting at his end and withdraw and keep shunting authority issued if any, in his possession.</p> <p>After ensuring the clearance of the line he shall set the route and clears the departure shunt signals for the passage of outgoing train/Engine. As soon as the train passes past the shunt signal No.48 or 50 with its last vehicle intact SS/ SM of VSKP RRI shall inform to SS/SM of 'E' cabin of the same. HASSDAC is provided for unidirectional line and track circuit for bidirectional line. The position of the section whether cleared or occupied is reflected in the axle counter reset box and track indicator in the VSKP Station Master's office and H-goomty which shows 'GREEN' when the Section is clear and 'RED' when occupied. If the axle counters or track circuit fails, the SS/ SM of 'E' cabin and SS/SM of VSKP RRI cabin are personally responsible to ensure complete arrival of the train at their end vide SR 4.17.01(a) before allowing such movements for another train/engine in either direction. The SS/ SM at the receiving cabin shall give a private number in support of complete arrival of train/Engine to SS/SM at the dispatch end.</p> <p>The SM/VSKP shall set the route, take off shunt signals of the concerned line. The loco pilot shall start the train observing the aspect of Shunt signal. The loco pilot shall pass up to SH 48 (if it has started from L/6 to L/11) or up to SH 50 (it has started from L/1 to L/5) and observe the aspect of these signals and shall proceed towards H goomty Shunt signal no. 1. After observing the aspect of Shunt signal no 1, he shall obey the instructions of the yard staff and proceed towards Coaching Complex. While receiving trains from the coaching complex towards VSKP yard, the shunting authority shall be dispensed with in the same manner. The loco pilot shall obey the shunt signals after starting from coaching complex as per the Yard Master's instructions.</p>

	ii)	<u>TRAINS RUNNING THROUGH :- NOT APPLICABLE.</u>
	iii)	<u>ISSUE OF CAUTION ORDERS:</u> VSKP is a DCO nominated station. Every outgoing trains going towards GPT must be run by issuing caution order of respective sections. But, whenever in consequence of line being under repairs or for any other reasons special precautions are necessary, a caution order detailing the kilometre and speed at which train should run with reasons for taking such precautions shall be handed over to the TMR and Loco pilot in terms of GR 4.09 and SRs thereto.
6.6		<u>WORKING IN CASE OF FAILURES:-</u>
		<u>Defective signals : Suspension / Failure of signals:</u>
	a)	When signal becomes defective the procedure laid down GR 3.68 to 3.71 and SRs there to shall be followed
	b)	<u>DEFECTIVE APPROACH STOP SIGNAL:</u>
		In event of suspension/failure of a Home signal, the 'Calling on signal'. [Provided below the stop signal] may be taken off for reception of a train and if the 'Calling on' signal also become defective, the trains shall be worked in accordance with GR 3.69 and SR there to. If the defective stop signal cannot be kept in 'ON' position the rules laid down in SR 3.68.02 shall be observed.
	c)	<u>DEFECTIVE DEPARTURE STOP SIGNAL:</u>
		i) In the event of Automatic signal becoming defective the train shall be worked in accordance with GR 9.12 and SR 9.12.02 and BWM chapter VI. ii) In the event of semi Automatic stop signal becoming defective train shall be worked in accordance with GR 9.14(1)(2)(3) and SR 9.14.01 (a)(b) and SR 9.14.02 and BWM chapter VI.
	d)	<u>WORKING OF TRAINS IN CASE OF FAILURE/SUSPENSION OF POINTS:</u>
		In case of failures of points controlled by RRI cabin the procedure laid down in rule No.2.19 of OM should be followed for setting of points by crank handle. After every non signal move over motor operated point/points in facing or trailing directions the SS on duty check correct setting of points in both directions [In normal and reverse]. After ensuring proper setting, further movement may be permitted over the points. [For detailed instructions refer to Appendix 'B'].
	e)	<u>DURING FAILURE/SUSPENSION OF INTERLOCKING GEARS:</u>
		During failures/suspension of interlocking gears all points concerned [both facing and trailing] must be clamped and pad locked for reception and dispatch of trains. The on duty SS/ SM is responsible for ensuring correct setting and locking of points before permitting any movement over them.

	i)	<u>FAILURE OF TRACK CIRCUITS:</u>
		<p>In the event of failure of track circuit of any route in yard, the clearance of the route must be physically checked before permitting any movement over that route either for reception or dispatch of any train or shunting operation. Pilot memo shall not be issued either for reception or dispatch of a train until and unless the route over which the train to pass has been physically checked and found clear of obstructions.</p> <p>Since, the Section between GPT-VSKP, VSKP-GPT and VSKP- E/Cabin (Bi-directional line) consists of series of continuous track circuits provided which are depicted in RRI sub panel board. Complete arrival of the train is ascertained through indication on panel board. However, whenever track circuit failed due to failure, rail fracture or the other reasons the SS on duty shall send one of his station staff with prescribed complete arrival register on form No: T/1410 to the Train Manager and ensure complete arrival vide GR.4.17 & SRs thereto.</p>
6.7	i)	<u>PILOTING OF TRAINS INTO THE STATION YARD:</u>
	a)	Whenever main home signal has become defective 'Calling on' signal shall be taken off to draw the train up to the next stop signal.
	b)	In case of failure of 'Calling on' signals, the train shall be piloted 'IN' in terms of SR 3.69.03.
		<p>N.B: The station master on duty who is deputed for the purpose shall personally supervise the correct setting clamping and padlocking the facing and trailing points and clearance of the nominated route for admission of passenger train or admission of goods train when a passenger train is standing on adjacent line. The keys of pad locks of the clamps put on the points on the route for piloting 'IN' or piloting 'OUT' shall be in the personal custody of the SM on duty who ensured correct setting or any authorized official till such time the train/Engine/vehicle has utilized the route or alternatively such a movement is canceled. In case of failure of motor operated points the point shall be crank handled clamped and pad locked both in facing end and trailing ends. The rules laid down in SR 3.77.02 and OM 2.19 shall be followed.</p>
	(ii)	<u>PILOTING OF TRAINS OUT OF STATION YARD:</u>
		<p>When the starter signal or inter starter signal has become defective SS/SM at RRI Cabin shall report to take off calling on signal where provided otherwise depute one of his station master to ensure setting clamping and pad locking of route and hand over T/369(3b).</p> <p>NOTE: The SM on duty who is deputed for the purpose shall personally supervise the correct setting, clamping and padlocking of the facing point, trailing points and ensure clearance of any obstruction including level crossing gate/gates if any on the concerned route for dispatch of all trains vide SR 3.69.03(c).</p> <p>When the Advanced starter signal has become defective SM shall follow the procedure laid down in SR 9.14.01(b).</p>

6.8	<u>PROVISION FOR WORKING OF MOTOR TROLLIES, MATERIAL TROLLIES, TOWER WAGONS:</u>	
	<p>Motor trolleys shall be worked as per GR 15.25.08 and BWM 7.11. Material Lorries shall be worked in accordance with GR.15.27 and SRs there to.</p> <p>i) Trolleys, Motor Trolleys, Lorries which are not insulated shall not be allowed to run except on Line clear.</p> <p>ii) Motor Trolleys/Tower Wagon/material Lorries are not likely to actuate the Axle Counter correctly.</p> <p>In all other respects the Working of a light motor trolley shall confirm to the rules laid down in G&SR 15.25.09 for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley.</p>	
7.0	<u>BLOCK OF THE LINES:</u>	
	a)	A clear remark in RED ink shall be made immediately in the train signal register indicating time and number of running line blocked. A record thereof shall be made in the station dairy.
	b)	Loose vehicles stabled in the sidings and on running lines must be secured in accordance with GR. 5.23 and SR thereto. It is the responsibility of the in-charge of the shunting operations to ensure that the loose vehicles in the sidings and running lines are secured in the above manner after completion of the shunting operations. In other cases the SS/SM concerned is responsible to ensure the securing of the loose vehicles on the running lines as per GR 5.23 and subsidiary rules thereto.
	c)	When a running line is obstructed UP and DN facing points shall be set and precautions taken by the SS/SM on duty in accordance with SR 3.51.06.
	d)	When a running line is obstructed for any reason, magnetic Red button collars should be placed on relevant route button for the obstructed line on the operating panel and the obstructed line shall be protected by the SS/SM in accordance with SR 3.51.06 and 5.04.01.
8.0	<u>SHUNTING</u>	
8.1	(i) When line clear has been given, no shunting shall be permitted in the block section rear vide GR. 8.05(2).	
	(ii) Shunting or obstruction for any other purpose shall not be permitted in block section in rear unless it is clear and is blocked back.	
	(iii) Shunting or obstruction for any other purpose shall not be permitted in block section in advance unless it is clear and is block forward vide GR 8.06.(3).	
	(iv) Refer block working manual 3.21, 7.07, 7.08 and 7.10 for shunting towards automatic block section.	
	d) <u>SHUNTING WITHIN STATION SECTION</u> : If necessary signals are kept at "ON", shunting may be carried on within the station section but this shall be done only when there is no approaching train since shunting in the	

	face of an approaching train is prohibited at this station.	
	e) <u>AUTHORITY FOR SHUNTING OPERATIONS:</u> Shunt Signals are provided for shunting purpose. If Shunt signals fails or shunting have to perform at location where shunt signals not provided SM on duty shall issue written shunting authority on form T/806 to the Loco Pilot through Train Manager of the train. In T/806, it is required to mention clearly 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 meticulously followed. This Memo shall be withdrawn whenever shunting is to be suspended for reception and Dispatch of train if the line on which shunting is performed is not isolated. After Shunting is completed the order shall be collected from the loco pilot cancelled and Pasted with the record foil as per SR 5.13.02.	
8.2	<u>PROHIBITION OF SHUNTING ANY SPECIAL FEATURES:</u>	
	a)	Hand shunting/Fly shunting is prohibited at both ends of the yard.
	b)	Shunting is not permitted in the yard unless the Engine is leading to falling gradient.
8.4	<u>SHUNTING ON SINGLE LINE:</u>	
	Not applicable to this station.	
8.6	<u>SHUNTING IN THE SIDING TAKING OFF FROM THE STATION YARD:</u> While performing shunting in the sidings 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 meticulously followed.	
9.0	<u>ABNORMAL CONDITIONS :</u>	
	a)	<u>The rules to be observed in the event of Abnormal conditions:</u>
	i)	During failure of all or series of signals in the Automatic Block System likely to last for some time and cause serious delay while means of communications are available. Refer G&SR 9.12.01.
	ii)	During Failure of all signals likely to last for some time and cause serious delay when no means of communications are available. Refer G &SR 9.12.02.
	iii)	Working of trains under Automatic Block System during obstruction of one line when signals are operative and communications are available. Refer G&SR 9.12.03.
	iv)	Procedure for working trains under Automatic Block system during obstruction of one line when no means of communication are available. Refer G &SR 9.12.04

	v)	Working of trains under Automatic Block System during failure of the means of communication when signals are operative.	Refer G & SR 9.12.05
	vi)	Working of trains on the obstructed line in case of obstruction or accident in automatic block signaling section.	Refer G & SR 9.12.08.
	vii)	Failure of track circuit in Automatic block section.	The Section between GPT-VSKP and VSKP-GPT consists of series of continuous track circuits which are depicted in RRI sub panel board. Complete arrival of the train is ascertained through indication on panel board. Whenever track circuit failed due to failure, rail fracture or the other reasons the SS on duty shall send one of his station staff with prescribed complete arrival register on form No: T/1410 to the Train Manager and ensure complete arrival vide GR.4.17 & SRs thereto. A failure memo is also served to S&T official for attending the failure of Automatic block section.
	viii)	Procedure when semi-automatic stop signal is 'on'.	Refer GR 9.14 and SR there to
	ix)	Failure of MTRC	Nil
	b)	Procedure for Emergency operation of point with track circuit failure is mentioned in Para No. 27 of Appendix 'B'.	
	c)	Certification of clearance of track before "calling on signal" operation is initiated, Before taking off Calling-on Signal during failure of track circuit the route and the clearance of the track over which train would pass to be physically verified by SM.	
	d)	Reporting failure of points, signals, Track circuits/Axle counters and interlocking. In the event of failure of points, signals, Track circuits/Axle counters and Interlocking, SM on duty shall send failure memo to S&T maintainer together with reporting to SCR on duty. After rectification of the gear at fault the SM on duty shall obtain a memo from the S&T maintainer to that effect. Reconnection memo will be accepted only	

	after proper testing of affected gears.
10.0	<u>VISIBILITY TEST OBJECT:</u>
	A VTO post is provided at 180 Mtrs, from center line of RRI building to serve as visibility test object vide GR 3.61(2)(b)(iii).
11.0	<u>ESSENTIAL EQUIPMENT AT THE STATION:</u>
	Details are given in Appendix 'E', which shall be maintained in good working order vide O.M.20.04(11).
12.0	<u>FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG:</u> Placing of detonators during foggy weather is dispensed, since the station is equipped with Automatic signaling territory vide SR 3.61.01(a), note (i) and (ii) respectively.

13.0**APPENDICES:**

APPENDIX-A	:	WORKING OF LEVEL CROSSING GATES.
APPENDIX-B	:	SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
APPENDIX-C	:	ANTI COLLISION DEVICE (RAKSHA KAVACH)
APPENDIX-D	:	DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT
APPENDIX-E	:	LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION.
APPENDIX-F	:	RULES OF WORKING OF DK STATION, HALTS, IBH, IBS AND OUTLYING SIDINGS.
APPENDIX-G	:	RULES OF WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

APPENDIX-‘A’

**APPENDIX ‘A’ TO STATION WORKING RULES OF VISAKHAPATNAM
STATION LEVEL CROSSING GATES**

---NIL---

APPENDIX-'B' TO STATION WORKING RULES OF VISAKHAPATNAM STATION DETAILS OF SIGNALLING AND INTERLOCKING FOR WORKING THEM NORMALLY AND IN EMERGENCY ETC., INCLUDING THE POWER SUPPLY ARRANGEMENT.

1.0 The power signaling and interlocked installations is on per the signaling plan No. SI-23029, Alt-I together with control tables, route section plans and wiring diagrams. Based on the above signaling plan the Station Working Rules diagram attached to the Station Working Rule shows the following.

The complete layout of the Station including the non-interlocked lines and sidings within the station limits. In addition to signaling features the diagram indicates gradients, holding capacity of all individuals lines, the position and number of lines, overrun lines, special restrictions, track circuits, ground frames, cabins, goomties, aspect control of signals and inter yard telecommunication facilities.

a) In this installation where the points are power operated, the point remains in he last operated position. If the position of the points required to be changed, it shall be resorted individually by operating the concerned point button (WN) in conjunction with Point Group Button [WWN] to require position.

b) Charts given in the Appendix-B showing the operation of entrance and exit buttons for various routes governed by stop signals, calling on signals and shunt signals slots, the designation of various signals etc.,.

c) The Station is of Standard I(R) interlocking, equipped with Multi Aspect Colour Light signals and power operated points with track circuit control over points and berthing tracks etc., centrally controlled from Route Relay Cabin through Metal to Metal relay Type Route Relay installation based on the principles of entrance and exit to confirm to signaling and interlocking plan No: SI-23029, Alt-"I".

1.1 Route Relay Cabin is controlling the movements of trains from and to GPT RRI station and 'E' cabin of MYD.

2.0 DOMINO TYPE PANELS - OPERATING AND INDICATING FOR OPERATION OF THE POWER SIGNALLING:

Two panels viz. Operating (control) panel and indication panel are installed in the RRI cabin Visakhapatnam.

2.1 OPERATING (CONTROL) PANEL:-

The Operating (control) panel is small console, provided with various operating push buttons for signals, points, individual route section release, emergency operations and other miscellaneous buttons on a small layout to accord with the geographical position at site. All the controlling push buttons are provided with indicating and designation, number showing the corresponding number of the signal or route or points or any other field units as per the signaling and interlocking plan. The panel Station Master while operating the controlling buttons, switches, counters on the operating panel for controlling the traffic movement. or any other operation connected with power signaling installations in the yard should at the same time monitor the conditions of the traffic movements, condition of lines position of the Block Instruments and condition of all other units on the indication panels.

2.2 INDICATION PANELS:-

- A. **YARD** :The indication panel shows in a domino form interlocked portion of Visakhapatnam station yard with connection to the ancillary yards together with the geographical co-relation to the tracks, points, signals and various other controls as existing at site. This panel through various illuminating indications is provided for the field functions, indicates the condition of a particular field gear at a given time in a miniature form so that the entire traffic operation in the yard as well as the position of power signaling and interlocking installations may be constantly monitored by the panel Station Master Each track circulated line on the indication panel is represented by a separate and distinct colour on the face of the panel and is illuminated indicating the conditions of route setting, route release, track clearance and occupancy of the track etc., Non-track circuited lines are shown in black color for maintaining visual contact but they are not illuminated.
- B. **AUTO SECTION**: Section between VSKP-GPT and GPT-VSKP has been divided into a series of automatic signaling sections each of which is the portion of the running line between two consecutive stop signals and the entry into each section, which is governed by a stop signal. The entire auto block signaling territory position for each section will be displayed in separate VDU in the SM room to know whether the section is occupied or clear.

2.3 **POSITION OF CONTROLLING BUTTONS ON THE OPERATING PANEL:**

The field function controlling buttons of points, signals, routes, slots etc., are located close to the position where the field function are represented on the operation panel. The common buttons such as emergency cancellation button, common point buttons and various VEEDOR counters (meant for counting emergency operations) are all housed on the top of the panel in order to avoid the difficulty of the operator in reaching two buttons "for any operation", some common buttons are movement on the operation panel at convenience places.

2.4 **CRANK HANDLE RELEASE PUSH BUTTON:**

To release any Crank Handle, concerned Crank Handle control button & Crank Handle group release button [CHRR] to be pressed simultaneously then the steady White light near the Crank Handle button starts flashing till such time the control released accepted by the field agency. At site Red indication appears, when the key is extracted from key lever unit. When the key is inserted and turned into the key lock unit, the red light disappears and the white light starts flashing. After seeking the indication SM/Panel Operated with draw the control by operating the concerned CH button in conjunction with group Crank Handle Normal Button [CHNB].

2.5 **LAMP FAILURE MUTING PUSH BUTTON:**

Whenever any signal lamp is fused, a flashing indication appears on the panel in the concerned signal aspect with a buzzer. To stop the buzzer this button is to be operated.

INDICATIONS:

- a) The track circuits are indicated on the panel with "WHITE" for clear and "RED" for occupation.

- b) Point indicators are provided for 'Reverse' and "Normal" position of the points. A point failure indication is also provided with Flashing light.
- c) In case of failure of Motor operated points, the procedure detailed in rule No.2.19 of Operation Manual, should be followed for setting of the points by Crank Handle.

2.6 SIGNAL AND THEIR INDICATIONS:

- a) Multiple aspect colour light signals are provided at this RRI installation. The indications of various aspects of signals provided in this yard are as follows:-
 - i) Red:- Red indicates "Danger" aspect and signifies stop dead till the signal is taken off.
 - ii) Single Yellow: Single Yellow indicates "Caution" aspect and signifies proceed cautiously preparing to stop dead at the next stop signal.
 - iii) Double Yellow:-
Double Yellow indicates "Attention" aspect and signifies proceed prepared to pass the next signal at a restricted speed.
 - iv) Green:-
Green indicates "Clear" aspect and signifies "Proceed".
 - v) Multi Lamp Type Route Indicators (MLRI) :- It is the multi lamp type route indicator conjunction with Home Signal. When Home signal taken-off, a numeric value of line with LED lamps appears for which train is to be admit.

3.0 LIST OF COUNTERS WITH THEIR CODE AND FUNCTION.

Any emergency operations such as full route release, sub-route release, emergency point operation etc. are registered in respective counters which are fixed on the top of the panel adjacent to the concerned emergency operation button. The following counters are provided.

Sl. No:	Description	Code	Remarks
1	Emergency full-route release counter	EUUYZ	The three button cancellation of any route which is registered in the counter.
2	Emergency sub-route release counter	EUYZ	Individual sub-route release in case of failure is registered in this counter.
3	Emergency Point operation counter	EWZ	Emergency operation of points under track circuit failure operation is registered in this counter.
4	Calling on signal counter.	COGGZ	Whenever a calling on signal is cleared the operation is registered in this counter.

b) LIST OF OPERATING BUTTONS WITH THEIR CODE AND COLOUR:

The operating button are distinctly colored for east identification. The following is the list if the important button with their designations in codes and colours:

Sl.	Description	Code	Colour	Remarks
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No:				
1	Main signal button	S-1 GN	Red	No.1 indicate signal number
2	Shunt signal button	SH-3 GN	Yellow	3 indicates shunt signal number
3	Route button	34 UN	Grey	34 indicates route number
4	Points button without route section emergency release facility.	101 WN	Blue	No.101 indicates the point number
5	Points button with route section (emergency) release facility	103 WN	Blue with a white dot	No.103 indicates the point number
6	Emergency full route release	EUUYN	Grey	Duplicated for easy access.
7	Emergency route section release button (individual)	EUYN	Grey	Duplicated for easy access.
8	Common push button for points	WWN	Blue	Duplicated for easy access.
9	Point emergency push button	EWN	Blue	Duplicated for easy access.
10	Button for silencing buzzer for signals.	GXYN	White	
11	Button for silencing buzzer for point.	WXYZ	White	
12	Emergency group button for putting back signal to 'ON' position.	EGGN	Red	Duplicated for easy access.
13	Calling on signal group button.	COGGN	Grey	For taking off a calling on signal this button is pressed along with the concerned signal button.
14	Group slot cancellation button	GSRB	Green	
15	Crank Handle group button.	CH-4	Blue	CH-4 indicates crank handle No.4
16	Group crank handle release button	CHRB	Blue	Duplicated for easy reach. These buttons are pressed along with the individual crank handle group button for releasing the crank handle and subsequent normalization
17	Group crank handle normal button.	CHNB	Blue	

The sequences/of button operations to be made for different operations on the panel is as under:

Sl. No.	Operation	Button Used	Sequence of operation
1	To clear a calling on	GN & UN	First initiate the stop signal route by

	signal	EGGN, GN & COGGN, GN & UN	pressing GN & UN simultaneously, then press GN and EGGN to throw back the stop signal to "ON" [whether it is cleared or not] and then press GN & COGGN simultaneously, release COGGN keeping GN pressed and press UN.
2	To clear a main signal	GN & UN	Press both buttons simultaneously.
3	To clear a shunt signal	SH.GN & UN	Press both buttons simultaneously.
4	To throw cleared signal to danger whether a stop signal or a calling on signal or a shunt signal.	GN & EGGN	Press the concerned GN and EGGN simultaneously.
5	To cancel a route already set after replacing the cleared signal 'ON' [whether it is a stop signal or calling on signal or a shunt signal]	GN, EUUYN & UN	Press the GN & EUUYN simultaneously, release EUUYN keeping GN pressed and press UN. This is known as three button cancellation.
6	To release individual route section under emergency.	WN & EUYN	The key under the custody of SSE/Sig., SE/Sig/RRI to be inserted and turned to 'ON' position. Then WN and EUYN buttons are to be pressed simultaneously for emergency sub-route release.
7	Individual operation of points, tracks are clear.	WN & WWN	Press the points button concerned and common points button together.
8	Individual operation of points, when points tracks fails.	WN & EWN	Break open the seal of EWN key box, insert & turn the key and press both the buttons simultaneously. This operation by panel Station Master is registered in the EWN Counter.
9	To change the position of points after arrival of train.	WN WWN	Concerned Point Button [WN] and Group Point Button [WWN] to be pressed.

NOTE: When the signal is approach locked or dead approach locked on pressing GN & EUUYN, a flashing dot indication below the concerned signal configuration appears. Wait till it becomes steady and then press GN & EUUYN, release EUUYN keeping GN pressed and press UN.

4.0 **SPECIAL AND IMPORTANT NOTES:**

- a) It is essential that only two push buttons concerned are pressed positively with deliberation and the buttons should be kept pressed for three to eight seconds. [as necessary].

- b) In order to avoid failure of any operation, when the two buttons concerned are pressed it is essential that no other button is pressed.
- c) The locking on the points giving flank protection cannot be released by cancellation of the individual route section with in which these points are located but by release of the individual route section which had commanded such flank protection/isolation.

In the power signaling installations, generally the complete route of a stop signal comprises of the route between the concerned signal ahead and also the adequate distance [signal overlap]. The complete route of shunt signal or a calling on signal comprises of the route between the subject signal and signal ahead.

Normally each route section is designated after the most pre-eminent number of the points that fall within the immediate jurisdiction of the individual route section, so the numbers of the point button and individual route section are the same. Therefore the common point button coloured blue with a white dot on the top [along with the concerned group push button] should be operated either for individual operation of points in the route section or for the release of individual route section in case of failures etc., under special emergency provisions.

In some cases, however, where there are more than one set of points or crossover in a particular individual route section, the route section is designated generally after the number of the pre-eminent set of points or crossover in that part of the route section zone.

In all such cases the individual operation of the points and the release of the individual route section occur/with the operation of the common button [which is coloured blue with white dots]. The operation of all other individual points or crossovers in that route section zone is dependent on the individual operation of the concerned point button [which are coloured blue without any white dot] together with the group button provided such an operation is only possible when the controlling route section is not engaged. This is applicable in the following cases:-

Point button without white dot.

1	102	Section/Sections being free
2	104	Section/Sections being free
3	107A	Section/Sections being free
4	116	Section/Sections being free
5	119	Section/Sections being free
6	126	Section/Sections being free
7	134	Section/Sections being free
8	145	Section/Sections being free
9	147	Section/Sections being free
10	154	Section/Sections being free
11	155	Section/Sections being free
12	156	Section/Sections being free
13	159	Section/Sections being free

In addition to the provision of the buttons on the operating panel for initiating a route setting and taking off a signal certain other illuminated white or coloured light

indications and buttons as below are provided on the operation and indication panels to enable the panel Station Master to constantly watch the condition or state of various fields gears and to control the traffic movements in a direct and expeditious manner. The following Derailing switches have been provided to facilitate isolation.

North End of the Yard	a)	Point No. 133B of R/6.
	b)	Point No. 135B of R/9.
	c)	Point No. 134B of R/10.
	d)	Point No. 132B of R/11.
South End of the Yard	a)	Point No. 146B of R/3.
	b)	Point No. 152B of R/6.
	c)	Point No. 157B of R/9.
	d)	Point No. 153B of R/11.

5.0 **INDICATIONS:**

These indications exhibited on the operation panel to indicate the condition or state of controls at any given line of field gears, ground frames, goomtys, satellite cabin siding controls and shunting free indicator controls. These controls released by the Panel Station Master for controlling:-

- i) Rotary key Transmission unit for siding operations.
- ii) Crank handle Transmission control for emergency motor point crank handle control keys are clubbed into one group and the following are the indications exhibited on the operation.
 - a) A white steady light indication is in normal condition on the control Panel i.e., Crank Handle not released.
 - b) A steady Red light and a white flashing appears when the field work is completed and controls returned by the field agencies.
 - c) After the Panel Station Master withdraws his control or release by operating the appropriate buttons a white steady light appears again.

6.0 **POWER SUPPLY :-**

Integrated Power Supply System (IPS) has been provided at this station. All out door and Indoor signaling gears are fed through the IPS. The IPS is fed from the following sources of power supply.

- i) Normal 3 Phase 50Hz power supply from APEPDCL
- ii) Stand by-I UP AT
- iii) Stand by-II DN AT
- iv) Stand by-III 2 Nos. of Diesel Generator power supply 3 phase
400V-50Hz 30 KVA

A Manual selection switch of UP AT and DN AT has been provided in the panel room. In the event of failure of main power supply SM on duty shall select the power supply source as UP AT or DN AT as per the availability of AT supply and turn the change over handle to required position.

In case the normal power supply and both AT supplies fails the SM on duty shall arrange to start the Diesel Generator (DG) provided in the Generator room adjacent to the RRI building. A change over switch is provided in the DG room. Before starting of the Generator, SM on duty shall ensure that the change over switch is kept in the neutral (middle) position. After starting of DG in no load condition and when the DG runs in full speed, SM on duty shall rotate the change over switch to the desired position. The DG can be started electrically through self starting mechanism with the help of keys provided for this purpose.

SM on duty shall maintain procurement, accountal and consumption details of diesel oil in the Diesel Generator log book provided for the purpose.

In the event of failure of main power supply as well as all standby sources the signaling system shall work with the help of Battery back up through IPS. One SM monitoring panel for IPS has been provided in the panel room for continuous monitoring of the healthy condition of the IPS by on duty SM.

Audio visual alarm in the form of lamp and Buzzer with Ack button have been provided on the IPS monitoring panel. SS on duty shall monitor functioning of IPS through the monitoring panel and shall act according to the indications provided on it. Details of power supply system and SM monitoring panel is given below.

1. 50% depth of discharge (DOD) of battery cells for Generator to start. In this condition, Audio/Visual alarm comes that will be acknowledged with audio cutoff and SS on duty shall arrange to start Generator.
2. 60 to 70% depth of discharge (DOD) warns Alarm. In case of 70% of DOD of IPS battery, signaling system will shut down. SS on duty take precaution so that at 50% of DOD condition, he should arrange to start the Generator for fail safe of safety circuit.

SS INDICATION PANEL:

S.NO.	Instruction	Condition	LED Indication	Action taken by on duty SS
A	Start Generator	50% DOD	Red	Audio/Visual alarm. Alarm can be acknowledged with auto cut off & Generator to start
B	Emergency start Generator	60% DOD	Red	-do-

C	System Shut down	70% DOD	Red	Signal feed cut off and all DC-DC converters to work Audio alarm will continue till Generator is started.
D	Call S&T staff	Equipment fault	Red	Failure of any module give the alarm in SS indication panel. Alarm shall be acknowledged by SS on duty for audio cut off.

7.0 TRACK INDICATORS:

Each track circuit is given a separate and distinguishable colour on the face of the indication panel and entire length of the track circuited portion of the track provided with rectilinear transparent filters and illuminated from behind to indicate the conditions of track circuited lines at any given movement [whether engaged and route set or occupied]. When once a route is set by pressing the entrance and exit buttons for signaled route. For the purpose of giving indications to the Panel Station Master about the occupancy of any or all of the track circuited section/sections, the route is split into four portions and the details of the four portions are as follow:-

- i) Approach track either in rear of the first stop signal or any other stop signal in the station yard.
- ii) Entry portion of a route from the subject signal up to the fouling mark of the berthing track.
- iii) The berthing track.

The approach track of a stop signal [other than the first stop signal] is normally lit WHITE when a route is set for a train movement leading to the above stop signal and this white strip of indication of the track [throughout the route section and berthing tracks en-route] change to RED one after the other progressively in the direction of the train movement as the train passes and finally the RED light extinguishes when the vehicle or train clears these various portions of the track circuits on the route.

In the second part of the route whenever a train is occupying the track circuited section i.e., at the entrance end at the track circuit indication shows RED light [changing from WHITE to RED] and as soon as a train or vehicle has cleared this portion of the route section/track circuited portion of the line, the RED light extinguishes on this portion of the track. This sequence of operation of track indications signify the sectional route release for facilitating subsequent traffic movements.

In the third part of the route, whenever a train is on the berthing track, it continues to show the RED light [changing from White to Red] till the berthing track is cleared of this train or vehicle.

In all the three parts of complete route the failure or occupation of occupation of any track circuit is indicated by a RED light.

POINT ENGAGED INDICATION:

At the apex of points, a small circular dot indicator is provided on the panel on the track portion itself. This indicator lights up whenever the point is locked in a particular position indicating that it is engaged. [Constituting either a part of the route section or an overlap set].

8.0 POINT INDICATION:

At each point the Normal and Reverse indications of point positions are shown by a small strip light on the straight for the normal setting and on the crossover portion i.e., diagonally for the Reverse setting.

9.0 APPROACH TRAIN INDICATION:-

At the approach of VISAKHAPATNAM Station yard approach track indications are provided which shall show RED lights as soon as the train occupies the track in rear of the Home signals from respective directions.

10.0 APPROACH LOCKING INDICATIONS:-

Approach locking indications are provided at all signals on the indication panel [other than those signals which have no points. on their routes].

The expression Approach locking connotes that the locking is effective on a signal route when once the concerned signal is taken off and the train has come within a predetermined distance from that signal. For signals which do not have approach track circuit in rear, dead approach locking connotes that the locking is effective on the signal when once the signal is taken off.

In case it is necessary to cancel a signal that was once taken off three button emergency operation cancellation should be resorted to. Whenever there is no train on the approach track the three button cancellation should be operated straight-away and at once. This operation is counted on the Veeder Counter.

But when there is a train at the approach locked indication [shows with a WHITE DOT light] flashes the movement the signal is put back to 'ON' position and the cancellations is indicated. Then the route can be cancelled with the three button operations. This operation is also counted on Veeder counter.

11.0 BUTTON STUCK UP INDICATION:-

When any of the Signal buttons/Point buttons or Route buttons [GNCR, UNCR, WNCR] is remains in the pressed position for more than 15 seconds, the Panel becomes inoperative and white light appears on the Panel with a audible indication [Buzzer].

If Signal Button (GN) remains in pressed a white light appears near GNCR or if a point Button (WN) remains in pressed position a white light appears near WNCR. The visible audible indication will continue till such time the fault is rectified.

12.1 AUDIBLE INDICATIONS ON OPERATING PANEL:

[a] **SIGNAL FAILURE BUZZER:**

Whenever a signal becomes blank due to fusing of RED lamp the signal failure buzzer/sounds and continues till the buzzer muting button viz., XYN[S] on the panel is pressed for acknowledging the failure. A stencil "G" indication also appears and continues till the lamp is replaced.

[b] **POINT FAILURE BUZZER:**

In case of failure of a point this buzzers/sounds and continue till the buzzer muting button viz., WXYN is pressed for acknowledging the failure. A stencil "W" indication also appears and continues till the defect is rectified.

[c] **GROUP BUTTON BUZZER:**

When one or more of the operating button/buttons remains/remain in the pressed down position for more than 15 seconds this buzzer continue to buzz until the fault is rectified and all the buttons are put at normal position, the panel remains inoperative. So, it should be ensured by Panel Station Master that no operating button is pressed for more than 15 seconds.

12.0 **SIGNAL SYMBOLS AND THEIR INDICATION ON INDICATION PANEL:**

Main signals are symbolically represented by a small rectangular box with a stem [in black painted over the indicating panel] along the track lines corresponding to their position at site with provision of exhibiting two aspect viz., a steady Red light when the signals at the site shows a red aspect and a steady Green light when the signal at the site displays any aspect/aspects other than Red.

MLRI on the stop signals are indicated in a box at the top of the stop signal symbolically and provision for indicating a WHITE light in a slit whenever any junction/signal indicator of the signal concerned at the site lit.

In case of a Calling on signal it display a WHITE DOT light on the stem with a circular box [coloured Black] and no light when the signal is at "ON" position.

13.0 **INDICATION IN CASE OF FAILURE OF SIGNAL ASPECT:**

In case if any aspect of the lamp fuses at the site the green indication flashes on the corresponding signal aspect indication on the indication panel. If the red lamp fuses the Red indication on the corresponding signal symbol flashes.

Magnetic button collars are provided and the same should be used on the operating panel on the concerned lines/points when the same are engaged/blocked as a visual reminders in accordance with SR 5.04.01.

14.0 **FAILURE OF POWER SUPPLY INDICATIONS:**

The failure of power supply to the Route Relay installations is indicated by audio and visual indicators on the operating panel.

CHART SHOWING THE OPERATION OF THE ENTRANCE AND EXIT BUTTONS FOR CLEARING STOP SIGNAL/CALLING ON SIGNALS

The push button chart for initiating stop signals and calling on signals;

Sl. No.	Signal Route	From Signal	To destination	Buttons operated	
				Signal	Route
1	S-1[A]	S-1	S-31	S-1	L-1T
2	S-1[B]	S-1	S-35	S-1	L-3T
3	S-1[C]	S-1	S-37	S-1	L-4T
4	S-1[D]	S-1	S-39	S-1	L-5T
5	S-1[E]	S-1	S-41	S-1	L-6T
6	S-1[F]	S-1	S-43	S-1	L-7T
7	S-1[G]	S-1	S-45	S-1	L-8T
8	S-1[H]	S-1	S-47	S-1	L-9T
9	S-1[I]	S-1	S-53	S-1	L-10T
10	S-1[J]	S-1	S-55	S-1	L-11T
11	C-1[A]	C-1	S-31	S-1+COGGN	L-1T
12	C-1[B]	C-1	S-35	S-1+COGGN	L-3T
13	C-1[C]	C-1	S-37	S-1+COGGN	L-4T
14	C-1[D]	C-1	S-39	S-1+COGGN	L-5T
15	C-1[E]	C-1	S-41	S-1+COGGN	L-6T
16	C-1[F]	C-1	S-43	S-1+COGGN	L-7T
17	C-1[G]	C-1	S-45	S-1+COGGN	L-8T
18	C-1[H]	C-1	S-47	S-1+COGGN	L-9T
19	C-1[I]	C-1	S-53	S-1+COGGN	L-10T
20	C-1[J]	C-1	S-55	S-1+COGGN	L-11T
21	S-10	S-10	SA-60	S-10	60AT
22	C-10	C-10	SA-60	S-10+COGGN	60AT
23	S-14	S-14	SA-60	S-14	60AT
24	C-14	C-14	SA-60	S-14+COGGN	60AT
25	S-18	S-18	SA-60	S-18	60AT
26	C-18	C-18	SA-60	S-18+COGGN	60AT
27	S-20	S-20	SA-60	S-20	60AT
28	C-20	C-20	SA-60	S-20+COGGN	60AT
29	S-22	S-22	SA-60	S-22	60AT
30	C-22	C-22	SA-60	S-22+COGGN	60AT
31	S-34	S-34	SA-60	S-34	60AT
32	C-34	C-34	SA-60	S-34+COGGN	60AT
33	S-36	S-36	SA-60	S-36	60AT
34	C-36	C-36	SA-60	S-36+COGGN	60AT
35	S-38	S-38	SA-60	S-38	60AT
36	C-38	C-38	SA-60	S-38+COGGN	60AT
37	S-42	S-42	SA-60	S-42	60AT
38	C-42	C-42	SA-60	S-42+COGGN	60AT
39	S-44	S-44	SA-60	S-44	60AT
40	C-44	C-44	SA-60	S-44+COGGN	60AT
41	SA-60	SA-60	SA-2	SA-60	60T KING PUSH

NOTE:

For taking off Calling on signal press concerned signal button and route button and release route button holding signal button in pressed condition press EGGN button

and then COGGN button. Release COGGN button and press route button and concerned signal button. Calling on signal can be taken off after 120 seconds.

Sl. No.	Shunt Signal Route	From Signal	To destination	Buttons operated	
				Signal	Route
1	SH-2[A]	SH-2	SH-44	SH-2	L-11T
2	SH-2[B]	SH-2	SH-42	SH-2	L-10T
3	SH-2[C]	SH-2	SH-38	SH-2	L-9T
4	SH-2[D]	SH-2	SH-36	SH-2	L-8T
5	SH-2[E]	SH-2	SH-34	SH-2	L-7T
6	SH-2[F]	SH-2	SH-22	SH-2	L-6T
7	SH-2[G]	SH-2	SH-20	SH-2	L-5T
8	SH-2[H]	SH-2	SH-4	SH-2	4/27AT
9	SH-3[A]	SH-3	SB=SALOON SDG.	SH-3	SS
10	SH-3[B]	SH-3	SH-31	SH-3	L-1T
11	SH-3[C]	SH-3	SH-33	SH-3	L-2T
12	SH-3[D]	SH-3	SH-35	SH-3	L-3T
13	SH-3[E]	SH-3	SH-37	SH-3	L-4T
14	SH-3[F]	SH-3	SH-39	SH-3	L-5T
15	SH-4[A]	SH-4	SH-18	SH-4	L-4T
16	SH-4[B]	SH-4	SH-14	SH-4	L-3T
17	SH-4[C]	SH-4	SH-12	SH-4	L-2T
18	SH-4[D]	SH-4	SH-10	SH-4	L-1T
19	SH-4[E]	SH-4	SB = GOODS/ PARCEL SDG.	SH-4	GS
20	SH-5[A]	SH-5	SB=LOCO YARD	SH-5	LY
21	SH-5[B]	SH-5	SH-3	SH-5	52AT
22	SH-5[C]	SH-5	SH-39	SH-5	L-5T
23	SH-5[D]	SH-5	SH-41	SH-5	L-6T
24	SH-5[E]	SH-5	SH-43	SH-5	L-7T
25	SH-5[F]	SH-5	SH-45	SH-5	L-8T
26	SH-5[G]	SH-5	SH-47	SH-5	L-9T
27	SH-5[H]	SH-5	SH-53	SH-5	L-10T
28	SH-5[I]	SH-5	SH-55	SH-5	L-11T
29	SH-6[A]	SH-6	SH-44	SH-6	L-11T
30	SH-6[B]	SH-6	SH-42	SH-6	L-10T
31	SH-6[C]	SH-6	SH-38	SH-6	L-9T
32	SH-6[D]	SH-6	SH-36	SH-6	L-8T
33	SH-6[E]	SH-6	SH-34	SH-6	L-7T
34	SH-6[F]	SH-6	SH-22	SH-6	L-6T
35	SH-8[A]	SH-8	SH-50	SH-8	50UN
36	SH-8[B]	SH-8	SH-52	SH-8	52-AT
37	SH-8[C]	SH-8	SB-COACHING SIDING	SH-8	CS
38	SH-8[D]	SH-8	SB-ENGG SIDING	SH-8	ES
39	SH-9[A]	SH-9	SB-SALOON SIDING	SH-9	SS
40	SH-9[B]	SH-9	SH-31	SH-9	L-1T
41	SH-9[C]	SH-9	SH-33	SH-9	L-2T
42	SH-9[D]	SH-9	SH-35	SH-9	L-3T

43	SH-9[E]	SH-9	SH-37	SH-9	L-4T
44	SH-9[F]	SH-9	SH-39	SH-9	L-5T
45	SH-9[G]	SH-9	SH-41	SH-9	L-6T
46	SH-9[H]	SH-9	SH-43	SH-9	L-7T
47	SH-9[I]	SH-9	SH-45	SH-9	L-8T
48	SH-9[J]	SH-9	SH-47	SH-9	L-9T
49	SH-9[K]	SH-9	SH-53	SH-9	L-10T
50	SH-9[L]	SH-9	SH-55	SH-9	L-11T
51	SH-10[A]	SH-10	SH-50	SH-10	50 UN
52	SH-10[B]	SH-10	SH-52	SH-10	52-AT
53	SH-10[C]	SH-10	SB-COACHING SIDING	SH-10	CS
54	SH-10[D]	SH-10	SB-ENGG SIDING	SH-10	ES
55	SH-11[A]	SH-11	SB-SALOON SIDING	SH-11	SS
56	SH-11[B]	SH-11	SH-31	SH-11	L-1T
57	SH-11[C]	SH-11	SH-33	SH-11	L-2T
58	SH-11[D]	SH-11	SH-35	SH-11	L-3T
59	SH-11[E]	SH-11	SH-37	SH-11	L-4T
60	SH-11[F]	SH-11	SH-39	SH-11	L-5T
61	SH-11[G]	SH-11	SH-23	SH-11	23 AT
62	SH-12[A]	SH-12	SH-50	SH-12	50 UN
63	SH-12[B]	SH-12	SH-52	SH-12	52-AT
64	SH-12[C]	SH-12	SB-COACHING SIDING	SH-12	CS
65	SH-12[D]	SH-12	SB-ENGG SIDING	SH-12	ES
66	SH-13[A]	SH-13	SB-SALOON SIDING	SH-13	SS
67	SH-13[B]	SH-13	SH-31	SH-13	L-1T
68	SH-13[C]	SH-13	SH-33	SH-13	L-2T
69	SH-13[D]	SH-13	SH-35	SH-13	L-3T
70	SH-13[E]	SH-13	SH-37	SH-13	L-4T
71	SH-13[F]	SH-13	SH-39	SH-13	L-5T
72	SH-13[G]	SH-13	SH-23	SH-13	23 AT
73	SH-14[A]	SH-14	SH-50	SH-14	50 UN
74	SH-14[B]	SH-14	SH-52	SH-14	52 AT
75	SH-14[C]	SH-14	SB-COACHING SIDING	SH-14	CS
76	SH-15[A]	SH-15	SB-SALOON SIDING	SH-15	SS
77	SH-15[B]	SH-15	SH-31	SH-15	L-1T
78	SH-15[C]	SH-15	SH-33	SH-15	L-2T
79	SH-15[D]	SH-15	SH-35	SH-15	L-3T
80	SH-15[E]	SH-15	SH-37	SH-15	L-4T
81	SH-15[F]	SH-15	SH-39	SH-15	L-5T
82	SH-15[G]	SH-15	SH-23	SH-15	23 AT
83	SH-18[A]	SH-18	SH-50	SH-18	50 UN
84	SH-18[B]	SH-18	SH-52	SH-18	52 AT
85	SH-18[C]	SH-18	SB-COACHING SIDING	SH-18	CS
86	SH-19[A]	SH-19	SB-SALOON SIDING	SH-19	SS
87	SH-19[B]	SH-19	SH-31	SH-19	L-1T
88	SH-19[C]	SH-19	SH-33	SH-19	L-2T
89	SH-19[D]	SH-19	SH-35	SH-19	L-3T

90	SH-19[E]	SH-19	SH-37	SH-19	L-4T
91	SH-20[A]	SH-20	SH-50	SH-20	50 UN
92	SH-20[B]	SH-20	SH-52	SH-20	52 AT
93	SH-21[A]	SH-21	SB-SAOON SIDING	SH-21	SS
94	SH-21[B]	SH-21	SH-31	SH-21	L-1T
95	SH-21[C]	SH-21	SH-33	SH-21	L-2T
96	SH-22[A]	SH-22	SH-48	SH-22	23 AT
97	SH-22[B]	SH-22	SH-50	SH-22	50 UN
98	SH-23[A]	SH-23	SH-41	SH-23	L-6T
99	SH-23[B]	SH-23	SH-43	SH-23	L-7T
100	SH-23[C]	SH-23	SH-45	SH-23	L-8T
101	SH-23[D]	SH-23	SH-47	SH-23	L-9T
102	SH-23[E]	SH-23	SH-53	SH-23	L-10T
103	SH-23[F]	SH-23	SH-55	SH-23	L-11T
104	SH-27	SH-27	CONTAINER SIDING	SH-27	CTS
105	SH-29	SH-29	SH-27	SH-29	4/27 AT
106	SH-31	SH-31	SH-27	SH-31	4/27 AT
107	SH-33	SH-33	SH-27	SH-33	4/27 AT
108	SH-34[A]	SH-34	SH-48	SH-34	23 AT
109	SH-34[B]	SH-34	SH-50	SH-34	50 UN
110	SH-35	SH-35	SH27	SH-35	4/27 AT
111	SH-36[A]	SH-36	SH-48	SH-36	23 AT
112	SH-36[B]	SH-36	SH-50	SH-36	50 UN
113	SH-37	SH-37	SH-27	SH-37	4/27 AT
114	SH-38[A]	SH-38	SH-48	SH-38	23AT
115	SH-38[B]	SH-38	SH-50	SH-38	50UN
116	SH-39	SH-39	CONTAINER SIDING	SH-39	CTS
117	SH-41[A]	SH-41	CONTAINER SIDING	SH-41	CTS
118	SH-41[B]	SH-41	SB-SHUNTING NECK-1	SH-41	SHN1
119	SH-42[A]	SH-42	SH-48	SH-42	23AT
120	SH-42[B]	SH-42	SH-50	SH-42	50UN
121	SH-43[A]	SH-43	CONTAINER SDG.	SH-43	CTS
122	SH-43[B]	SH-43	SB-SHUNTING NECK	SH-43	SHN1
123	SH-44[A]	SH-44	SH-48	SH-44	23AT
124	SH-44[B]	SH-44	SH-50	SH-44	50 UN
125	SH-45[A]	SH-45	CONTAINER SDG.	SH-45	CTS
126	SH-45[B]	SH-45	SB-SHUNTING NECK-1	SH-45	SHN1
127	SH-47[A]	SH-47	CONTAINER SDG.	SH-47	CTS
128	SH-47[B]	SH-47	SB-SHUNTING NECK-1	SH-47	SHN1
129	SH-48[A]	SH-48	SB-SHUNTING NECK-2	SH-48	SHN2
130	SH-48[B]	SH-48	SB-SHUNTING NECK-3	SH-48	SHN3
131	SH-50[A]	SH-50	SB-SHUNTING NECK-2	SH-50	SHN2
132	SH-50[B]	SH-50	SB-SHUNTING	SH-50	SHN3

			NECK-3		
133	SH-50[D]	SH-50	SA-60	SH-50	60 AT
134	SH-50[E]	SH-50	SB-SHUNTING NECK-4	SH-50	SHN-4
135	SH-52	SH-52	SB-SHUNTING NECK-4	SH-52	SHN-4
136	SH-53[A]	SH-53	CONTAINER SDG.	SH-53	CTS
137	SH-53[B]	SH-53	SB-SHUNTING NECK-1	SH-53	SHN1
138	SH-54	SH-54	SB-SHUNTING NECK-4	SH-54	SHN-4
139	SH-55[A]	SH-55	CONTAINER SDG.	SH-55	CTS
140	SH-55[B]	SH-55	SB-SHUNTING NECK-1	SH-55	SHN1

PUSH BUTTON CHART FOR SIDINGS, CRANK HANDLES

Sl. No:	Description of control	Buttons to be Operated
1	Permission to release CH-1 Key	CH 1 YN + Group trans CH RB
2	With drawl of control of CH-1 Key	CH 1 YN + Group release CH NB
3	Permission to release CH-2 Key	CH 2 YN + Group trans CH RB
4	With drawl of control of CH-2 Key	CH 2 YN + Group release CH NB
5	Permission to release CH-3 Key	CH 3 YN + Group trans CH RB
6	With drawl of control of CH-3 Key	CH 3 YN + Group release CH NB
7	Permission to release CH-4 Key	CH 4 YN + Group trans CH RB
8	With drawl of control of CH-4 Key	CH 4 YN + Group release CH NB
9	Permission to release CH-5 Key	CH 5 YN + Group trans CH RB
10	With drawl of control of CH-5 Key	CH 5 YN + Group release CH NB
11	Permission to release CH-6 Key	CH 6 YN + Group trans CH RB
12	With drawl of control of CH-6 Key	CH 6 YN + Group release CH NB
13	Permission to release CH-7 Key	CH 7 YN + Group trans CH RB
14	With drawl of control of CH-7 Key	CH 7 YN + Group release CH NB
15	Permission to release CH-8 Key	CH 8 YN + Group trans CH RB
16	With drawl of control of CH-8 Key	CH 8 YN + Group release CH NB
17	Permission to release CH-9 Key	CH 9 YN + Group trans CH RB
18	With drawl of control of CH-9 Key	CH 9 YN + Group release CH NB
19	Permission to release CH-10 Key	CH 10 YN + Group trans CH RB
20	With drawl of control of CH-10 Key	CH 10 YN + Group release CH NB
21	Permission to release CH-11 Key	CH 11 YN + Group trans CH RB
22	With drawl of control of CH-11 Key	CH 11 YN + Group release CH NB
23	Permission to release CH-12 Key	CH 12 YN + Group trans CH RB
24	With drawl of control of CH-12 Key	CH 12 YN + Group release CH NB
25	Permission to release CH-13 Key	CH 13 YN + Group trans CH RB
26	With drawl of control of CH-13 Key	CH 13 YN + Group release CH NB

27	Permission to release CH-14 Key	CH 14 YN + Group trans CH RB
28	With drawl of control of CH-14 Key	CH 14 YN + Group release CH NB
29	Permission to release CH-15 Key	CH 15 YN + Group trans CH RB
30	With drawl of control of CH-15 Key	CH 15 YN + Group release CH NB

16.0 **STATION MASTER KEY FOR OPERATING PANEL:**

This key when inserted in the lock [provided on the Operating Panel] and turned right the panel becomes operative. The key when inserted in the lock and either turned to left or extracted out from the lock renders the panel inoperative except for putting back the signals to “ON” position in case of emergencies. When the SM’s key is inserted and turned to right a white indication lit by the side of SM’s key.

17.0 **EMERGENCY OPERATIONS AND THE COUNTERS:**

Operation of the following buttons is recorded on the respective counters provided on the operating panel.

- i) Control for Emergency Point Button [EWN].
- ii) Control for Emergency full Route release Button [EUUYN].
- iii) Control of Emergency Route Section Release Button [EUYN].
- iv) Control for “Calling on” Signal [COGGN].

The Panel Station Master on duty should keep a proper record of all such operations. A Register with separate portions for each button should be maintained. Each time a button is operated the readings on the respective counter should be recorded in the register mentioning clearly therein the circumstances under which the emergency operation had to be resorted to. At the time of handing over charge the relieved Panel station Master should record and sign the last readings on the counters in the register and the Panel station Master who takes over charge must verify, by physical check, the correctness of the readings recorded and counter sign the entry.

In case of failure of track circuit, the points can be set by operation of the emergency point button [EWN] and the point button concerned [after unlocking the EWN control lock] provided the point concerned was not engaged earlier or not locked. This electrical lock [ignition type] shall be in personal custody of the cabin station master and no emergency operations should be carried out without his permission.

The Panel Station Master on duty is responsible for all emergency operations explained above. The Panel Station Master is responsible for correct operation of the emergency buttons and record the operations in the register. The Panel SM should not permit any unauthorized person to operate the control panel.

For every operation the signal button at the entrance point and the route button at the exit point have to be simultaneously positively pressed down for initiating the route setting, locking and taking off the signal.

Similarly for any individual point operation, the point button [WN] and the group point button [WWN] have to be pressed simultaneously.

The Panel Station Master on duty must ascertain as visual verification that the indication appearing on the indicating panel is in conformity with the operation of the buttons on the operating panel. The Panel Station Master must also ensure that not more than two buttons are operated simultaneously at any given time.

18.0 **APPROACH LOCKING OF A ROUTE:**

Once a signal [either a stop signal or a shunt signal] is taken off, the route including signal overlap in case of main signal gets back locked and the set route cannot be altered or interfered with unless the signal concerned is put back to "ON" position and the route is cancelled by emergency three button operation. After the initiation of such emergency three Button operation, the complete route gets cancelled provided there is no train on the approach track. If there is a train/vehicle on the approach track, the route gets approach locked and can be released only after the count down of 120 seconds by the timer. [The approach locking distance being variable according to the aspect of the signal in rear and other important safety considerations such as maximum permissible sectional speed on the approaching line etc.,].

The shunt signal No.2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 27, 29, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 47, 48, 50, 52, 53, 54 & 55 have been provided with dead approaching locking [in the absence of approach track circuit] and in such case the route once set cannot be altered by emergency operation for a period of 120 seconds after putting back the signal to "ON" position. Every such three button emergency cancellation is countered on the veeder counter.

19.0 **EMERGENCY RELEASE OF INDIVIDUAL - ROUTE SECTION AND OVERLAPS:**

A complete route of signal comprises of one or more Route sections [as also the overlap in case of stop signal] and whenever any route section or overlap is not released by either passage of the train or by emergency cancellation of the entire route as already mentioned above the emergency cancellation of the Route section with the co-ordination of the SSE(Sig)/SE(Sig)/RRI on duty can be done and such cancellation is individual countered on the counter fitted on the panel.

20.0 **TAKING OF CALLING ON SIGNALS:**

The calling 'ON' signals have been provided below the following stop signals:

Sl. No.	Button No.	Signal No.	Route
1	C-1	UP Home signal No.1	On UP Main Line
2	C-10	DN starter signal No.10	On Line No:1
3	C-14	DN starter signal No.14	On Line No.3
4	C-18	DN starter signal No.18	On Line No:4
5	C-20	DN starter signal No.20	On Line No.5
6	C-22	DN starter signal No.22	On Line No:6
7	C-34	DN starter signal No.34	On Line No:7

8	C-36	DN starter signal No.36	On Line No.8
9	C-38	DN starter signal No.38	On Line No:9
10	C-42	DN starter signal No.42	On Line No.10
11	C-44	DN starter signal No.44	On Line No:11

During the failure of the stop signal either due to failure of any track circuits on the route including the overlap or for any other causes the “Calling on” signals may be taken off after the train has come to a stand at the stop signal, provided all the other conditions for taking off the stop signal have been fulfilled and the approach track immediately in rear of the said stop signal is occupied by train. After initiating the “Calling on” signal the Calling on signal indication shows a white flashing light for 120 seconds and after which it shows a steady white light. It is only when such a steady white light appears the “Calling on” signal displays “OFF aspect”. Every such operation is registered on a counter provided on the operating panel.

20.1.1 FAILURE OF APPROACH TRACK AND SPECIAL MEASURES FOR TAKING OFF “CALLING ON” SIGNAL:

In case of failure of the approach track, instead of taking off the ‘Calling on’ signal the trains shall be piloted treating “Calling on” signal as failure and S&T official shall be informed for expeditious rectification.

During the failure of track circuit before taking off “calling on” signal the clearance of the track on the entire route between stop signal to stop signal must be certified by the Station Master to the Panel Station Master. In all cases of reception/dispatch of a train by taking off the “Calling on” signal necessary particular including the train No. “Calling on” signal No. and No. registered on the corresponding veeder counter should be recorded in a register maintained for the purpose.

21.0 TAKING OFF THE SHUNT SIGNALS:

For taking off a shunt signal the corresponding route button and the shunt signal button should be pressed simultaneous and released.

22.0 CLEARING OF STOP SIGNAL:

When it is necessary to clear a stop signal, it is necessary to press the signal button and the exit button where after this route setting is initiated, the route is lined up and locking executed on all the route sections and the overlap thus holding the route ultimately proving the way and the circuits for the signal clearance.

23.0 PUTTING BACK THE SIGNAL TO “ON” POSITION:

In exigencies, when a stop signal or a “Calling on” signal or shunt signal has to be put back to ‘ON’ before passage of the train, the concerned signal button [GN] concerned and the emergency signal cancellation button [EGGN] should be pressed simultaneously.

24.0 LOCKING OF POINTS NORMAL AND SPECIAL CASES:

Normally the electric machine operated points can be set and locked provided the point zone track circuit is free and the subject point is not locked either by a route section or flank protection arrangement.

The locking on the point is normally released immediately after the clearance of the route section or the overlap and the flank protection locking is released after the clearance of the controlling route section.

25.0 INDIVIDUAL OPERATION OF POINTS WHEN THE TRACK CIRCUIT/CIRCUITS IN THE POINT ZONE HAVE NOT FAILED:

Whenever an individual point/crossover is to be set the point button [WN] concerned and the group button [WWN] should be simultaneously pressed and released. Such an operation will change the point/crossover from normal to reverse or from reverse to normal provided the track circuit/circuits in the point zone are not occupied.

Whenever any point cannot be operated to house either in normal or reverse position, a flashing indication appears on the point concerned on the indication panel. The point can be set to its original position by the operation of the point button [WN] concerned and the group point button [WWN].

26.0 INDIVIDUAL OPERATION OF POINTS IN CASE OF FAILURE OF TRACK CIRCUITS/TRACK CIRCUITS POINT ZONE:

In the event of failure of the track circuits controlling the points, the Panel station Master should first personally or through field Station Master ensure that the track circuit concerned is not occupied by a train/vehicle. Then, for emergency operation of points the RRI Cabin SS/SM should unlock the EWN lock on the operating panel by operating EWN key [provided for the purpose]. Press the point button [WN] along with the emergency point button [EWN] and release the buttons. Each time point is thus operated, the same will be recorded on the "EWN" counter.

SM on duty shall ensure sealing of emergency point operation button by S&T maintenance staff after completion of emergency point operation.

27.0 FAILURE OF THE POINTS DUE TO ANY OTHER CAUSES:

If any point fails before a route is lined up, the RRI Cabin SS/SM should first try to set and reset the same point by individual operation to ascertain if the said point can be set in a particular position.

If the said points cannot be set in any position, the RRI Cabin SS/SM should not use the route concerned for normal signaled movement until the defect is rectified by Signal staff and certificate to this effect is obtained from SE(Sig)/JE(Sig) on duty. However, Crank handle operation may be done.

28.0 PADLOCKING AND CRANKING OF POINTS WITH CRANK HANDLE AND ITS CONTROLLING KEYS AND SPECIAL PRECAUTIONS:

For the use of Crank handle for motor operated points the instructions laid down in rule No.2.19 of operating manual should be followed. When the points are set by means of Crank handle, the field Station Master on duty shall ensure that the entire route is correctly set, all the facing and trailing points are clamped and padlocked. All the points on the route must be clamped and padlocked for any signaled movement. The keys of the padlock of all the clamped and locked points should be kept in the personal custody of the field station master before the pilot memo is handed over to the Driver. When once the route is so set manually by the field Station Master and all the points on the route are clamped and padlocked, the same shall not be interfered with in any way until the movement over the points concerned is completed or, any movement is cancelled, and such cancellation is authenticated by exchange of Private Number.

If any point has failed after setting of the route in Normal/Reverse position or both. A white indication strip start flashing depending upon the position at which the point had failed. In such case the route concerned shall be cancelled and shall not be used until the defect is rectified by signal staff.

29.0 **RELEASING OF A SUB-ROUTE SECTION:**

If any route section over a point zone is not released after passage of a train due to failure of track circuit or otherwise, the route section can be released by means of Emergency operation by Station Master on duty in presence of SSE(Sig). Each operation to be recorded in the VEEDER counter register.

30.0 **FAILURE OF TRACK CIRCUITS AND SIGNALS:**

In the event of failure of track circuits over point zone setting of the points will be done by Emergency operation after the Field SM ensure that the points zone is clear of vehicles and gives an assurance supported by a Private number to that effect. In case of failure of track circuits, calling on signals where provided may be taken off. If there is no Calling-on-signal or if the same is out of order, the train concerned should be piloted past the signal concerned up to next stop signal ahead after ensuring the clearance of the route and setting, clamping and padlocking the points on the route by the field SM.

31.0 **RESETTING OF LVV DIGITAL AXLE COUNTER:**

The section between VSKP and H-Goomty (E/Cabin of WMY) on Uni-direction line is provided with High Availability Single Section Digital Axle Counter.

For Section VSKP-H/goomty(E-Cabin of WMY):

A Pair of High Availability Single section Digital axle counter is provided between VSKP and H-Goomty (E/Cabin of WMY) on Uni-direction line. One at just ahead Shunt Signal no. 11(A-G) of VSKP and another one ahead of Shunt Signal No. 10 of H-Goomty of E-cabin.

The position of the section whether cleared or occupied is reflected in the axle counter reset box provided in the Station Master's office which shows 'GREEN' when the Section is clear and 'RED' when occupied. Whenever a train enters in to the Section, " Section Clear" indication 'GREEN' for the particular block

section disappears and 'RED' indication appears.

After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication will appear. If after the complete arrival of the train the 'RED' indication does not change to 'GREEN' it should be assumed as failure for the particular section and necessary action as per GR.14.13 is to be followed. The axle counters are interlocked with the respective Shunt Signals for that section. If axle counter fails, Shunt signal cannot be taken off for next train and shall remain locked in last operated position.

A resetting arrangement is provided in the SM office to reset the system to normal position in case of failure of Axle counter for HASSDAC. The resetting to be initiated by the SM at the receiving station only after physical verification of complete arrival of train by exchanging private number. The resetting can be accomplished only with the co-operation of SMs at either end of the block section.

Note:

Before taking off dispatch Shunt signal for H-Goomty-VSKP Uni direction line, the SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication.

High Availability Single Section Digital Axle Counter (HASSDAC) provided for H-Goomty to VSKP- Section. These two LVCDs are named as SSDAC-1 and SSDAC-2.

SL NO.	indication	Automatic action taken by Equipment.	Action by SM
1	Only SSDAC-1 fails after arrival of the train	System resets automatically.	NIL
2	Only SSDAC-2 fails after arrival of the train	System resets automatically.	NIL
3	Both SSDAC-1 & 2 Fails after arrival of the train (or)for any reason	No automatic action.	SM to reset by taking permission From adjacent station and reset the system as procedure laid down and make an entry in the axle counter register.
4	Both SSDAC-1 & 2 Fails even after reset by SMs of both the end	No automatic action.	Enter in Signal Failure Register issue failure memo to signal technician. Procedure to be adopted is same as laid down.

5	Either SSDAC-1 or SSDAC-2 fails continuously for long time	-----	Report to signal staff without entering in signal failure
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32.0 SIGNAL ASPECT:

The aspect control chart of the signals in VISAKHAPATNAM yard in accordance with the aspect control chart as indicated in the Interlocking Plan No:23029 Alt-I [VISAKHAPATNAM - RRI].

The failure of signal lamp of an aspect of a signal at site renders the signal to its next restrictive aspect. During failure of signal lamp the physical aspects of the signal at site and indications on indication panels are given below:

SPECIAL NOTE:

- [1] A small flashing white light is lit near the main signal symbol, if the signal is put to danger and route cancellation is initiated when it is approach locked. This light remains flashing for 120 seconds after which it becomes steady. Then the panel station master should commence three button emergency route cancellation.
- [2] When a Calling on signal below a stop signal is taken off, a white dot is lit below the stop signal.

33.0 SIGNAL REPLACEMENT AND CANCELLATION OF A ROUTE ALREADY SET:

Once a signal is taken off it should not be put back to 'ON' position unless absolutely required. For this, the signal button concerned and the emergency signal group button EGGN should be pressed simultaneously. This operation will make the signal to assume danger aspect while the route is still held and the three button emergency route cancellation process must be gone through for canceling the route already set. Refer to the following Para.

34.0 CANCELLATION OF ROUTE:

If, after setting of the whole route and taking off the signal concerned, the route is to be altered the signal concerned must first be put back to 'ON'. If there is a train on the approach track or the signal is provided with dead approach locking the subject route gets released only after count down of 120 seconds after the signal is put back to "ON". Then route can be cancelled by three buttons cancellation.

The countdown of 120 seconds time interval is indicated by flashing white light on the approach lock indicator provided at the foot of the corresponding signal symbol on the indication panel. After the interval 120 seconds a steady white light appears and the flashing light ceases.

The panel Station Master should press the signal button and the emergency button EUUYN, keeping the signal button still pressed on, he should press the relevant route button. This operation will release the whole route and this will be indicated by extinguishing of the concern route lights on the panel. However, if the approach track of the signal is not free the cancellation cannot be done immediately. In both cases this cancellation operation is counted electrically on the digital counter. The transaction along with the time and reasons and the number registered on the counter should be recorded in a register specially kept for the purpose.

35.0 REPLACEMENT OF 'CALLING-ON' SIGNAL TO 'ON' POSITION:

After taking off a Calling-on signal if the same is to be put back to "ON position, the signal button concerned" [GN] and the emergency signal group button [EGGN] should be pressed simultaneously. In this case, also the route that was originally set and locked by the process of clearance of the signal is to be cancelled in accordance with instructions contained in the route cancellation Para mentioned above.

40.0 FORMATS FOR VARIOUS EMERGENCY OPERATIONS:

FORMAT [a] FOR EMERGENCY SUB-SECTION ROUTE RELEASE:

Date & Time	Route Section	Counter Number		Remarks	Signature	
		Before Release	After Release		On duty SM RRI	On duty SSE (Sig)/ SE (Sig)/ RRI

FORMAT [b] FOR EMERGENCY POINT OPERATION:

Date & Time	Time of Operation	Counter Number		Track Circuit No. failed	Signature	
		Before Release	After Release		On duty SM RRI	On duty SSE (Sig)/ SE (Sig)/ RRI

FORMAT [c] FOR EMERGENCY FULL ROUTE CANCELLATION:

Date & Time	Time of operation	Counter Number		Route cancelled	Reasons for cancellation	Signature	
		Before Operation	After Operation			On duty SM RRI	On duty SSE (Sig)/ SE (Sig)/ RRI

CRANK HANDLE INTERLOCKING:

Zone	Crank Handle controlling key combinations Nos.	Controlled Point Nos.
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NORTH	CH-1	101
	CH-2	102
	CH-3	106. 111.
	CH-4	104. 105. 107.
	CH-5	110. 113. 131
	CH-6	115. 121
	CH-7	116.
	CH-8	132. 133. 134. 135. 136. 137.
	CH-9	120.
	CH-10	119. 125. 126. 127.
	CH-11	103.
SOUTH	CH-12	145. 146. 147. 148. 149.
	CH-13	152. 153. 154. 157. 158. 159.
	CH-14	150. 151. 156.
	CH-15	155.
	CH-17	123

One crank handle is kept in a pad locked box at each location of the above crank handle group key lock units and the keys of this padlock after locking the crank handle location box shall remain in the personal custody of the Station Master RRI. The crank Handle along with the concerned controlling key can be handled only by the concerned operating and the S&T maintenance staff as per the instruction of the SS/SM of RRI. It is the personal responsibility of the operating official to ensure that as soon as the required manual operation of the point/Points in his zone are completed, the crank handle is restored to the padlocked box and the box properly padlocked and that the crank handle control key is also returned to the respective crank handle interlocking box and transmitted to the Route Relay cabin expeditiously.

Key lock units have special arrangements of configuration for each group and the point machines of the corresponding group have a matching configuration at the key hole permitting the entry of the key meant only for the particular set of points in that group. The detailed procedure of the emergency crank handle operation of points at different zone are given below.

41.0 **POINT ON SOUTH AND NORTH ZONE:**

- [1] The SS/SM at site will inform the Panel Station Master to release the concerned crank handle controlling key. The Panel station Master should release the control by pressing the concerned crank handle button and the crank handle group button [CHRB]. The release of CHNB control is indicated by flashing WHITE indication on the panel near the crank handle button.

At site on the concerned crank handle interlocking box. The WHITE indication appears below the key. The SS/SM should then press the RED button below that key and extract the key from the box. There will be no indication on the Panel when the key is extracted at site.

The point/points is/are then operated with the help of the crank handle taken out by the SS/SM from the padlocked box in the goomty lodge after opening the

aperture in the point machine with the help of the controlling key by the SS/SM at site and set to the desired position, clamped and padlocked both facing and trailing and the keys of the pad lock shall be in the personal custody of the SS/SM after which the SS/SM shall restore the controlling key to its original place in the crank handle interlocking box (after locking the crank handle in its box) and turned clockwise.

Restoration of the controlling key back in its place is indicated by flashing 'WHITE' indication. The panel operator should then withdraw the released control by pressing the crank handle button and the CHNB. The steady WHITE indication appears indicating the normal condition. The WHITE indication on the crank handle interlocked box at site also disappears. When the control has been withdrawn the field SM should advise the Cabin Station Master communicating a Private Number assuring him that the desired point/points has been operated to the required position as ordered by SS/SM set correctly, clamped and padlocked in their proper position and the control is returned. The private number given by the field SM shall be recorded in the crank handle register.

The SS/SM on duty, after ensuring the correct setting of defective points shall verify from the visual indication available on the panel that all the points on the route are set to the desired position and shall instruct the SS/SM panel to take off the concerned signal for movement of train over the said point/points.

If the correct setting of the defective points in the desired position is not indicated on the panel, the train shall be piloted IN/OUT in terms of Subsidiary rules No.3.69.01, 3.69.02, 3.69.03, 3.70.01 and 3.70.02.

The route once set and locked for receiving or dispatch a train shall not be interfered with unless the said movement is completed or cancelled and expressly so directed by the SS/SM.

Whenever the crank handle is required to be used by a signal official for maintenance work or for attending failure, the signal official must give disconnection memo (SI4) to the SS/SM on duty. After making necessary entries in the crank handle register, the RRI Cabin SS/SM shall obtain the acknowledgement of the signal official in the crank handle register and then release the concerned crank handle controlling key to the signal official.

The concerned point/points shall be treated as defective till the crank handle controlling key is restored to its normal place and control is withdrawn by the SS/SM.

Before parting/releasing control with the crank handle for maintenance work by signal official, the SS/SM shall ensure that the reception/departure signals for effected line/lines are at "ON" position. The points as the effected line should be treated as non-interlocked and the SS/SM should instruct the concerned field Station Master for setting clamping and padlocking the facing and trailing points over which the train is to passed and such assurance is taken by the SS/SM from the operating official supported by Private Number before piloting IN/OUT of trains over the affect points as per GR 3.69, 3.70, 5.09 and SR's thereto.

A crank handle register is to be maintained in the Route Relay Cabin with the following pro-forma by on SS/SM of Route Relay Cabin wherein the particulars of usage of the emergency crank handle must record.

1.	Date
2.	Point No. which failed or required to be tested.
3.	Time of failure.
4.	Disconnection Memo No. received from S&T staff.
5.	Points controlling key No. released from Route Relay Cabin.
6.	Time when release was given.
7.	Private Number/signature assuring correct setting, clamping and padlocking of the concerned points.
8.	Private Number or signature of the official to whom the controlling key is released.
9.	Date and time fault rectified.
10.	Time when controlling key release with drawn by panel Station Master.
11.	Signature and designation of official who rectified the fault.
12.	Remarks.

When points become defective the RRI Cabin SS/SM comply with GR 3.51, 3.77, 5.10 and SR's thereto and he must notify all concerned promptly for speedy restoration.

When interlocking fails all the effect points on a route, both facing and trailing points must be clamped and padlocked before allowing any movements over the affected points.

For use of Crank Handle for motor operated point refer to rule No.2.19 of Operating Manual also.

APPENDIX – ‘C’

APPENDIX-‘C’ TO STATION WORKING RULES OF VISAKHAPATNAM STATION

ANTICOLLISION DEVICE [RAKSHA KAVACH]

- NIL -

APPENDIX - 'D' TO STATION WORKING RULES OF VISAKHAPATNAM STATION

The details showing duties of operating staff working at VSKP and their responsibility to discharge it efficiently at Station during his duty.

STATION SUPERITENDENT (SUPERVISOR) In-charge:

- i) He is the over all In-charge of the station, always wear proper uniform while on duty. He is also responsible for the efficient discharge of duties devolving upon all the Staff employed at the station as per the roster issued by the DPO/WAT.
- ii) He shall get himself well conversant with the detailed working of Station and panel, points and signals etc.
- iii) He shall pay special attention towards passenger amenities & coaching trains punctuality and yard feasibility. He shall endeavor for minimizing detention to coaching trains by judicious planning of train staff. He shall pay attention to smooth functioning of coaching train to eliminate detentions. He shall attend to all compliance by traveling/trading public.
- iv) He shall frequently visit the platform, Panel Room, etc. in order to maintain an effective supervision over the said staff and their working. He shall see that station premises are kept neat and clean.
- v) He should be civil and helpful to all rail users and passengers.
- vi) He shall see that all equipments, apparatus and instruments including signal and interlocking gears are in proper working order and all failures are promptly reported to officials concerned for repairs/rectifications.
- vii) He shall see that all signals, points and the whole machinery at the station are in proper working order. He shall report all the defects to the concerned officials.
- viii) He shall see that the law and order in the station area is taken care of with the help of G.R.P. and R.P.F and civil authorities as per need.
- ix) He shall ensure compliances of all Operating and Safety records maintained at the station. He is responsible for overall supervision of the station.
- x) He is responsible for booking all Group "C" and Group 'D' staff for PME and Refresher Course / Safety camp in their due time. His Special attention is drawn out to chapter II of General and Subsidiary Rules and GR 5.01 to 5.08 with relevant Subsidiary Rules, Chapter - XXII of Operating Manual.
- xi) He shall see no staff shall be allowed to operate the Block Instrument, Signals & Points unless he has passed the special examination and hold a valid certificate of competency applicable to his duties at his station.
- xii) All rules prescribed in G&SR Block working Manual and other relevant directives issued from time to time by competent authorities are followed rigidly by all concern and that any irregularities noticed are reported promptly to the authorities concerned.
- xiii) All station earnings, periodical returns and statements etc., are sent in time by staff responsible for them.
- xiv) All transportation records are checked and complied with BWM 2.09(e) daily. He also ensure proper utilization of wagons placed in parcel siding, registration of indents and supply of wagons as per allotment is done.

- xv) He shall ensure departure of ART, ARME and Crane in time
- xvi) He shall see all accidents of his jurisdiction are promptly reported, attended to, and a comprehensive report with details i.e., sketches, statements of staff involved, fixing responsibility is sent within 24 Hours of occurrence to Sr.DSO/Sr.DOM/Waltair.
- xvii) He is also responsible for working beyond his duty period when called upon to do so in the exigencies of services.

2.0 STATION SUPERINTENDENT PF (OUT DOOR):

He is responsible for trains passing during his period of duty in accordance with the rules in force for the time being vide GR.5.01[4] and for safe and timely running of all trains. He will carry out the instructions given to him by the SD (Gaz), AOM/DOM(Chg) and SS/Supervisory provided they do not contravene any G&SR, BWM, OM and SWR and any other safe working principles. He is also responsible for working beyond his duty period when called upon to do so in the exigencies of services.

GENERAL STATION SUPERINTENDENT:

He is responsible to observe the chapter-II of G&SR rules and other relevant rules. He shall maintain diary and record all events of important nature and train detention particulars.

He is also responsible:

- a) For right time start to coaching trains, completion of loading and unloading of parcels in time.
- b) For drawing out incoming rakes and placing in washing lines according to schedule.
- c) For drawing and backing the outgoing rakes on to the platform in time as per schedule.
- d) For completion of shunting by all through coaching trains time. He shall ensure safe movement on the following shunting activity i.e.
 - (i) Attaching/detaching of Saloon.
 - (ii) Backing train from one line to other to free Platform.
 - (iii) Reversal of Power from one end to other.
 - (iv) Co-ordinate with SS on duty at RRI cabin to ensure proper programme of shunting activity.
- e) For distributing the staff according to the roster for the shift and their reporting for duty in time.
- f) For placement and drawing out in parcel siding in time.
- g) Coordinating with RRI cabin SS/SM for reception and dispatch of trains.
- h) Assist the RRI cabin SS/SM for reception for piloting 'IN' and 'OUT' of trains expeditiously in case of signal and point failures.

- i) For attending abnormal conditions in the yard and report to concerned officials.
- j) Issue late certificate to all passenger for failing to catch connecting trains due to late arrival.
- k) Maintain close liaison with the control office in all matters relating to train operations.
- l) Ensure proper provision and function of other passenger amenities like drinking water, water cooler, lights, fans, waiting Rooms/halls, retiring rooms, enquiry, reservation counters etc.
- m) He is responsible for smooth and efficient working of the station and attend public amenities in the absence of SS (Supervisor).
- n) In the event of any traffic blocks and disconnection or suspension of any working in field gears or installations, either for normal maintenance works or repairs by the Engineering, S&T & TRD department or any other department concerned in the point zones of the coaching yard the SS (Outdoor) on duty shall be present at the site for necessary coordination with SS (Panel) in all matters of safe and expeditious train operations.
- o) In case of any accident in the coaching yard, in addition to SS (Supervisor), he shall be present at the site for maintaining the necessary coordination between SS (Panel) and any other field officials at the site for expediting all such operations as are needed for effecting quick relief and the restoration work.
- p) He shall be responsible for ensuring the clearance of the concerned route during failure of track (s) by physical verification by exchanging private number with SS (Panel) before piloting IN/OUT the train.
- q) Reception/Dispatch of the train during failure of signal.
- r) Securing of vehicles at coaching yard.

3.0 STATION SUPERINTENDENT (PANEL) :

- i) He shall work for train passing duties.
- ii) He shall carry out the test in person about the working of reception signal(s) & emergency cross over points once daily when no train is due to arrive and no train is due to leave and record the results of the test in the station diary vide SR 5.01.03(c) (ii) and SR 5.01.03(d).
- iii) He is also responsible to authorize the Station Master of (Log Book) for granting "Line Clear" for incoming trains and to obtain "Line Clear" for outgoing trains.
- iv) He shall maintain coordination with on duty at SS (Outdoor) and Yard Master on duty in train movement.
- v) He shall take suitable action in case of emergencies as required under rules in vogue in consultation with SS (outdoor).
- vi) He will operate the panel board for reception/ dispatch of trains and for shunting operation etc.
- vii) He shall speak to Section Controller on duty and shall work as per his advice in passing of trains. He shall ensure that Arrival / departure report of trains shall be convened in time by the SS/SM (log Book).
- viii) He shall be responsible for protection of a running line when it is blocked by any means.

- ix) He shall also be responsible for Transmitting crank handles and maintenance of corresponding registers including failure register, properly.
- x) He shall make entry in the diary the condition of all the running lines, at the time of handing over charge, these entries shall be countersigned by the Station Superintendent coming on duty and taking over charge. This will not however relieve the Station Superintendent of his responsibility to ensure by physical check, that the respective lines are clear of obstruction before admission of any train on it.
- xi) The Station Superintendent on duty responsible for ensuring that the work is carried out in safe and proper manner.
- xii) He should report defects or deficiencies, if any, in Panel and other gears under his control to the concerned staff for speedy repairs.
- xiii) He is responsible for safe custody of the keys of Panel and crank handle and other keys concerned with safety.
- xiv) He shall not permit unauthorized persons to enter into the Panel Room to operate or interfere with Panel. He shall not leave his duty spot till relieved by a competent railway servant.
- xv) The movement of trains/locos over non-track circuited lines should be verified physically. .
- xvi) He shall see that safety equipments pertaining to panel are available as per norms in good working order.
- xvii) In the event of failure of points / signals he shall take the assistance of SS (Outdoor) on duty at the platform for physical verification and for correct setting, clamping and padlocking of points before the train is piloted.
- xviii) He shall be responsible to ensure that the staff under his control discharge their duties properly. His special attention is drawn to Chapter-II of G & SR and GR 5.01 to 5.08 with relevant Subsidiary Rules thereto.

4.0 STATION MASTER (TSR):

- (i) He shall work for train passing duties. He shall take assistance of the SS (Panel) for granting and taking "Line Clear". He shall maintain Train Signal Register.
- (ii) He shall keep proper coordination with SS (Panel), SS (Outdoor) and YM on duty.
- (iii) He shall speak to Section Controller on duty and shall work as per his advice in passing of trains. Arrival / departure report of trains shall be convened in time.
- (iv) The Station Superintendent on duty who makes an entry in the Train Signal Register shall continue till all the entries pertaining to the trains are completed vide SR 14.07.01(a), (b), (c) & (d).
- (v) He shall make entry in the diary the condition of all the running lines, at the time of handing over charge, these entries shall be countersigned by the Station Superintendent coming on duty and taking over charge. This will not however relieve the Station Superintendent of his responsibility to ensure by physical check, that the respective lines are clear of obstruction before admission of any train on it.

- (vi) He is also responsible for ensuring that the work is carried out in safe and proper manner.
- (vii) He shall speak to Section Controller on duty and shall work as per his advice in passing of trains. He shall ensure that Arrival / departure report of trains shall be convened in time by the SS/SM (log Book).
- (viii) He shall also be responsible for protection of a running line when it is blocked by any means.
- (ix) Being a Notice station, maintenance of Caution Order Register and preparation & issuance of Caution Order for all trains during tenure of his duty is devolved on him.
- (x) Ensure proper co-ordination with all departments for quick movement of trains within the yard and expeditious reception/dispatch thereof to and from the yard and platform.
- (xi) He shall maintain all the memos like Block Ticket, Pilot memo, starting order, authority for Temporary Single line working etc. as required during the abnormal working condition. While doing so he shall ensure by SS (Panel) to the effect of setting, clamping and padlocking of route supported by private number before issuing pilot memo.
- (xii) During failure of track circuit, he shall ensure
- (xiii) SS(TSR) should take all necessary steps for eliminating detention to the coaching trains at station and outside signals with the help of SS(Panel) and Sectional controller/ Coaching Controller.
- (xiv) He shall coordinate with CC on duty of Loco yard for Loco movement from & to Loco yard and with YM/NCC for Empty coaching rake/ Loco movements.

5.0 CHIEF YARD MASTER:

He is overall in charge of the yard .He shall be responsible for smooth functioning of the yard. He shall see that all staff working under him discharge their duties efficiently and safely as per General Rules and SRs thereto, Station Working Rules and safe working instructions issued from time to time. He shall be responsible for:-

- a. Performance and utilization of shunting engines.
- b. Proper planning of the day.
- c. Paying personal attention to Daily, weekly trains, sick vehicles, special, rakes, etc.
- d. Ensuring availability of lines;
- e. Placement and drawn out of sick vehicles to /from sick lines in time.
- f. Maintenances of correct record of detention and other statistics as notified;
- g. Issue of General direction in regard to advance planning of work in each shift and keep coach detention to the minimum
- h. Smooth functioning of the yard.
- i. He shall be responsible to ensure that the staff under his control discharge their duties properly.
- j. In case of any accident in the Coaching yard, in addition to SS (Supervisor), CYM/YM shall be present at the site for maintaining the necessary coordination

between SS(panel) and any other field officials at the site for expediting all such operations as are needed for effecting quick relief and the restoration work.

6.0 YARD MASTER :

- i) They shall work in coordination with the CYM and shall remain directly responsible for smooth functioning of the Coaching yard.
- ii) They shall have close supervision over the utilization of shunting engine and eliminate idling of the shunting engine.
- iii) They shall ensure proper marshalling, formation of trains and yard with minimum possible detention.
- iv) They shall maintain liaison with the Coaching control office and yard staff working at different spheres in the yard Quick and judicious decision related to the yard through talk back in regard to shunting operation and proper action in case of emergencies is to be initiated by him.
- v) They are directly responsible for efficient working of the entire yard during their tenure of duty hours and for expeditious formation and dispatch of train in proper marshalling order as per correct marshalling instructions.
- vi) They will endeavor to eliminate detention to train in the yard and also in different siding.
- vii) They will eliminate idling hours of shunting engine.
- viii) They will ensure that no train is detained out side for want of line.
- ix) They are responsible for allotment /nominating of clear line for admission of incoming train and will be held responsible to keep nominated line free from fouling, obstructions till the complete arrival of the train.
- x) They will implement the advance planning of the Chief Yard Master in respect of supply, placement, draws in different siding. They will ensure that staff working in the yard do not resort to short cut or unsafe method in their operation.
- xi) They will remain in close contact with SS on duty at RRI cabin and on duty at SS (Outdoor).
- xii) They are responsible to see that yard formation trains and terminated trains are offered for C & W examination and sick wagon detached in time and the report of vehicle promptly complied with.
- xiii) They shall be responsible for efficient working of the yard in his shift of duty. He shall supervise the formation, placement and drawn-out of rakes. He shall supervise the work of shunting jamadar and other shunting staff and avoid idling of shunting engine hours. He shall ensure that the placement and drawn out are made in time in various sidings and ensure that vehicles are not detained unnecessarily.
- xiv) In case of any accident in the yard the .Chief Yard Master/Yard Master in addition to other staff, shall be present at the site for maintaining the necessary coordination between the Station Superintendent (supervisor)/ Station Superintendent (outdoor) and any other field officials at the site for expediting all such operations as are needed for effecting quick relief and restoration work.

7.0 SHUNTING JAMADAR :

- (i) He will work under the instructions of CYM/ YM and is responsible for a safe and correct operation of shunt movements in an organized way, during the shunting in the yard and sidings.
- (ii) In the absence of CYM/YM their duties will also devolve on him. He shall have thorough knowledge of the yard and shall follow the station working rules and safe working instructions issued from time to time.
- (iii) He shall see that shunting is carried out in a proper and safe manner, as per G.R. 5.13, 5.14 and 5.16 to 5.19, 8.09, 8.10, 8.12, 8.13 to 8.15 and relevant SRs there to.
- (iv) He shall ensure correct setting of non interlocked hand points before displaying proceed hand signal for the movement.
- (v) In case failure of shunt signals, the concerned points are to be correctly set, clamped and padlocked before displaying proceeding hand signal to the Loco Pilot/Shunter.
- (vi) He shall couple/uncouple vehicles under the supervision of SS (Supervisor)/ SS (outdoor), CYM/ YM of the train.
- (vii) He shall do timely placement and drawn out of rakes to and from the platforms.
- (viii) He shall do prompt placement/drawn out to and from various sidings as per time scheduled.
- (ix) He shall see that no vehicle is left fouling the adjacent line and secure the vehicles in various sidings.
- (x) He shall protect the line in emergency if required.
- (xi) He shall protect any damage/defect points and report to SS (Supervisor)/SS (Panel)/ SS (Outdoor), CYM/ YM on duty for further necessary action.

8

TRAFFIC POINTS MEN :

He shall work under the instructions of SS (Supervisor)/ SS (panel)/ SM (RRI)/SS (Outdoor), CYM/ YM/STJM on duty and follow the GR 2.05 to 2.11 and other relevant rules as laid down in G&SR. He shall remain responsible for

- i) Correct Setting, Locking and Crank Handling of points for reception/ despatch of trains and shunting operation.
- ii) Coupling and uncoupling vehicles.
- iii) Protection of line in an emergency.
- iv) Piloting and hand signaling of trains when necessary and handing over caution orders and / or any other line clear authorities to the Loco Pilots and guards of the Trains.
- v) Securing of vehicles as per GR 5.23 and SR thereto.
- vi) Being conversant with the layout of the yard and compliance of rules relating to shunting operations.
- vii) Observing General Rules 5.13 to 5.21 and relevant Subsidiary Rules during shunting.
- viii) Cleaning and lighting of LED based flashing tri colour hand signal lamp if required. Cleaning & oiling the clamps & padlocks, if necessary.
- ix) Filling up the FIRE buckets with sand / water.
- x) Getting train intact Arrival Register (T/1410) signed by the guard / Loco Pilot as and when required.
- xi) Any other duties entrusted to him by the SS (Supervisor)/ SS (Panel)/ SM/(RRI)/SS (Outdoor), CYM/YM/STJM on duty from time to time.
- xii) He Should have Knowledge of hand signals and their use.

NB:- All staff should be in uniform while on duty and follow their rosters issued by DPO/WAT from time to time.

APPENDIX – ‘E’ TO STATION WORKING RULES OF VISAKHAPATNAM STATION**LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION:**

A List of essential equipments are given below which shall be maintained in good working order:

Sl. No:	Description	Station / RRI Cabin
1	Detonators	20
2	LED based tri colour flashing Signal Lamps	8 (1 spare)
3	Hand Signal Flags	8 (1 spare)
4	Skids	6
5	Clamps with padlocks	25
6	Wooden wedges	6
7	Safety chains with padlocks	6
8	Fire and Sand buckets	6
9	Fire extinguishers (DCPT)	2
10	Reminder Button Collars	10
11	First Aid Box	1
12	Stretcher	1
13	Blanket	1

**APPENDIX - 'F' TO STATION WORKING RULES OF VISAKHAPATNAM
STATION**

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

A passenger halt is existing at MARRIPALEM in between VSKP and GPT at 6.6KM from VSKP RRI. All passenger trains will take a halt as per the duration specified in working time table.

The TMs and LPs are responsible to maintain schedule halt and start their train by seeing the safety aspect of Passengers.

**WORKING PROCEDURE FOR WORKING COACHING RAKES BETWEEN VSKP STATION
AND COACHING COMPLEX /WMY**

- 1.1 Description:** The coaching rake maintenance complex yard is having 6 stabling lines and 6 pit lines. This coaching complex is connected with 2 lines (one is bidirectional and another one is unidirectional line) towards WMY at north end of VSKP RRI. These 2 lines are utilized for movement of Empty coaching rakes for maintenance/stabling and Diesel/ Electrical Locos to sheds for maintenance/repairs etc.

1.2 SYSTEM OF WORKING:

The movement between 'E' cabin of MYD and VSKP RRI are considered as inter yard movements and such movements are conducted by taking off concerned shunt signals by SS/ SM on duty at 'E' cabin and VSKP RRI. Line clear is obtained through Magneto phone supported by Private Number. Inter slotting arrangement are given between VSKP and 'E'-cabin WMY for unidirectional (E-cabin to VSKP) and bidirectional lines (VSKP-E/cabin & vice-versa). After getting slot, Concerned shunt signals will be taken off for dispatching trains from E/cabin of WMY or VSKP RRI. SH-48 & SH-50 are provided at VSKP for dispatching trains towards E-Cabin via bidirectional line. SH-12 & SH-11 are provided at E-Cabin for dispatching trains from Unidirectional line & Bidirectional line respectively.

1.3 Working of Trains:

Reception of Trains:

- a) Before granting inter slot to VSKP RRI for trains coming from VSKP to coaching complex, the SM at 'E'-cabin of WMY shall obtain assurance from TPM/TP at 'H' Goomty supported by Private Number to the effect that the entry line point is set & clamped or locked in favor of the intended train.
- b) After granting the slot to the VSKP RRI and receiving out report from VSKP RRI the SS/SM at 'E' cabin of WMY shall make efforts to take off shunt signal and advise the TPM/TP at 'H' Goomty to exhibit hand signal at the entry point.
- c) After complete passing of the train over the entry line point, the TPM/TP at H-goomty shall normal the point and there after shall repeat the complete arrival report to the SS/SM at 'E' cabin of WMY supported by a private number.
- d) Shunting master/PM-A" of 'E' cabin shall supervise shunting in coaching complex and shall after the arrival of train into stabling line, confirm to the SS/SM at 'E'cabin of WMY to the effect that the train is standing clearing the fouling mark between the adjacent lines supported by a private number.
- e) The rake so placed in the stabling line, shall be backed in to pit line by taking all precautions between D-cabin & GPT and clamping and padlocking of all the facing points that are involved in the movement of

the train which are not interlocked, the authority for such movement shall be the shunting order where in the private number obtained from GPT is endorsed.

Dispatch of Trains:

- a) Before dispatch of trains from the coaching complex to VSKP station, the SS/SM of 'E'-cabin shall obtain inter slot from VSKP RRI cabin as it is prevailing in case of trains worked between DYD-VSKP. He shall advise the TPM/TP at H-goomty to set, clamp and padlock the point connecting entry line to engine line. He shall also advise the shunt master/TPM in coaching complex to set the points that are involved in the movement of the train clamping and padlocking the facing points. As a confirmation of the SS/SM of 'E'-cabin shall obtain private number from TPM's of H-goomty and coaching complex.
- b) There after the SS/SM shall handover the starting order (T-511) for dispatch of the train to VSKP and advise the TPM/TP at H-goomty to exhibit proceed hand signal at the entry point.

1.4 Authority to proceed:

- a) For the trains proceeding from VSKP coaching complex, the authority to proceed is taking off of the shunt signal as is prevailing.
- b) Authority to enter into the Coaching complex entry line is shunt signal together with proceed hand signal exhibited by TPM/TP of 'H'-goomty.
- c) For trains proceeding from Coaching Complex to VSKP, the authority to proceed is the starting order (T-511) to be issued, to the lines where shunt signals are not provided by the SS of 'E' cabin.

1.5 Shunting :

All the shunt movements in coaching complex (i.e., the placement of rakes in pit lines on stabling lines, reversal of powers and detaching of sick coaches etc.,) shall be done after clamping and pad locking of all facing points and under the supervision of shunt master/TPM.

1.6 Telecommunication:

Magneto/Auto telephones are provided to SS 'E'-cabin, SS VSKP RRI cabin.

**INSTRUCTIONS FOR WORKING OF TRAINS BETWEEN VSKP STATION AND
ENGINE STABLING LINE (OLD SHUNTING NECK No. 2) BETWEEN VSKP-E/CABIN
OF WMY**

An Engine stabling line of CSL 238M (SH-SH) takes off from Bi-directional line and is isolated by Point No.15 A/B at 'H' Goomty end and 107 A/B at VSKP end. The signaling movements at both ends of the Engine Stabling line are controlled by Shunt signals. Whenever it is intended to place or drawn out any engine by SS/RRI/VSKP, he shall Intimate SS/E Cabin through telephone supported by Private Number. Before exchanging PN with SS/RRI/VSKP, SS/E-Cabin shall instruct Leverman 'H' goomty to set points in favour of the movement. Leverman 'H' goomty shall stop the shunting movement to Engine Stabling Line from NCC direction, set and lock the points and give slot No.8 under exchange of Private Number with SS/E-Cabin. On receiving slot indication in Panel, SS/RRI/VSKP shall set the points in favour of movement and takes off shunt signal No.48 A/B & 50 A/B for Bi-directional line or Engine Stabling line whichever is required. Whenever it is required to drawn out any engine from Engine Stabling line shunt signal No. SH 15 (A-G) shall be taken off.

Similarly whenever it is required for placement or drawn out of engine by SS/E-Cabin into Engine Stabling line, he shall inform SS/RRI/VSKP through telephone supported by PN. Before given slot to SS/E-Cabin, SS/RRI/VSKP shall ensure that all shunting movement towards Engine stabling line at his end is withdrawn. On receiving slot No.25 from SS/RRI/VSKP, SS/E-Cabin shall give instruction to Leverman "H' goomty to set and lock the point in favour of the movement under exchange of PN. Shunt signal No.11 shall be taken off for the movement of traffic for Bi-directional line or Engine Stabling line whichever is required as per instruction of SS/E-Cabin.

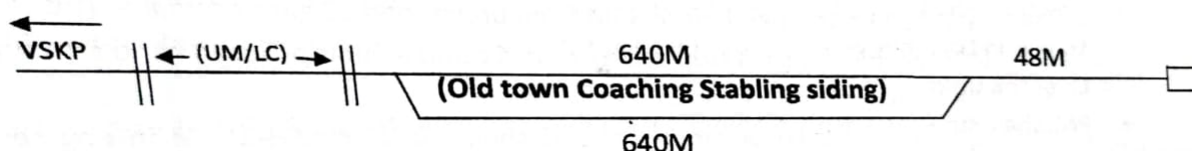
If any Loco or vehicle is to be taken out from Loco Stabling Line, VSKP station can take off the SH-15 on their own. Similarly, if 'E' cabin desires to take out any Loco/vehicle, he shall advise "H' goomty under exchange of PN to take off SH-14.

This instruction shall be attached in the portion for working of trains from VSKP to NCC and vice versa in SWR of VSKP.

PROCEDURE FOR WORKING OF EMPTY COACHING RAKES BETWEEN VSKP STATION AND CONTAINER SIDING OF OLD VIZAG TOWN STATION

The existing CONTAINER siding towards Old Vizag town is Coaching Stabling Lines and necessary corrected WRD will be supplied in due course. Till such time this instructions shall be followed meticulously.

1. **DESCRIPTION:** Due to shortage of stabling lines in VSKP yard as well as in NCC, unutilized lines of old CONTAINER siding will be used for stabling of empty coaching rakes. The siding consists of two lines having the length of 640M each. The points shall be operated with Hand Levers at site.



2. WORKING OF TRAINS:

(A) From VSKP Yard to Siding:

- a) The movement of rakes between VSKP and Container Siding lines for Coaching Stabling shall be governed by Shunt signals. The movements from & to Siding governed by Shunt Signal No.s SH-2(A-H) & SH-27A, 39A, 41A, 43A, 45A, 47A, 53A, 55A respectively..
- b) Whenever it is required to dispatch an empty rake from VSKP to Coaching Stabling Line, SS/RRI should ensure from SS/Centre that doors of all coaches are in closed & locked condition.
- c) After receiving assurance from SS/Centre, SS/RRI shall arrange to attach the Loco.
- d) SS/RRI shall advise the Points man about the line on which rake is to be placed or drawn out from siding. He shall then take off concerned Shunt signal.
- e) Two Points men, i.e., one in locomotive and another in rear SLR shall travel by carrying 2 walkie-talkie sets along with empty coaching rake. The train shall be stopped before 30M from unmanned LC gates en route. The PM who travels in Locomotive shall stop the road traffic and exhibit proceed hand signal to the LPS of the train. After clearing the gate, LPS shall stop the rake to board engine PM into the train.
- f) Before 'Sea Horse' junction gate the rake shall be stopped. PM of locomotive shall first set & clamp the siding hand point in favour of the train and then stop the road traffic and exhibit proceed hand signal to the LP of the train. After reaching the siding, PM of SLR shall remain at the hand point for operation of point during Shunting.
- g) The PM shall be responsible to repeat complete arrival of the train with arrival time at the siding to SS/RRI. No shunting shall be permitted by SS/RRI at South end of the yard until the arrival report of the train received by SS/RRI from the PM from siding.

(B) From Siding to VSKP Yard:

- a) The PM of SLR shall obtain fresh permission from SS/RRI supported by PN for starting Shunting power/Empty Coaching rake from siding through walkie talkie.
 - b) Before granting permission to start train from siding, SS/RRI shall suspend non isolated shunting till complete arrival of coaching rake/loco into the VSKP yard.
 - c) While returning from siding to VSKP yard, PM shall follow the safety procedure as stipulated above.
- Before granting permission to start the pilot from siding by SS/ VSKP RRI, South end non isolated shunting shall be suspended till the complete arrival of pilot into the coaching yard.
 - Before starting the Loco/empty rake from siding, PM shall set and lock the point in favour of outgoing train. He shall then stop road traffic and exhibit proceed hand signal to the LP. After clearing the gate, LP shall stop the rake to board engine PM into the train.
 - The train shall be stopped before 30M from unmanned LC gate en route. The PM who travels in Locomotive shall stop the road traffic and exhibit proceed hand signal to the LP of the train.
 - PM shall stop his Loco or empty rake at shunt signal No.SH-2 PM in engine shall communicate through walkie talkie set with SS/RRI and ask for the line for admission. LP shall observe the aspect of shunt signal.

In both the above alternative routes Two PMs shall jointly work for placement or drawn out of the Coaching rake to & from siding. Both the PMs will carry SLR keys and they close and lock both the SLR before leaving the siding to avoid interference of outsiders and to keep SLR in safe condition.

For safety of points, PM will carry 2 sets of clamps with 2 sets of padlocks with duplicate Keys. One set of key under the custody of PM in the Locomotive and other set of keys with PM in the SLR. Four skids (2 in engine & 2 in SLR) are to be carried by the PMs of Locomotive and SLR to protect the rake and also they will tighten the hand brakes of SLR and exhaust the BP of coaches to avoid escaping of vehicles before detaching Loco.

Similar, procedure shall be adopted for removal of skids and releasing hand brakes of SLR during drawn out of rake.