

**EAST COAST RAILWAY  
WALTAIR DIVISION**

**STATION WORKING RULES OF JAGGAYYAPALEM STATION (JGPM)  
(BROAD GAUGE)**

No. WTP/5/SWR/JGPM

Date of Issue: \_\_\_\_\_

Date brought into force: \_\_\_\_\_

Ref: Railway Board's Letter No 2000/Safety (A&amp;R) 19/36 Dated: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.

**1.0 STATION WORKING RULE DIAGRAM**

- i) Station working diagram No: SI/WRD10937 Alt 'B'
- ii) CSTE/EC.Rly/ DRG NO SI-10937 Alt 'B'
- iii) Date upto which corrected

**2. DESCRIPTION OF THE STATION:****2.1 a) GENERAL (LOCATION):**

- i) Name of the Station : JAGGAYYAPALEM
- ii) Class of Station : 'B'
- iii) Section : HWH-CEN
- iv) Double/Single line : Multiple Twin Single Line
- v) Electrified/non electrified : Electrified
- vi) Gauge BG/MG/NG : BG
- vii) Railway : East Coast Railway
- viii) Route : Branch Route taking off from SCMN
- ix) Situated at KM : 875.197 KM
- x) From : HWH
- xi) No. of Cabins : One central cabin with power operated

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

SSI for working points and signals.

**2.2 Block Stations, IBH, IBS on either side and their distance and outlying sidings:**

	<b>Adjacent Block Station</b>	<b>Distance</b>	<b>Direction</b>
A)	SCMN	5.611 KM	
	VDPD	2.121 KM	
	DVD	5.265 KM	
	GPT	3.390 KM	
B)	Provision of IBS	Nil	
C)	Automatic Signals	Nil	
D)	DK Station & Out Lying Siding	Nil	

**2.3 Block Section limits on either side of the station on different routes:**

<b>Between Stations</b>	<b>The Point from which the “Block Section” Commences</b>	<b>The Point at which “Block Section” Ends</b>
JGPM-SCMN a) Single line-I	The rear block section commence/terminate at down last stop signal no 40 of JGPM.	Terminates /commences at Up last signal No 73 of SCMN South end.
b)Single Line-II	The rear block section commence/terminates at down last stop signal no 42 of JGPM	Terminate/commences at Dn last stop signal no 75 of SCMN South end.
JGPM-VDPD a) Single line-I	The rear block section commence/terminate at Up last stop signal no 1 of JGPM.	Terminates /commences at Dn last stop signal No 5 of VDPD.
b)Single Line-II	The rear block section commence/terminates at Up last stop signal no 3 of JGPM.	Terminate/commences at Dn last stop signal no 6 of VDPD.
c)Single Line-III (Coming from GPT)	The rear block section commences/terminates at Up last stop signal no 5 of JGPM.	Terminate/commences at Dn last stop signal no 7 of VDPD.
JGPM-DVD Single Line	The rear block section commences / terminates at Up last stop signal No 9 of JGPM.	Terminates/commences at Dn last stop signal no 54 of DVD.
JGPM-GPT	The rear block section commences / terminates at Down last stop signal no 44	Terminates/commences at Up last stop signal no 34 of GPT.

( CH.B.SRINIVAS )  
DSTE / WAT( F.MINZ )  
DOM(G) / WAT

## 2.4 GRADIENTS :

Gradients chainage reckoned from SCMN/GPT on their respective lines CSB of Jaggayyapalem as 5611.14

Section towards	Chainage From	To	Stretch (m)	Gradient on falling or raising.
<b>Towards GPT</b>	CSB of JGPM 5611.14	5575	36.14	1 in 368 falling.
	5575	5032	543	1 in 260 Falling
	5032	4662.75	369.25	1 in 150 Falling
	4662.75	3145.80	1516.95	Level
	3145.802 2686.14 2911.14	2686.14 2911.14 Into Section	459.66 225 -	1 in 193 Raising Level Level
<b>VSPS LINE 1 &amp; 2 towards SCMN</b>	CSB of JGPM 5611.14	5575	36.14	1 in 368 falling.
	5575	4850	725	1 in 260 falling
	4850	4775	75	Level
	4775	4625	150	1 in 682 Raising
	4625	4195	430	Level
	4195 3725	3725 Into section	470 -	1 in 500 Raising Level
<b>VSP &amp; MYD lines towards VDPD</b>	CSB of JGPM 5611.14	6410	798.86 m	1 in 368 falling.
	6410	6550	140	Level
	6550	6800	250	1 in 180 Raising
	6800	7225	425	1 in 150 Raising
	7225	7463	238	Level
	7463 8263	8263 Into Section	800 -	1 in 400 Raising Level
<b>NTPC line towards DVD</b>	CSB of JGPM 5611.14	6370	758.86	1 in 368 raising
	6370	7920	1550	1 in 200 raising
	7920	7970	50	Level
	7970	10302	233	1 in 150 Raising
	10302	Into Section	-	1 in 260 Raising

## 2.5 LAY OUT:

The Station yard consists of four running lines i.e VSP line 1 & 2 and MYD line and a loop line taking off from VSPS line No 1. There are no sidings and platforms.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**2.5.1 RUNNING LINES / DIRECTION OF MOVEMENT AND HOLDING CAPACITY.**

Trains coming from SCMN and GPT and proceeding towards DVD & VDPD are UP trains. Trains coming from DVD & VDPD and proceeding towards SCMN & GPT are down trains.

Srl	Description	Holding Capacity	Electrified/Non Electrified
1	MYD Line	CSR 763 Meters.	Electrified
2	VSP Line 2	CSR 686 Meters.	Electrified
3	VSP Line 1	CSR 686 Meters	Electrified
4	Loop Line	CSR 723 Meters	Electrified

**2.5.2 NON RUNNING LINES** Nil**2.5.3 Any Special Features in the Layout.**

The loop line, & VSPS line 1 are not connected by a crossover with JGPM-GPT line at GPT end to facilitates Reception / Despatch of trains from and To GPT from the above lines. Or

- i) Up trains from GPT cannot be admitted on to loopline or VSPS line 1 .
- ii) Similarly Down Trains cannot be despatched to GPT from Loop line or VSPS line 1.

**2.6 LEVEL CROSSINGS:**

- i) One "C" Class manned level crossing gate is existing at KM2/7-8 between JGPM-DVD on NTPC line.
- ii) One 'C' class unmanned level crossing gate is situated at KM 876/5A- 6A between JGPM-VDPD

Details of LC Gate are given in Appendix 'A' of this Station Working Rule.

**3.0 SYSTEM & MEANS OF WORKING**

- i) Trains are worked under Absolute Block System by means of Token less Block Instrument cooperative in terms of Chapter-VIII of General Rules and Chapter-IV of Block Working Manual with additional feature of last vehicle checking ensured by digital axle counter to monitor the block section between JGPM-SCMN, JGPM-VDPD, JGPM-GPT, JGPM-DVD The Token less Block Instrument are installed in the SM 's office These instrument shall be operated by Dy SS / SM/ASM on duty.
- ii) The token less block instruments are provided with SM's key to lock the block

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

instrument in normal or in operated position. The key of the block instruments must be kept in the personal custody of SM on duty.

- iii) The token less block instrument are also equipped with block telephone to facilitate line clear transactions with the concerned block station.  
No IBS signal are provide in the sections connected to JGPM.

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

- 4.1** a) This station is equipped with standard II R interlocking with SSI panel and multiple aspect colour light signals calling on signals below all stop signals except last stop signal and shunt signals including shunt back signals in terms of G R. 3. 07(4), GR 3.07 (7), GR 3.08(b) & (c) GR 3.13(6) (b) and GR 3.14(9) are provided. An operating / indication panel is provided in the cabin. The entire yard is track circuited. The signal aspect in conjunction with field signals and the occupation / clearance of the yard running lines is exhibited on the panel by miniature lights.
- b) The detailed working of interlocking system emergency operation of points, signals, route release and crank handle working is given in the Appendix 'B' of the SWR which shall be followed strictly.
- c) Block proving Axle counters are provided on all the sections connected with JGPM. The detailed procedure of working of axle counters and the procedure to be followed in case of failure is given in appendix 'B' which shall be followed strictly.
- d) A stand by VDU (P.C) is provided in the panel cabin for operation of points, signals, crank handle siding point etc with mimic track diagram displayed on the PC as shown on the SSI operating panel as per S I Plan No 10937, Alt 'A'.  
The detailed working with VDU –PC is given at Appendix 'B' which shall be followed strictly.

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

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Double locking arrangement for Relay room is provided. Key of one lock remains with Signal maintainer of the section and the key of the other lock remains with the SM on duty. The relay room cannot be opened unless both the keys are used. 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 maintainer. On completion of the work, the maintainer shall lock the relay room and return the key to SM. The transaction shall be recorded in relay room key register by SM on duty vide O.M 1.14 & SR 3.51.05 and shall duly signed by SS/SM and maintainer respectively.

Whenever the key is taken by the maintainer for normal maintenance of work, the S&T staff shall give a remark in the register that they will not interfere with the safe passage of train. The SM on duty shall ensure that this remark is given by the S& T staff , otherwise the installation shall be treated as non-interlocked and the action taken in terms of GR 3.69, 3.70 and SRs thereto.

#### **4.3 POWER SUPPLY:**

- i) A changeover switch is provided in the Station Master's Office with the three power supplies viz., Up AT, Down. AT and Local, for changing the switch to the required supply position. A luminous indicator above the circuit breaker for each supply indicates the availability of the supply.
- ii) Normally the switch will be kept towards Up AT or Dn AT position. Whenever power block is to be given on the line, the on duty SM must ascertain that power is available on the other AT.  
: If power block is to be given on the Up line, Down AT must be available and vice-versa.
- iii) In case of failure of one of the AT supply without any power block, the on duty SM. has to check whether the circuit breaker has tripped. (Three circuit breakers are provided in the changeover switch board, one for each supply and their normal position is down and when tripped it goes up.) In case of failure of both AT supplies, the Local supply shall be utilized by operating the switch.  
If the circuit breaker is tripping even after resetting, no attempt shall be made to hold it by any other mean and a message shall be given to the AEE and CTFO/PSI for prompt rectification.
- iv) For IPS system that provides to SSI auto-change over has been provided.

There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

#### **REMOTE MONITORING ASM BOX:**

Remote monitoring SM Box gives alarm to the SM for the following fault conditions:-

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

- i) 50% depth of discharge (DOD) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.
- ii) 60% DOD, which warns for emergency. The alarm for this condition is same as for condition 1.
- iii) 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.
- iv) Any of the module fails, which calls for 'call S&T'.
- v) Whenever there is a failure of power supply in one AT the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of power supply on both AT's and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

## **5.0 TELECOMMUNICATIONS:**

Tele communication facilities available at the station are

- i) Section Control Telephone VSKP Complex Board.
- ii) TPC (Traction Power Control): DVD-VSKP-PSA
- iii) Block telephone connection JGPM-SCMN for VSP L1&2
- iv) Block telephone connection between JGPM-GPT on MYD line.
- v) Block telephone connection between JGP-DVD on NTPC Line.
- vi) Block telephone connection between JGP-VDPD on VSP L1, L2 & MYD line.
- vii) Magnato telephone connection between JGP-SCMN; JGPM-GPT VDPD; JGPM-DVD
- viii) VHF communication between DVD-JGPM,SCMN GPT.
- ix) Station to LV Box for verification of Last Vehicle on UP and Down Side
- x) Station to different point zone Crank Handle RKT boxes
- xi) Auto phone connecting to divisional HQ and all stations on Main Line.
- xii) Between SM office and manned level crossing gate between JGPM-DVD

( **CH.B.SRINIVAS** )  
**DSTE / WAT**

( **F.MINZ** )  
**DOM(G) / WAT**

**5.1 ACTION TO BE TAKEN IN CASE OF FAILURE OF COMMUNICATION**

- i) In the event of failure of Block Telephone with token less block instruments line clear shall be obtained on the station to station magneto phone exchange identification numbers supported by private numbers as per SR 6.02.06(1)
- ii) In the event of failure of block phone & station to station magneto phone line clear shall be obtained through section control phone exchanging identification number and private numbers.
- iii) In the event of failure of block phone, magneto phone & control phone line clear shall be obtained on the other alternative communications provided as per the order given in SR 6.02.06

**5.2** During total interruption of communications on single line trains shall be worked in accordance with G&SR 6.02.04.

**5.3** Failure of communication between RRI cabin and field goomties.

In the event of failure of communication between the field goomty and the RRI cabin VHF sets shall be used to communicate with field staff. All the instruction to the field staff shall be supported by a private number.

In the event of failure of goomty phone and VHF set the instruction to field staff shall be issued through a manuscript form supported by a private number and with the signature of SM on duty. Field staff after complying the instructions given in the memo shall return one copy to SM in competence of the instruction supported by a private number under a clear signature of the field staff so deputed for the purpose. The procedure given in OM 20.04(9)(g) shall be followed till the normal communication is restored.

**6.0 SYSTEM OF TRAIN WORKING –**

Trains are worked under “Absolute Block System” as per chapter VII & VIII of G&SR and chapter IV , V and BWM CP IV part II & CP III.

**MOVEMENT OF TRAINS:**

Movement of trains are regulated by the Section Controller on duty whose orders must be carried out provided they do not contravene any G&SR, BWM, OM and SWR and any other safe working principles. In the event of suspension of Control working, the Station Master on duty shall work independently in conjunction with the Station Masters of the adjacent block stations and shall be responsible for reception and dispatch of trains. He shall ensure that preference is given to important trains and at the same time no undue detention occurs to other trains. Vide OM 2.14 & 2.17 & 2.24(a).

**6.1 DUTIES OF TRAIN WORKING STAFF**

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT



The duties of the train working operational staff in detail is described in Appendix 'D' of this SWR.

### **6.1.1 TRAIN WORKING STAFF IN EACH SHIFT:**

The following is the Complement of operating Staff at the station.

<b>Compliment of Staff</b>		<b>Staff in Each Shift</b>	
SS/SM	8	SS/SM	2
TPM 'A'/TPM 'B'/ Sr.TP	8	TPM 'A'/TPM 'B'/SrTP	2
SCLM	1	SCLM	1

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

i) The SS / SM on duty at the SSI cabin is solely responsible for ascertaining clearance of the nominated line including over laps from the visual glowing indication depicted on the panel or by physical verification when panel fails.

#### **ii) USE OF PRIVATE NUMBER BOOKS AND IDENTIFICATION NUMBER SHEETS:**

Sufficient private number books and identification number sheets in sealed covers shall always be kept in stock by SMR under locked condition. A register shall be maintained for this purpose.

### **6.1.3 ASSURANCE OF STAFF IN THE ASSURANCE REGISTER.**

Any staff before taking of independent charge of duties connected to train working or any staffs who are away from his duty for the period of 15 days or more shall sign in the assurance register as token of having understood the contents. However in the event of any corrections or modification in the SWR is involved the assurance of all staff who ever is entrusted the work of train passing duty shall be obtained a fresh in the assurance register by the in charge of the station before they are allowed to work vide SR-5.01.02.

### **6.2.0 CONDITIONS FOR GRANTING LINE CLEAR:**

- i) The whole of the last preceding train has arrived completely.
- ii) All necessary signals have been put back to 'ON' behind the said train.
- iii) All signal lights pertaining to the train are burning properly.  
[Ref GR.8.01 (1) (a) (b) and 8.01(2) (b) and 8.03 (1) (a) (b) & c (ii) SR 3.42.05 & SR 3.68.05]
- iv) All intervening manned level crossing on that section to be kept close.
- v) Adequate distance to be kept clear for granting LINE CLEAR.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

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

Nil

**6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE**

When a running line is blocked by stabled load, wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train of the station etc., the points in rear on double line sections and at either end in single line sections should be immediately set against the blocked line except when shunting or any other movement is required to be done on that line.[Refer GR3.51.06(a)].

If all the lines at a station happen to be blocked, when line clear has been granted to a train, the point should be set for the line occupied by a stabled load or a Goods train. So that, in case of mishap the chances of causalities can be minimized. In case of all the trains occupied by passenger trains, points should be set for a loop line to negotiate the speed of in coming train, which would minimize the consequences /casualties.

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

**6.2.1.2 RECEPTION OF TRAINS ON BLOCKED LINE.**

In case of reception of a train on obstructed line the SM shall send the written permission in the for T/509 referred in 5.09.01[a] and shall enclose the reason for such admission, the line number and the nature of obstruction on that in setting and locking of points shall be done as per SR 3.69.03. A stop hand signal shall be exhibited by SM personally at a distance of not less than 45 M from the point of obstruction to indicate the loco pilot as to when the train shall be brought to a stand.

However the SM, whenever possible, shall intimate the loco pilot through the SM of station in rear and also by taking off calling ON signal.[Refer 5.09[1] & [2].

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

Nil

**6.2.1.4 DESPATCH OF TRAINS FROM NON-SIGNALLED LINE.**

Nil

**6.2.1.5 DESPATCH OF TRAINS FROM A LINE PROVIDED WITH COMMON STARTER SIGNAL**

Nil

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**6.2.1.5 ANY SPECIAL CONDITIONS TO BE OBSERVED.****A) Special Restrictions.**

- i) Shunting in the face of an approaching train is prohibited.
- ii) Hand shunting/Fly shunting is prohibited at both ends of the yard.
- iii) Over run line/Sand hump must not be used for stabling vehicles or harbouring an engine with or without vehicles.
- iv) Since yard gradient is steeper than 1 in 400, no train without a live engine shall be stabled on run through line vide RB's No. 2009/Safety (A&R)/1/25 dt.10.09.09
- v) A train with full length hauled by three locomotives shall not be controlled or stabled on line No.2 or 3 in view of inadequate CSL to accommodate.

**B) Special Instructions.**

COM/BBS's Special Instruction is obtained vide No.ECoR/optg/SFY/COM-CRS/13/11 dt.15.04.11 for placing of UP Home signal No.43 on right hand side of the track.

**6.3 CONDITIONS FOR TAKING "OFF" APPROACH SIGNAL.**

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].

Srl No	Line No	Clearance Adequate Distance			
		Up Trains		Dn Trains	
1.	Line No -1	Up Starter Signal No 15	End of over run line OR	Dn Starter Signal No 28	End of over run line OR
			Up Adv. Starter No -1 OR		Dn Adv. Starter No 40 OR
			Up Adv Starter No -5		Dn Adv. Starter No 42
2.	Line No -2	Up Starter Signal No 17	Up Adv. Starter No -1	Dn Starter Signal No 30	Dn Adv. Starter No 40 OR
			Up Adv. Starter No -3		
			Up Adv Starter No -5		Dn Adv. Starter No 42

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

			Up Adv Starter No -9		
3.	Line No -3	Up Starter Signal No 19	Up Adv. Starter No -3 OR Up Adv. Starter No -5 OR Up Adv Starter No -9	Dn Starter Signal No 32	Dn Adv. Starter No 42 OR Dn Adv. Starter No 40 OR
4.	Line No -4	Up Starter Signal No 21	Up Adv. Starter No -5 OR Up Adv. Starter No -9 OR	Dn Starter Signal No 34	Dn Adv. Starter No 44 OR Dn Adv. Starter No 42 OR Dn Adv. Starter No 40

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

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 Loco Pilot must be withdrawn and the Loco Pilot of the train concerned shall be advised of the change in writing and his acknowledgement will be obtained in a memo. [Refer SR 3.36.02 (a) & (b)].

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

According to the existing interlocking at this station the following simultaneous reception and despatch of trains is permitted.

1)	Reception of an Up train from VSP L/1 of SCMN to L/1 of JGPM setting over runline.	And	Reception of a Dn train from VSP L/2 or VSP L/3 [MYD] of VDPD to L/3 of JGPM and dispatch towards SCMN end. Or Receptidn of a DN from NTPC line of DVD to L/4 of JGPM and dispatch towards GPT Or Reception of a DN train from VSP L/2 of VDPD to L/3 of JGPM and dispatch to GPT.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

2)	Reception of an Up train from VSP L/1 of SCMN to L/3 of JGPM and dispatch of VDPD on VSP L/2.		Reception of Dn train from VSP L/1 of VDPD to L/1 of JGPM setting ORL .  And  Reception of Dn train from VDPD (VSP MYD line) on L/4 of JGPM and dispatch to GPT. Or Reception of Dn train from DVD (NTPC line) to L/4 and dispatch to GPT Or Reception of Up train from GPT on L/4 of JGPM and dispatch to VDPD or DVD
3)	Reception of Up train from SCMN L/2 on L/1 And of JGPM setting ORL		Reception of Dn train from VDPD MYD line or NTPC line of DVD to L/4 of JGPM and dispatch to GPT. Or Reception of Up train from GPT on L/4 of JGPM and dispatch to VDPD or DVD.
4)	Reception of an Up train from GPT on L/4 of And JGPM and dispatch to VDPD [VSP MYD line] or DVD NTPC line,		Reception of Dn train from VDPD VSP L/1 of JGPM setting ORL.  And  Reception of Dn train from VSP L/2 to L/3 of JGPM end dispatch to SCMN VSP L/1 or L/2
5)	Reception of an Up train from GPT on L/3 of And JGPM and dispatch to VDPD [VSP MYD line] or DVD NTPC line.		Reception of a Dn train from VSP L/1 to JGPM of JGPM setting ORL or dispatch to VSP L/1 or L/2.

### **6.5 COMPLETE ARRIVAL OF THE TRAINS:**

The entire block section between JGPM-SCMN (VSP-L1), JGPM-WMY (VSP-L2) JGPM-GPT (WAT MYD Line ), JGPM-DVD (NTPC Line) are monitored by digital axle counter system and the position of the block section whether 'Occupied' or 'Clear' is indicated on VDU at SS / SM's office. As soon as train enters in to that block section the RED indication appears on VDU. After whole train clears the block section GREEN indication appears on the VDU. This confirms the complete arrival of train and the SS/ SM on duty shall give 'Train Out of Block Section' report on seeing the section clear indication GREEN on the VDU.

If a train passes through the station without conforming the last vehicle indicator, the

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

SS/Station Master on duty shall advise the station in advance to stop the train for last vehicle verification and he need not to withhold closing of block section in rear. He 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.

In case of failure of Axle counter the SS/SM on duty shall obtain Complete Arrival Certificate from the guard of the train in the Complete Arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SS/SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide SR 4.16.05 that the train arrived complete.

In case a train passes incomplete, action shall be taken as per SR.4.17.02, he "Train out of Block Section" report shall be withheld to the station in rear until Complete Arrival Certificate is received from the station in advance supported by a private number. Train passing on adjacent line shall be stopped and Guard and loco pilot shall be issued with caution Order to proceed cautiously and stop short of any obstruction as per SR. 4.17.03. On occasions when motor trolley follows a train the points shall not be operated until the following motor trolley is admitted on the same line. In the event of motor trolley is delayed in the section the SS/SM on duty shall take action in terms of SR.15.25.03(b)(vi).

In case the train arriving with last vehicle, the LV number is to be repeated vide. BWM 2.07.5 (a)

#### **6.6 DESPATCH OF TRAINS:**

To dispatch a train, the Station master on duty having obtained line clear for that train, shall set the route for the outgoing train correctly and satisfy himself by observing the visual indication on the VDU. He shall suspend all non-isolated shunting and the SS/SM will ensure that the Level crossing Gate is closed against road traffic and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the advanced starter is the authority to proceed into the block section. As soon as the train passes the advanced starter signal, Train entering section indication will appear on the VDU. The SS/SM will then send the train entering given section signal to the station in advance.

[Refer GR 3.38, 3.42, SR 3.36.04(b), 3.42.04 and BWM 2.07.5(a)]

Note: Before despatching train into JGPM-DVD block section the SS/SM on duty shall ensure the close of LC Gate from the gateman on duty.

#### **6.7 Trains running Through:**

- a) The provision of GR 3.40, 4.17, 4.42 with relevant SRs and SR 3.42.02(a)(iv) and other relevant provision of BWM shall be observed.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

- b) The sequence for taking 'OFF' signals for run through trains is governed by SR 3.42.02 (a).
- c) In every case in which trains are permitted to run through on a non isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule 5.23 may be kept standing on a connected line which is not isolated from through line vide SR 4.11(2).
- d) The SS/SM on duty is responsible to see that a train passes complete with its last vehicle indicator. If a train passes without last vehicle indicator or its authorized substitute, action shall be taken as per General and Subsidiary Rule. [Ref GR 3.42, 4.17 4.42,& SR 4.42.02 (b) (i) ,(ii), (iii),c & (d) ].

## **6.8 WORKING IN CASE OF FAILURE**

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

#### **A) TRACK CIRCUITS:**

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

#### **B) AXLE COUNTER:**

If the axle counter fails between the block sections, resetting procedure will be adopted as per SWR (APP-B). If the axle counter indication does not appear 'GREEN & continues to show 'RED' condition after resetting, the concerned block section shall be suspended & failure intimation to be given to sectional signal Maintainer /JE/SSE (signal) for rectification.

#### **C) BLOCK INSTRUMENTS**

In the event of partial/total failure of block instrument the concerned block instrument shall be suspended till its rectification and trains shall work as per GR. [Refer SR 6.02.03 & 6.02.06)

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

#### **D) RECEPTION OF A TRAIN ON BLOCKED LINE**

- NIL-

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**E) RECEPTION OF TRAIN ON NON-SIGNALLED LINE**

-Nil-

**F) DEFECTIVE SIGNALS:**

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

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

**G) DEFECTIVE INTERLOCKING**

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

**H) DEFECTIVE/DAMAGED POINTS**

When any point fails to operate normally by the route setting operation through VDU it is inevitable to operate the points with crank handle. The SS/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 shall be followed as per operating manual para-20.06. An emergency Crank handle register shall be maintained by the SS/SM on duty at the station as per Para 20.06(d) of the Operating Manual. Correct setting clamping and padlocking of the points devolve on the SS/SM on duty. (Details of use of Crank Handle as per Appendix-'B'). The cases of the failures of the motor point should be promptly reported to the concerned signal maintainer/signal inspector for immediate rectification.

**6.9 PROVISIONS FOR WORKING OF TROLLEYS/ MOTOR TROLLIES, MATERIAL LORRIES ETC.**

Motor trolleys shall be worked as per GR 15.25 and SRs there to and BWM 5.11(2), 5.12, 5.13 and 5.14(2)(b). Material Lorries shall be worked in accordance with GR.15.27

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT



and SRs there to and BWM 5.11(2),5.13 and 5.13(2)(b) .Trolleys, Motor Trolleys, Lorries which are not insulated shall not be allowed to run except on Line clear.

- i) Motor Trolleys/Tower Wagon/material Lorries are not likely to actuate the Axle Counter correctly.
- ii) In all other respects the Working of a light motor trolley shall conform to the rules laid down for ordinary trolleys while running without block protection and to those laid down for motor trolleys while running under block protection or following another light motor trolley.

## **7.0 BLOCKING OF THE LINES:**

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. 'Line Block' is to be activated on VDU by SS/SM on duty. A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23 ,SR5.04.01(a) and SR 5.23.01(a)]

### **A) SECURING OF VEHICLES: -**

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

#### **NOTE**

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

## **8.0 SHUNTING**

### **8.1 GENERAL PRECAUTIONS.**

Shunting will be carried out at the station in accordance with General Rule and relevant Subsidiary Rules and Block working Manual [Refer GR 3.46, 3.52 to 3.56,5.13 to 5.23, 8.09 to 8.15] The SS/SM on duty is authorized to supervise shunting operation. Normally back shunt, shunt below starters and intermediate starter signals shall be used for shunting operations. The official supervising the shunting shall ensure the correct setting, clamping and padlocking of points in case of Non signalled movements.

The SS/SM on duty and the official supervising shunting shall cooperate with each other regarding shunting operations. Neither reception signals nor departure signals shall be

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

taken 'OFF' unless the shunting is isolated and the path of incoming or outgoing train is free from obstructions. The overrun line may be used as shunting neck.

**NOTE:** - For any non signalled movement physical verification of the clearance of the crossover points shall be ensured by the Guard/SS/SM on duty for supervising shunting operations.

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

Shunting in the face of an approach train is strictly prohibited.

**8.3 PROHIBITION OF SHUNTING – ANY SPECIAL FEATURES IF ANY:**

- i) Hand shunting /Fly shunting is prohibited at both ends of the yard.
- ii) For shunting end of the yard, Engine should be leading towards the falling gradient.

**8.4 SHUNTING ON SINGLE LINE**

- i) Shunting with in station section (i.e between to last stop signal of the opposite direction of the concerned line) is governed by GR 8.10 provided the block section is clear of an approaching train in view of the steep gradient.
- ii) Shunting out side the station section and upto first stop signal shall be governed by GR 8.12.
- iii) Shunting outside the first stop signal shall be governed by GR 8.13.
- iv) During failure of block instrument shunting beyond outer most point shall not be performed unless the section is clear at that end and is blocked back.

**Note:** During shunting operating

- a) A competent Railway servant (deputed by SM) shall supervise the shunting operations.
- b) The train is having sufficient brake power.
- c) All necessary signal are kept at 'ON' (except the concerned shunting signals)

**8.5 Shunting in the siding taking off from station yard / goods yard.**

Not applicable

**9.0 ABNORMAL CONDITIONS:**

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

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

i) **During partial interruption /failure of electrical communications instrument.**

During partial interruption of communications train shall be worked in accordance with BWM 5.16 & 5.23 and SR 6.02.06.

ii) **The authority to proceed in the occupied block section in case of obstruction of line or accident etc.**

Rules and regulations for working of trains on obstructed line in case of obstructions or accident on the authority of Block Ticket T/A 602 when communications are available shall be followed in accordance with the provisions of SR 6.02.02 and 06.02.05.

iii) **Trains delayed in block section.**

The procedure laid down in GR 6.04 and SR there on shall be followed.

iv) **Failure of axle counter block / BPAC:**

The block section between JGPM & the block stations connected to JGPM at the other end is controlled by block proving Axle counters. When the block proving Axle counters (BPAC) fail to prove the clearance of the block section between JGPM and the station at other end no train shall be allowed into the concerned section unless the last train arrived complete at the station in advance and complete arrival confirmed by the station master on duty at the station in advance support by private number.

The procedure for resetting of Axle counters given in Appendix 'B' shall be followed for resuming normal working.

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

Whenever the motor operated points fails to operate from panel the SM on duty shall initiate action to set the point with crank handle.

However before initiating such action the SM on duty shall physically verify the clearance of the point zone and also for any possible obstruction in the point. If the obstruction is due to a ballast or any other foreign object he shall arrange to remove the same and shall then resort to normal operation or other wise the procedure laid down in GSR 3.77, 3.68 & 3.69 with SR there to and OM.20.06 shall be followed.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Detailed procedure given in Appendix 'B' shall also be followed.

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

Before taking off Calling –On signal during failure of track circuit/axle counter, the route and the clearance of the track over which train would pass to be verified by SS/SM.

d) **REPORTING FAILURE OF POINTS, TRACK CIRCUITS / AXLE COUNTERS AND INTER LOCKING:**

Whenever there is a failure of points, track circuits/axle counters or any other interlocking gear at the station the failure should be reported by SS/SM on duty to the concerned signal maintenance staff on duty responsible for attending the failure and only after the receipt of the written memo from the signal maintenance staff for rectification of the fault SS/SM on duty should restore the normal working after testing for its normal function SR 3.51.04 & SR 3.77.01 shall be followed.

The entries in failure register to be done with message to the section controller.

**9.1 TOTAL FAILURE OF COMMUNICATIONS:**

- a) In the event of total interruption of communications on single line trains shall be worked in accordance with SR 6.02.04.
- b) During partial interruption of communication the rules laid down in SR 6.02.03 shall be followed.

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

Not applicable.

**9.3 DESPATCH OF TRAINS UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR OR TO ASSIST A CRIPPLED TRAIN.**

Rules and regulations for working trains on an obstructed line in case of obstruction or accident on the authority of block ticket (T/A-602) when communications are available shall be followed in accordance with the provisions of GR 6.09 and SRs thereto.

**10.0 VISIBILITY TEST OBJECT:**

The signal lights of Starter signal No. 15 and 28 of line No 1 (loop line) are earmarked as Visibility Test Object in terms of GR 3.61 (2) (b) (ii). .

**11.0 ESSENTIAL EQUIPMENT AT THE STATION:**

(Details are given in Appendix-'E')

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**12.0 FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG****i) FOG SIGNALLING:-**

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

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

**12.1 STATION DETONATOR REGISTER (OPT/124)**

A Register regarding detonator is maintained at the station.

**12.2 INSTRUCTIONS:**

- a) This register contains the following parts.
- b) Part - I: Particulars of fog signal men posted at the station from time to time.  
Part – II: Particulars of receipt and stock of detonating (fog) signals at the station to be filled in whenever detonators are used or received.  
Part – III: Periods of fogs, fog signalmen on duty and details of detonators used.  
Part – IV: Particulars of issue and testing of fog signals at the station.
- c) In charge of the station shall ensure that the information maintained in the register is kept up to date and is accurate in all respects.
- d) Transportation inspectors shall check the registers and also the stock of detonators on hand each time they visit the station and initial with date as an indication having done so.

**13.0 APPENDICES**

<b>APPENDIX-A</b>		WORKING OF LEVEL CROSSING GATES
<b>APPENDIX-B</b>		SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
<b>APPENDIX-C</b>		ANTI COLLISION DEVICE ( RAKSHA KAVACH)

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

<b>APPENDIX-D</b>		DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT
<b>APPENDIX-E</b>		LIST OF ESSENTIAL EQUIPMENT PROVIDED AT THE STATION
<b>APPENDIX-F</b>		RULES OF WORKING OF DK STATION, HALTS, IBH, IBS AND OUTLYING SIDINGS
<b>APPENDIX-G</b>		RULES FOR WOKING OF TRAINS IN ELECTRIFIED SECTIONS

14.0 **CERTIFICATE :**

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

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**APPENDIX-'A'**  
**WORKING OF LEVEL CROSSING GATES**  
**WORKING RULES FOR 'C'-CLASS NON-INTERLOCKED GATE SITUATED**  
**AT KM 2/7-8 BETWEEN JGPM-DVD**

**1. GENERAL:**

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

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

1	No. of Level Crossing Gate	:	1
2	Engineering or Traffic gate	:	'C' CLASS MANNED GATE (Private siding maintained by M/s STPP/NTPC/PARAVADA, Visakhapatnam.
3	Under control of station master or permanent way inspector.	:	General Manager, M/s Simhadri Thermal Power Project/NTPC Paravada, Visakhapatnam
4	Location at Km.	:	KM. 2/7-8
5	At station	:	JGPM-DVD-NTPC
6	In between station	:	JGPM-DVD
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Single Line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Non Interlocked
11	Means of Interlocking	:	
12	Provision of gate single at Km.	:	i) Up Line : ii) DN Line :
13	Signaling arrangement	:	
14	Means of communication Telephone.	:	Telephone with JGPM Station Master
15	Width of the level crossing gate	:	7.5 M
16	Type of road	:	Village Road
17	Name of road	:	
18	Metalled /Non-Metalled	:	BT Road
19	Approach road	:	4.0 M
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90 <sup>0</sup>
22	Road gradients (if any)	:	[a]North/East Side: Level [b]South/West Side:
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side :

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'**

24	Provision of height gauges	:	Provided 8 M Gate Post
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	CC Block
28	Length of rumble strip/ speed breakers.	:	4.5 M
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU:	:	5535 AS ON 07/07/14
32	Census next due on	:	2017
33	Demarcation for placement of detonators.	:	Provided
34	No. of gateman working	:	3
35	Nearest Railway Medical Assistance	:	Vadlapudi Railway Hospital
36	Nearest Private Medical Assistance available (if any)	:	Kurmannapalem
37	List of equipment available (Yes/No)	:	Yes

**1.2 EQUIPMENT:**

<b>Items</b>	<b>Quantity / Numbers</b>
1. Hand Signal Lamp Tri Colour	3 (5 on Quadruple / Line or twin single line)
2. Hand Signal Flag Green	1 No with mounted stick
3. Hand Signal Flag Red	3 (6 Nos. on Quadruple / Line or Twin Single line and 7 in case Hexaple Section mounted on sticks)
4. Banner Flag Red	3 ( 5 on Quadruple / Line or twin single line )
5. Posts for exhibiting red banner flag	2 ( 4 on Q / Twin single line and 5 on Hexaple section )
6. Spare chains with padlocks	2 with stop marker
7. Detonators	10 in each case
8. Gate lamps	2 Nos.
9. Tommy Bar	1 No.
10. Mortar Pan	1 No.
11. Spade / Fowrah	1 No.
12. Rammer	1 No (In case of asphalted road this may not be provided )
13. Pick Axe	1 No (In case of asphalted road this may not be provided )
14. Tin case for flags	1 No.
15. Can for oil	1 No.
16. Water port / Bucket	1 No.
17. Canister for Muster Roll	1 No.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT



**APPENDIX-'A'**

<b>Items</b>	<b>Quantity / Numbers</b>
18. Set of spare spectacles of gateman wearing glasses	1 No.
19. Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20. Basket	1 No.
21. Whistle	1 No.
22. Wall Clock	1 No.
23. A small size chin for use in case of failure of gate boom/Leaf Lock	1 No.

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

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

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

**1.4 MODE OF OPERATION:**

Detailed mode of operation for opening and closing the gate shall be provided in the respective Station Working Rules and Gate Working Instructions Incorporating local operational requirements. The procedure given in para No 2 of Annexure IV to be followed.

**1.5 DUTIES OF GATEMAN:****1. ALERTNESS:**

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

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'****2. POSITION DURING PASSAGE OF TRAINS:**

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

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

**3. ROUTING DUTIES OF GATEMAN:**

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or SSE(P-Way) any defect in his gate or apparatus pertaining to it, as soon as possible.

**(CH.B.SRINIVAS)**  
DSTE/WAT

**(S,MAYLERI)**  
DEN(LINE-II)/WAT

**(F.Minz)**  
DOM/(G)/WAT

**APPENDIX-‘A’**

- ix) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- x) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xi) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiii) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xiv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xv) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvi) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xviii) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

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

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

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'**

- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

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

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

The gateman shall protect the line as under:-

**a) On double line section:**

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'**

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

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'**

vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

c) **Other action to be taken by Gateman:**

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

1.6 **ENGINEERING ITEMS:**

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

1.7 **SPECIAL INSTRUCTIONS FOR DIFFERENT TYPES OF LEVEL CROSSINGS:**

Instructions for different types of manned Level Crossing Gates are given in Annexures as follows:

- i) Annexure – I Engineering Level Crossing Gate, Interlocked with gate signals, provided with telephone, with normal position 'Open to road traffic'.
- ii) Annexure – II Traffic Level Crossing Gate, Interlocked with stop signals of the station, provided with telephone, with normal position 'Open to road traffic'.
- iii) Annexure – III Traffic Level Crossing Gate, Interlocked with stop signals of the station, provided with telephone, with normal position 'Closed to road traffic'.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**APPENDIX-'A'**

- iv) Annexure – IV Engineering Level Crossing Gate, non-interlocked, provided with telephone, with normal position 'Open to road traffic'.
- v) Annexure – V Engineering Level Crossing Gate, non-interlocked, provided with telephone, with normal position 'Closed to road traffic'.
- vi) Annexure – VI Engineering Level Crossing Gate, non-interlocked, not provided with telephone, with normal position 'Closed to road traffic'.

**(CH.B.SRINIVAS)**  
**DSTE/WAT**

**(S,MAYLERI)**  
**DEN(LINE-II)/WAT**

**(F.Minz)**  
**DOM/(G)/WAT**

**ANNEXURE – IV**

**WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION ‘OPEN TO ROAD TRAFFIC’**

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

**1. Mode of Operation:**

Detailed mode of operation for opening and closing the gate shall be provided in the respective Station Working Rules and Gate Working Instructions Incorporating local operational requirements. The procedure given in para No 2 of Annexure IV to be followed.

**2. Exchange of Private Number:**

- (a) **When Gate is connected with the station at the dispatching end:**
- (i) Station Master at the dispatching end shall advise the gateman the number, description, direction and expected time of the passage of the train at the gate, under exchange of private number.
  - (ii) Such advice shall be given before taking ‘OFF’ departure signals or giving an authority to proceed to the Loco Pilot.
  - (iii) The gateman on receipt of the advice shall close the gate well in time and confirm the same, under exchange of private number.
  - (iv) Station Master will lower the departure signals after getting the private number of the gateman.
  - (v) The gateman shall be authorized to open the level crossing after complete passage of train from the gate by observing Tail Board/Tail Lamp. The Gateman before opening the gate shall ensure the SM has not advised him to keep the gate closed for any other train from the same direction. He shall display a banner flag across the track while the gate is in open condition.
- (b) **When Gate is connected with the station at the receiving end:**
- (i) Station Master at the dispatching end shall advise the Station Master at the other end the number, description, direction and expected time of passage of the train at the gate, under exchange of private number.
  - (ii) Such advice shall be given before obtaining line clear.
  - (iii) Station Master at the receiving end shall in turn convey the same advice to the gateman, under exchange of private number.

**(CH.B.SRINIVAS)**  
DSTE/WAT

**(S,MAYLERI)**  
DEN(LINE-II)/WAT

**(F.Minz)**  
DOM/(G)/WAT



- (iv) Gateman shall close the gate and thereafter give his private number to the Station Master.
- (v) Only then shall the Station Master at the receiving end grant line clear to the Station Master at the dispatching end.
- (vi) The gateman shall be authorized to open the level crossing after complete passage of train from the gate by observing Tail Board/Tail Lamp. The Gateman before opening the gate shall ensure the SM has not advised him to keep the gate closed for any other train from the same direction. He shall display a banner flag across the track while the gate is in open condition.

3. **Failure of Telephonic Communication:**

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

- (i) Station Master at the dispatching end shall issue a caution order to the driver before dispatching a train in the block section from his end.
- (ii) The Caution order should advise the drive to whistle continuously and approach the gate cautiously.
- (iii) The Loco Pilot should be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and depute his Assistant Loco Pilot to see the condition of the gate. If the gate is closed, the Assistant Loco Pilot must close the gate and then give the all right signal. In the absence of the Assistant Loco Pilot, the Driver may take the assistance of the Assistant Guard / Guard and shall stop clear of the level crossing to pick up the Assistant Loco Pilot who will reopen the gate for passage of road traffic.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the drive before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman / patrolman or driver of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

4. **Failure of Lifting Barriers :**

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

5. **Obstruction at the Gate:**

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defect / obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception / departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after three attempts, he shall first protect the gate and then inform on phone.
- (v) Gateman shall then rush with detonators, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to driver of the train, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

6. **Obstruction on the Track near Level Crossing:**

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item no.5 above. If the obstruction fouls the Level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

(CH.B.SRINIVAS)  
DSTE/WAT

(S,MAYLERI)  
DEN(LINE-II)/WAT

(F.Minz)  
DOM/(G)/WAT

**Appendix – B****SYSTEM OF SIGNALLING AND INTERLOCKING****1. OPERATING CUM INDICATION PANEL: -**

"Jaggayyapalem" (code JGPM) is a 'B' Class standard II R interlocked station, it is situated at Km 875.197 as reckoned from Howrah on single line section between WMY-SCMN-VSP section. Yard lay out is represented by the WRD no. 10937 Alt 'B'

All the points and signals are operated from operating cum indication panel (Solid State interlocking) placed centrally at station. This gives geographical representation of the yard as per CSTE's interlocking plan No 10937 Alt 'B'. Normal operations like Route setting and point operation are done by two button operation and emergency operation like Emergency Route Cancellation and Emergency point Operation are done by three-button operation.

The track layout is subdivided according to the track circuit configuration with distinctive colours for each track circuit/axle counter on the track line adjacent to each signal. When a route is set and locked, the route is illuminated by white strips in the track circuit configuration throughout the route. The indications turn to red when track is occupied. The white route locked indication disappears only after the route is released. However, platform track circuit indication will continue till it is occupied and cleared by the approaching train.

One VDU (Visual Display Unit) is provided as standby to operate ail functions similar to 'the operating-cum indication panel. in case of failure of Solid State interlocking unit a buzzer will ring. On duty SM/ASM need to press 'ACK for system failure' another to mute the buzzer.

Condition of SSI unit with its stand by will also appear on the panel board. Two lamps are again provided to indicate the mode through which ASM/SM is operating signals points and other control.

In each direction distant signal at a distance of 1 km in rear of home signal is erected for receiving trains. The signal have 'P' marker fixed on the stem of the signal post to indicate that they are permissive signal and their working are automatically controlled by the respective home signal displaying caution, attention or clear aspects.

**NOTE:** Uninsulated push trolley/material lorries must not be taken over this track circuited portion on the running lines and FVT (first vehicle track) / LVT(last vehicle track) section without informing SM/ASM on duty.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

## **2.1 POINT OPERATION FROM PANEL.**

Since this is a Route setting type of Panel Interlocking, the points will be set to the required position and locked by the operation of signal and route button.

## **2.2 INDIVIDUAL POINT OPERATION**

### **2.2.1 NORMAL TO REVERSE.**

The point button of relevant point and reverse group point button have to be operated. This reverse group point button is common for operating any point from normal to reverse. Cross-lights flashing will appear over diagonal strip during points operation and steady lights will appear after the points is set to reverse position.

### **2.2.2 REVERSE TO NORMAL**

The point button of relevant point and common normal group point button have to be operated. Straight light flashing appears over horizontal strip during points operation and steady light appears after the point is set to normal position.

## **2.3 EMERGENCY POINT OPERATION.**

Emergency point operation shall be resorted to in case of failure of point zone track circuit or point zone axle counter. Such operation shall be possible if point is free. For emergency point operation, seal on emergency point operation button must be broken by on duty SS/SM/ASM and emergency point operation key must be turned night then emergency point operation button is to be operated along with relevant point button simultaneously. Then retaining point button pressed, emergency point button is to be released and the Group Normal point button or Group Reverse point button is to be pressed for operating, the point to Normal or Reverse position. Emergency operation advances emergency point operation counter to next higher number which has to be recorded in a separate emergency point operation register with proper remarks for such operation. This operation must be done by on duty SS/SM/ASM after satisfying himself that no vehicle is occupying the point zone.

## **2.4 MANUAL OPERATION OF POINTS (With Crank Handle)**

This operation shall be resorted to when point cannot be operated from panel. This operation is only possible when concerned route is not set and crank handle locked indication is not lit up. For manual operation of point relevant crank handle key has to be extracted from the concerned RKT near panel. This crank handle key is then taken to the site, inserted into the point Machine to unlock Crank Handle Operation and it facilitates insertion of Crank Handle in Electrical Point Machine. For extracting crank handle key from RKT. SM has to press relevant crank handle zone button and group trans button simultaneously. Then ASM/SM has to press a red push button below RKT and then extract relevant crank handle key by turning it anticlockwise.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

In normal position when crank handle key is in RKT, steady white light indication appears by the side of crank handle zone button. When SM presses particular crank handle zone button and group Trans button the white light above this crank handle zone button starts flashing. After extraction of crank handle key from RKT, flashing white light disappears. The extraction of crank handle key from RKT renders the points in that particular group inoperative from the control panel. But the concerned

points can be again operated from the panel only when the crank handle key is restored to the concerned RKT and locked therein. for restoring the crank handle key, it has to be inserted into the concerned RKT and turned clockwise. Then the SM has to press relevant crank handle zone button and group release button simultaneously.

When the crank handle key is inserted into the concerned RKT & turned, flashing white light indication appears. When SM presses the relevant crank handle zone button & group release button simultaneously the flashing white light becomes steady confirming that the crank handle key has been restored to Normal.

Points for manual operation are grouped into the following crank handle zones. Crank handle grouping is such that, points in a particular group can be operated only with the crank handle key pertaining to the concerned crank handle zone.

<b>Crank Handle</b>	<b>Controls Points.</b>
CH -1	101A/B,
CH - 2	104
CH - 3	106 A/B
CH - 4	111 A/B, 115 A/B
CH - 5	112 A/B ,114
CH - 6	113
CH -7	107

## **2.5 EMERGENCY CRANK HANDLE RELEASE :**

After passage of train if the route remain locked, i.e. white luminous indication persists in the control cum indication panel, then for alteration of the route by crank handle operation of point can be resorted. In that particular case SM on duty should press particular crank handle Gr. Button along with Group Trans button. Flashing indication in Group Trans appear in the control panel. After elapses of 120 sec. crank handle will come out from the RKT and steady Gr. Trans. Indication appear in the control panel.

## **3.0 EMERGENCY GATE RELEASE : NIL**

## **4.0 ROUTE SETTING AND INDICATION:**

- a) Separate route button on each line has been provided for the reception and despatch of trains. The points of the intended route including overlap shall be set by pressing concerned signal button and route button.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

- b) In addition to this if the point zone track circuits have not failed and point are free, it can be set by individual point operation system following the method as described in para 2.2 of App 'B'. in such case for clearing signal. signal button and route button have to be pressed after point operation.
- c) When the route is correctly set and the signal is taken 'off white light indications appear on track circuit over the route set- These indications will turn to Red as and when train occupies the track circuit.

#### 5.0 SIGNAL CLEARANCE:

- a) Signal clears automatically as per operation stated vide 4(a) as per route setting.
- b) For clearing the signal of nominated route, the signal button and route button (located in the middle of the route) are to be operated simultaneously. For clearing calling on signal, calling on signal button has to be operated along with route button and signal will clear after lapse of 120 seconds only when nominated calling on track circuit is occupied by the approaching train.

#### 6.0 EMERGENCY ROUTE CANCELLATION:

If the route set has to be cancelled due to any reason, the following procedure is to be adopted in order-

- a) Signal to be cancelled by pressing signal button and signal cancellation button simultaneously and then released.
- b) Press Emergency Route Cancellation Button first and then press the Signal Button and then release them.
- c) After above mentioned operation, emergency route cancellation counter advances to next higher number and also route light will disappear after a lapse of 120 seconds, if approach track circuit is occupied by a train, after the first operation as indicated in (a) above.

#### 7.0 DESCRIPTION OF BUTTONS, COUNTERS AND INDICATIONS

##### 7.1 FUNCTION OF BUTTONS.

Sl. No	Push Button	Description	Function
<b>SIGNAL BUTTONS</b>			
1	S1	Red Colour Push Button	Press to take 'off' Up Advance starter Signal No: 1 (4 Aspect) signal along with respective route 1 button to VDPD.
2	S2	Red Colour Push Button	a) Press to take 'off' DN Home Signal No: 2A/B (3 Aspect signal) along with respective route button from VDPD.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

<b>Sl. No</b>	<b>Push Button</b>	<b>Description</b>	<b>Function</b>
<b>3</b>	<b>C2</b>	Red colour with white dot push button.	Press to take 'OFF' C-2 /B <i>Dn.</i> . Calling signal along with respective route button after the train has occupied calling ON track.
<b>4</b>	<b>S3</b>	Red Colour Push Button	Press to take 'off' Up Advance starter Signal No: 3 (4 Aspect signal along with respective route button) to VDPD
<b>5</b>	<b>S4</b>	Red Colour Push	Express to take 'off' DN Home Signal No; 4A/B/C (3 Aspect signal along with respective route button i from VDPD
<b>6</b>	<b>C4</b>	Red Carbon with white dot push button	Press to take off DN calling on C4 A/B/C signal C 4 along with respective route button after the train has occupied C/ON track.
<b>7</b>	<b>S5</b>	Red coloured Push Button	Press to take 'off' Adv. Starter signal No. 5 along with route button to VDPD.
<b>8</b>	<b>S6</b>	Red coloured Push Button	Press to take 'off' DN Home Signal No: 6A/B/C/D (3 Aspect signal along with respective route button) from VDPD.
<b>9</b>	<b>C6</b>	Red colour with white dot push Button	Press to take off C-6 A/B/C/D DN calling on Signal along with respective route button after the train has occupied C/ON track.
<b>10</b>	<b>S9</b>	Red coloured push button	Press to take off UP Advance Starter Signal No.9 to NTPC along with respective route button to NTPC.
<b>11</b>	<b>C10</b>	Red coloured push button	Press to take off DN Home signal NO-10 A/B/C/D along with respective route button from NTPC.
<b>12</b>	<b>S10</b>	Red coloured with white colour dot push button	Press to take 'off' C-1 0 A/BC/D DN calling on signal along with respective route button after the train has occupied C/ON track.
<b>13</b>	<b>S15</b>	Red coloured push button	Press to take 'off' Up Line-1 starter along with respective route button.
<b>14</b>	<b>C15</b>	Red coloured with white colour dot push button	Press to take 'off' ' calling on Signal below UP Line-1 Stater along with respective route button.
<b>15</b>	<b>Sh-15</b>	Yellow coloured push button	Press to take 'off' Sh-15 A/B/C/D along with respective route button
<b>16</b>	<b>Sh-16</b>	Yellow coloured push button	Press to take 'off' Sh-16 A/B along with respective route button
<b>17</b>	<b>S-17</b>	Red coloured push button	Press to take 'off' Up Line-2 Starter along respective route button.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT



<b>Sl. No</b>	<b>Push Button</b>	<b>Description</b>	<b>Function</b>
18	<b>C17</b>	Red coloured with white dot push button	Press to take off C-17 A/B/C/D below UP line-2 Starter along with respective route button
19	<b>Sh-17</b>	Yellow coloured push button	Press to take off Sh-17 A/B/C/D along with respective route button
20	<b>Sh-18</b>	Yellow coloured push button	Press to take 'off Sh-18 A/B/C along with respective route button •
21	<b>S-19</b>	Red coloured push button	Press to take 'off Up. L-3 Starter along with respective route button.
22	<b>C-19</b>	Red coloured with white dot push button	Press to take off C-17A/B/C below UP Line-3 Starter along with respective route button
23	<b>SH-19</b>	Yellow coloured push button	Press to take 'off Sh-19 A/B/C along with respective route button
24	<b>Sh-20</b>	Yellow coloured push button	Press to take 'off Sh-20 A/B/C/D along with respective route button
25	<b>S-21</b>	Red coloured push button.	Press to take 'off UP L-4 Starter along with respective route button.
26	<b>C-21</b>	Red coloured with white dot push button	Press to take off C-21 A/6 below UP Line-4 Starter along with respective route button
27	<b>Sh-21</b>	Yellow coloured push button	Press to take 'off Sh-21A/B along with respective route button
28	<b>Sh-22</b>	Yellow coloured push button	Press to take 'off Sh-22 A/B/C/D along with respective route button
29	<b>SH-27</b>	Yellow coloured push button	Press to take 'off Sh-27 A/B/C/D along with respective route button
30	<b>S-28</b>	Red coloured push button	Press to take 'off DN Line-1 starter along with respective route button.
31	<b>C-28</b>	Red colour with white dot push button.	Press to take 'off C-28 A/B/C/D, below DN line -1 Starter along with respective route button
32	<b>Sh-28</b>	Yellow coloured push button	Press to take 'off Sh-28A/B/C/D along with respective route button.
33	<b>Sh-29</b>	Yellow coloured push button	Press to take 'off Sh-29A/B/C/D along with respective route button.
34	<b>S-30</b>	Red -coloured push button	Press to take 'off DN Line-2 starter along with, respective route button.
35	<b>C-30</b>	Red colour with white dot push button.	Press to take 'off C-30A/B below DN Line1 along with respective route button.
36	<b>Sh-30</b>	Yellow coloured push button	Press to take 'off Sh-30A/B along with respective route button.
37	<b>Sh-31</b>	Yellow coloured push button	Press to take 'off Sh-31 along with respective route button.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
38	S-32	Red coloured push button	Press to take 'off DN Line-3 starter along with respective route button.
39	C-32	Red coloured with white dot push button	Press to take 'off C-32A/B below DN Line-3 Starter along with respective route button.
40	Sh-32	Yellow coloured push button	Press to take 'off Sh-32 A/B along with respective route button.
41	S-34	Red coloured push button	Press to take 'off DN Line-4 starter along with respective route button.
42	C-34	Red colour with white dot push button.	Press to take 'off C-34A/B/C below DN Line-4 Starter along with respective route button.
43	Sh-34	Yellow coloured push button	Press to take 'off Sh-34A/B/C along with respective route button.
44	S-39	Red coloured push button	Press to take 'off S-39A/B/C/D Up Home signal along with respective route button from SCMN
45	C-39	Red coloured with white dot push button	Press to take 'off C-39A/B/C/D Up calling on signal along with respective route button from SCMN.
46	S-40	Red coloured push button	Press to take 'off S-40 DN Adv.str. signal along with respective route button to SCMN.
47	S-41	Red coloured push button -	Press to take 'off S-41-A/B/C/D Up Home signal along with respective route button from-SCMN
48	C-41	Red Colored with white dot Push button	Press to take off C-41 A/B/C/D Up Calling on signal along with respective route button SCMN.
49	S-42	Red coloured push button	Press to take 'off S-42 DN Adv.Str. signal along with respective route button to SCMN.
50	S-43	Red coloured push button	Press to take 'off S-43 Up Home signal along respective route button from GPT.
51	C-43	Red coloured with white dot push button	Press to take 'off C-43 Dn calling on signal along with respective route button from GPT.
52	S-44	Red coloured push button	Press to take 'off S-44 Dn Advance Starter along with respective route button to GPT.
53	L-1UN1	White coloured push button	Press to receive Up & Dn trains by setting: OR with respective route button.
54	L-1UN2	White coloured with black dot push button	Press to receive Up & Dn trains on VSP L-1 with respective signal button.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
55	L-1UN3	White coloured with black dot push button	Press to receive Up and Dn trains from VSP L-2 towards NTPC with respective signal button
56	L-2UN1	White coloured push button	Press to receive Up train from MYD towards VDPD with respective signal button.
57	L-2UN2	White coloured with black dot push button	Press to receive Up train from MYD towards NTPC with respective signal button.
58	L-2UN3	White coloured with black dot push button	Press to receive Up train from VSP line 2 towards MYD line with respective signal button.
59	L-3UN1	White coloured push button	Press to receive Up train from VSP Line-1 towards VSP L-2 with respective signal button.
60	L-3UN2	White coloured with black dot push button	Press to receive Up train from VSP Line-1 towards VSP L-2 with respective signal button.
61	L-3UN	White coloured with black dot push button	Press to receive Up train from VSP Line-1 towards NTPC with respective signal button.
62	L-4UN1	White coloured push button	Press to receive Up train from VSP Line-2 towards VDPD with respective signal button.
63	L-4UN2	White coloured with black dot push button	Press to receive Up train from VSP Line-2 towards DVD with respective signal button.
64	L-4UN3	White coloured with black dot push button	Press to receive Dn train from MYD Line towards VSP L-1 with respective signal button.
65	2T1 UN	White coloured push button	Press to dispatch UP train from L1 or L-2 towards VDPD on VSP L-1 with respective signal button.
66	3 UN	White coloured push button	Press to dispatch UP train to VDPD en VSP L-2 with respective signal button.
67	4 UN	White coloured push button	Press to dispatch Up train to VDPD on VSP L-1 with respective signal button.
68	4T1 UN	White coloured push button	Press to dispatch Up train from L-1 or L-2 or L-3 to VDPD on VSP L-2 with respective signal button.
69	5 UN	White coloured push button	Press to dispatch Up train on MYD Line to VDPD with respective signal button.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
70	6T1 UN	White coloured push button	Press to dispatch Up train from L-1 or L2 or L-3 or L-4 to VDPD on MYD line with respective signal button.
71	9 UN	White coloured push button	Press to dispatch Up train to DVD on NTPC line with respective signal button.
72	10T1UN	White coloured push button	Press to dispatch Up train from L-1 or L2 or L3 or L4 towards DVD on NTPC line with respective signal button.
73	39T1UN	White coloured push button	Press to dispatch Dn train from L-1, L-2, L-3, L-4 to SCMN on VSP L-1 with respective signal button.
74	40 UN	White coloured push button	Press to dispatch Dn train on VSP L-1 to SCMN with respective signal button.
75	41T1Un	White coloured push button	Press to dispatch Dn train from L-1, L-2, L-3, L-4 on VSP L-2 towards SCMN with respective signal button.
76	42 UN	White coloured push button	Press to dispatch Dn train on VSPL2 towards SCMN with respective signal button.
77	43T1UN	White coloured push button	Press to dispatch Dn train from L-4 towards GPT on MYD Line with respective signal button.
78	44 UN	White coloured push buttons	Press to dispatch Dn train towards GPT on MYD Line with respective signal button.
<b>POINT PUSH BUTTONS</b>			
79	101	Black coloured push button	For operating the X-over point no: 101 individually.
80	104	Black coloured push button	For operating the X-over point no:104 individually.
81	106	Black coloured push button	For operating the X-over point no: 106 individually.
82	107	Black coloured push button	For operating the X-over point no- 107 individually.
83	111	Black coloured push button	For operating the X-over point no: 111 individually.
84	112	Black coloured push button	For operating the X-over point no: 112 individually.
85	113	Black coloured push button	For operating the X-over point no: 113 individually.
86	114	Black coloured push button	For operating the X-over point no; 114 individually.
87	115	Black Coloured push button	For operating the X-over point no; 115 individually.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
88	CH-1	Blue coloured push button	Press to extract crank handle key for Point No. 101 along with group trans push button.
89	CH-2	Blue coloured push button	Press to extract crank handle key Point No. 104 along with Group trans push button.
90	CH-3	Blue coloured push button	Press to extract crank handle key for Point No. 106 along with Group Trans button.
91	CH-4	Blue coloured push button	Press to extract crank handle key for Point No. 111, 115 along with Group Trans button.
92	CH-5	Blue coloured push button	Press to extract crank handle key for Point No. 112, 114 along with group Trans button
93	CH-6	Blue coloured push button	Press to extract crank handle key for Point No. -113 along with group trans button.
94	CH-7	Blue coloured push button	Press to extract crank handle key for Point No. 107 along with group trans button.
95	SM's Key		To lock the control panel to prevent unauthorised operation of control panel.
96	SM's Emergency Point Key		This key is required to be inserted and turned to right whenever a point be operated in track circuit failure condition. This key shall be in the custody of SM/ASM on duty.
97	Emergency Point operation	Black colour with red dot	This is to be pressed for emergency operation of point in association with SM's emergency point key when concerned point zone track circuit has failed.
98	DN Train arrived from VDPD, MYD, & VDPD (VSP-L-1)	Chocolate with white dot	This is required to be pushed after complete arrival of down trains to normalize the down TLBL
99	Up train arrived from SCMN (VSP L-1) and GPT	Chocolate with white	This is required to be pushed after complete arrival of Up trains to normalize the Up TLB1.
100	Reset initiated L.V reset Key JGP-SCMN (VSPL-1)		This is required to be pushed & complete arrival of down trains to normalize the down TLBI in case failure of VSP L1 A/C.
101	Reset initiated LV reset Key JGP-SCMN (VSP L-2)		This is required to be pushed after complete arrival of down trains to normalize the down TLBI in case of VSP L-2 A/C.
102	Reset initiated L.V reset Key JGP-GPT		This is required to be pushed after complete arrival of down trains to normalize the down TLBI in case Failure MYD A/C.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
103	LVV re-set counter		After inserted LV re-set key and turn to right and press LVVYN button ( for JGPM-SCMN, JGPM-GPT, JGPM- DVD sections) registers reset operation.
104	Emergency point Operating counter.		This registers the emergency operation of Point.
105	Emergency route release counter.		This registers the emergency route release operation
106	Calling On counter (Dn)		This registers after the calling on signal has taken off.
107	Calling On counter (UP)		This registers after the calling on signal has taken off.
108	System failure Buzzer		This buzzer operates when the point failure and signal failure occurs.
109	Button held Buzzer		This buzzer comes to operation when any of push buttons is stuck.
110	Point Normal push button	Black coloured with Red dot	This is to be pressed to initiate normal setting of points along with concerned point button for individual operation or points
111	Point Reverse push button	Black coloured with Red dot	This is to be pressed to initiate Reverse setting of points along with concerned point button for individual operation of points
112	Emergency Route Release Button	White coloured button with Red dot	For Emergency Route Release
113	Signal Cancellation Push Button	Red coloured button	For cancellation of a signal which is already taken off, or to release route after time lag..
114	Button held Buzzer muting	White coloured button with Red dot	For muting the button held buzzer, which starts buzzing when a button is held up.
115	Group Trans Button	White coloured button with Black dot	To be pressed for transferring the control to the concerned Crank Handle along with concerned crank Handle Push Button
116	Group Release Button	White coloured button with Black dot	To be pressed for releasing the control from the concerned Crank Handle along with concerned Crank Handle Push Button

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Sl. No	Push Button	Description	Function
117	Point and Signal, failure buzzer muting button.	Red coloured with White dot	To be pressed for acknowledging Signal Lamp and point failure buzzer.
118	Panel/PC Key		This key is required to be operated whenever the operator wants to switch over from the panel to VDU operation and vice versa

## 7.2 SPECIAL INDICATIONS

**I** UP/DN Block Release indications: After the complete arrival of a train White indication will be lit and persist till the block instrument Commutator is turned to Line Closed Position.

**II** Microlock System Indication:

(A) System A

Green Indication (3 No.s): To show that Microlok II System A is in working condition.

(i) Red Indication (3 SNo.s): To show that Power is not available to Microlok II System A

(B) System B

Green Indication (3 No.s): To show that Microlok ii System B is in working condition.

Red Indication (3 No.s): To show that Power is not available to Microlok II System B.

## 8 ROUTE SETTING

The panel is a route setting type of panel Interlocking.

### 8.1 Reception and dispatch:

To take off a reception or a despatch signal, the relevant signal button and the concerned route button of the intended line have to be pressed simultaneously. This operation will enable the points, on the route, to set in their required position including isolation / over lam. Alternatively, the points can also be set by individual point operation method as described in earlier paras. But for clearing the signal, signal button and the Route button will have to be pressed after the individual point operation. If the Points are correctly set and the track circuits on the route are clear, white this light on the route gets illuminated

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**8.2 Calling on signals**

Calling on signals are provided to receive trains in the event of failure of the main reception signals due to track circuit / axle counter failure. Calling-on signal button will be pressed after the train has come to a stop at the foot of the reception signal ensured by seeing the track red indication. After operating the calling on signal button along with Route button the signal will clear after a lapse of 120 seconds. The respective counter registers the operation by an increment of one number on the count.

**9.0 Despatch of Trains:**

Despatch of trains will be governed by the provisions of General and Subsidiary Rules 3.42, 3.70 ( Block Working Manual-Rules and working rules of the station) The SM/ASM after obtaining line clear for the train and after satisfying himself that all the points for the route have been correctly set, and interlocked level crossing gate are closed and locked, the line is free from all obstruction shunting order issue for concern line is withdrawn shall take off the concerned departure signals.

**9.1 From JGPM towards MYD line . VSP line. VDPD-MYD line. VDPD-VSP line, and NTPC**

Receipt and despatch of trains governed by rules, 3.07(4)(5)(7), 3.08(a)(b). 3.32, 3.36. 3.37, 3.38, 3.40, 3.42, 3.46 and 4.17 and other relevant provision of G & SR, BWM, CM and SWR,

**10. FAILURES :****10.1 FAILURES OF SIGNALS AND POINTS.**

Any defect in the working of signals/points must be reported to sectional signal maintainer / signal inspector over control telephone followed by a confirmation message, with a copy to the sectional signal inspector. When any signalling gear affecting train movements is to be taken up for repairs/ adjustment/disconnection, prior consent of SM must be obtained and such permission must not be delayed unduly and SM is also responsible to comply with GR's 3.68, 3.69, 3.76 and SR's there to when signals are defective.

**10.2 FAILURES OF INTERLOCKING :**

During signal failures SM is responsible for compliance of SR 3.51-02, 3.68..01. If interlocking fails, movements of trains must be permitted at a restricted speed of 15 KMPH over the concerned line with points clamped and Pad locked after notifying

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT



the driver through a caution order, as per SR 4.09.01 and after complying with SR 3.69.03, 3.70.01 until the defect is rectified. The responsibility for correct setting clamping/padlocking of points in case of failure of interlocking devolves upon the SM on duty. On completing repairs, the S&T maintainer must issue a "re-connection" memo and SM must notify all concerned through a telegram about removal of temporary restrictions and restoration of normalcy.

### **10.3 FAILURE OF POINTS:**

When a route is set by pressing the concerned route push button, the route will be lit by steady strip indications within 15 seconds. In case of failure of points, point

failure buzzer sounds on the panel and it is muted by pressing point failure acknowledgement button. Flashing strip light will persist on the point zone, which has failed. Crank handle operation is to be adopted as detailed in item no.2.4 appendix "B".

### **11. PUSH BUTTON OPERATION CHART :-**

For reception and dispatch of Up & Down trains, for operation of Push buttons please refer para no. 6.2.1 from page no. 9 to 13 of station working rules.

### **12. TRACK CCT/AXLE COUNTER:**

The station yard along with 9Rail length Calling -ON track circuit are provided for replacement of signal as well as to ascertain proper positioning of train movement. In lieu of PSC layout there are two axle counter provided at VSP L-2 line over bridge , i.e. 41AXT,41AXT1.

In case of failure of Axle counter, SM on duty/ SS in charge will verify the occupation of line and the Axle counter Zone .After being verified he will press the Zone verification button, An yellow indication will appear in the control cum indication panel. The SM on duty seeing the Zone verification indication will press the Reset initiation button. Resetting will accomplish and zone occupation (Red) indication will extinguish and Counter pertaining the Axle counter Zone will increase in number by one.

### **13. DOUBLE LOCKING ARRANGEMENT: (RELAY ROOM KEY)**

The relay room is provided with two locks , One of the locks key is with S&T staff and the other in the custody of SM/ASM on duty. Both these locks have to be opened for entering the relay room for maintenance.

A register is maintained by SM/ASM on duty for use of SS/SM/ASM's key to open the relay room. Timings of use of SM/ASM's key should be recorded in this register and signed jointly by the SM/ASM on duty and S&T staff with date.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**14. POWER SUPPLY ARRANGEMENT :**

1. Normal power- Local
2. 1<sup>st</sup> stand by - UP AT.
3. 2<sup>nd</sup> Stand by - DN AT
4. 3<sup>rd</sup> Stand by - D/Generator.

230V AC 50HZ single phase power supplies are provided from traction supply through transformer. Normally SSI will run by local power supply, in case of failure of local power, UP AT will be connected to SSI system by auto change over facility available in auto change over panel in equipment room,

Normally 2 Nos of DPDT Switch of 63A are available in SM's room. 1<sup>st</sup> DPDT switch keeps in contact with UP AT. During failure of local and UP AT SM on duty will change over the DPDT switch to DN AT position, in case of failure of local UP AT & DN AT, SM on duty should send on duty TP to auto start the Diesel Generator in DG room and after receiving the indication on panel he will change over 2<sup>nd</sup> DPDT to DG side.

An IPS is provided for auto-change over between Traction power and Inverter availability of power. DC-DC converters are provided for the stand by supply for all the important dot. To take protection from intermittent change -over of power batteries are provided for IPS system.

1) ASM monitoring panel for the IPS system is provided at the SM's office Remote monitoring ASM Box gives alarm for the fault condition . 1. 50 % depth of discharge (DOD) of IPS battery calls for generator start. In this condition audio/visual alarm comes, which can be acknowledge with audio cut off.

2) 60%,70% DOD alarm also appear in the panel. In case of 70 % DOD signal system will shut down.

SM on duty should start the Generator as soon as he gets 50% DOD alarm. In case of any such indication failure, SS/ASM has to intimate the same to the concerned S&T officials.

**LAST VEHICLE CHECKING DEVICE:**

Digital Axle Counter have been provided on Up Block Section between JGPM-SCMN(VSP L-1) and up Block section between JGPM-GPT to work as last Vehicle check device. This axle counter will control the Token less block instrument of the respective section.

The occupation and clearance of the axle counter section will be indicated in the LVCDBOX by Red and Green light.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

Up Adv Starter signal cannot be taken off if axle counter of Up block section between JGPM-SCMN and JGPM-GPT, MYD fails. On the other hand on arrival of a train to JGPM Station, if the axle counter continue to show occupied the Token less block instrument Can not be turned to line closed position and the resetting of LVCD axle counter shall be resorted to.

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

- a) Whenever after complete arrival of train the LVCD axle counter continue to show Red on the LVCDBOX, the on duty SM/ASM at JGPM shall resort to the reset of axle counter.
- b) For this purpose SM/ASM at JGPM shall first verify that Block Section is clear of trains. If the failure has occurred after arrival of train, SM/ASM shall obtain signature from the guard of stopping train on the train intact register (vide GR & SR No 4.17, 4.17.01) or by exchanging alright signal with the guard of through train, so that he can "ensure that the train has arrived completely before resorting to the reset of LVCD axle counter. SM/ASM - JGPM shall Inform the failure of axle counter to on duty SS/SM/ASM GPT, SCMN for up section .
- c) SM/ASM then send an operating person to verify that the last vehicle is clear of block Section. After verifying the clearance of last vehicle of concerned block section, the operating person exchanges private number and press a button in the last vehicle verification box.
- d) On pressing this button, last vehicle verified indication will appear at panel board and the SM/ASM shall press the nominated reset button. By this operation LVCD axle counter will reset and associated veeder counter will change to next higher number.
- e) SM/ASM shall record the higher number so changed due to reset of axle counter in the reset register and also in the train signal register mentioning the purpose of reset 'even after completion of reset operation ,LVC axle counter does not show clear indication . until the next train is piloted out from station in rear and necessary caution order in this regard have to be issued by the SM/ASM in rear.

**OPERATION OF SIGNALS, POINTS, L.C.GATES, CRANK HANDLES, SIDING POINTS BY VDU (P.C):**

**1.0 STAND BY OPERATION OF SIGNALS, POINTS, L.C.GATES, CRANK HANDLES, SIDING POINTS BY VDU (P.C):**

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

1.1 One VDU (P.C) is provided as stand by for operation of signals, points, crank handles, siding points with track diagram. A track mimic diagram will be displayed on the VDU (P.C.), which is exact replica of operation cum indication panel and suits the yard plan as per SI plan no. SI –10937 Alt ‘b’

1.2 **Key board/ Mouse is provided to operate VDU (P.C.)**

One two-position switch is provided on the panel board as a means of change over from operation cum indication panel to VDU (P.C.). Whenever the switch is turned to extreme right it will enable SS/SM to operate all functions from VDU and on the other hand when it is kept in the center position the VDU will be inoperative and operation of all function will be possible from operation cum indication panel.

2.0 **Graphical User Interface:**

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

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

2.1 **Main Title Bar:**

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

2.1.2 **Display Area**

The Display Area of the screen is used by VDU, to display the various information pertaining to its operation. The SS/SM may select the information to be displayed such as the Control Cum-indication Pane! using the Menu Bar.

2.1.3 **Status Bar:**

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

2.1.4 **The Menu Bar:**

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

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

- \* Main
- \* Display
- \* Window
- \* About

<b>Main</b>	<b>Display</b>	<b>Windows</b>	<b>About</b>
<b>Exit Ctrl X</b>	<b>Control Cum- Indication panel VDPG Ctrl C</b>	<b>Cascade Title Horizontally Title vertically</b>	<b>About VDU</b>

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

2.2 **Main Menu** :-When the application is started, the VDU menu bar is displayed as shown above. On clicking the mouse button (or ALT+ M Key) on main menu option of VDU menu bar, the EXIT sub menu is displayed.

2.2.1 **Exit**

This option is provided for the SS/SM to exit from the VDU ( P.C.) system.

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

2.3 **Control Cum-indication Panel;**

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

3.0 **VDU Panel Operation Procedure:**

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

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

### 3.1 Start-Up

On turning the two position switch to extreme right, the VDU will start and window of VDU will display the main window with main menu as described in Para 2-1.4.

- a) On main menu SM/ASM need to track pointer to "DISPLAY" and click left button of mouse and by this operation control cum indication panel will appear on VDU (P.C).
- b) As and when control cum indication panel sub menu appears on the VDU (P.C.), on duty SS/SM need to track the pointer by operating mouse/Keyboard to "CONTROL CUM INDICATION PANEL" and left click on the mouse and thereby exact replica of operating cum indication panel will appear on the VDU (P.C.).
- c) To restart the operations from the VDU, on duty ASM need to left click on the "SM" key " icon. With this a menu password will appear. ASM/SM need to enter the password through Key Board and press the Enter Key provided on the key board This will enable ASM to do all the operations from VDU.
- d) On duty SS/SM need to track the pointer to the end concern point and other controls required to be operated concerned signals, points.

### 3.2 To operate a Point;

The SS/SM need to track the pointer to concern point and left click the mouse. The popup menu to operate the point will appear as below:

- Normal
- Reverse
- Emergency Normal
- Emergency Reverse

#### a) Reverse to normal setting:

Pointer to be tracked to NORMAL and left click the mouse, a flashing indication will appear on it in horizontal line. Steady indication will appear when point will set and locked in NORMAL condition.

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

**b) Normal to Reverse setting:**

Pointer to be tracked to REVERSE and left click the mouse, a flashing condition will appear on diagonal line. Steady indication will appear when point is set and locked in REVERSE condition.

**c) Emergency Normal:**

This operation need to be resorted to when point zone track circuit/axle counter has failed and point is free. Pointer to be tracked to EMERGENCY NORMAL and left click the mouse, a flashing indication will appear on it in horizontal line. Steady indication will appear when point will set and locked in NORMAL condition.

This operation is possible when Point is not locked by signal route. The emergency point operation veeeder counter provided in the panel board will change to next higher number and this number should be recorded in the register provided for this purpose.

**d) Emergency Reverse**

This operation need to be resorted to when point zone track circuit/axle counter has failed and point is free. Pointer to be tracked to EMERGENCY REVERSE and left click the mouse, a flashing indication win appear on diagonal line. Steady indication will appear when point will set and locked in REVERSE condition.

This operation is possible when point is not locked by signal route. The emergency point operation veeeder counter provided in the panel board will change to next higher number and this should be recorded in the register provided for this purpose.

**3.3 SIGNAL CONTROLS (Setting and Cancelling a route)**

To operate a signal SM/ASM need to track the pointer to the concerned signal and left click the mouse- By this operation signal menu with signal number along with route and calling-on signal, shunt signal if any, will appear on same signal menu, but para -12,13 of App-'B'and relevant Para of App-'B1', shall be complied with.

**a) Setting a Route:**

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

**b) Cancelling a Route:**

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

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT

c) **Emergency cancellation of route**

To resort this operation ASM/SM has to track the pointer to the concerned signal and click left. Emergency route cancellation menu will appear on the signal menu and ASM/SM has to click on the same. The route will be cancelled after tapes of two minutes and veeder counter provided on the panel board will change to next higher number, which should be recorded in the register provided for this purpose.

3.4 **Crank Handle:**

To 'Transmit' or 'Release' control for Crank Handle, click the left button of the mouse on the concerned Crank Handle. The appearing pop-up menu gives details of the possible commands on the Crank Handle on the track below:

**CRANK HANDLE** -        Transmit Control  
   Release Control

In the pop-up menu given above the SS/SM needs to click on the "TRANSMIT CONTROL"

In case Crank Handle key is transmitted and by this operation key can be extracted from RKT, On the other hand SS/SM need to click on the "RELEASE CONTROL" when crank handle key is returned back in the RKT. Key in flashing indication will appear on the VDU in the same manner as described in para 2.4 of appendix "B".

**Siding control:** Nil

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

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

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

3.6 **BUTTON HELD ACK.**

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

3.7 **POINT LOCK, OVERLAP LOCK AND SIGNAL LOCK INDICATION-**

All the above indication will appear on VDU as mentioned in PARA 4(a) .(b) (c) and PARA 7 of appendix B

( CH.B.SRINIVAS )  
DSTE / WAT

( F.MINZ )  
DOM(G) / WAT



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

.

**ANTI COLLISION DEVICE [RAKSHA KAVACH]**

Not applicable to this Station.

[CH.B.SRINIVAS]  
DSTE/WAT

[F.MINZ]  
DOM(G)/WAT

**APPENDIX-'D' TO STATION WORKING RULES OF JAGGAYYAPALEM STATION**

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

**1.0 STATION SUPERINTENDENT:**

He is restored for 8 hrs of train passing duties. He is responsible for the general and satisfactory working of the station and for the efficient discharge of duties by staff working under him. He shall keep all Rulebooks, Registers, Files and documents neat and up to date. He shall ensure that all equipment, apparatus, and instruments including signaling and interlocking gears and fittings are kept clean and oiled by S&T officials. His special attention is drawn to Chapter-II of G&SR and GR 5.01 to 5.08 with relevant SRs and O.M. Chapter XXII. He shall follow the instructions laid down in SR.3.68.01 © and (d) and SR 14.07.01 and B.W.M.2.09 (e). He shall promptly attend to accidents and report them. He shall supervise the work of safe working staff and conduct night inspections and report lapses of staff working under him.

**2.0 STATION MASTER:**

He is responsible for trains passing during his shift. He shall promptly bring to the notice of S.S/S.M all irregularities and accidents in course of his shift duties. During the absence of S.S/S.M, the duties of the Station Manager will devolve on him. He shall follow SR 3.68.01© and (d) SR 14.07.1 and OM Chapter XXII. His special attention is drawn to Chapter-2 of G&SR 1976 and GR 5.01 to 5.08 with relevant SRs. As an assistant to Dy.SS, he shall carry out the instructions given to him by the SS/SM.

**3.0 TRAFFIC POINTS MAN :**

He shall work under the orders S.S /S.M. on duty. He shall couple and uncouple vehicles under the supervision of S.S /S.M./Guard. He shall operate ground lever/levers clamp and padlock the necessary points for shunting operations. He shall watch and guard the packages and other Railway property lying in the Station premises. He shall be through of displaying hand signals. He shall report any irregularities coming to his notice. He shall do loading and unloading of parcels, smalls and Guard's boxes. He shall do piloting IN and OUT. He shall deliver any official message to the proper person/office. He shall carry out any other duties entrusted to him by the S.S/S.M on duty. He will re-light the BLSB lamp during night.

**5.0 SAFAIWALA**

He shall attend to the sanitation of the Railway premises including SM Office, platforms, Staff Quarters, Latrines and cleaning of drainage's etc. He shall carry out any other work entrusted to him by the Station Master on duty.

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

[CH.B.SRINIVAS]  
DSTE/WAT

[F.MINZ]  
DOM(G)/WAT

[CH.B.SRINIVAS]  
DSTE/WAT

[F.MINZ]  
DOM(G)/WAT

**APPENDIX 'E' TO STATION WORKING RULES OF JAGGAYYAPALEM STATION****ESSENTIAL EQUIPMENT**

A list of essential equipment's is given below which shall be maintained in good Working order.

<b>Sl.No</b>	<b>Description</b>	<b>Station</b>
1	Detonators	20
2	Hand Signal lamps (tricolor)	4(2 Spare)
3	Hand Signal Flags	4(2 Spare)
4	Clamps with Padlocks	12
5	Safety chains with Pad locks	6
6	Fire & Sand buckets	5
7	Minimax Fire Extinguishers DCPT	2
8	Reminder collars	8
9	First Aid Box	1
10	Stretcher	1
11	Blanket	1
12	Iron Skids	2
13	Power Block Reminder covers	8

[CH.B.SRINIVAS]  
DSTE/WAT

[F.MINZ]  
DOM(G)/WAT

**APPENDIX "F" TO STATION WORKING RULES OF JIMIDIPETA STATION**

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

NOT APPLICABLE.

[CH.B.SRINIVAS]  
DSTE/WAT

[F.MINZ]  
DOM(G)/WAT

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

**RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS :**

NOT APPLICABLE TO THIS STATION