EAST COAST RAILWAY WALTAIR DIVISION

STATION WORKING RULES OF NAUPADA STATION (B.G)

Date of Issue: _____.
Date brought into Force:_____.

No:WTF/5/SWR/NWP

Ref.Lr.No.2000/Safety (A&R)/19/36 of Rly. Board dt.27.10.05.
Note: The Station Working Rules must be read in conjunction with General and Subsidiary Rules, Block Working Manual and Operating Manual. These rules do not in any way supersede any rules in the above rule books.

1. **STATION WORKING RULES DIAGRAM:**

i) Station Working Rule diagram No. : SI/23003 ALT 'E'
ii) CSTE/E.Co.Rly/BRG No. : SI/23003 ALT 'E'

2. **DESCRIPTION OF STATION:**

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

i) Name of the Station : NAUPADA
ii) Class of Station : 'B'
iii) Section : HWH-VSKP
iv) Double/Single line : Double
v) Electrified/non electrified : Electrified
vi) Guage BG/MG/NG : Broad gauge
vii) Railway : East Coast Railway
viii)Route : 'D' Special
ix) Situated at KM : 701.581 KM
x) From : HWH
xi) No. of Cabins : Nil (Centrally operated panel)

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

a)

Block Station	Distance	Direction
PUNDI	13.2 Kms	HWH END
KOTABOMMALI	13.7 Kms	VSKP END

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b) <u>AUTOMATIC SIGNALS</u> : Nil

c) <u>DK STATIONS/OUTLINE SIDINGS</u> : Nil

d) <u>IBS/IBH</u> :

IBH signal is provided between NAUPADA and KOTABOMMALI stations on both UP and DOWN lines at Km 707.445 and 707.810 respectively.
IBH signal is provided between NAUPADA and PUNDI stations on both UP and DOWN lines at Km 694.970 and 695.360 respectively.
Detials of working of IBH are given in Appendix'F'

e) PASSENGER HALT:

The following passenger halts are situated at either side of block section.

Between Blocks	No of Passenger HALTS	Km Ex HWh
NWP-KBM	Dandu Gopalapuram Halt/DGB	707.3
NWP-PUN	Routhpuram (RMZ)	694.5
NWP-GNPR	a) Tekkali (TEK)	708.4
	b) Peddasana (PDSN)	713.6
	c) Tamburu (TNB)	722.5
	d) Ganguvada (GVA)	726.9
	e) Patapatnam (PRM)	735.3
	f) Parlakhamundi (PLH)	741.0
	g) Sitapuram (SPRM)	753.2
	h) Haddubhangi (HBF)	757.5
	i) Kashinagar (KNGR)	766.3
	j) Lihuri (LRI)	773.2
	k) Banasadhana (BDSR)	780.1
	l) Palasinghi (PLSG)	785.3
	m) Gunpur (GNPR)	791.8

2.3

a) <u>BLOCK SECTION LIMITS ON EITHER SIDE OF STATION ON DIFFERENT DIRECTIONS</u>:

Between stations	The Point from which the Block section commences	The Point at which the Block section end.
NWP-KBM Up direction	From Up IB Home signal No. 29 of Naupada	Outermost facing point No.21A of Kotabommali
KBM-NWP DN direction	From DN IB Home signal No.14 of Kotabommali	Up to DN BSLB board of Naupada
PUN-NWP UP direction	From Up IB Home signal No. 15 of Pundi	Outermost Facing Point No.31A of Naupada.
NWP-PUN DN direction	From DN IB Home signal No.28 of Naupada	Up to DN BSLB board of Pundi.

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b) STATION SECTION:-

Station Section	The Point from which the 'Station Section' Commences	The Point at which the 'Station Section' end
Up Line	Outer most facing point no. 31A on Up line of NAUPADA	Up advanced starter no.25 of NAUPADA
Dn Line	Block section limit board on Down line at VSKP end of NAUPADA	Down advanced starter no.26 of NAUPADA

c) STATION LIMIT

i. **UP LINE**
Up Distant signal to UP Advanced starter signal No.25 at NAUPADA station.

ii. **DOWN LINE**
DN distant signal to Down Advanced starter signal No 26 at NAUPADA station.

2.4 GRADIENTS IF ANY:

(a) FROM THE CENTRE OF THE STATION BUILDING TOWARDS VSKP END

FROM	TO	DISTANCE	FOR LINES	GRADIENTS.
0.00 Mt	124.05 Mt	124.05 Mt	Up and Dn Main Lines	Level
124.05 Mt	473.05 Mt	349.00 Mt	Up and Dn Lines	1 In 1000 Falling
473.05 Mt	1177.25 Mt	704.20 Mt	Dn Main Line	1 In 200 Falling
1177.25 Mt	In to section	-	Dn Main Line	Level
473.05 Mt	1296.00 Mt	822.95 Mt	Up Main Line	1 In 200 Falling
1296.00 Mt	1777.02 Mt	481.02 Mt	Up Main Line	1 In 570 Falling
1777.02 Mt	2020.82 Mt	243.80 Mt	Up Main Line	1 In 200 Raising
2020.82 Mt	3025.75 Mt	1004.93 Mt	Up Main Line	Level
3025.75 Mt	3249.00 Mt	223.25 Mt	Up Main Line	1 In 200 Falling
3249.00 Mt	3359.00 Mt	110.00 Mt	Up Main Line	Level
3359.00 Mt	3559.00 Mt	200.00 Mt	Up Main Line	1 In 200 Raising
3559.00 Mt	In to section	-	Up Main Line	Level

(b) **FROM THE CENTRE OF THE STATION BUILDING TOWARDS HWH END**

FROM	TO	DISTANCE	FOR LINES	GRADIENTS.
0.00 Mt	197.51 Mt	197.51 Mt	Up and Dn Lines	Level
197.51 Mt	502.31 Mt	304.80 Mt	Up and Dn Lines	1 In 500 Falling
502.31 Mt	974.75 Mt	472.44 Mt	Up and Dn Lines	1 In 450 Falling
974.75 Mt	1008.75 Mt	34.00 Mt	Up Main Line	1 In 200 Raising
1008.75 Mt	1826.36 Mt	817.61 Mt	Up Main Line	Level
1826.36 Mt	1976.36 Mt	150.00 Mt	Up Main Line	1 In 200 Falling
1976.36 Mt	2101.00 Mt	124.64 Mt	Up Main Line	Level

FROM	TO	DISTANCE	FOR LINES	GRADIENTS.
2101.00 Mt	2241.00 Mt	140.00 Mt	Up Main Line	1 In 173 Falling
2241.00 Mt	2491.00 Mt	250.00 Mt	Up Main Line	Level
2491.00 Mt	2591.00 Mt	100.00 Mt	Up Main Line	1 In 1700 Raising
2591.00 Mt	2821.00 Mt	230.00 Mt	Up Main Line	1 In 1430 Raising
2821.00Mt	3121.00 Mt	300.00 Mt	Up Main Line	1 In 2000 Falling
3121.00 Mt	3271.00 Mt	150.00 Mt	Up Main Line	1 In 650 Raising
3271.00 Mt	3501.00 Mt	230.00 Mt	Up Main Line	Level
3501.00 Mt	In to section	-	Up Main Line	1 In 1080 Falling
974.75 Mt	1211.75 Mt	237.00 Mt	Dn Main Line	1 In 200 Raising
1211.75 Mt	1826.36 Mt	614.61 Mt	Dn Main Line	Level
1826.36 Mt	1956.36 Mt	130.00 Mt	Dn Main Lines	1 In 200 Falling
1956.36 Mt	2176.36 Mt	220.00 Mt	Dn Main Line	Level
2176.36 Mt	2395.00 Mt	218.64 Mt	Dn Main Line	1 In 172 Falling
2395'00 Mt	2831.00 Mt	436.00 Mt	Dn Main Line	Level
2831.00 Mt	3101.00 Mt	270.00 Mt	Dn Main Line	1 In 500 Raising
3101.00 Mt	3531.00 Mt	430.00 Mt	Dn Main Line	Level
3531.00 Mt	In to section	-	Dn Main Line	1 In 200 Raising

(c) <u>FROM THE CENTRE OF THE STATION BUILDING OVER GNPR LINES</u>

FROM	TO	DISTANCE	FOR LINES	GRADIENTS.
GNPR END				
0.00 Mt	124.05 Mt	124.05 Mt	GNPR Line	Level
124.05 Mt	479.00 Mt	354.95 Mt	GNPR Line	1 In 1000 Falling
479.00 Mt	1200.00 Mt	721.00 Mt	GNPR Line	1 In 940 Raising
1200.00 Mt	1600.00 Mt	400.00Mt	GNPR Line	1 In 150 Raising
1600.00Mt	2250.00 Mt	650.00 Mt	GNPR Line	1 In 100 Raising
2250.00 Mt	2650.00 Mt	400.00 Mt	GNPR Line	1 In 800 Raising
2650.00Mt	In to section	-	GNPR Line	1 In 120 Raising

HWH END				
0.00 Mt	227.81 Mt	227.81 Mt	GNPR Line	Level
227.81 Mt	502.31 Mt	274.50 Mt	GNPR Line	1 In 450 Falling
502.31 Mt	In to O.R.L	-	GNPR Line	1 In 450 Falling

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d) **IBS ZONE**

Down line FOR SECTION NWP-KBM:

Km From	Km To	Gradient
From Section	708.97	Level
708.97	708.79	1 in 266 F
708.79	708.27	1 in 500 F
708.27	705.37	Level
705.37	705.21	1 in 200 F
705.21	Into section	Level

Up Line FOR SECTION NWP-KBM :

Km From	Km To	Gradient
From Section	703.48	1 in 655 F
703.48	704.63	Level
704.63	704.83	1 In 200R
704.83	704.94	Level
704.94	705.14	1 in 200 R
705.14	706.24	Level
706.24	707.12	1 in 750 R
707.12	708.23	Level
708.23	708.73	1 in 510 R
708.73	708.90	1 in 266 R
708.90	709.10	Level
709.10	Into section	1 in 1800 F

Down line FOR SECTION NWP-PUN:

Km From	Km To	Gradient
From Section	698.05	Level
698.05	697.81	1 in 200 F
697.81	696.00	1 in 550 F
696.00	695.68	Level
695.68	694.68	1 in 275 R
694.68	693.07	1 in 310 R
693.07	691.51	1 in 650 R
691.51	Into section	1 in 310 R

Up Line FOR SECTION NWP-PUN:

Km From	**Km To**	**Gradient**
From Section	691.53	1 in 837 F
691.53	693.09	1 in 650 F
693.09	694.60	1 In 310 F
694.60	694.70	1 in 310 F
694.70	695.70	1 in 275 F
695.70	696.02	Level
696.02	696.58	1 in 360 R
696.58	697.83	1 in 550 R
697.83	Into section	1 in 2570

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2.5 LAYOUT:

i) No. of lines : 5
ii) Goods Sheds/Sidings: 2
iii) Level of Platform:
  a) High level passenger platform on Line No.1 measuring 600M x 7.4M.
  b) High level passenger platform between L/4 & L/5 measuring 575.54M x 9.90M.

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

Line No. 1	UP loop	691 M (Electrified)	From starter to SB
Line No. 2	UP main	758 M (Electrified)	From starter to SB
Line No. 3	DN Main	776 M (Electrified)	From starter to SB
Line No. 4	Common loop	674 M (Electrified)	From starter to Str
Line No. 5	Branch line	803 M (Electrified)	From starter to Str

b) NON-RUNNING LINES AND THEIR CAPACITY :

Non- Running Line	CSL
Traction Siding	63 M(SH to SB)
Stabling Line	155 M(SH to SB)

2.5.2 SIDING :

i) TRACTION SIDING

The traction siding at PUN end of the yard takes off from over run line on Line No.5. The entry in to the siding is governed by the operation of point No 39 to reverse and shunt signal No12 for entry and Shunt signal No 5 for exit from the siding.

ii) STABLING LINE

The Stabling line at KBM end of the yard takes off from common loop line. The entry in to the stabling line is governed by the operation of point No 40 to reverse and shunt signal No13 B for entry and Shunt signal No 8 for exit from stabling line.

2.5.3 ANY SPECIAL FEATURES OF THE YARD SUCH AS CATCH SIDING/SLIP SIDING:

A branch line towards NWP-GNPR takes off from L/no 5 of NWP station.

2.6. LEVEL CROSSINGS:

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a. There is a 'C' class midsection non-interlocked Level Crossing Gate situated at KM 693/13-15(ML-384) between NWP and PUN
b. There is a 'C' class midsection Interlocked Level Crossing Gate situated at KM 695/3-5 (ML-386)between NWP and PUN
c. There is a 'C' class midsection non- Interlocked Level Crossing Gate situated at KM 696/17-19 (ML-387)between NWP and PUN.
d. There is a 'C' class mid section Non-interlocked level crossing gate situated at Km 697/11-13 (ML-388) between NWP and PUN.
e. There is a 'C' class midsection non- interlocked Level Crossing Gate situated at KM 700/27-29(ML-390) between NWP and PUN .
f. One 'spl' class interlocked level crossing gate situated at Km 702/31-33 (ML-393) between NWP-KBM
g. There is a 'C' class Mid section interlocked level crossing gate situated at Km 707/19-21 (ML-395) between NWP and KBM
h. There is a 'C' class midsection non-interlocked Level Crossing Gate situated at KM 708/3-5 (ML-396) between NWP and KBM .
i. There are 2 'interlocked level crossing gate situated at KM 6/0-1 (NG-6), 7/0-1(NG-8) and five non interlocked 33/9-34/0(NG-31), 38/1-2(NG-36), 39/4-5(NG-37), 42/7-8(NG-39), 63/8-9(NG-55). between NWP-GNPR.

Details of the above L.C Gates are given in Appendix 'A' of this SWR.

3. SYSTEM AND MEANS OF WORKING:

i) System of working:
   a) Absolute Block System working between NWP-KBM and NWP-PUN
   b) One Train Only System Between NWP-GNPR
ii) Block Instrument: SGE Type Double Line Lock and block instrument for section NWP-KBM and NWP-PUN
iii) Co-operative/non co-operative: Non Co-operative
iv) Staff responsible to operate: Station Master on duty is only responsible to operate
v) Custody of keys: Block instrument is provided with double locking arrangement. 1 key will be with the Station Master on duty and the other key is retained with S&T Maintainer.
vi) Provision of block telephone: Telephone attaches to block instrument connecting the block station concerned.

4. SYSTEM OF SIGNALLING AND INTERLOCKING:

4.1 i) Standard of interlocking: Standard III R
ii) Type of signalling: MACLS
iii) Method of operating points & signals: Central VDU provided to Control all Signals points, sidings key, Gate key etc. electrically. The details of operation form VDU is given under Appendix-'B'

iv) Provision of axle counters/track circuits on running line: All the 5 running lines are track circuited further the line between Up & Dn Home signals is provided with track circuits.
v) Calling On signals: Miniature calling –on signals provided below the UP&DN home signals in term of GR 3.13(6)(b) is taken off for reception of trains.
vi) Emergency cross over: Emergency cross over No 31 towards HWH end and No 32 towards VSKP end are provided at either end of the yard
vii) LC Gate operations: Details described in Appendix –'A'
viii) Emergency point operation – details in Appendix –'B'
ix) Emergency Route Relay ……. – details in Appendix –'B'
x) Emergency Indication – details in Appendix –'B'

xi) **Track Circuit :** All berthing Lines i.e Line No 1,2,3,4 and 5 are track circuited. In addition there are short length track circuits in advance of Advanced Starter Signals and Home signal in both the directions are also provided. For Calling-on signals (91M Rail length) track circuits are also provided in rear of the Home signals in both directions. From last trailing point/fouling mark in either side of Yard to Advanced Starter Signals are also track circuited (i.e. 25 AT and 26AT in Up and Down directions respectively). Indications for the above track circuits/Axle Counters are available on VDU at SM's office. White indication on the VDU indicates track clear and Red light indicates track occupied condition.

xii) **Axle Counter :** Entire Block Section between NWP-PUN and NWP-KBM are provided with Digital axle counters.

For section: **NWP-KBM:-** a pair of digital axle counter is provided between NWP-KBM on Up line, one just beyond Up advanced starter No.25 of NWP and another one on 29T2 for proving UP IB section between NWP-KBM and one just beyond UP IB Home signal No. 29 of NWP and another near first facing point No. 21A of KBM for proving UP LVV for section NWP- KBM. Another pair of digital axle counter is provided between KBM-NWP on DN line, one just beyond DN advanced starter No.12 of KBM and another on 14 T2 for proving DN IB section between KBM-NWP and one just beyond DN IB Home signal No. 14 of KBM and another one near DN BSLB of NWP for proving DN LVV for section KBM-NWP.

For section: **PUN-NWP:-** a pair of digital axle counter is provided between PUN-NWP on Up line, one just beyond Up advanced starter No.13 of PUN and another one on 15T2 for proving UP IB section between PUN-NWP and one just beyond UP IB Home signal No. 15 of PUN and another near first facing point No. 31A of NWP for proving UP LVV for section PUN-NWP. Another pair of digital axle counter is provided between PUN-NWP on DN line, one just beyond DN advanced starter No.26 of NWP and another on 28 T2 for proving DN IB section between NWP-PUN and one just beyond DN IB Home signal No. 26 of NWP and another one near DN BSLB of PUN for proving DN LVV for section NWP-PUN.

The position of the Block section whether cleared or occupied are reflected in the VDU provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters in to the Block Section,

"Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears.

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

A resetting arrangement for resumption of the system in case of failure of axle counter has been provided in the SM office of the adjacent Block stations after being assured by both the SM that the last vehicle has arrived complete at the receiving station by exchanging Private Number then resetting to be complied with. (Details of resetting procedure given in APPENDIX-'B' under para 5.2 of this SWR).

In case of failure of Axle Counter/ Track circuit the clearance of loop lines and concerned point zone and main lines will be ensured by physical check by the SM on duty and train shall be admitted as per GR.3.69 and SR there to.

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

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

Relay room is provided with two independent locks, the key of one lock shall be in the custody of SM on duty and the key of other lock will be in the custody of S&T maintainer. In the event of necessity such as for attending failure or regular maintenance, on being requisitioned by S&T Maintainer, SM shall handover the key to the Maintainer. On completion of the work, maintainer shall lock the relay room and shall return the key to SM. The particulars of the such transaction shall be entered by the SM onduty in the Relay room Key Register vide Operating Manual 1.14.

When ever the key is taken by the maintainer for normal maintence of work the S&T staff shall give a remark in the register that they will not interferes with the safe passage of trains. The SM on duty shall ensure that this remark is given by the S&T staff other wise the installation shall be treated as non – interlocked and the action taken in terms of GR 3.69, 3.70 & 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.

Eg: 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 SM box provided at the station to monitor the health of IPS.

v) **REMOTE MONITORING SM BOX**: Remote monitoring ASM Box gives alarm to the ASM for the following fault conditions:-

(a) 50% depth of discharge (DoD) of battery. In this condition audio/visual alarm comes, which can be acknowledged with audio cut-off.
(b) 60% DOD, which warns for emergency. The alarm for this condition is same as for condition 1.
(c) 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.
(d) Any of the module fails, which calls for 'call S&T'.

(vi) Whenever there is a failure of power supply in one AT the SM shall take prompt action to inform to all concerned for the rectification. The SM himself, during his daily checks, shall test the availability of power supply on both ATs and make an entry in the Station Diary duly initiating action for rectification of failure, if any.

5. TELECOMMUNICATIONS:

a) The Station is connected to VSKP - PSA Main line Control Circuit.
b) Telephone attached to SGE type Lock and Block Instruments for sections NWP-KBM and NWP-PUN.
c) Railway Auto telephone is provided at the station.
d) Telephone communication is provided between Station Master on duty to Up CH locations and to Dn CH Locations.

e) Telephone attached to L.C.Gate at Km. ML-384, ML 386, ML 387, ML 388, ML 390, ML-393, ML-395 and ML-396. Bentron equipment is provided for 5 LC gates towards PUN end and 2 LC gates at KBM end.
f) Bentron equipment is provided with NG-6 and NG-8 in NWP-GNPR section.
g) The station is connected to VSKP - PSA traction power control circuit.
h) The station is connected to VSKP - PSA traction loco control circuit.
i) BSNL telephone is provided at this station.
j) VHF set is provided at the station.
j) The station is connected to UP IB post at Km 707.440 between NWP-KBM and DN IB post at Km 695.330 between NWP-PUN.

NOTE

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

5.1 ACTION IN THE EVENT OF FAILURE OF TELEPHONE COMMUNICATIONS:

a) During partial interruption of communication between the adjacent block stations SR 6.02.06 shall be observed.

b) During total interruption of communication between the adjacent block stations SR 6.02.04 shall be observed.

6. SYSTEM OF TRAIN WORKING:

6.1 DUTIES OF TRAIN WORKING STAFF:

Movement of trains is regulated by the Section Controller on duty whose orders must be carried out provided they do not in any way contravene any G&SR, BWM, OM and SWR and any other safe working principles. In the event of suspension of control working the SM onduty shall work independently in conjunction with the Station Master's of the adjacent block stations and shall be responsible for reception/dispatch of trains. He shall ensure that preference is given to immediate trains without causing undue detention which occurs to other trains vide OM 2.14 & 2.24(a).

6.1.1 TRAIN PASSING STAFF IN EACH SHIFT:

The following is the complement of operating staff provided.

Staff in Each Shift		
1)	SMR (General Staff)	1
2)	SS/SM	1
3)	TPM'A'/LMA	2

Note: The above staff shall work as per roster issued from time to time by Divisional Railway Manager (P) and these rosters shall be conspicuously displayed in the Station

Supdt's office and in Gate lodge for traffic gate man (details duties are given in APPENDIX-'D').

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

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

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 staff who is away from his duty for the period of 15 days or more shall sign in the Assurance Register in token of having understood the contents however, in the event of any corrections or modification the SWR is involve, the assurance of all the staff who ever is entrusted the work of trains passing duty shall be obtain a fresh in the Assurance Register by the In-charge of the station before they are allow to work vide SR 5.01.02.

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

a) The trains are worked under Absolute block system and one train only system with MACLS vide GR 7.01(1)(a), (f)& 8.01, 13.01 & SR there to.

b) The conditions laid in GR. 8.01(1)(a) & (b), 8.01(2)(b), GR 8.03(1)(a)(b)(c)(ii), GR 13.02, 13.03, 13.04, SR 13.04.02, G.R14.10 & BWM Ch-IV Part-II shall be complied with before the line is considered clear and line clear is granted to be block station in rear for a train by the SM onduty.

c) Line shall not be considered clear and line clear shall not be granted to an UP train unless:

i) Whole of the last train in the section has arrived completely.
ii) UP Home signal /calling-on signal No. 1A/B/C and/or C-1A/B/C is put back to 'ON' and
iii) Line is clear up to facing point no.31A.
iv) Enusre closure of LC gates ML-384, ML-387,ML-388 and ML-390

d) Line shall not be considered clear and line clear shall not be granted to a DN train unless:

i) Whole of the last train in the section has arrived completely.
ii) DN Home signal /calling-on signal No. 2A/B/C and/or C-2A/B/C is put back to 'ON' and
iii) Line is clear up to BSLB.
iv) Ensure closure of LC gates ML-396.

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

Nil

6.2.1.1 SETTING OF POINTS AGAINST BLOCK LINE:

When a running line is blocked by stabled load wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train, the points in rear shall be set against the blocked line except when shunting or any other movement is required to be done on that line. [Refer SR 3.51.06(a)].

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

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

6.2.1.2 RECEPTION OF TRAIN ON BLOCKED LINE:

Whenever trains are to be admitted on an obstructed line it is necessary that the train are admitted by taking off Calling On Signal or by piloted IN on a written authority given by the SM on duty and delivered by a competent Railway servant to the Locopilot of the train. [Refer GR 5.09 & SRs there to].

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

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

a) The train is brought to a stand at the first stop signal.
b) The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
c) All points over which the train has to pass are correctly set, the facing and trailing points are clamped and padlocked and
d) The Locopilot is authorized to pass the approach stop signals at 'ON' through a written authority. [Refer GR 5.10].

6.2.1.4 DESPATCH OF TRAIN FROM NON-SIGNALLED LINE:

Not Applicable.

6.2.1.5 DESPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STATER SIGNAL:

Not Applicable.

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

SPECIAL RESTRICTIONS:
NIL

SPECIAL INSTRUCTIONS:

i) GNPR bound trains from VSKP shall be invariably admitted on L.4 at NWP station and after shunting, the train is dispatched to GNPR.

(CH.B.Srinivas) DSTE/Waltair
(K.V.V.NARASIMHA RAO) Sr.DEN(E)/WAT
(K.V.S.R.K.KISHORE) Sr.DOM(M)/WAT

6.3 CONDITIONS FOR TAKING 'OFF' APPROACH SIGNALS:

The SM on duty shall nominate a clear line not only up to the starter but also for an adequate distance beyond it for reception of trains. [Refer GR 3.36, 3.38, 3,40, 4.17 and SR 3.36. 01, 3.36.02, 3.36.04, 3.40.01, 3.40.02, 3.47.01, 4.17.02, and Block Working Manual].

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

(i) If in an emergency a Reception signal required to put back to On position, SM onduty shall observe SR 3.36.02(a) rigidly.

(ii) If it is the case with departure signal to be put back to On position, SM onduty shall observe SR 3.36.02(b)(ii) rigidly.

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

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

1.	While Receiving of an Up train on line No.1 set to sand hump (Up loop)	Receiving of a Dn train on line No.3 or 4 and dispatch an Up train from line no. 2 or DN train from L/5.
2.	While receiving of a Up train on line no. 1 set to main line (Up loop)	Receiving of a Dn train on line no. 3 or 4.
3.	While Receiving of a Up train on line No.2 (Up Main)	Receiving of a Dn train on line No.3 or 4 or 5.
4.	While Receiving of an Dn train on line No.3 (Dn Main)	Receiving of a Up train on line No.1 or 2
5.	While Receiving of an Up train on line No.4 (Common Loop)	Dispatch of DN train from L/1 or L/2
6.	While Receiving of a Dn train on line No.4 set to overrun line (common loop)	Receiving of an Up train on line no. 1 or 2 and dispatch a Dn train from line no. 3.
7.	While receiving of a Dn train on line no. 4	Receiving of an Up train on line no. 1 or 2.
8	While receiving DN train on L/5(branch line)	Receiving of DN train on L/4 and dispatch of UP train from L/3 or L/2 or L/1.

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

CLEARANCE OF ADEQUATE DISTANCE

FOR UP TRAINS:-

Line Number	From	To
1. Up Loop	Up Loop starter Signal No.11	Up to Up advance starter signal No.25 or up to the end of sand hump .
2. Up Main	Up main line starter signal No.17	Up to Up Advance starter signal No.25.
4. Common Loop	UP Starter signal No.13	Up to Up Advance starter signal no. 25 or Up to DS no. 40.
5 Branch line	UP Starter No 15	Up to the end of Adv. Str. No. 27 of branch line

FOR DOWN TRAINS		
3. Dn Main	Dn Main Line starter signal No.16	Up to Dn Advance Starter signal no. 26 .
4. Common Loop	Common Loop Starter signal No.14	Up to the end of the over run line or Up to the Dn Advance starter signal no. 26.
5 Branch line(for Branch line trains)	Branch Line Starter No 12	Up to the end of over run line on Branch line.

6.5 COMPLETE ARRIVAL OF TRAINS:

The entire block section between NWP-PUN and NWP-KBM on both Up and Down Lines are monitored by axle counter system and the position of the block section whether 'Occupied' or 'Clear' is indicated on VDU at 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 SM on duty shall give 'Train Out of Block Section' report on seeing the section clear indication GREEN on the VDU.

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

In case a train passes incomplete, action shall be taken as per SR.4.17.02, 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 Locopilot shall be issued with caution Order to proceed cautiously and stop short of any obstruction as per SR. 4.17.03. On occasions when motor trolley follows a train the points shall not be operated until the following motor trolley is admitted on the same line. In the event of

motor trolley is delayed in the section the SM on duty shall take action in terms of SR.15.25.03(b)(vi).

6.6 DISPATCH OF TRAINS:

To dispatch a train, the Station master on duty having obtained line clear for that train, shall set the route for the outgoing train correctly and satisfy him self by observing the visual indication on the VDU. He shall suspend all non-isolated shunting and then shall take "OFF" the concerned route starter and advanced starter signal. The 'OFF' aspect of the route starter and advanced starter is the authority to proceed into the block section. [Refer GR 3.38, 3.42, SR 3.36.04(b), 3.42.04 and BWM 2.07.5(a)]

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

NOTE

Before allowing a DN train into the block section between NWP-KBM, closure of the L.C. gate at 697/11-13, 695/3-5 must be ensured supported by a private number from the concerned gateman.

6.7 TRAINS RUNNING THROUGH:

The procedure detailed in Para 6.4, 6.5 shall be observed. The Station Master is responsible to observe/watch the condition of the vehicles on a passing train and shall wave green hand signal horizontally until any thing wrong is noticed on train. For this purpose the Station Master on duty shall stand in such a position that he sees a clear view of the passing train and that his hand signals can clearly be seen by the Locopilot and Guard of the train.

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

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

6.8 WORKING IN CASE OF FAILURE:

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

A. **TRACK CIRCUITS/AXLE COUNTERS**:
In case of failure of track circuits, the clearance of the concerned line should be ensured physically before a train is piloted.
If the axle counter fails between the block sections, resetting procedure will be adopted as per Para 13.8 A of 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/SE (signal) for rectification.

B. **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) with identification number and Private Number issued from the station in advance written both in figure and words.

C.**RECEPTION OF TRAIN ON OBSTRUCTED LINE:**
Whenever trains are to be admitted on an obstructed line it is necessary that the trains are piloted IN on a written authority given by the SM on duty and delivered by a competent Railway servant to the Locopilot of the train. [Refer GR 5.09 & SRs there to].

D. **RECEIPTION OF A TRAIN ON NON-SIGNALLED LINE**
Before receiving a train on non-signalled line, the SM shall ensure that
a) The train is brought to a stand at the first stop signal.
b) The line on which it is intended to receive the train is clear up to the trailing points or up to the place at which the train is required to come to a stand.
c) All points over which the train has to pass are correctly set & both, the facing and trailing points are clamped and padlocked.
d) The Locopilot is authorized to pass the approach stop signals at 'ON' through a written authority. [Refer GR 5.10].

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

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

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

However, before declaring a signal is defective, the setting of the point on the route to which it applies shall be inspected by the Station Master irrespective of the position of the switches point laid down in GR with relevant SRs shall be followed. [Refer GR 3.68, 3.70 & SR 3.77.01(b)]
Initiate action in accordance with the procedure prescribed in GR and relevant Subsidiary Rules there to. [Refer GR 3.49(4) and 3.68, 3.77]

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

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 SM on duty shall personally ensure clamping and padlocking of all facing and trailing points on the route. Crank handles are interlocked with signals and interlocking system. When points become defective, the signals controlling these points shall be considered defective and vice-versa and the procedure for use of crank handle. For motor operated points shall be followed as per operating manual para-20.06.

CRANK HANDLE		**CONTROL POINTS**
CH-1	- - - - - - - - - - - - - - - - - - - -	31A/B
CH-2	- - - - - - - - - - - - - - - - - - - -	32 A/B
CH-3	- - - - - - - - - - - - - - - - - - - -	35 A/B, 36 A/B
CH-4	- - - - - - - - - - - - - - - - - - - -	33 A/B, 34 A/B
CH-5	- - - - - - - - - - - - - - - - - - - -	38 A/B, 40
CH-6	- - - - - - - - - - - - - - - - - - - -	37 A/B, 39

These crank handles are interlocked with the signaling and interlocking system at this station and normally locked inside the RKT instrument at the respective Crank Handles Locations. Crank handle keys can be taken out only when all signals are in Normal Position and the route is not locked for whatever reasons. Crank Handle can be released by SM by tracking the mouse pointer on to the concerned crank handle button icon. This will enable two options to be displayed on the menu i.e. Crank handle Transmit Control and Crank Handle Release Control. To release the crank handle key, SM should click the Crank handle 'TRANSMIT' control option. When the keys are taken out no signal can be taken "OFF" over the particular route on the points nominated by that Crank Handle. This key can be electrically transmitted at both locations of the yard for manual operation of the defective points.

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

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 MOTOR TROLLIES / MATERIAL TROLLIES:

Motor trolleys are to run in accordance with rules laid down in SRs. Material Lorries will work in accordance with SR. [Rules laid down in BWM. Refer SR 15.25.03 to 15.25.07, 5.11(2), 5.12, 5.13 of BWM]

i) Trolleys, Motor Trolleys, Lorries which are not insulated shall not be allowed to run except on Line clear.
ii) Motor Trolleys/Tower Wagon/material Lorries are not likely to actuate the Axle Counter correctly.
iii) In all other respects the Working of a light motor trolley shall conform to the rules laid
iv) 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. BLOCKING OF LINE:

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 Dy. SS/SM on duty following procedures as laid down in para no. 6.2.2. A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23 and SR 5.23.01]

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]

B. USE OF REMINDER BLOCK COLLARS :-

Whenever any running line is blocked or when a train is stopped to cross another train or detained for any other reason, even for a short while or during shunting operations, 'Line Block' is to be activated on VDU by Dy. SS/SM on duty following procedures as laid down in para no. 6.2.2. [Refer SR 3.36.03 (b)]

C. **ALTERATION OF A POINTS TO A CLEAR LINE WHENEVER A RUNNING LINE IS BLOCKED:**

(a) When a running line is blocked by stable load, wagon, vehicles or by a train, which is to cross or to give precedence to another train or immediately after the arrival of a train at the station etc, the points at either end should immediately be set against the blocked line except when any shunting or any other movement is required to be done immediately in that direction on that line.

(b) If all the lines at a station happen to be blocked, when "Line Clear" has been granted to a train, the points should be set for the line occupied by a stable load or a goods train in that order, so that in case of any mishap, the chances of causalities are minimized. In case all the lines are occupied by passenger carrying trains, points should be set for a loop line to negotiate of which the speed of the incoming train would be reduced, which in turn would minimize the consequences/causalities. While doing so, points may be set for a loop occupied by a train, if any, whose engine is facing the direction of approach of the incoming train rather than for a loop occupied by a train whose passenger coach will incase, of collision, receive the impact.

D. **LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES**

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

8. SHUNTING:

8.1 GENERAL PRECAUTIONS :

Shunting is governed by GR 3.46, 3.52 to 3.56, 5.13, 5.14, 5.16, 5.19, 5.20 to 5.23

8.2 SHUNTING IN THE FACE OF AN APPROACHING TRAIN:

Shunting in the face of an approaching train is governed vide GR 8.09.

8.3 PROHIBITION OF SHUNTING - SPECIAL FEATURES, IF ANY:

a) Shunting in the face of an approaching train is governed vide SR 8.09.02(b)(i).

b) Hand shunting is prohibited vide GR 5.20.

c) Fly shunting is prohibited vide SR 5.21.01(c).

8.4 SHUNTING ON SINGLE LINE:

i) Within Station section: Shunting with in the station section shall be governed by GR 8.10.

ii) Between last stop signal and opposite first stop signal shall be governed by GR 8.12.

iii) Beyond opposite first stop signal shall be governed GR 8.13.

8.5 SHUNTING ON DOUBL LINE:

i) When the line clear has been given no shunting shall be permitted in the block section in rear Vide GR 8.06 (1).

ii) Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and is blocked back Vide GR 8.06(2) and BWM 5.15[I][b].

iii) Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and is blocked forward Vide GR 8.06(3)and BWN 5,15[2][b].

8.6 SHUNTING IN THE SIDING TAKING OFF FROM STATION YARD / GOODS SHED.

While performing shunting in the sidings it should be authorised by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines, occupied in shunting. The relevant provisions of GR 5.14 and SR thereto shall be meticulously followed.

8.6.1 SHUNTING OUTSIDE STATION SECTION:-

A)

i) Shunting shall not be permitted in block section (i.e. in the block section in rear) unless it is clear and is blocked back.

ii) Shunting shall not be permitted in block section in advance unless it is clear and is block forward.

iii) When line clear is been given, no shunting shall be permitted in the block section rear vide GR. 8.05[2].

iv) The line outside the station section and upto the Home Signal shall not be obstructed unless a Railway servant specially appointed in his behalf by the SS/Dy.SS who is in-charge of the operations, and unless –

v) The block section into which the shunting is to take place is clear of an approaching train and all relevant and necessary signals are kept “ON” position.

(B) SHUNTING WITHIN STATION SECTION :

If the necessary signals are kept at “ON”, shunting may be carried on within the station section vide GR 8.05[2].

9. ABNORMAL CONDITIONS:

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

(i) **PARTIAL FAILURE: -**

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

a) Failure/Suspension of Block Instrument or Track Circuit or Axle counters-
Line Clear shall be obtained on the Telephone attached to the Block Instrument or station telephone exchanged ID number and supported by Private Number.

b) Failure/Suspension of Block Instrument or Track Circuit or Axle Counters or telephone attached to the Block Instruments or station fixed telephones-
'Line clear' shall be obtained on Railway auto phone or BSNL phone by exchanging Identification Number supported by a Private Number.

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

d) Failure/Suspension of Block Instrument or Track Circuit or Axle counters or Telephone attached to the Block Instruments or Station to station fixed telephone or Railway auto phone or BSNL phone or control phone.'Line Clear' shall be obtained on the VHF sets by exchanging identification Number supported by a Private Number.

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

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

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

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

i) The previous block ticket is collected & cancelled, or
ii) Necessary endorsement is given on the previous block ticket with the advise to wait at the site for a next train to follow, or
iii) The previous train has met with an accident or has been disabled, or
iv)The block ticket has been collected from the Locopilot of the previous train by the official in-charge at the site & kept in the personal custody & shall be kept until the arrival of the next train & such assurance is given over the telephone installed at the site quoting the serial number of the Block Ticket so collected.

(a) SM will suspend the absolute block system of working and both SM's concerned should arrange for running of trains on the authority of Block Ticket.

(b) SM at the dispatching end will hand over to the Locopilot the BLOCK TICKET as the authority which shall include.

c) Caution order: Existing speed restriction shall be indicated in the Caution Order portion. The speed restriction to 15Kmph during clear visibility and 10Kmph when visibility is obstructed shall be clearly indicated.

d) An authority to pass the stop signals at 'ON' position.

e) Before resumption of normal working a message between the SM's of the concerned station shall be exchanged with private number. [Refer SR 6.02.05(d) (VI)].

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

iii. **TRAINS DELAYED IN BLOCK SECTIONS**

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

iv) Failure of Axle Counter Block/BPAC – Procedure to be followed as detailed.

v) Procedure for emergency operation of points by Crank Handle.-

a) The detailed Procedure for emergency operation of points by Crank Handle of motor operated points are given in Para No.6.8. I
b) Procedure for emergency operation of points with point zone axle counter/Track circuits failure and emergency route release.[GR 3.39 and GR 3.77]
c) Certification of clearance of track before Calling –On Signal operation in initiated-
Before taking off Calling –On signal during failure of track circuit/axle counter, the route and the clearance of the track over which train would pass to be verified by SM/ASM.
d) Reporting of failure of points, Track circuits/axle counter and interlocking-

Whenever there is a failure of points, Track circuits/axle counter or any interlocking gear at station , the failure should be reported by SM on duty to the concerned Signaling Maintenance Staff on duty responsible for attending to the failure and only after receipt of the written memo from the Signalling Maintainer for rectification of the fault ,SM should restore the normal working.

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

vi) In the event of occupation of block section due to accident or obstruction the authority for the train to work upto obstruction as and when required is T/A 602 & SR 6.02.05 shall be observed.

vii) In the event of trains delayed in the block section GR 6.04 and relevant SRs shall be followed.

viii) Failure/ passing of IBS at ON position: Not applicable.
ix) Failure of Axle Counter Block/BPAC : Not applicable.
x) Failure of MTRC: Not applicable.

b) PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE.

i) The detailed procedure for crank handling of points in the event of failure of points is explained in Appendix-B.

ii) The detailed procedure for emergency operation of points in the event of points zone track circuit failed is given in Appendix- B.

c) CERTIFICATIONS OF CLEARANCE OF TRACK BEFORE CALLING ON SIGNAL OPERATION IS INITIATED.

Certification of clearance of track before Calling –On Signal operation in initiated- Before taking off Calling –On signal during failure of track circuit/axle counter, the route and the clearance of the track over which train would pass to be verified by SM/ASM.

d) REPORTING FAILURE OF POINTS, TRACK CIRCUITS/AXLE COUNTERS AND INTERLOCKING.

i) In the event of failure of points, signals, track circuits/axle counters and interlocking the SM onduty shall advice the concerned Maintainer through a memo and after rectification shall obtain memo to this effect.

9.1 TOTAL FAILURE OF COMMUNICATIONS:

During total interruption of all communication rules laid down in SR 6.02.03 shall be followed.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

During temporary single line working on one clear line when one line is obstructed either between NWP-PUN and NWP-KBM, trains shall be worked as per the procedure as detailed in SR 6.02.01

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

i) In the event of total failure of communications trains shall run on the authority to proceed without line clear in terms of SR 6.02.05.

ii) In the event of necessity to send a train to assist the crippled trains SR 6.02.05 shall be followed.

10. VISIBILITY TEST OBJECT:

The signal lights of UP starter signal No.12 & DN starter signal no.14 during day and night are the visibility test object vide GR 3.61.2(b)(iii)

11. ESSENTIAL EQUIPMENT:

The detailed list of essential equipment to be kept readily available for use at the station is mentioned in Appendix-E of the SWR.

12. FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG:

i) During thick/foggy or tempestuous weather when the visibility of signals impaired the SM onduty shall comply GR 3.61 and relevant SRs thereto in order to indicate to the locopilots of approach trains, the locality of a signal. Fog signalman shall be a regular employee of the Railway. Substitute/casual labour shall not be utilised as Fog Signalmen vide SR 3.61.01(i).

ii) SM shall explain the rules to work in the event of fog to the Fog Signalmen nominated and their signatures to be obtained in Station Detonator Register on Form No.OP/T 124 vide SR 3.61.01(m).

iii) Possession of stock of detonators/use/testing etc. are maintained in terms of GR 3.64 and SRs thereto.

iv) Life span of detonators is 7 yrs. From the date of manufacture SR 3.64.04(e).

13. APPENDICES:

Appendix 'A'	Working of level Crossing gates.
Appendix 'B'	System of signalling and interlocking and communication arrangements at the station.
Appendix 'C'	Anti Collision Device (Raksha Kavach).
Appendix 'D'	Duties of Train Passing Staff and Staff in each shift.
Appendix 'E'	List of Essential equipment provided at the Station.
Appendix 'F'	Rules for Working of DK stations, halts, IBH, IBS and outlying sidings.
Appendix 'G'	Rules for working of trains in electrified sections.
Appendix 'H	Rules for working of trains Under one train only system

CERTIFICATE

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

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APPENDIX 'A' TO STATION WORKING RULES OF NAUPADA STATION LEVEL CROSSING GATES

1.	Number of Level Crossing Gate	**ML-384**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**SSE/P/NWP**
4.	Location at KM.	**693/13-15**
5.	At Station	**NWP**
6.	In between stations	**PUN-NWP**
7.	BG / MG / NG	**BG**
8.	Single line / Double line / Multiple line	**Double line**
9.	Normal Position	**closed to road traffic**
10.	Interlocked / Non-Interlocked	**Non-Interlocked**
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	**No**
	(ii)Dn Line	**No**
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	**NWP Station**
15.	Width of level crossing gate	**7.50m**
16.	Type of road (NH / SH / Others)	**Other**
17.	Name of Road	**Village**
18.	Metalled / non-metalled	**C.C.Block**
19.	Approach road	**Metal**
20.	Width of the road	**5.50m**
21.	Angle of road crossing (in case of the skew gates)	**90^0**

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22	Road gradient (if any)	
	(i) North / East side	**1in30**
	(ii) South / West side	**1in30**
23.	Road alignment (straight/curve)	
	(i) North / East side	**Straight**
	(ii) South / West side	**Straight**
24.	Provision of height gauges	**Yes**
25.	Type of Barriers	**Lifting Barrier**
26.	Length of Check rails	**9.5m**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**5.5m**
29.	Road signs	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**18746**
		05/2015
32.	Census next due on	**Dt.2018**
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2**
35.	Nearest Railway Medical Assistance	**CHE**
36.	Nearest Private Medical Assistance available (if any)	**NWP**
37.	List of equipment available Yes / No	**YES**

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1.	Number of Level Crossing Gate	**ML-396**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**SSE/P/NWP**
4.	Location at KM.	**708/3-5**
5.	At Station	**NWP**
6.	In between stations	**PUN-NWP**
7.	BG / MG / NG	**BG**
8.	Single line / Double line / Multiple line	**Double line**
9.	Normal Position	**closed to road traffic**
10.	Interlocked / Non-Interlocked	**Non-Interlocked**
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms. (i) Up Line (ii)Dn Line	 **No** **No**
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	**NWP Station**
15.	Width of level crossing gate	**7.50m**
16.	Type of road (NH / SH / Others)	**Other**
17.	Name of Road	**Village**
18.	Metalled / non-metalled	**C.C.Block**
19.	Approach road	**Metal**
20.	Width of the road	**5.50m**
21.	Angle of road crossing (in case of the skew gates)	**90^0**
22	Road gradient (if any) (i) North / East side (ii) South / West side	 **1in30** **1in30**
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 **Straight** **Straight**
24.	Provision of height gauges	**Yes**
25.	Type of Barriers	**Lifting Barrier**
26.	Length of Check rails	**9.5m**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**5.5m**
29.	Road signs	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**8360** **Dt.2013**
32.	Census next due on	**Dt.2015**
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2**
35.	Nearest Railway Medical Assistance	**CHE**
36.	Nearest Private Medical Assistance available (if any)	**NWP**
37.	List of equipment available Yes / No	**YES**

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1.	Number of Level Crossing Gate	**ML-390**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**SSE/P/NWP**
4.	Location at KM.	**700.763**
5.	At Station	**NWP**
6.	In between stations	**PUN-NWP**
7.	BG / MG / NG	**BG**
8.	Single line / Double line / Multiple line	**Double line**
9.	Normal Position	**Closed to road traffic**
10.	Interlocked / Non-Interlocked	**Non-Interlocked**
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms. (i) Up Line (ii)Dn Line	 **No** **No**
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	**NWP Station**
15.	Width of level crossing gate	**7.50m**
16.	Type of road (NH / SH / Others)	**Other**
17.	Name of Road	**Village**
18.	Metalled / non-metalled	**C.C.Block**
19.	Approach road	**Metal**
20.	Width of the road	**5.50m**
21.	Angle of road crossing (in case of the skew gates)	**90^0**
22	Road gradient (if any) (i) North / East side (ii) South / West side	 **1in30** **1in30**
23.	Road alignment (straight/curve) (i) North / East side (ii) South / West side	 **Straight** **Straight**
24.	Provision of height gauges	**Yes**
25.	Type of Barriers	**Lifting Barrier**
26.	Length of Check rails	**9.5m**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**5.5m**
29.	Road signs	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**11316** **08/2016**
32.	Census next due on	**2019**
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2**
35.	Nearest Railway Medical Assistance	**CHE**
36.	Nearest Private Medical Assistance available (if any)	**NWP**
37.	List of equipment available Yes / No	**YES**

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2.1 DESCRIPTION OF THE LEVEL CROSSING GATE :

1. **BRIEF DESCRIPTION:**

1	No. of Level Crossing Gate	:	388
2	Engineering or Traffic gate	:	ENGINEERING
3	Under control of station master or permanent way inspector.	:	SSE/P.WAY/NWP
4	Location at Km.	:	KM. 697/11-13
5	At station	:	-
6	In between station	:	NWP-PUN
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Closed to Road Traffic
10	Interlocked/ Non-Interlocked	:	Non-Interlocked
11	Means of Interlocking	:	Non-Interlocked
12	Provision of gate single at Km.	:	(i) Up : Nil (ii) DN : Nil
13	Signaling arrangement	:	----
14	Means of communication Telephone.	:	Telephone Connected with NWP Station
15	Width of the level crossing gate	:	5.5 M
16	Type of road	:	Others
17	Name of road	:	--------
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Non-Metalled
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90^0
22	Road gradients (if any)	:	[a]North/East Side: Level
		:	[b]South/West Side:Level
23	Road alignment (straight/Curve)	:	[a]North/East Side: Straight
		:	[b]South/West Side: Provided
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	5 M

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27	Road surface in between level crossing gates.	:	Level C.C.Block
28	Length of rumble strip/ speed breakers.	:	5.5 M
29	Road signs	:	Available
30	Speed breakers indication board	:	Available
31	TVU:	:	21600/9/2015
32	Census next due on	:	2018
33	Demarcation for placement of detonators.	:	Available
34	No. of gateman working	:	02
35	Nearest Railway Medical Assistance	:	PALASA
36	Nearest Private Medical Assistance available (if any)	:	PALASA
37	List of equipments		yes

1.	Number of Level Crossing Gate	**ML-387**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**SSE/P/NWP**
4.	Location at KM.	**696/17-19**
5.	At Station	**NWP**
6.	In between stations	**PUN-NWP**
7.	BG / MG / NG	**BG**
8.	Single line / Double line / Multiple line	**Double line**
9.	Normal Position	**closed to road traffic**
10.	Interlocked / Non-Interlocked	**Non-Interlocked**
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	**No**
	(ii)Dn Line	**No**
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	**NWP Station**
15.	Width of level crossing gate	**7.50m**
16.	Type of road (NH / SH / Others)	**Other**
17.	Name of Road	**Village**
18.	Metalled / non-metalled	**C.C.Block**
19.	Approach road	**Metal**
20.	Width of the road	**5.50m**
21.	Angle of road crossing (in case of the skew gates)	**90^0**
22	Road gradient (if any)	
	(i) North / East side	**1in30**
	(ii) South / West side	**1in30**
23.	Road alignment (straight/curve)	
	(i) North / East side	**Straight**
	(ii) South / West side	**Straight**
24.	Provision of height gauges	**Yes**
25.	Type of Barriers	**Lifting Barrier**

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26.	Length of Check rails	**9.5m**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**5.5m**
29.	Road signs	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**8360 Dt.2013**
32.	Census next due on	**Dt.2015**
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2**
35.	Nearest Railway Medical Assistance	**CHE**
36.	Nearest Private Medical Assistance available (if any)	**NWP**
37.	List of equipment available Yes / No	**YES**

2.2. **EQUIPEMENT TO BE AVAILABLE AT THE GATE :**

1.	Hand Signal Lamp Tri Colour	5
2.	Hand Signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red	6
4.	Banner Flag Red	5
5.	Posts for exhibiting red banner flag	4
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	A small chain in case of failure of gate boom	2
9.	Gate lamps	2
10	Tommy Bar	1
11.	Mortar Pan	1
12.	Spade/ Powrah	1
13.	Rammer	1 No (In case of asphalted rod this may not be provided)
14.	Pick Axe	1 No (In case of asphalted rod this may not be provided)
15.	Tin Case for Flags	1
16	Cane for oil	1
17	Water pot/Bucket	1
18	Canister for Muster roll	1
19	Set of spare spectacles of gateman wearing glasses	1
20	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
21	Basket	1
22	Whistle	1
23	Wall clock	1

2.3. **RECORDS TO BE KEPT AT GATE LODGE**

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

i) Gate Working Instructions in Hindi/English.

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

a)

2.5 DUTIES OF GATEMAN:

1. ALERTNESS:

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

2. POSITION DURING PASSAGE OF TRAINS:

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

i) Gateman will stand 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 banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.

ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, 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 drive on walkie-talkie or in any other way.

vii) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

xx) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the locopilot to report the defect at the next station.

xxi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

xxii) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xxiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.

xxiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xxv) Gateman shall see that the channel for the flange of the wheel is kept clear.

xxvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xxvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

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xxviii) 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.

xxix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURANCE 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 locopilot / 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 locopilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

iii) If locopilot / guard falls to take notice, gateman shall immediately inform the Station Master / Switchman / Cabinman, If connected on telephone, to take appropriate action, under exchange of private number.

iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavour to attract the attention of the locopilot / guard by whistiling 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 / Switchman / Cabinman, 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 / Switchman / Cabinman 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 / Switchman / Cabinman 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) <u>On double line section:</u>

i) If both lines are obstructed the Gateman shall plant a red banner falg by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.

iii) Gateman shall then proceed to protect the gate along with detonators, 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and 400 meters on MG / NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 800 meters on MG / NG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the locopilot of the approaching train.

vii) On those Meter Gauge sections where trains run at more than 75 kmph, detonators shall be placed at a distance to be specified under Special Instructions by the Administration.

viii) 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.

ix) Thereafter, he shall light up and fix the fusee to warn the locopilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

2.6 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.

2.7 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'.
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'.

ANNEXURE – V

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONE, WITH NORMAL POSITION "CLOSED TO ROAD TRAFFIC"
(General Instructions are common for all types of Manned Level Crossing Gates)

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1. MODE OF OPERATION:

For opening of this gate the following procedure to be followed.

2. EXCHANGE OF PRIVATE NUMBER:

(i) The normal position of the level crossing gate being " closed to road traffic" it should always be in closed condition against road traffic over the level crossing, subject to conditions prescribed below.

(ii) The Station Master before permitting each train to enter into the block section, shall ask gateman on the telephone by giving a private number whether, gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a private number to the station master/cabin master in assurance of gate being closed & locked against road traffic.

(iii) The station master/cabin master shall not permit any train to enter the block section, unless he is assured of the closure and locking of the gate by the gateman supported by exchange of private number.

(iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:

(1) He has not exchanged any private number with the station/cabin as per (d) (ii) above or

(2) If he has exchanged private number with the station master/cabin master, the whole of the train with last vehicle indicator has passed over the level crossing gate and the station master/cabin master has not exchanged private number with him for any other movement immediately in rear of that train or on the adjacent line(s).

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

(v) Incase the gateman is not responding on the telephone or incase the telephone becomes defective or private number is not received from the gateman, the station master shall adhere to the procedure prescribed in SR 16.03.04 below.

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(vi) In the event of failure of telephone, if the gate is required to be opened for passage of road traffic, the gateman shall lookout in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light during night, 5 meters away from the gate on the track on either side. He shall thereafter, open the gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

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3. FAILURE OF TELEPHONE COMMUNICATION:

In the event of failure of telephone communication between the station and non-interlocked mid-section level crossing gate or of failure to get gateman's acknowledgement over the phone, the following procedure shall be adopted for passing trains:

(a) The loco pilot and the guard of every train proceeding into the affected section shall be served with a caution order, giving the number and kilometreage of the level crossing and directing the loco pilot:-

(i) To whistle frequently to attract the attention of the gateman,

(ii) To proceed cautiously, and stop 30m short of the level crossing and be guided by hand signal.

(b) (i) The loco pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the station master/cabin master cabin man as the case may be of the fact using the telephone provided ate gate. The station master on receipt of such an advise from the loco pilot shall discontinue issue of caution order to the following train provided the acknowledgement of the gateman is available over the phone.

(ii) In the above circumstance, the loco pilot should not stop his train at the next station to advise the station master.

(c) (i) If the loco pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his assistant to close the gates and give proceed hand signal. In the absence of assistant, the loco pilot shall seek assistance of the assistant guard or guard of the train. The same should be informed to the station master on gate telephone.

(ii) The loco pilot, after being hand signaled, shall pass the level crossing and shall stop clear of it by at least 2 bogie length to pick up the assistant or assistant guard/guard, as the case may be. The railway servant deputed for closing the gate shall reopen it for road traffic after passage of the last vehicle of the train.

(iii) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station from the gate, the loco pilot

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shall stop his train at the next station (even if it is through passing station) and give a memo the station master indicating the condition of the gateman, gate and telephone.

(iv) The station master on receipt of the loco pilot's report regarding absence or unfitness of the gateman, shall advise the station master in rear, the notice station, the section controller, JE/SE/SSE (Pway) and AEN concerned and the gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.

(d) Before giving line clear to a train, the station master shall advise the station master of the station in the rear of the facts by message supported by a private number, and obtain his acknowledgement with a private number. The latter shall issue a caution order to the loco pilot as detailed in para (a).

(e) Necessary entries shall be made in the caution order register, station diary or signal failure register as the case may be by the station masters at either end of the affected section. The section controller also keep a note in his chart indicating action taken by him.

4. FAILURE OF LIFTING BARRIARS:

(a) If a gate boom/barier is damaged, the gateman shall:-

(i) Close the level crossing against the road traffic with a chain and pad lock immediately or before allowing the movement of train as the case may be.

(ii)Report the fact over telephone or through the loco pilot of a passing train or through a gangman to the station master/cabin master/cabinman of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman.

(c) The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

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(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

5. <u>OBSTRUCTION AT THE GATE</u>:

In case of an obstruction on the line at the level crossing not protected by station signals, the gateman shall maintain the signals, if provided, in the 'ON' position, If unable to remove the obstruction forthwith, he shall protect the line in the following manner.

(a) <u>ON DOUBLE LINE</u>:

(i) In case both the lines are obstructed, he shall during day light hours, first plant a banner flag across the track in the direction from which a train is expected to arrive and then plant the second banner flag across the other track, against any train in the opposite direction. The banner flag shall be planted clear of the level crossing and at a distance of about 5 meters from the edge of the road/obstruction.

(ii) He shall, thereafter, close and lock the gates.

(iii) At level crossings provided with telephones, the gateman shall, if time permits, inform the Station master about the obstruction and ascertain the position of trains, after he has taken action as per clauses (i) and (ii) above.

(iv) The gateman shall proceed in haste, exhibiting a red hand signal flag, towards the direction from which a train is expected first and place one detonator on the track at a distance of 600meters on BG and three detonators 10meters apart at a distance of 1200meters on BG from the level crossing. Having thus protected one line, he shall immediately return to the level crossing, picking up the intermediate detonator on the way and then proceed with the same haste in the opposite direction and protect the other line also in an identical manner. Having duly protected both the lines, the gateman shall return to the level crossing and endeavour to clear the obstruction, mobilizing any assistance locally available. He shall, however, not leave the level crossing, but shall remain in position to warn the loco pilot of any approaching train.

(v) In case of any one line is obstructed the aforesaid protection need be done only for the obstructed line.

(b) **ON SINGLE LINE:**

The gateman shall take action as laid down in sub-rule (a), except that the banner flags and the detonators shall be placed on the same line on either side of the level crossing.

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6. OBSTRUCTION ON THE TRACK NEAR LEVEL CRTOSSINGL GATE:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and station master will adopt the procedure given under item no.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.

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APPENDIX 'A' TO STATION WORKING RULES OF NAUPADA STATION LEVEL CROSSING GATES

3. GENERAL :

3.1 DESCRIPTION OF THE LEVEL CROSSING GATE :

1. **BRIEF DESCRIPTION:**

1	No. of Level Crossing Gate	:	393
2	Engineering or Traffic gate	:	ENGINEERING ('A' Class)
3	Under control of station master or permanent way inspector.	:	SSE/P.WAY/NWP
4	Location at Km.	:	KM. 702/31-33
5	At station	:	-
6	In between station	:	NWP-KBM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Ground Lever Frame
12	Provision of gate single at Km.	:	(iii) Up : 701.82 (iv) DN : 703.18
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone Connected with NWP Station
15	Width of the level crossing gate	:	5.5 M
16	Type of road	:	NH
17	Name of road	:	Tekkali Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	6.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90^0
22	Road gradients (if any)	:	[a]North/East Side: 1 in 10
		:	[b]South/West Side: 1in 10

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23	Road alignment (straight/Curve)	:	[a]North/East Side: Straight
		:	[b]South/West Side: Provided
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	8.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers.	:	6.5 M
29	Road signs	:	Available
30	Speed breakers indication board	:	Available
31	TVU:	:	123744/2013
32	Census next due on	:	2016
33	Demarcation for placement of detonators.	:	Available
34	No. of gateman working	:	03
35	Nearest Railway Medical Assistance	:	Rly Health Unit/NWP
36	Nearest Private Medical Assistance available (if any)	:	Patha Tekkali
37	List of equipment available (Yes/No)	:	Yes

3.2. **EQUIPEMENT TO BE AVAILABLE AT THE GATE :**

1.	Hand Signal Lamp Tri Colour	3
2.	Hand Signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red	3
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	A small chain in case of failure of gate boom	2
9.	Gate lamps	2
10	Tommy Bar	1
11.	Mortar Pan	1
12.	Spade/ Powrah	1
13.	Rammer	1 No (In case of asphalted rod this may not be provided)
14.	Pick Axe	1 No (In case of asphalted rod this may not be provided)
15.	Tin Case for Flags	1
16	Cane for oil	1
17	Water pot/Bucket	1
18	Canister for Muster roll	1

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19	Set of spare spectacles of gateman wearing glasses	1
20	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
21	Basket	1
22	Whistle	1
23	Wall clock	1

3.3. **RECORDS TO BE KEPT AT GATE LODGE**

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

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

3.4 Mode of operation :

Gate shall normally kept open to the road traffic when ever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or dispatch supported by private number. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

a) Key 'G' is obtained after closing the level crossing gate releases GF.2.
b) G. F 2 when reversed locks the level crossing boom and releases 1 GF and 3 GF respectively. To take off UP gate home and DN gate home come DN IB distant respectively.

3.5 DUTIES OF GATEMAN:

1. **ALERTNESS:**

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

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

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

i) Gateman will stand 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 banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.

ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, 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 drive 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 Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

xx) 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 locopilot to report the defect at the next station.

xxi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

xxii) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xxiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.

xxiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xxv) Gateman shall see that the channel for the flange of the wheel is kept clear.

xxvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xxvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xxviii) 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.

xxix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURANCE 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 locopilot / 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 locopilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

iii) If locopilot / guard falls to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.

iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavour to attract the attention of the locopilot / guard by whistiling 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 falg by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.

iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.

iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters on BG and 400 meters on MG / NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed 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 locopilot 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 warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) **OTHER ACTION TAKEN BY GATE MAN**

i) At night gate man shall light two hand signal lamps and take action to exhibit red light and protect the lines as per described in sub para [A] above.

ii) If the gate is broken by the road vehicle which is fouling by track, or if lifting barrier by leaf gates or any other part of the gate found the track, or it there is any other obstruction at the gate, the gate man shall take immediate action.

iii) He shall note down, owner and relay these details to the nearest Station Master /Cabin Master / Cabin man or Permanent way inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6 ENGINEERING ITEMS:

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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'.
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'.

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES INTERLOCKED WITH GATE SIGNALS, 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:**

Gate shall normally kept open to the road traffic when ever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or dispatch supported by private number. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

a) Key 'G' is obtained after closing the level crossing gate releases GF.2.
b) G. F 2 when reversed locks the level crossing boom and releases 1 GF and 3 GF respectively. To take off UP gate home and DN gate home come DN IB distant respectively.

2. Exchange of Private Numbers:

i) Immediately after departure of the train, Station Master shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.

ii) If the telephone is connected to the station at the receiving end, this advice shall be given by the Station Master to the gateman, under exchange of private number, as soon as he receives train entering section advice from the dispatching station.

iii) If the actual running time of the train from either end of the section is less than 10 minutes, Station Master will convey this advice to the gateman before obtaining / granting line clear.

iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

. **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:

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(i) Station Master on duty shall send written advice to the gateman through the porter with full details of number, description and direction of the train.

(ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable them to take 'OFF' reception / departure signals.

(iii) When sufficient time is not available because of greater frequency of train service Station Master will issue Pilot In/Out authority to the train Loco Pilot to pass the signal at 'ON' position.

(iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.

(v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b).

(vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of private number, that the telephone at the gate has failed.

(vii) The Station Master at the despatching end shall then issue a caution order to the drive before despatching a train in the block section from his end.

(viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

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

4. **Failure of Lifting Barriers :**

(a) If a gate boom/barrier is damaged, the gateman shall:-

(i) Close the Level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over telephone or through the Loco pilot of passing train or through a Gangman too the Station Master/Cabin Master/Cabin man of the adjacent station and the nearest Gangmate.

(b) The station master on duty on receipt of the above information shall arrange to issue caution orders to the Loco pilots and Guards of all train entering into the section.

(i) To whistle frequently,

(ii) To stop 30m, short of the level crossing, and be guided by the hand signal given by the gateman.

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(c) The station master shall intimate the fact to the station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continued to be issued till the defect is rectified. The station master shall also advise the JE/SE/SSE (Signal), JE/SE/SSE (P-way) and other officials concerned for immediate rectification and other necessary action.

(d) The Loco Pilots shall ensure that the level crossing is not obstructed and on being hand signalled by the Gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the Caution Order Register and Station Diary by the station Masters at either end of the affected section.

4. <u>Failure of Lifting Barriers</u>:

(a) If a gate boom/barrier is damaged, the gateman shall-

(i) Close the level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over the telephone or through the loco pilot of a passenger train or through a gangman to the Station master of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman.

(c) The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

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5. <u>Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for Opening the gate</u>:

[i] If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gate man must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] If Emergency Key is available at the gate lodge, gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.-No Emergency Key provided.

[iii] The record of the date and time of breaking the sealed cover of emergency key box shall be recorded and singed with reasons.-Not applicable

[iv] Thereafter, the gate must be treated as non-interlocked and produced for reception / Dispatch of trains as prescribed for non-inter locked gates, should be adopted.

[v] SS/Dy.SS on duty shall issue caution order to the loco pilot before dispatching a train.

[vi] He shall also advise the Station Master at the dispatching end, exchange of private number, to similarly issue caution order to the loco pilot before dispatching a train in block section from his end.

[vii] SS/Dy.SS shall advice S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[viii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[ix] After rectification, the Emergency key shall be replaced in the Emergency key box and resealed by the S&T maintainer. ---- Not applicable.

6. Failure of the Gate Key with the gate in open condition:

[i] If the gate key cannot be extracted from the winch, gate signal level or key transmitter then gateman must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch of train as prescribed for non-interlocked gates should be adopted.

[iii] The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

[iv] SS/.Dy.SS on duty shall issue a caution order to loco pilot of a departing train.

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[v] He shall also advise the SS/Dy.SS at the dispatching end, under exchange of private number, to issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[vi] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[vii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[viii] After rectification, the Emergency Key shall be replaced in the emergency key box and released by the S&T maintainer.

7. <u>Defective Gate Signals:</u>

[i] The gate man shall treat the gate signal as defective and must not take off them under following circumstances:

[a] If gate signal can be taken 'OFF' without closing the gate, or

[b] The key can be extracted from the operating winch when the gate is in open condition, or

[c] The key can be extracted from the gates when the gate is in open condition.

[ii] If the gate or the gate signal or distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position by turning signal levers to 'N' position.

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[iii] The gate man will immediately advise the SS/Dy.SS on duty, under exchange of private number regarding defective gate signals.

[iv] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch as prescribed for non-interlocked gates should be adopted.

[v] He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.

[vi] SS/Dy.SS on duty will issue a caution order to the loco pilot of a departing train.

[vii] He shall also advise the station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[viii] SS/Dy.SS shall advise S&T staff responsible for maintaining the gate signal t o repair the same at the earliest.

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[ix] Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection /fit memo for the same.

8. <u>Obstruction at the Gate</u>:

In case of an obstruction at a level crossing protected by station stop signals, which may also include cabin operated level crossings, the gateman or cabin man, as the case may be shall at once close the gates across the road and ensure that the stop signals controlling the passage of trains over the obstructed lines are maintained at 'ON'. In addition, banner flags shall be planted in the manner indicated in SR 16.07.01 (i). However, if in the meantime he notices any train coming from either side, he shall be prepared to stop the same by the usage of hand signals and detonators.

9. Obstruction on the Track near Level Crossing Gate:

If there is a rail fracture or obstruction on the track due to falling of the 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.8 above. If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared off the obstruction

APPENDIX 'A' TO STATION WORKING RULES OF NAUPADA STATION LEVEL CROSSING GATES

4. GENERAL :

4.1 DESCRIPTION OF THE LEVEL CROSSING GATE :

1. **BRIEF DESCRIPTION:**

1	No. of Level Crossing Gate	:	395
2	Engineering or Traffic gate	:	ENGINEERING ('A' Class)
3	Under control of station master or permanent way inspector.	:	SSE/P.WAY/NWP
4	Location at Km.	:	KM. 707/19-21
5	At station	:	-
6	In between station	:	NWP-KBM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Elect Key transmission to gate panel
12	Provision of gate single at Km.	:	(v) Up : 706.82 (vi) DN : 707.18
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone Connected with NWP Station
15	Width of the level crossing gate	:	5.5 M
16	Type of road	:	Other
17	Name of road	:	Dandugopalapuram Road
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90^0
22	Road gradients (if any)	:	[a]North/East Side: straight
		:	[b]South/West Side: straight

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23	Road alignment (straight/Curve)	:	Curved
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers.	:	5.5 M
29	Road signs	:	provided
30	Speed breakers indication board	:	Provided
31	TVU:	:	37110/12/2016
32	Census next due on	:	2019
33	Demarcation for placement of detonators.	:	Available
34	No. of gateman working	:	03
35	Nearest Railway Medical Assistance	:	Rly Health Unit/CHE
36	Nearest Private Medical Assistance available (if any)	:	NWP
37	List of equipment available (Yes/No)	:	Yes

4.2. **EQUIPEMENT TO BE AVAILABLE AT THE GATE :**

1.	Hand Signal Lamp Tri Colour	3
2.	Hand Signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red	3
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2
6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	A small chain in case of gate boom failure	2
9.	Gate lamps	2
10	Tommy Bar	1
11.	Mortar Pan	1
12.	Spade/ Powrah	1
13.	Rammer	1 No (In case of asphalted rod this may not be provided)
14.	Pick Axe	1 No (In case of asphalted rod this may not be provided)
15.	Tin Case for Flags	1
16	Cane for oil	1
17	Water pot/Bucket	1
18	Canister for Muster roll	1
19	Set of spare spectacles of gateman wearing glasses	1

20	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
21	Basket	1
22	Whistle	1
23	Wall clock	1

4.3. **RECORDS TO BE KEPT AT GATE LODGE**

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

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

4.4 Mode of operation :

Gate shall normally kept open to the road traffic when ever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or dispatch supported by private number. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

a) Key 'G' is obtained after closing the level crossing gate releases GF.2.
b) G. F 2 when reversed locks the level crossing boom and releases 1 GF and 3 GF respectively. To take off UP gate home and DN gate home come DN IB distant respectively.

4.5 DUTIES OF GATEMAN:

1. **ALERTNESS:**

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

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

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

i) Gateman will stand 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 banner flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.

ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, 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 drive on walkie-talkie or in any other way.

vii) If lifting barriers / leaf gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

xx) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers / leaf gates on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the locopilot to report the defect at the next station.

xxi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.

xxii) Gateman shall ensure that he is having competency certificate in his possession while on duty.

xxiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.

xxiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xxv) Gateman shall see that the channel for the flange of the wheel is kept clear.

xxvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xxvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xxviii) 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.

xxix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURANCE 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 locopilot / 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 locopilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

iii) If locopilot / guard falls to take notice, gateman shall immediately inform the Station Master / Switchman / Cabinman, If connected on telephone, to take appropriate action, under exchange of private number.

iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.

v) He shall endeavour to attract the attention of the locopilot / guard by whistiling 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 / Switchman / Cabinman, 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 / Switchman / Cabinman 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 / Switchman / Cabinman 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 falg by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

ii) Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away from the site of obstruction.

iii) Gateman shall then proceed to protect the gate along with detonators, 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 on the line on which a train is expected to arrive first, to a point 600 meters on BG and 400 meters on MG / NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 800 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 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 locopilot of the approaching train.

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

viii) Thereafter, he shall light up and fix the fusee to warn the locopilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) **OTHER ACTION TAKEN BY GATE MAN**

i) At night gate man shall light two hand signal lamps and take action to exhibit red light and protect the lines as per described in sub para [A] above.

ii) If the gate is broken by the road vehicle which is fouling by track, or if lifting barrier by leaf gates or any other part of the gate found the track, or it there is any other obstruction at the gate, the gate man shall take immediate action.

iii) He shall note down, owner and relay these details to the nearest Station Master /Cabin Master / Cabin man or Permanent way inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6 ENGINEERING ITEMS:

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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'.
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'.

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATES INTERLOCKED WITH GATE SIGNALS, 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:**

Gate shall normally kept open to the road traffic when ever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or dispatch supported by private number. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

a) Key 'G' is obtained after closing the level crossing gate releases GF.2.
b) G. F 2 when reversed locks the level crossing boom and releases 1 GF and 3 GF respectively. To take off UP gate home and DN gate home come DN IB distant respectively.

2. Exchange of Private Numbers:

i) Immediately after departure of the train, Station Master / Switchman / Cabinman shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.

ii) If the telephone is connected to the station at the receiving end, this advice shall be given by the Station Master to the gateman, under exchange of private number, as soon as he receives train entering section advice from the dispatching station.

iii) If the actual running time of the train from either end of the section is less than 10 minutes, Station Master will convey this advice to the gateman before obtaining / granting line clear.

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iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

3. . <u>Failure of Telephonic Communication</u>:

(c) The station master shall intimate the fact to the station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continued to be issued till the defect is rectified. The station master shall also advise the JE/SE/SSE (Signal), JE/SE/SSE (P-way) and other officials concerned for immediate rectification and other necessary action.

(d) The Loco Pilots shall ensure that the level crossing is not obstructed and on being hand signalled by the Gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the Caution Order Register and Station Diary by the station Masters at either end of the affected section.

(a) If a gate boom/barrier is damaged, the gateman shall-

(ii) Report the fact over the telephone or through the loco pilot of a passenger train or through a gangman to the Station master of the adjacent station and the nearest gangmate.

(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

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5. <u>Failure of Gate Key with the gate in closed position, when Gate</u>

[i] If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gate man must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii]

[iv] Thereafter, the gate must be treated as non-interlocked and produced for reception / Dispatch of trains as prescribed for non-inter locked gates, should be adopted.

[v]

[vii] SS/Dy.SS shall advice S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[viii]

6. Failure of the Gate Key with the gate in open condition:

[i]

4.

[iv] SS/.Dy.SS on duty shall issue a caution order to loco pilot of a departing train.

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[v]

[vii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[viii]

After rectification, the Emergency Key shall be replaced in the emergency

[i] The gate man shall treat the gate signal as defective and must not take off them under following circumstances:

[c] The key can be extracted from the gates when the gate is in open condition.

[iv] Thereafter, the gate must be treated as non-:erlocked and procedure for reception /dispatch as escribed for non-interlocked gates should : adopted.

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[vii] He shall also advise the station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the loco pilot before dispatching a train in the block section from his end.

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8. <u>Obstruction at the Gate</u>:

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In case of an obstruction at a level crossing protected by station stop signals, which may also include cabin operated level crossings, the gateman or cabin

If there is a rail fracture or obstruction on the track due to falling of the 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.8 above. If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared off the obstruction

5. . <u>Failure of Telephonic Communication</u>:

6.

7.

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9.

APPENDIX 'A' TO STATION WORKING RULES OF NAUPADA STATION LEVEL CROSSING GATES

1. GENERAL :

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE :

1. **BRIEF DESCRIPTION:**

1	No. of Level Crossing Gate	:	386
2	Engineering or Traffic gate	:	ENGINEERING
3	Under control of station master or permanent way inspector.	:	SSE/P.WAY/NWP
4	Location at Km.	:	KM. 695/3-5
5	At station	:	-
6	In between station	:	NWP-PUN
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	**open to Road Traffic**
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	RKT
12	Provision of gate single at Km.	:	(vii) p IBS : - 694.970 (viii) N IBS : - 695.330
13	Signaling arrangement	:	MACLS
14	Means of communication Telephone.	:	Telephone with SM/PUN and

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			NWP
15	Width of the level crossing gate	:	5.5 M
16	Type of road	:	Others
17	Name of road	:	Routupuram
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Metalled
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	-
22	Road gradients (if any)	:	[a]North/East Side: Level
		:	[b]South/West Side:1:10
23	Road alignment (straight/Curve)	:	[a]North/East Side: Straight
		:	[b]South/West Side: Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting
26	Length of check rails	:	8.5 M
27	Road surface in between level crossing gates.	:	C.C.Block
28	Length of rumble strip/ speed breakers.	:	5.5 M
29	Road signs	:	Available
30	Speed breakers indication board	:	Available
31	TVU:	:	19055, 2015
32	Census next due on	:	2018
33	Demarcation for placement of detonators.	:	Available
34	No. of gateman working	:	02
35	Nearest Railway Medical Assistance	:	PALASA
36	Nearest Private Medical Assistance available (if any)	:	Pata Tekkali
37	List of equipment available (Yes/No)	:	Yes

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

1.	Hand Signal Lamp Tri Colour	3
2.	Hand Signal Flag Green	1 mounted on sticks
3.	Hand Signal Flag Red	3
4.	Banner Flag Red	3
5.	Posts for exhibiting red banner flag	2

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6.	Spare Chains with Padlocks	2 with stop mark
7.	Detonators	10 in tin case
8.	A small chain in case of failure of gate boom	2
9.	Gate lamps	2
10	Tommy Bar	1
11.	Mortar Pan	1
12.	Spade/ Powrah	1
13.	Rammer	1
14.	Pick Axe	1
15.	Tin Case for Flags	1
16	Cane for oil	1
17	Water pot/Bucket	1
18	Canister for Muster roll	1
19	Set of spare spectacles of gateman wearing glasses	1
20	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1
21	Basket	1
22	Whistle	1
23	Wall clock	1

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

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

xii) Gate Working Instructions in Hindi/English.

xiii) Gate Working, Instructions in local vernacular language.

xiv) Gateman Rule Book in local vernacular language.

xv) List for tools and books.

xvi) Duty Roster.

xvii) Certificate for working as gateman.

xviii) Bio-data particulars of Gatemen, including date of passing vision test, initial/refresher course, safety camp, etc.

xix) Accident Register.

xx) Record of last census of road traffic at Level Crossing gate.

xxi) Public Complaint Book.

xxii) Inspection Book.

1.4. **MODE OF OPERATION:**

This gate is interlocked with Up and Dn I.B Signals. The interlocking is achieved by means of a miniature panel through Relay key transmitted system. The normal position of the L.C.gate is closed to road traffic. Normally key 'H1' will be in the R.K.T and in turned position. Line clear position of respective block instruments along with the

reversal of switches 1S and 2S will released Up IBH signal No.15 of Pundi Station and Dn IB signal No.28 of Naupada Station respectively. In case of emergency Up IB Signal No.15 of PUNDI and Dn IB signal No.28 of Naupada can be put back to ON by turning switches 1S and 2S respectively to Normal Position.

When it is require to open the L.C gate to pass road traffic, on duty gateman should exchange P.N with on duty SS/Dy.SS/SM of PUN and NWP Station. After exchanging P.N. on duty gateman shall extract key 'H1' from R.K.T. The key 'H1' shall be inserted to lever No.1 G.F and unlock. After normalizing 1 G.F key 'H' shall be released which shall be inserted in the winch to unlock winch. Then L.C.gate can be opened by operating the winch. After clearing road traffic L.C.gate is to be closed, locked and the key H1 shall be inserted to R.K.T and turned.
After closing of L.C.gate P.N is to be exchanged with SS/SM on duty NWP and PUN as a confirmation that L.C.gate is closed and locked condition for road traffic.

1.5DUTIES OF GATEMAN:

(1) **ALERTNESS:**

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

(2)**POSITION DURING PASSAGE OF TRAINS:**

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

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

(3)**ROUTINE DUTIES OF GATEMAN:**

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

(vi) If lifting barriers/gates get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.

(vii) Gateman shall report to the on duty SS/Dy.SS/SM of NWP & PUN, Gang mate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

(viii) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.

(ix) At the gate whose signal have become defective, the gateman shall close and lock and lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Locopilot 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 clear.

(xv) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

(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.

(xvii) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

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

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

(i) He shall take prompt action to warn the locopilot / 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 locopilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

(iii) If locopilot/guard fails to take notice, gateman shall immediately inform the Station Master, to take appropriate action, under exchange of private number.

(iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.

(v) He shall endeavor to attract the attention of the locopilot/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, in the 'ON' position.

ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the SS/Dy.SS/SM on duty at Naupada and Pundi, regarding the defects/obstructions at the gate, under exchange of private number.

iii) If there is no response from the Station Masters after two or three attempts, he shall first protect the gate and then inform on phone.

iv) 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 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, 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 on the line on which a train is excepted to arrive first, to a point 600 meters on BG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in Para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the locopilot of the approaching train.

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

viii) Thereafter, he shall light up and fix the fusee to warn the locopilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

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

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) above.

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.

He shall note down the particulars of the road vehicle, vehicle number, name of the locopilot, owner and relay these details to the nearest SS/Dy.SS/SM on duty or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.

1.6**ENGINEERING ITEMS**:

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

WORKING INSTRUCTIONS FOR ENGINEERING LEVEL CROSSING GATE INTERLOCKED WITH GATE SIGNALS, PROVIDED WITH TELEPHONE WITH NORMAL POSITION " CLOSE TO ROAD TRAFFIC" FOR L.C.GATE KM 695/3-5 BETWEEN NWP-PUN.

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

1.<u>MODE OF OPERATION:</u>

This gate is interlocked with Up and Dn I.B Signals. The interlocking is achieved by means of a miniature panel through Relay key transmitted system. The normal position of the L.C.gate is closed to road traffic. Normally key 'H1' will be in the R.K.T and in turned position. Line clear position of respective block instruments along with the reversal of switches 1S and 2S will released Up IBH signal No.15 of Pundi Station and Dn IB signal No.28 of Naupada Station respectively. In case of emergency Up IB Signal No.15 of PUNDI and Dn IB signal No.28 of Naupada can be put back to ON by turning switches 1S and 2S respectively to Normal Position.

When it is require to open the L.C gate to pass road traffic, on duty gateman should exchange P.N with on duty SS/Dy.SS/SM of PUN and NWP Station. After exchanging P.N. on duty gateman shall extract key 'H1' from R.K.T. The key 'H1' shall be inserted to lever No.1 G.F and unlock. After normalizing 1 G.F key 'H' shall be released which shall be inserted in the winch to unlock winch. Then L.C.gate can be opened by operating the winch.

After clearing road traffic L.C.gate is to be closed, locked and the key H1 shall be inserted to R.K.T and turned.

After closing of L.C.gate P.N is to be exchanged with SS/SM on duty NWP and PUN as a confirmation that L.C.gate is closed and locked condition for road traffic.

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2.EXCHANGE OF PRIVATE NUMBER :

i) Immediately after departure of the train from the adjacent station , SS/Dy.SS shall advise the gateman through telephone , the number , description , direction and expected time of passage of the train at the gate.

ii) The actual running time of the train from either end of the section is less than 10 minutes SS/SM will convey this advice to the gateman before obtaining line clear from NKX for a DN train and also before granting Line clear an UP train from NKX.

iii)

iv) (iii) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train and excessive detention to road traffic.

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:

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(i) Station Master on duty shall send written advice to the gateman through the porter with full details of number, description and direction of the train.

(ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable them to take 'OFF' reception / departure signals.

(iii) When sufficient time is not available because of greater frequency of train service Station Master will issue Pilot In/Out authority to the train Loco Pilot to pass the signal at 'ON' position.

(iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.

(v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b).

(vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of private number, that the telephone at the gate has failed.

(vii) The Station Master at the despatching end shall then issue a caution order to the drive before despatching a train in the block section from his end.

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(viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.

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

4. **Failure of Lifting Barriers :**

(a) If a gate boom/barrier is damaged, the gateman shall:-

(i) Close the Level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over telephone or through the Loco pilot of passing train or through a Gangman too the Station Master/Cabin Master/Cabin man of the adjacent station and the nearest Gangmate.

(b) The station master on duty on receipt of the above information shall arrange to issue caution orders to the Loco pilots and Guards of all train entering into the section.

(i) To whistle frequently,

(ii) To stop 30m, short of the level crossing, and be guided by the hand signal given by the gateman.

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(c) The station master shall intimate the fact to the station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continued to be issued till the defect is rectified. The station master shall also advise the JE/SE/SSE (Signal), JE/SE/SSE (P-way) and other officials concerned for immediate rectification and other necessary action.

(d) The Loco Pilots shall ensure that the level crossing is not obstructed and on being hand signalled by the Gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the Caution Order Register and Station Diary by the station Masters at either end of the affected section.

4. Failure of Lifting Barriers:

(a) If a gate boom/barrier is damaged, the gateman shall-

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(i) Close the level crossing against the road traffic with chain and padlock immediately or before allowing the movement of train as the case may be.

(ii) Report the fact over the telephone or through the loco pilot of a passenger train or through a gangman to the Station master of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman.

(c) The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

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5. <u>Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for Opening the gate</u>:

[i] If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gate man must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] If Emergency Key is available at the gate lodge, gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.-No Emergency Key provided.

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[iii] The record of the date and time of breaking the sealed cover of emergency key box shall be recorded and singed with reasons.-Not applicable

[iv] Thereafter, the gate must be treated as non-interlocked and produced for reception / Dispatch of trains as prescribed for non-inter locked gates, should be adopted.

[v] SS/Dy.SS on duty shall issue caution order to the loco pilot before dispatching a train.

[vi] He shall also advise the Station Master at the dispatching end, exchange of private number, to similarly issue caution order to the loco pilot before dispatching a train in block section from his end.

[vii] SS/Dy.SS shall advice S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[viii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[ix] After rectification, the Emergency key shall be replaced in the Emergency key box and resealed by the S&T maintainer. ---- Not applicable.

6. Failure of the Gate Key with the gate in open condition:

[i] If the gate key cannot be extracted from the winch, gate signal level or key transmitter then gateman must immediately inform the SS/Dy.SS on duty on telephone, under exchange of private number.

[ii] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch of train as prescribed for non-interlocked gates should be adopted.

[iii] The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

[iv] SS/.Dy.SS on duty shall issue a caution order to loco pilot of a departing train.

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[v] He shall also advise the SS/Dy.SS at the dispatching end, under exchange of private number, to issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[vi] SS/Dy.SS shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

[vii] Normal working will be resumed only after S&T staff repair the key transmitter and issue re-connection / fit memo for the same.

[viii] After rectification, the Emergency Key shall be replaced in the emergency key box and released by the S&T maintainer.

7. <u>Defective Gate Signals:</u>

[i] The gate man shall treat the gate signal as defective and must not take off them under following circumstances:

[a] If gate signal can be taken 'OFF' without closing the gate, or

[b] The key can be extracted from the operating winch when the gate is in open condition, or

[c] The key can be extracted from the gates when the gate is in open condition.

[ii] If the gate or the gate signal or distant signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position by turning signal levers to 'N' position.

[iii] The gate man will immediately advise the SS/Dy.SS on duty, under exchange of private number regarding defective gate signals.

[iv] Thereafter, the gate must be treated as non-interlocked and procedure for reception /dispatch as prescribed for non-interlocked gates should be adopted.

[v] He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.

[vi] SS/Dy.SS on duty will issue a caution order to the loco pilot of a departing train.

[vii] He shall also advise the station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the loco pilot before dispatching a train in the block section from his end.

[viii] SS/Dy.SS shall advise S&T staff responsible for maintaining the gate signal t o repair the same at the earliest.

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[ix] Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection /fit memo for the same.

8. <u>Obstruction at the Gate</u>:

In case of an obstruction at a level crossing protected by station stop signals, which may also include cabin operated level crossings, the gateman or cabin man, as the case may be shall at once close the gates across the road and ensure that the stop signals controlling the passage of trains over the obstructed lines are maintained at 'ON'. In addition, banner flags shall be planted in the manner indicated in SR 16.07.01 (i). However, if in the meantime he notices any train coming from either side, he shall be prepared to stop the same by the usage of hand signals and detonators.

9. Obstruction on the Track near Level Crossing Gate:

If there is a rail fracture or obstruction on the track due to falling of the 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.8 above. If the obstruction fouls the level crossing gate, gateman must keep the gates closed against road traffic till the track is cleared off the obstruction.

APPENDIX 'A' TO STATION WORKING RULES OF NAUPADA STATION

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WORKING RULES FOR 'B1' CLASS LEVEL CROSSING GATE SITUATED AT KM:6/0-1 (6.015) (NG-6) FROM TEKKALI – NAUPADA STATIONS BETWEEN NAUPADA – GUNUPUR SECTION INTERLOCKED, PROVIDED WITH TELEPHONE WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC"

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:
Following details shall be maintained at all manned level crossing gates:

1.	Number of Level Crossing Gate	**NG-6**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**Station Master**
4.	Location at KM.	**6/0-1 (6.015)**
5.	At Station	**Mid section**
6.	In between stations	**Tekkali - Naupada**
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	**Interlocked**
11.	Means of Interlocking	**EKT/Key Transmission**
12.	Provision of Gate signal at Kms.	
	(i) Up Line : **Gate Stop and Gate distant**	
	(ii) Dn Line : **Gate Stop and Gate distant**	
13.	Signalling arrangements	**MACLS**
14.	Means of Communication – Telephone / Bell etc.	**Telephone connection with NWP/Stn.**
15.	Width of level crossing gate	**7.500M**
16.	Type of road (NH / SH / Others)	**Others**
17.	Name of Road	**Village Road**
18.	Metaled / non-metaled	**Metaled**
19.	Approach road	**Metaled**
20.	Width of the road	5**.500 M**
21.	Angle of road crossing (in case of the skew gates)	**45 Degrees**
22	Road gradient (if any)	
	(i) North / East side	**Nil**
	(ii) South / West side	**Nil**
23.	Road alignment (straight/curve)	

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	(i) North / East side	**Straight**
	(ii) South / West side	**Straight**
24	Provision of height gauges	**Not Provided**
25.	Type of Barriers	**Coupled Lifting type**
26.	Length of Check rails	**12.60 M**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**20M. from Gate Post**
29.	Road signals	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**9406** on **Jan -2017**
32.	Census next due on	**2020**
33.	Demarcation for placement of Detonators	**Provided**
34.	No. of Gatemen working	**3 (Three)**
35.	Nearest Railway Medical Assistance	**Naupada**
36.	Nearest Private Medical Assistance available (if any)	**Naupada**
37.	List of equipment available Yes / No	**Yes**

. EQUIPMENTS: **ITEMS**	**QUANTITY/NUMBERS**
1. Hand Signal Lamp Tri Color.	**3 Nos.**
2. Hand Signal Flag Green.	**1 No with mounted stick**
3. Hand Signal Flag Red.	**3 Nos.**
4. Banner Flag Red.	**3 Nos.**
5. Posts for exhibiting red banner flag	**2 Nos**
6. Spare chains with padlocks	**2 with stop marker**
7. Detonators	**10 in each case**
8. Gate lamps	**2 Nos.**
9. Tommy Bar	**1No**
10. Mortar Pan	**1No**
11. Spade/Fowarh	**1No**
12.Rammer	**1No [in case of asphalted road this may not be provided.]**
13. Pick Axe	**1No [in case of asphalted rod this may not be provided.]**
14. Tin case for flags	**1No**
15. Can for Oil	**1No**
16. Water Pot/Bucket	**1No**
17. Canister for Muster Roll	**1No**
18. Set of spare spectacles of gate man wearing glasses.	**1No**
19. Board demarcation protection of level crossing gate diagram in case of obstruction	**1No**
20. Bucket	**1No**
21. Whistle	**1No**
22. Wall Clock	**1 No**
23. A small sized chain in case of failure of Boom Lock	**2No**

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 registers.
6. Certificate for working as gateman.
7. Bio-data particulars of Gateman, including date of passing

vision test, Initial/refresher course, safety camp etc.
8. Accident Register.
9. Records of last census of road traffic at level crossing gate.

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10. Public Complaint Book.
11. Inspection Book.
12. Signal failure and inspection register.

GENERAL DUTIES OF GATEMEN:

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

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

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gate man will stand in the manner indicated below: -

i. Gate man will stand attentively in front of the gate-lodge facing the approaching train.

ii. In daytime, 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.

4. ROUTINE DUTIES OF GATEMAN:

i. Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously.

ii. Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

iii. He shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

iv. Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

v. Gateman shall also be prepared to repeat any signal which guard may give to Loco pilot on walkie-talkie or in any other way.

vi. If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

vii. Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.

viii. Gateman shall ensure that he is having competency certificate in his possession while on duty.

ix. Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.

x. Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xi. Gateman shall see that the channel for the flange of the wheel is kept clean.

xii. Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xiii. Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xiv. 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.

xv. Gateman shall prevent tress passing by persons or cattle to the maximum extent.

xvi. He should note down the number of vehicles which damages the gate barrier.

xvii. Locking arrangement of gate should be checked daily.

5. ACTION IN CASE OF ANY ABNORMALITY IN TRAIN :

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

i. He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flags 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 stationmaster if connected on telephone, to take appropriate action under exchange of private number.

iv. In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.

v. He shall endeavor to attract the attention of the Loco pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and DN motion as high and as low as possible.

vi. In case of trains does not stop, gate man shall immediately inform the station master to take appropriate action under exchange of private number.

1. Mode of Operation:

Gate shall normally be kept open to road traffic. When ever it is required to close the gate SS/SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive/despatch. Gate man on duty shall ensure clearance of road traffic close and lock the gate.

1. Key ‘G’ obtained from the winch after closing the Level Crossing gate releases GF-2.
2. GF-2 when reversed locks the level crossing boom and releases GF-3 or GF-4.
3. GF-3 or GF-4 when reversed clears UP or DN gate stop signal No: GF-3 or GF-4 respectively.

2. Exchange of Private Numbers:

i) Immediately after departure of the train, Station Master shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.

iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

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) If the telephone falls at the gate connected with the station at the despatching end, Station Master shall issue a caution order to the LP of the departing train.

ii) Station Master shall advise the LP to whistle continuously and proceed cautiously while approaching the gate.

iii) In case the gate signal is 'ON' he should stop short of the gate signal and follow the procedure laid down under GR 3.73.

iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.

v) The Station Master at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.

vi) Station Master will also advise the gateman through Gangman / Patrolman / LP of the first train that the telephone has become defective.

vii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.

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

4. Failure of Lifting Barriers:

i) When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master on duty under exchange of private number, and ensure that lifting of 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 that gate against road traffic by means of safety chains and padlocks.

iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the locopilot of the approaching train.

v) Station Master on duty shall issue caution order to the LP of a departing train.

vi) He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the LP before despatching a train in the block section.

vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier gates to rectify the same at the earliest.

viii) Normal working will be resumed only after maintenance staff repair the lifting barrier and issue reconnection / fit memo for the same.

5. Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for opening the gate:

i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.

ii) If Emergency Key is available at the gate lodge / cabin, Gateman / Leverman will take it out from the sealed box by breaking the seal and open the gate for road traffic.

iii) The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.

iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

v) Station Master on duty shall issue caution order to the LP of a departing train.

vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the LP before despatching a train in the block section from his end.

vii) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

viii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.

ix) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6. Failure of the Gate Key with the gate in open condition:

i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.

ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

iv) Station Master on duty shall issue a caution order to the LP of a departing train.

v) He shall also advise the Station Master at the despatching end, under exchange of private number, to similarly issue a caution order to the LP before dispatching a train in the block section from his end.

vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.

viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

7. Obstruction at the Gate:

i) If the gate is broken by 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 put back gate signals to 'ON' position.

ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose.

iii) Immediately after this, the gateman shall advise the Station Master on duty regarding the defects / obstructions at the gate, under exchange of private number.

iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

v) Gateman shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no. 1.5(5).

vi) Thereafter he shall protect the gate from the other direction also.

vii) He shall note down the particulars of the road vehicle, name of the locopilot, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.

viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of private number, asking him not to despatch 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 LP of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, of the gate is broken, but is clear of any obstruction.

xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks, and there after exhibit green hand signal, if the gate is not obstructed.

xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers / leaf gates to repair the same at the earliest.

xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers / leaf gates and issue reconnection / fit memo for the same.

8. Obstruction on the Track near Level Crossing Gate:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 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.

WORKING RULES FOR 'A' CLASS LEVEL CROSSING GATE SITUATED AT KM:7/0-1 (7.079) (NG-8) FROM TEKKALI-PEDDASANA STATIONS BETWEEN NAUPADA – GUNUPUR SECTION INTERLOCKED, PROVIDED WITH TELEPHONE WITH NORMAL POSITION "OPEN TO ROAD TRAFFIC"

GENERAL:

DESCRIPTION OF THE LEVEL CROSSING GATE:
Following details shall be maintained at all manned level crossing gates:

1.	Number of Level Crossing Gate	**NG-8**
2.	Engineering or Traffic Gate	**Engineering**
3.	Under control of Station Master / Permanent Way Inspector	**Station Master**
4.	Location at KM.	**7/0-1 (7.079)**
5.	At Station	**Mid section**
6.	In between stations	**Tekkali - Peddasana**
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	**Interlocked**
11.	Means of Interlocking	**EKT/Key Transmission**
12.	Provision of Gate signal at Kms.	
	(i) Up Line : **Gate Stop and Gate distant**	
	(ii) Dn Line : **Gate Stop and Gate distant**	
13.	Signalling arrangements	**MACLS**
14.	Means of Communication – Telephone / Bell etc.	**Telephone connection with NWP/Stn.**
15.	Width of level crossing gate	**7.500M**
16.	Type of road (NH / SH / Others)	**Others**
17.	Name of Road	**Village Road**
18.	Metaled / non-metaled	**Metaled**
19.	Approach road	**Metaled**
20.	Width of the road	5**.500 M**
21.	Angle of road crossing (in case of the skew gates)	**78 Degrees**
22	Road gradient (if any)	
	(i) North / East side	**Nil**
	(ii) South / West side	**Nil**
23.	Road alignment (straight/curve)	

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	(i) North / East side	**Straight**
	(ii) South / West side	**Straight**
24	Provision of height gauges	**Not Provided**
25.	Type of Barriers	**Coupled Lifting type**
26.	Length of Check rails	**9.66 M**
27.	Road surface in between L-Xing gates	**Level**
28.	Length of Rumble strip / speed breakers	**20M. from Gate Post**
29.	Road signals	**Provided**
30.	Speed breaker indication board	**Provided**
31.	TVU	**14803** on **Jan -2017**
32.	Census next due on	**2020**
33.	Demarcation for placement of Detonators	**Provided**
34.	No. of Gatemen working	**3 (Three)**
35.	Nearest Railway Medical Assistance	**Naupada**
36.	Nearest Private Medical Assistance available (if any)	**Naupada**
37.	List of equipment available Yes / No	**Yes**

. **EQUIPMENTS:**

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ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	3 Nos.
2. Hand Signal Flag Green.	1 No with mounted stick
3. Hand Signal Flag Red.	3 Nos.
4. Banner Flag Red.	3 Nos.
5. Posts for exhibiting red banner flag	2 Nos
6. Spare chains with padlocks	2 with stop marker
7. Detonators	10 in each case
8. Gate lamps	2 Nos.
9. Tommy Bar	1No
10. Mortar Pan	1No
11. Spade/Fowarh	1No
12.Rammer	1No [in case of asphalted road this may not be provided.]
13. Pick Axe	1No [in case of asphalted rod this may not be provided.]
14. Tin case for flags	1No
15. Can for Oil	1No
16. Water Pot/Bucket	1No
17. Canister for Muster Roll	1No
18. Set of spare spectacles of gate man wearing glasses.	1No
19. Board demarcation protection of level crossing gate diagram in case of obstruction	1No
20. Bucket	1No
21. Whistle	1No
22. Wall Clock	1 No
23. A small sized chain in case of failure of Boom Lock	2No

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 registers.
6. Certificate for working as gateman.
7. Bio-data particulars of Gateman, including date of passing

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vision test, Initial/refresher course, safety camp etc.

8. Accident Register.

9. Records of last census of road traffic at level crossing gate.

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10. Public Complaint Book.

11. Inspection Book.

12. Signal failure and inspection register.

GENERAL DUTIES OF GATEMEN:

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

2. ALERTNESS :

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

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gate man will stand in the manner indicated below: -

v. Gate man will stand attentively in front of the gate-lodge facing the approaching train.

vi. In daytime, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.

vii. In night time, gateman shall hold lighted hand signal lamp with white light facing the track.

viii. He shall keep the whistle slung around his neck from a cord.

4. ROUTINE DUTIES OF GATEMAN:

xviii. Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously.

xix. Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

xx. He shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

xxi. Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

xxii. Gateman shall also be prepared to repeat any signal which guard may give to Loco pilot on walkie-talkie or in any other way.

xxiii. If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

xxiv. Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.

xxv. Gateman shall ensure that he is having competency certificate in his possession while on duty.

xxvi. Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.

xxvii. Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xxviii. Gateman shall see that the channel for the flange of the wheel is kept clean.

xxix. Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xxx. Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xxxi. 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.

xxxii. Gateman shall prevent tress passing by persons or cattle to the maximum extent.

xxxiii. He should note down the number of vehicles which damages the gate barrier.

xxxiv. Locking arrangement of gate should be checked daily.

5. ACTION IN CASE OF ANY ABNORMALITY IN TRAIN :

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

vii. He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flags by day and red light by night.

viii. 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.

ix. If Loco pilot/guard fails to take notice, gateman shall immediately inform the stationmaster if connected on telephone, to take appropriate action under exchange of private number.

x. In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.

xi. He shall endeavor to attract the attention of the Loco pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and DN motion as high and as low as possible.

xii. In case of trains does not stop, gate man shall immediately inform the station master to take appropriate action under exchange of private number.

ANNEXURE-I

1. Mode of Operation:
Gate shall normally be kept open to road traffic. When ever it is required to close the gate SS/SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive/despatch. Gate man on duty shall ensure clearance of road traffic close and lock the gate.

1. Key 'P/' obtained from the winch after closing the Level Crossing gate releases GF-2.

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2. GF-2 when reversed locks the level crossing boom and releases GF-3 or GF-4.
3. GF-3 or GF-4 when reversed clears UP or DN gate stop signal No: GF-3 or GF-4 respectively.

2. Exchange of Private Numbers:

i) When the train is ready to leave from NWP station, Station Master shall advise the gateman of NG-6 amd NG-8 through telephone connected (bentron), the number, description, direction and expected time of passage of the train at the gate.

ii) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

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) If the telephone falls at the gate connected with the station at the despatching end, Station Master shall issue a caution order to the LP of the departing train.

ii) Station Master shall advise the LP to whistle continuously and proceed cautiously while approaching the gate.

iii) In case the gate signal is 'ON' he should stop short of the gate signal and follow the procedure laid down under GR 3.73.

iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.

v) The Station Master at the dispatching end shall then issue a caution order to the LP before dispatching a train in the block section from his end.

vi) Station Master will also advise the gateman through Gangman / Patrolman / LP of the first train that the telephone has become defective.

vii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.

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

4. Failure of Lifting Barriers :

i) When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master on duty under exchange of private number, and ensure that lifting of 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 that gate against road traffic by means of safety chains and padlocks.

iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the locopilot of the approaching train.

v) Station Master on duty shall issue caution order to the LP of a departing train.

vi) He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the LP before despatching a train in the block section.

vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier gates to rectify the same at the earliest.

viii) Normal working will be resumed only after maintenance staff repair the lifting barrier and issue reconnection / fit memo for the same.

5. Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for opening the gate:

i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.

ii) If Emergency Key is available at the gate lodge / cabin, Gateman / Leverman will take it out from the sealed box by breaking the seal and open the gate for road traffic.

iii) The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.

iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

v) Station Master on duty shall issue caution order to the LP of a departing train.

vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the LP before despatching a train in the block section from his end.

vii) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

viii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.

ix) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6. Failure of the Gate Key with the gate in open condition:

i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.

ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.

iv) Station Master on duty shall issue a caution order to the LP of a departing train.

v) He shall also advise the Station Master at the despatching end, under exchange of private number, to similarly issue a caution order to the LP before dispatching a train in the block section from his end.

vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.

vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.

viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

7. Obstruction at the Gate:

i) If the gate is broken by 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 put back gate signals to 'ON' position.

ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose.

iii) Immediately after this, the gateman shall advise the Station Master on duty regarding the defects / obstructions at the gate, under exchange of private number.

iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

v) Gateman shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no. 1.5(5).

vi) Thereafter he shall protect the gate from the other direction also.

vii) He shall note down the particulars of the road vehicle, name of the locopilot, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.

viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of private number, asking him not to despatch 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 LP of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, of the gate is broken, but is clear of any obstruction.

xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks, and there after exhibit green hand signal, if the gate is not obstructed.

xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers / leaf gates to repair the same at the earliest.

xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers / leaf gates and issue reconnection / fit memo for the same.

8. Obstruction on the Track near Level Crossing Gate:
If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 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.

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7.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

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1.	Number of Level Crossing Gate	NG- 31
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PLH
4.	Location at KM.	33.935
5.	At Station	
6.	In between stations	NWP-GNPR
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Single line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	No
	(ii) Dn Line	No
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	VHF
15.	Width of level crossing gate	8.00m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	
18.	Metalled / non-metalled	Metalled
19.	Approach road	Metal
20.	Width of the road	8.00m
21.	Angle of road crossing (in case of the skew gates)	58^0
22	Road gradient (if any)	
	(i) North / East side	1in15
	(ii) South / West side	1in15
23.	Road alignment (straight/curve)	
	(i) North / East side	Straight
	(ii) South / West side	Straight
24.	Provision of height gauges	YES
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	10.0m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	8.0m
29.	Road signs	**Provided**
30.	Speed breaker indication board	Provided
31.	TVU	8162/feb 2017
32.	Census next due on	2020
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	NWP
36.	Nearest Private Medical Assistance available (if any)	PLM
37.	List of equipment available Yes / No	YES

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8.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of Level Crossing Gate	NG-36
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PLH
4.	Location at KM.	38.141
5.	At Station	
6.	In between stations	NWP-GNPR
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Single line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	No
	(ii) Dn Line	No
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	VHF
15.	Width of level crossing gate	8.00m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	
18.	Metalled / non-metalled	Metalled
19.	Approach road	Metal
20.	Width of the road	8.00m
21.	Angle of road crossing (in case of the skew gates)	70^0
22	Road gradient (if any)	
	(i) North / East side	1in30
	(ii) South / West side	1in15
23.	Road alignment (straight/curve)	
	(i) North / East side	Straight
	(ii) South / West side	Straight
24.	Provision of height gauges	YES
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	10.0m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	8.0m
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	1783/02-2017
32.	Census next due on	Jan-2020
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	NWP
36.	Nearest Private Medical Assistance available (if any)	PLH

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37. List of equipment available Yes / No YES

8.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of Level Crossing Gate	NG-37
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PLH
4.	Location at KM.	38.141
5.	At Station	
6.	In between stations	NWP-GNPR
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Single line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	No
	(ii) Dn Line	No
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	VHF
15.	Width of level crossing gate	8.00m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	
18.	Metalled / non-metalled	Metalled
19.	Approach road	Metal
20.	Width of the road	8.00m
21.	Angle of road crossing (in case of the skew gates)	70^0
22	Road gradient (if any)	
	(i) North / East side	1in30
	(ii) South / West side	1in15
23.	Road alignment (straight/curve)	
	(i) North / East side	Straight
	(ii) South / West side	Straight
24.	Provision of height gauges	YES
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	10.0m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	8.0m
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	857/02-2017
32.	Census next due on	2020

33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	2
35.	Nearest Railway Medical Assistance	NWP
36.	Nearest Private Medical Assistance available (if any)	PLH
37.	List of equipment available Yes / No	YES

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9.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of Level Crossing Gate	NG-39
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PLH
4.	Location at KM.	42.760
5.	At Station	
6.	In between stations	NWP-GNPR
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Single line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	No
	(ii) Dn Line	No
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	NWP Station(BSNL)
15.	Width of level crossing gate	8.00m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	
18.	Metalled / non-metalled	Metalled
19.	Approach road	Metal
20.	Width of the road	5.50m
21.	Angle of road crossing (in case of the skew gates)	45^0
22	Road gradient (if any)	
	(i) North / East side	1in15
	(ii) South / West side	1in20
23.	Road alignment (straight/curve)	
	(i) North / East side	Straight
	(ii) South / West side	Straight
24.	Provision of height gauges	YES
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	10.0m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	8.0m
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**2442/feb -2017**
32.	Census next due on	**2020**
33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2 (Two)**
35.	Nearest Railway Medical Assistance	**NWP**
36.	Nearest Private Medical Assistance available (if any)	**PLH**

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37. List of equipment available Yes / No **YES**

9.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

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

1.	Number of Level Crossing Gate	NG-55
2.	Engineering or Traffic Gate	Engineering
3.	Under control of Station Master / Permanent Way Inspector	SSE/P/PLH
4.	Location at KM.	42.760
5.	At Station	
6.	In between stations	NWP-GNPR
7.	BG / MG / NG	BG
8.	Single line / Double line / Multiple line	Single line
9.	Normal Position	Close to road traffic
10.	Interlocked / Non-Interlocked	Non-Interlocked
11.	Means of Interlocking	-
12.	Provision of Gate signal at Kms.	
	(i) Up Line	No
	(ii) Dn Line	No
13.	Signalling arrangements	-
14.	Means of Communication – Telephone / Bell etc.	NWP Station(BSNL)
15.	Width of level crossing gate	8.00m
16.	Type of road (NH / SH / Others)	Other
17.	Name of Road	
18.	Metalled / non-metalled	Metalled
19.	Approach road	Metal
20.	Width of the road	5.50m
21.	Angle of road crossing (in case of the skew gates)	45^0
22	Road gradient (if any)	
	(i) North / East side	1in15
	(ii) South / West side	1in20
23.	Road alignment (straight/curve)	
	(i) North / East side	Straight
	(ii) South / West side	Straight
24.	Provision of height gauges	YES
25.	Type of Barriers	Lifting Barrier
26.	Length of Check rails	10.0m
27.	Road surface in between L-Xing gates	Level
28.	Length of Rumble strip / speed breakers	8.0m
29.	Road signs	Provided
30.	Speed breaker indication board	Provided
31.	TVU	**2204/dt: Feb-2017**
32.	Census next due on	**2020**

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33.	Demarcation for placement of Detonators	
34.	No. of Gatemen working	**2 (Two)**
35.	Nearest Railway Medical Assistance	**NWP**
36.	Nearest Private Medical Assistance available (if any)	**PLH**
37.	List of equipment available Yes / No	**YES**

2 EQUIPMENTS:

ITEMS	QUANTITY/NUMBERS
1. Hand Signal Lamp Tri Color.	**3 Nos.**
2. Hand Signal Flag Green.	**1 No with mounted stick**
3. Hand Signal Flag Red.	**3 Nos.**
4. Banner Flag Red.	**3 Nos.**
5. Posts for exhibiting red banner flag	**2 Nos**
6. Spare chains with padlocks	**2 with stop marker**
7. Detonators	**10 in each case**
8. Gate lamps	**2 Nos.**
9. Tommy Bar	**1No**
10. Mortar Pan	**1No**
11. Spade/Fowarh	**1No**
12. Rammer	**1No [in case of asphalted road this may not be provided.]**
13. Pick Axe	**1No [in case of asphalted rod this may not be provided.]**
14. Tin case for flags	**1No**
15. Can for Oil	**1No**
16. Water Pot/Bucket	**1No**
17. Canister for Muster Roll	**1No**
18. Set of spare spectacles of gate man wearing glasses.	**1No**
19. Board demarcation protection of level crossing gate diagram in case of obstruction	**1No**
20. Bucket	**1No**
21. Whistle	**1No**
22. Wall Clock	**1 No**
23. A small sized chain in case of failure of Boom Lock	**2No**

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 registers.**
6. **Certificate fir working as gateman.**
7. **Bio-data particulars of Gateman, including date of passing vision test, Initial/refresher course, safety camp etc.**
8. **Accident Register.**
9. **Records of last census of road traffic at level crossing gate.**
10. **Public Complaint Book.**

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11. Inspection Book.

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GENERAL DUTIES OF GATEMEN:

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

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

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gate man will stand in the manner indicated below: -

ix. Gate man will stand attentively in front of the gate-lodge facing the approaching train.

x. In daytime, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.

xi. In night time, gateman shall hold lighted hand signal lamp with white light facing the track.

xii. He shall keep the whistle slung around his neck from a cord.

4. ROUTINE DUTIES OF GATEMAN:

xxxv. Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously.

xxxvi. Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrive and takes charge of it. However, if it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.

xxxvii. He shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

xxxviii. Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

xxxix. Gateman shall also be prepared to repeat any signal which guard may give to Loco pilot on walkie-talkie or in any other way.

xl. If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlock for securing the gate against road traffic. Gate man shall report to the station master, gang mate or permanent way inspector any defect in his gate or apparatus pertaining to it, as soon as possible.

xli. Gateman shall wear badge and prescribed uniform while on duty at level Crossing gate.

xlii. Gateman shall ensure that he is having competency certificate in his possession while on duty.

xliii. Gateman shall work the gate as per gate working instructions and remain well conversant with this instruction.

xliv. Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.

xlv. Gateman shall see that the channel for the flange of the wheel is kept clean.

xlvi. Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.

xlvii. Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

xlviii. 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.

xlix. Gateman shall prevent tress passing by persons or cattle to the maximum extent.

l. He should note down the number of vehicles which damages the gate barrier.

li. Locking arrangement of gate should be checked daily.

5. ACTION IN CASE OF ANY ABNORMALITY IN TRAIN :

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

xiii. He shall take prompt action to warn the Loco pilot/guard of the passing train by showing red flags by day and red light by night.

xiv. 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.

xv. If Loco pilot/guard fails to take notice, gateman shall immediately inform the stationmaster if connected on telephone, to take appropriate action under exchange of private number.

xvi. In case of trains parting, gateman shall not show stop hand signal but shall show prescribed signal for trains parting.

xvii. He shall endeavor to attract the attention of the Loco pilot/guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and DN motion as high and as low as possible.

xviii. In case of trains does not stop, gate man shall immediately inform the station master to take appropriate action under exchange of private number.

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Annexure-V

WORKING INSTRUCTION FOR ENGNEENING LEVEL CROSSING GATES, NON-INTERLOCKED, PROVIDED WITH TELEPHONES, WITH NORMAL POSITION "CLOSED TO ROAD TRAFFIC"

(General Instruction is common for all types of Manned Level Crossing Gate)

4. MODE OF OPERATION:

For opening of this gate the following procedure to be followed.

5. EXCHANGE OF PRIVATE NUMBER:

(i) The normal position of the level crossing gates (NG-31, NG-36, NG-37, NG-39, NG-55 being " closed to road traffic"

(ii) The gateman of NG-8 shall inform the NG-31 through VHF set about the description of the train on exchange of a private number The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a private number to the gate man in assurance of gate being closed & locked against road traffic.

(iii) Similarly NG-31 shall inform NG-36 and NG-36 shall inform NG-39 and so on in the same manner

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

(v) Incase the gateman is not responding on the telephone or incase the telephone becomes defective or private number is not received from thegateman, the station master shall adhere to the procedure prescribed in SR16.03.04.
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(vi) In the event of failure of telephone, if the gate is required to be opened for passage of road traffic, the gateman shall lookout in both directions before opening the gate to ensure that no train is approaching from either end. He shall then plant a banner flag during day and a hand signal lamp with the red light

during night, 5 meters away from the gate on the track on either side. He shall thereafter, open the gate for passing the road traffic keeping a red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

6. FAILURE OF TELEPHONE COMMUNICATION:

In the event of failure of telephone communication between the station and non-interlocked mid-section level crossing gate or of failure to get gateman's acknowledgement over the phone, the following procedure shall be adopted for passing trains:

(a) The loco pilot and the guard of every train proceeding into the affected section shall be served with a caution order, giving the number and kilometreage of the level crossing and directing the loco pilot:-

(i) To whistle frequently to attract the attention of the gateman,

(ii) To proceed cautiously, and stop 30m short of the level crossing and be guided by hand signal.

(b) (i) The loco pilot after stopping, if the gateman is available and apparently in a fit condition to continue his duty and the gates are closed, shall arrange to advise the station master/cabin master cabin man as the case may be of the fact using the telephone provided ate gate. The station master on receipt of such an advise from the loco pilot shall discontinue issue of caution order to the following train provided the acknowledgement of the gateman is available over the phone.

(ii) In the above circumstance, the loco pilot should not stop his train at the next station to advise the station master.

(c) (i) If the loco pilot does not find the gateman at the level crossing or if the gateman is apparently unfit for duty and the gates are not closed, he shall depute his assistant to close the gates and give proceed hand signal. In the absence of assistant, the loco pilot shall seek assistance of the assistant guard or guard of the train. The same should be informed to the station master on gate telephone.

(ii) The loco pilot, after being hand signaled, shall pass the level crossing and shall stop clear of it by at least 2 bogie length to pick up the assistant or assistant guard/guard, as the case may be. The railway servant deputed for closing the gate shall reopen it for road traffic after passage of the last vehicle of the train.

(iii) If, however, the telephone is out of order or the gateman is not available or is apparently unfit to continue his duty and intimation of the fact could not be given to the station from the gate, the loco pilot shall stop his train at the next station (even if it is through passing station) and give a memo the station master indicating the condition of the gateman, gate and telephone.

(iv) The station master on receipt of the loco pilot's report regarding absence or unfitness of the gateman, shall advise the station master in rear, the notice station, the section controller, JE/SE/SSE (Pway) and AEN concerned and the gangmate of the nearest gang for immediate posting of a gateman. He shall also inform the maintenance staff to attend and repair the telephone, if required. Issue of caution order should continue till normal working condition is restored.

(d) Before giving line clear to a train, the station master shall advise the station master of the station in the rear of the facts by message supported by a private number, and obtain his acknowledgement with a private number. The latter shall issue a caution order to the loco pilot as detailed in para (a).

(e) Necessary entries shall be made in the caution order register, station diary or signal failure register as the case may be by the station masters at either end of the affected section. The section controller also keep a note in his chart indicating action taken by him.

4. FAILURE OF LIFTING BARRIARS:

(a) If a gate boom/barier is damaged, the gateman shall:-

(i) Close the level crossing against the road traffic with a chain and pad lock immediately or before allowing the movement oftrain as the case may be.

(ii)Report the fact over telephone or through the loco pilot of a passing train or through a gangman to the station master/cabin master/cabinman of the adjacent station and the nearest gangmate.

(b) The Station master on duty on receipt of the above information shall arrange to issue caution orders to the loco pilots and guards of all trains entering into the section.

(i) To whistle frequently.

(ii) To stop 30mts short of the level crossing and be guided by the hand signal given by the gateman.

(c) The Station master shall intimate the fact to the Station master at the other end of the block section for issue of caution order with the similar instructions as mentioned in (b) above.

The caution order shall continue to be issued till the defect is rectified. The Station master shall also advise the JE/SE/SSE9Signal), JE/SE/SEE(P way) and other officials concerned for immediate rectification and other necessary action.

(d) The loco pilots shall ensure that the level crossing is not obstructed and on being hand signaled by the gateman, negotiate the level crossing cautiously.

(e) Necessary entries shall be made in the caution order register and station diary by the Station masters at either end of the affected section.

5. <u>OBSTRUCTION AT THE GATE</u>:

In case of an obstruction on the line at the level crossing not protected by station signals, the gateman shall maintain the signals, if provided, in the 'ON' position, If unable to remove the obstruction forthwith, he shall protect the line in the following manner.

B <u>On single line section:</u>

i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.

ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.

iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.

iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters on BG and and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.

vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.

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

6. <u>OBSTRUCTION ON THE TRACK NEAR LEVEL CRTOSSINGL GATE</u>:

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and station master will adopt the procedure given under item no.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.

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APPENDIX 'B'
APPENDIX 'B' TO STATION WORKING RULES OF NAUPADA STATION

DETAIL DESCRIPTION OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC. INCLUDING POWER SUPPLY ARRANGEMENTS.

1. BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATIONS:

This is a 'B' class station provided with Standard –III(R) interlocking. The station is provided with Route setting type Electronic Interlocking between points, signals, track circuits and other signalling gears. The Station is equipped with Multiple Aspect Colour Light Signaling. All points and Signals etc. are power operated through a central **Visual Display Unit (VDU)** installed in the SS/DY. SS's Office.

2.0 DESCRIPTION OF OPERATOR CONSOLE CUM VISUAL DISPLAY UNIT (VDU):

The Operator Console cum Visual Display Unit (VDU) is provided for operation of Signals, Points, L.C Gates, Crank Handles, Siding & other controls etc. A Mimic yard diagram based on SI plan no. SI/23002 ALT.'E' will be displayed on the VDU. The VDU is used for controlling and monitoring the station. Indications on the Station yard mimic diagram of VDU will be dynamically updated.

2.1 SYSTEM OVERVIEW:

An Operator Console consisting of a VDU (a high-resolution 21'' colour monitor), with keyboard and pointing device (mouse) connected with a computer (CPU) is provided. The CPU is connected to the Electronic Interlocking (E.I) equipment to exchange control and indication messages. The system is programmed to display the Station Yard Mimic VDU diagram on the VDU and that it allows access to all functions through pop-up menus. When a particular function is selected, an appropriate Menu will appear on the screen. A function (clearance of Signal or cancelFlation, Route release, Point operation,

Gate release etc.) can be executed through selecting the required operation by clicking the Left button of the pointing device (mouse) on the desired function.

2.2 An additional VDU connected with a computer is provided as stand by arrangement in case of failure of the working operator console. In case of failure of the working operator console the system shall switch over to the stand by VDU automatically.

2.3 ICONS AND INDICATIONS PROVIDED ON THE VDU

In addition to mimic yard diagram including signal, points, track circuit, Axle counters, L.C.gates, sidings as indicated in the WRD, various other ICONS and indications have been provided on the VDU. A brief description of the same are described below.

SL. NO.	ICONS	INDICATIONS	FUNCTIONS	REMARKS
1	SS/DY. SS's Key	Yellow light when key is 'IN'	Ensures operation of VDU by authorized person	Protected by pass word
2.	---	Emergency Route release - UP & DN	Flashing indication appears when Emergency route release operation is initiated.	
3.	---	Emergency Gate release	Flashing indication appears when Emergency gate release operation is initiated.	
4.	Emergency Point operation key	Yellow light when key is 'IN'	Ensures emergency point operation by authorized person	For each operation concerned counter shall register one count higher.
5.	---	System indication Central – On/Off	Indicates System 'A' or 'B' is in working mode	
6.	---	System indication End – On/Off	Indicates End system is in working mode or not	
7.	Point failure Ack. button	Yellow	Flashing indication appears when any point fails. SS/DY. SS has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledgement buzzer stops. After verification at site inform S&T staff Immediately.

8.	Signal failure Ack. button	Yellow	Flashing indication appears when any signal fails. SS/DY. SS has to left click on the icon to acknowledge.	Buzzer will sound. On acknowledge ment buzzer stops. Inform S&T staff Immediately.
9.	---	Main Filament Failure Indication	Flashing indication appears when Main filament of any signal fails.	
10.	CH-1, CH-2, CH-3 CH-4,CH-5and CH-6 buttons	Yellow lamp indicates 'KEY IN'. Red lamp indicates ' CH LOCKED'	In normal condition yellow lamp will be lit. Whenever the crank handle is locked in route or otherwise red indication will glow.	

SL. NO	ICONS	INDICATIONS	FUNCTIONS	REMARKS
11	UP Reset key and button (KBM end)	Yellow-Power on Green-prep reset		Concerned Section. For each operation concerned counter shall register one count higher
12.	DN Reset key and button (PUN end)	Yellow-Power on Green-prep reset		
13.	UP Reset key and button (PUN end)	Yellow-Power on Green-prep reset		
14.	'DN Train Entering Section' muting button	Yellow - acknowledged	On getting alarm/buzzer SS/DY. SS shall left click on the button icon to acknowledge it.	
15.	'UP Train Entering Section' muting button	Yellow - acknowledged	On getting alarm/buzzer SS/DY. SS shall left click on the button icon to acknowledge it.	
16.	UP Block release button	Yellow – Prepared for Block release.	On getting indication SS/DY. SS shall left click on the button icon which shall release Block Handle.	After complete arrival of train this will be activated
17.	DN Block release button	Yellow – Prepared for Block release.		

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18	Counter	-	As and when required SS/Dy. SS shall point the curser on the counter icon and right click on it. A drop down menu will appear indicating all the counters available in the system. SS/Dy. SS shall select the required counter on the menu and can read the latest counter reading.	-
19	Line Block button	Red when blocked	SS/Dy. SS shall point the curser on the icons provided on the berthing track and right click . One drop menu will appear indicating line blocked and un-blocked, SS/Dy. SS has to select the required menu.	When line block is selected the concerned berthing portion of track will appear as thick Red line.

Sl No	**ICON**	**INDICATION**	**FUNCTION**	**REMARKS**
20	DN IB Axle counter Reset Key and Button (PUN end)	Yellow-Power on Green-Prep Reset	SS/Dy.SS has to follow 'Key In' procedure followed by left click on the button Icon to reset IB Axle counter	Permission is granted by NWP. For each such operation concerned counter shall register one count higher
21	'Permission received from PUN' Acknowledgement button	Yellow-Permission received	To acknowledge SS/Dy.SS has to left click on the Acknowledgement button	
22	'Permission granted to PUN' Acknowledgement button	Yellow-Permission granted	To grant permission for resetting SS/Dy.SS has to left click on the permission granting button	
23	'DN train Run away' in IB section muting button (Section:NWP-PUN)	Yellow-acknowledged	On getting alarm/buzzer SS/Dy.SS has to left click on the button Icon to acknowledge the incident.	
24	'UP train Run away' in IB	Yellow-acknowledged	On getting alarm/buzzer SS/Dy.SS has to left	

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	section muting button (Section NWP-PUN)		click on the button Icon to acknowledge the incident.	
25	UP IB Axle counter Reset Key and Button (KBM end)	Yellow-Power on Green-Prep Reset	SS/Dy.SS has to follow 'Key In' procedure followed by left click on the button Icon to reset IB Axle counter	Permission is granted by NWP. For each such operation concerned counter shall register one count higher
26	'Permission received from KBM' Acknowledgement button	Yellow-Permission received	To acknowledge SS/Dy.SS has to left click on the Acknowledgement button	
27	'Permission granted to KBM' Acknowledgement button	Yellow-Permission granted	To grant permission for resetting SS/Dy.SS has to left click on the permission granting button	

Sl No	ICON	INDICATION	FUNCTION	REMARKS
28	'DN train Run away' in IB section muting button (Section NWP-KBM)	Yellow-acknowledged	On getting alarm/buzzer SS/Dy.SS has to left click on the button Icon to acknowledge the incident.	
29	'UP train Run away' in IB section muting button (Section NWP-KBM)	Yellow-acknowledged	On getting alarm/buzzer SS/Dy.SS has to left click on the button Icon to acknowledge the incident.	

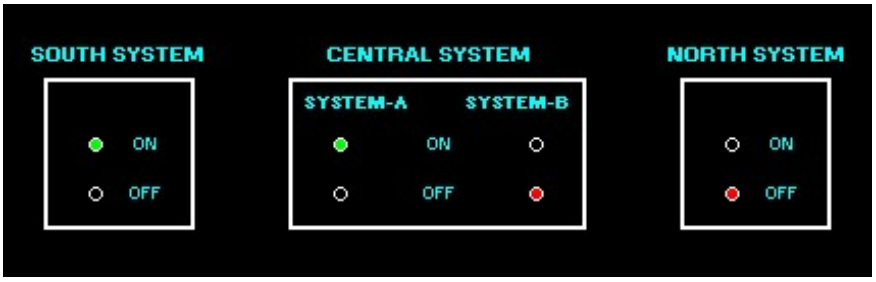
3.0 <u>OPERATIONAL PROCEDURE THROUGH VDU AND INDICATIONS:</u>

In addition to the mimic yard diagram various other indications will be available on the VDU. The implications of different indications provided and the operational procedure for different functions shall be strictly followed as per the following description.

3.1 **<u>ELECTRONIC INTERLOCKING (E.I) SYSTEM INDICATIONS</u>**:

Electronic Interlocking Equipment (E.I) at the center can work in either of the two modes i.e, System-'A' or System-'B'. On the VDU (Computer), there are two system indications in which Green indication mentioning the On-line system and the Red indication mentioning that the system is in power off condition. Similarly 'ON' and 'OFF' indications have been provided for the end E.I equipments.

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3.2 **OPERATION PROCEDURE OF SS/DY. SS's KEY** :

To prevent the unauthorized operation by any person other than SS/DY. SS on duty this facility is provided on VDU. On duty SS/DY. SS needs to track the pointer to the "SS/DY. SS KEY" icon and click the 'KEY IN' menu by the clicking left button of the mouse, by this a Password window will appear. SS/DY. SS on duty needs to enter the password and press the 'OK' Button provided on the Password window. This will allow operating all the controls e.g., Signals, Points, and Crank handles Etc. through VDU. In case incorrect password or user name is entered, no operation can be made. In such cases the same procedure is to be repeated till correct password is entered.



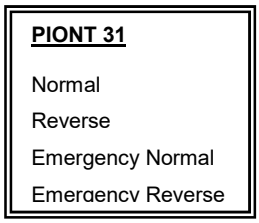


Enter the USER NAME and PASSWORD and click the OK button.
Now the OP VDU is ready for use & the entire yard can be controlled from the VDU.
Similarly select the KEY OUT when the Station Master to Prevent the Unauthorized Operation with User name and password.

3.3 OPERATION AND INDICATION OF POINT:

To Operate the Point the SS/DY. SS/ASS/DY. SS needs to track the mouse pointer to concerned point's Normal/Reverse indications on the VDU, after clicking by the left button on the mouse a pop-up menu will appear as below:

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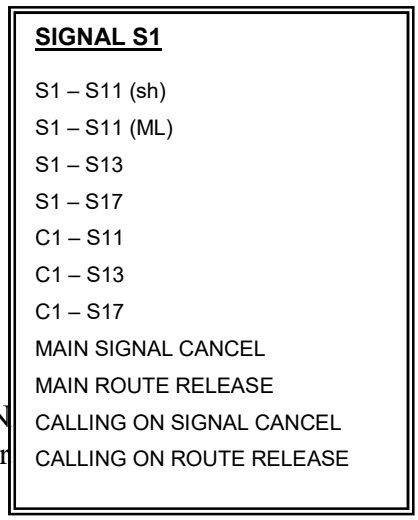
3.3.1 **REVERSE TO NORMAL OPERATION**:
Track the pointer to NORMAL menu and click. A Normal flashing indication will appear and the indication will be steady after the point is set to Normal.

3.3.2 **NORMAL TO REVERSE OPERATION**:
Track the pointer to REVERSE menu and click. A Reverse flashing indication will appear and the indication will be steady after the point is set to Reverse.

3.3.3 **POINT INDICATIONS**
When the point is free a SS/DY. SSall steady strip of light will appear in the point zone (In case of cross-over at both ends) indicating the point is in normal/reverse condition. When the point is operated the same strip of light starts flashing till the point is set and becomes steady when the point is set and detected. When the point is engaged in a route a SS/DY. SSall yellow light will appear near the point indicating that the point is locked and cannot be operated now.

3.4 **PROCEDURE FOR SETTING OF ROUTES AND TAKING OFF SIGNALS:**

To Take-Off a Signal on the desired route the SS/DY. SS on duty needs to track the mouse pointer over the concerned Signal on the VDU, after clicking by the left button of the mouse a pop-up menu will appear as below:



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SS/DY. SS on duty will select the route as per the requirement by moving the mouse pointer on the appropriate menu & left clicking on the menu. It will set the route and clear the signal provided all the conditions required to clear the signal is satisfied. Similarly by following the similar procedure operation of other signals can be done.

3.4.1 **SETTING A ROUTE AND ITS INDICATIONS**:

To set a route of a signal, click on a possible route of the signal, after doing so the route gets initiated & Red-flashing indication will appear on the replacement track of the signal. Point operation is initiated as per the requirement of the desired route and Normal/ Reverse set indications will starts flashing if favorable point detection is not available. After setting of points in the route, overlap & isolation Flashing indication will be replaced

by steady indication and a complete yellow 'Route set' indication will appear from the replacement track of the signal to the last track of overlap section of the route. Also the points lock indication will appear. A Point locked can be ensured from the Red Steady indication will appear near the point. Finally a Route locked Yellow Steady indication will appear on the immediate rear of the signal. Now the signal will be Taken-off. The yellow route set indication will turn to red when different track circuit portion within the route is occupied during passage of a train.

3.4.2 **SHUNT SIGNAL OPERATION:**

The same procedure as main signal has to be followed as explained above. To set the signal route for shunt signals SS/DY. SS on duty shall put the pointing device on the Shunt signal icon and left click on the same. A drop down menu will appear indicating different actions that can be selected. After selecting the desired route SS/DY. SS on duty shall left click on it. Desired will be initiated and the Shunt signal will be taken off.

3.4.3 CALLING ON SIGNAL OPERATION:

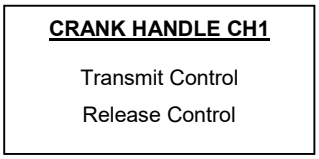
The same procedure as main signal has to be followed as explained above. To set the signal route for CALLING ON signals SS/DY. SS on duty shall select the desired route and left click on the same after a train occupies the approach track circuit in immediate rear of the stop signal. The signal is cleared after a lapse of 120 seconds provided other conditions are fulfilled.

3.5 CRANK HANDLE CONTROL OPERATION:

Normally a 'KEY IN' (Yellow) indication will appear on the VDU indicating that the crank handle is free. To Transmit or Receive control of the Crank Handle, click on the crank handle control button icon provided like the following on VDU.



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



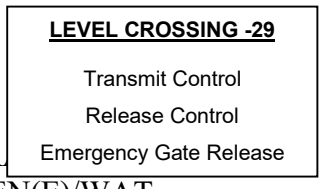
To Transmit the Crank Handle KEY to the field personnel SS/DY. SS on duty has to click transmit control menu. After transmission the 'KEY IN' indication will starts flashing, now the KEY can be extracted from the RKT at site. After extracting the key from the RKT, the 'KEY IN' indication will disappear. When the Manual point operation is over, after putting the Siding control key in the RKT, 'KEY IN' flashing indication will appear on the VDU, Now the SS/DY. SS on duty has to Release the control for the Steady indication by clicking release control menu.
A Crank handle locked indication (Red) will appear when the particular point is on the signal route set over it or engaged in route setting in any other way.

3.6 LEVEL CROSSING GATE OPERATION:

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



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



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Normally no indication will be available on the VDU indicating that the gate control key is out and gate is open. When it is required to close the gate SS/DY. SS on duty shall intimate the gate man to close the gate supported by exchanging PN. Upon instructed by the SS/DY. SS on duty the gate man shall close and lock the gate and after reversing the concerned slot lever he shall transmit the gate control key to station by inserting and transmitting the key in the RKT. A flashing yellow indication will appear on the VDU seeing which SS/DY. SS on duty receive the control by clicking on the L.C. Gate control button icon and select 'Receive'. The flashing indication shall become steady.

When the key is required to be transmitted to the Gate man, SS/DY. SS on duty has to transmit the control by clicking, after transmission the KEY IN indication will starts flashing, now the KEY can be extracted from the RKT. When the gate has been closed, locked & slot lever is in reverse position, After putting the key in the RKT, A KEY IN flashing indication will appear on the VDU. Now the SS/DY. SS/ASS/DY. SS has to release the control for the steady indication.

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

3.7 **OVERLAP TIME RELEASE (WHITE LIGHT):**

Separate indications (White Light) for each overleap is provided near the starter signal to indicate the free or locked condition of overlap. This indication light will glow when overlap is locked by any Home Signal route and there will be no light when overlap is free. The locked indication starts flashing when the approaching train clears the rear end point zone track and occupies the berthing track. After a time release of 120 seconds the white flashing light will disappear indicating concerned overlap is free.

4.0 **EMERGENCY OPERATIONS:**

To carry out different emergency operations the following procedures are to be followed.

4.1 **CANCELING A ROUTE/ EMERGENCY ROUTE RELEASE**:

To cancel a signal route when the route is set and the signal in taken-off, click on the signal. After clicking by the left button on the mouse a pop-up menu will appear as shown in Para 3.4 above. Click on the cancellation menu (Main/ Calling on) of the concerned signal, the signal will immediately go to 'ON' aspect, after doing so click on the Route release menu the route locked indication will starts flashing for 120 sec & the Emergency Route Release Indication (UP / DN as the case may be) will flash for the entire time interval. After the completion of 120 sec, the locked route will be released. This action will be recorded in a counter. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/DY. SS

on duty who shall record the details of the Route cancellation along with the latest counter no. in a register.

4.2 **EMERGENCY NORMAL OPERATION OF POINTS**:

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

Note: Before resorting to this operation SS/DY. SS on duty shall verify that the point zone is clear of any vehicle occupying the track section and the same is clear of any obstruction.

4.2.1 **NORMAL OPERATION**

Before doing the emergency operation the Emergency Point Operation Key is to be made "KEY IN" by clicking the 'KEY IN' menu. The user name and password is to be logged in. The user name of this station is 'ECOR' and password of this station is NWP. Track the pointer to 'EMERGENCY NORMAL' menu and click. A Normal flashing indication will appear and the indication will be steady after the point is set to Normal. This action will be recorded in a counter. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/DY. SS on duty who shall record the details of the Emergency Point Operation along with the latest counter no. in a register.

After the completion of the Emergency point operation, the Key to be 'KEY OUT' by clicking 'KEY OUT' menu. The user name and password is to be given for "KEY OUT" also.

4.2.2 **EMERGENCY REVERSE OPERATION OF POINTS**:

Before doing the emergency operation an Emergency Point Operation Key is to be made 'KEY IN' by clicking the 'KEY IN' menu. The user name and password is to be logged in. The user name of this station is 'ECOR' and password of this station is NWP. Emergency reverse menu to be clicked. Track the pointer to 'EMERGENCY REVERSE' menu and click. A Reverse flashing indication will appear and the indication will be steady after the point is set to Reverse. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/DY. SS on duty who shall record the details of the Emergency Point Operation along with the latest counter no. in a register.

After the completion of the Emergency point operation, the Key to be 'KEY OUT' by clicking 'KEY OUT' menu. The user name and password is to be given for 'KEY OUT' also.

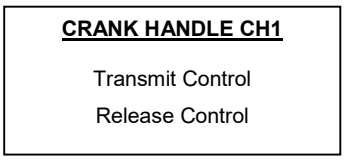
4.2.3 **EMERGENCY CRANK HANDLE RELEASE OPERATION :**

When a crank handle is locked due to route set earlier is not released or otherwise to Transmit or Release control of the Crank Handle, SS/DY. SS on duty shall cancel the

relevant signal first and then click on the crank handle control button icon provided like the following on the VDU.



On clicking, the appearing pop-up menu gives details of the possible commands on the Crank Handle



For Transmitting the Crank Handle KEY to the field personnel SS/DY. SS on duty has to click transmit control menu. After transmission the 'KEY LOCKED' (Red) indication will start to flash for 120 seconds & 'KEY IN' remains steady. After a lapse of 120 seconds the 'KEY LOCKED' indication will vanish & 'KEY IN' indication will start to FLASH. After extracting the key from the RKT, the 'KEY IN' indication will disappear. When the Manual point operation is over, after putting the emergency crank handle key in the RKT, flashing 'KEY IN' indication will appear on the VDU, Now the SS/DY. SS on duty shall Release the control for the Steady indication by clicking 'RELEASE CONTROL' menu.
The counter will increment the number for each and every such action and also, this number should be recorded by the SS/DY. SS on duty who shall record the details of the Emergency Crank Handle Operation along with the latest counter no. in a register.

4.4 LINE BLOCK AND UNBLOCK (REMINDER COLLAR):

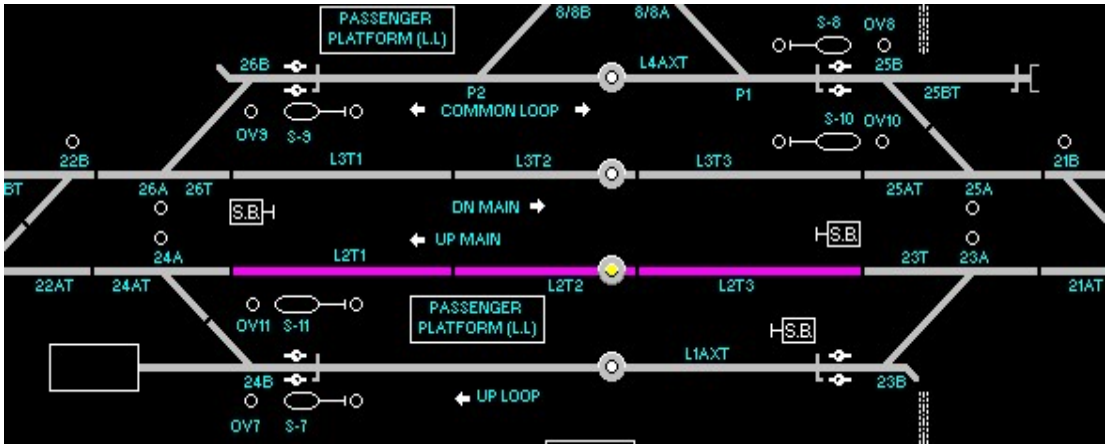
When SS/DY. SS on duty requires demarcating a berthing/stabling line as BLOCKED / FREE line he shall adopt the following procedure:

4.4.1 LINE BLOCK:

To set the 'LINE BLOCKED', the SS/DY. SS on duty shall select "L. No.___ BLOCK" command using the left mouse button, after selecting the Line Block that particular line will be blocked for all the possible Track circuit section on that particular line. The

'TRACK BLOCK' yellow colour indication will be displayed after the successful application of such a blocking process on the VDU.





4.4.2 **LINE UNBLOCK:**

To release the set block of any particular line, the SS/DY. SS/ASS/DY. SS should select "L. No.___ UNBLOCK" command using the left mouse button. After selecting the "L. No.___ UNBLOCK" that particular line will be available for the train movement leading to all the possible L1 Track circuit section.

5.0 PROCEDURE FOR RESETTING OPERATION OF LVCD (DIGITAL) AXLE COUNTER IN SECTION NWP-KBM AND NWP-PUN.

5.1Digital Axle Counters are provided on both Up & Down Block sections between NWP-KBM and NWP-PUN . The occupation and clearance of the axle counter section are indicated on VDU by RED & GREEN light respectively**.** When after arrival of a train the LVCD Axle counter does not show clear indication and the 'Section Occupied' indication continues to glow DY. SS/SM on duty shall initiate resetting procedure for the

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LVCD Axle Counter, monitoring the Block section. Before initiating Resetting procedure SS/DY. SS on duty shall ensure that the train which has left arrived completely at receiving station and block section is clear [free] of trains. If the track indication of that particular block section is showing 'Red" then the following actions are to be performed by the SS/DY. SS on duty.

The SS/DY. SS on duty at NAUPADA Station shall verify with on duty SS/DY. SS at receiving station over phone, to ensure the complete arrival of the train in his station.

Resetting of Digital Axle Counter Cooperation is necessary from adjacent station.



On duty SS/DY. SS shall track the pointer to the " **Axle Counter Reset key** " icon and click left button of the mouse and select "**KEY IN**" option.



Move the Curser pointer near to the Axle Counter Reset push button icon, and click left button of the mouse and select "**Reset**". In VDU VDU **'Power on'** indication will appear above the reset push button and it will remain for 10 sec. This action will be recorded in a counter. The counter will increment the number for each and every such action and also, this number should be recorded by the SS/DY. SS/ASS/DY. SS manually in a register.



The on duty SS/DY. SS shall inform the SS/DY. SS on duty at adjacent to carryout aforesaid resetting procedure. After completing reset operation in both side "**PREP RESET** "indication will appear above the reset push button icon.



The Piloting In or out is mandatory for completion of Axle counter reset operation.

Number changed for resetting, shall be recorded in the TSR and in the register provided for this purpose.

5.1 RESETTING OPERATION FOR AXLE COUNTER IN I.B. SECTION:

Axle counters are provided in IBH section between (NWP-PUN and NWP-KBM). The occupation and clearance of the I.B. Axle counter section are indicated on the VDU by RED & GREEN Indications. When after arrival of the train the axle counter does not show clear indication and the section occupation continued to glow, Dy. SS/SM on duty shall initiate re-setting procedure for the I.B. Axle counter monitoring the I.B. Section before initiating resetting procedure, Dy. SS/SM on duty shall ensure that the train which has left arrived completely at receiving station and I.B. section is clear [free]. If the track indication of that particular I.B. section is showing 'Red" then the following actions are to be performed by the DY. SS/SM on duty at Naupada.

Resetting of Axle Counter shall be carried out at Dispatch end, but before that permission shall be obtained from the receiving station.

After getting the permission from receiving station "**Perm. Recd from KBM/ PUN"** indication will appear above the Ack button icon



- On duty SS/ SM at Naupada need to track the pointer to the "**Axle Counter Reset key** " icon and click left button of the mouse and select "**KEY IN**" option.





After performing 'Key in operation' Dy. SS/SM on duty move the Cursor pointer near to the Axle Counter Reset push button icon, and click left button of the mouse and select "**Reset**". In VDU Panel. Concerned VDU counter will change to the next higher number. After completion of reset operation first train shall be piloted out. On clearing of the piloted train over I.B.S. Axle counter zone, axle counter will get reset and Axle counter zone clear indication will appear on VDU





The Piloting out is mandatory for completion of I.B. Axle counter reset operation. Number changed for resetting shall be recorded in the TSR and in the register provided for this purpose.

6.0 **MAIN SIGNAL LAMP FAILURE INDICATION AND BUZZER ACKNOWLEDGMENT:**

Double filament signal lamps have been used for main signals at this station. In case main filament fuses auxiliary filament will automatically lit up with same intensity. However failure of main filament will be indicated by the appearance of 'RED' light on VDU along with audible buzzer, which can be acknowledged and muted by pressing the 'SIGNAL FAILURE ACKNOWLEDGEMENT' button icon. However the RED light will continue to glow until the lamp is replaced by a new lamp. For rectification of failure SS/DY. SS on duty should inform the concerned S&T staff about the group which has failed. For the purpose of giving main filament failure indication the following groups are formed on either side.

- Down Advanced starter.
- Down starters.
- Up Starters.
- Up Advanced starter.

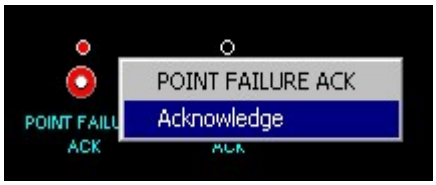
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6.1 **POINT FAILURE INDICATION (RED), POINT FAILURE BUZZER AND POINT FAILURE ACKNOWLEDGEMENT:**

Whenever there is failure of point due to non-setting, point failure indication flashing light appears near the point button icon along with point failure Buzzer. The buzzer stops when the point failure acknowledgement button icon is pressed, but the flashing light above the ACK button shall continue to glow. The flashing light at the concerned point zone can identify the defective point. After the failure is rectified, the flashing light above the 'POINT FAILUR ACK' button will disappear.



6.3 **SHOWING OF COUNTERS:**

One counter icon has been provided on the VDU. When selected a drop down menu will appear indicating the following counters.

1. Emergency Route Release.
2. Emergency Point Operation.
3. Emergency Crank handle release.
4. LVCD axle counter resetting for section NWP-KBM.
5. LVCD axle counter resetting for section NWP-PUN.

When the pointing device is placed any one of the menu the latest counter number will pup-up on VDU.

7.0 **TRACK CIRCUITS:**

Both Up and Down All Lines are track circuited from Home signal to Advance starter signals at either direction of the yard.. Approach Track Circuit (7 Rail lengths) for Calling-on signal are also provided in rear of the Home signals in both directions. In addition there are (5 Rail length) track circuits beyond Advanced starter Signals in both the directions for replacement of Last Stop Signal.Indications for the above track circuits

are available on VDU at SS/DY. SS's office. Yellow strip on VDU indicates 'ROUTE IS SET AND TRACK CLEAR' and Red strip indicates 'TRACK OCCUPIED CONDITION'.

7.1 On account of the doubtful operation of any track circuit by a light vehicle including self-propelled vehicle such as motor trolley or light engine or tower wagon etc., indicating the occupancy/clearance of track, it is necessary that the Station Master on duty satisfies himself that the said vehicle has cleared the point zone track circuits/Axle Counter by observing the track indications of the track on either side of the crossovers by positively checking the 'entrance' and 'exit' track circuits/Axle Counter are showing occupancy and clearance in accordance with the train movement.

8.0 **AXLE COUNTER:**

Entire Block and IB section between NWP-KBM and NWP-PUN are provided with Digital Axle counters.

For section:**NWP-KBM:-** A pair of digital axle counters are provided between NWP-KBM on Up line, one just beyond Up advanced starter No.25 of NWP and another one on 29T2 for proving UP IB section between NWP-KBM and one just beyond UP IB Home signal No. 29 of NWP and another near first facing point No. 21A of KBM for proving UP LVV for section NWP- KBM. Another pair of digital axle counter is provided between KBM-NWP on DN line, one just beyond DN advanced starter No.12 of KBM and another on 14 T2 for proving DN IB section between KBM-NWP and one just beyond DN IB Home signal No. 14 of KBM and another one near DN BSLB of NWP for proving DN LVV for section KBM-NWP.

For section: **PUN-NWP:-** A pair of digital axle counters are provided between PUN-NWP on Up line, one just beyond Up advanced starter No.13 of PUN and another one on 15T2 for proving UP IB section between PUN-NWP and one just beyond UP IB Home signal No. 15 of PUN and another near first facing point No. 31A of NWP for proving UP LVV for section PUN-NWP. Another pair of digital axle counter is provided between PUN-NWP on DN line, one just beyond DN advanced starter No.26 of NWP and another on 28 T2 for proving DN IB section between NWP-PUN and one just beyond DN IB Home signal No. 26 of NWP and another one near DN BSLB of PUN for proving DN LVV for section NWP-PUN.

9.0 **TAKING OFF CALLING-ON SIGNAL:**

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

9.1 To take off Calling-on signal the train must come to stop at the foot of the home signal, occupying the track circuit (1AT, 2AT as the case may be) in rear of the Home signal. When a train occupies the track circuit, a RED light strip will appear on the VDU. The particular route on which the train is intended to be received shall be set by selecting and setting desired route through VDU by SS/DY. SS on duty. After a lapse of 120 seconds,

the Calling-on signal clears i.e. white light glows at the concerned Calling-on signal on the VDU.

NOTE:

SS/DY. SS on duty to ensure that no through signals are given while receiving a train on Calling-on.

9.2 **RELEASE/CANCELLATION OF ROUTE:**

Normally when a train is received on any route or dispatched, the route illumination will disappear automatically after passage of the train suggesting that the route is released. When the route is not released automatically after passage of train over it or when SM on duty intends to cancel the route set by him shall follow procedure for cancellation of route described in para 4.1 of APPENDIX-B above.

NOTE:

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

9.3 **REPLACEMENT OF SIGNALS TO 'ON':**

Signals are replaced to 'ON' automatically by the passage of a train beyond the signal. It will not be possible to re-clear the signal again unless the due process for clearing the signal is repeated again. For replacement of any signal to 'ON' position manually, the SS/DY. SS shall follow para no. 3.4 of APPENDIX-B.

9.4 **INTERLOCKING OF SIGNALS:**

UP Advanced starter is interlocked with DLBI of section NWP –KBM and Dn advanced starter is interlocked with DLBI of section NWP – PUN in Line Clear position.

The Block Instrument cannot be made normal unless the respective Home signal is put back to 'ON' and the respective Block Section monitored by Axle Counter is clear of trains. Signals once taken 'OFF' can be put back to danger in case of emergency by following para no. 3.4 of APPENDIX-B even when the SM's Key is withdrawn from VDU.

9.5 **PILOTING OF TRAINS IN TO STATION YARD.**

Whenever Home signal becomes defective, trains can be admitted by taking off Calling-on signal. Whenever both Home signal and Calling-on signal failed, all trains will be piloted in vide SR. [Refer SR 3.69.03(a) & (c)].

The SS/DY. SS on duty shall nominate a clear line and shall advise the TPM on duty at station to set the nominated route with the help of crank handle if the points cannot be set from the VDU. Then the TPM shall set the facing and trailing points and clamp and padlock the same under the supervision of SS/DY. SS on duty.

The SS/DY. SS on duty shall then hand over the written authority (T/369(3b) to the TPM for piloting the train. While going towards Home signal the TPM shall check the points and satisfy him self that the route is correctly set.

After the train has brought to a dead stop at the Home signal the TPM shall hand over the pilot memo to the Locopilot, board the engine and display proceed hand signal to pass the Home signal.

NOTE:

(i) The Station Master on duty shall personally supervise the correct setting, clamping and padlocking of the facing points, if any and ensure clearance on the nominated route vide SR [Ref. SR 3.69.03(c)]

(ii) The keys of padlock of the clamps put ON to the points on the route for piloting In or piloting OUT shall be in the personally custody of the SS/DY. SS on duty or any other authorized operating officials till such time the train / engine / vehicle has utilized the route or alternatively such movement is cancelled.

9.6 **PILOTING OF TRAINS - OUT OF STATION YARD**:

When the starter signal has become defective, the Station Master on duty shall advise the on duty TPM to set all points correctly for the outgoing trains. Then he shall clamp and padlock the same under the supervision of SS/DY. SS on duty. Then the SS/DY. SS on duty shall hand over the pilot memo T/369(3b) (along with the other authority if necessary) to the on duty TPM. The TPM on duty shall hand over the authority to the Locopilot of the train and display proceed hand signal at the foot of the starter vide SR. [Refer SR 3.70.01].

In case the advanced starter signal has become defective, such signal shall be passed on the written authority on the form T/369(3b). The TPM shall hand over the pilot memo in form T/369(3b) to the Locopilot after the train stopped. [Refer SR 3.70.02]

9.7 **SHUNTING:**

Caution aspect of starter signals for shunting up to Advance Starter.
For back shunting individual shunt signal No.3 and 4 are provided at North and South side of the yard respectively for shunting back to the station yard in desired direction. For taking OFF Shunt signals please refer Para no. 3.4.2 of APPENDIX-B.

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

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

11. **CRANK HANDLING/EMERGENCY OPERATION OF POINTS:**

Crank handle operation is interlocked with the Signalling and interlocking system at this station. Key for Crank handles are normally locked inside the RKT instrument inside Location boxes in the yard and can be taken out only when all the signals leading are in the 'normal' position and the route is not locked for whatever reasons. Crank handle can be transmitted or released by following procedure as laid down in Para no.3.5 of

Appendix-'B'. When this key is taken out, no signal to the concerned point can be taken 'OFF' in the yard. This key can be electrically transmitted at both ends of the yard.

12. **OBSERVATION OF TRACK CIRCUIT AFTER STABLING OF TRAINS ON RUNNING LINES**:

When a train is stabled on a running line for a duration exceeding ten hours, the use of the said running line for passing the trains 'IN' 'THROUGH' or 'OUT' at the station shall be done with a lot of care and diligence. Station Master on duty shall meticulously observe the proper functioning of the relevant track circuits (occupancy/clearance) while admitting a train. Such observance should continue for a minimum of four to five trains thereafter. If the Station Master on duty is not satisfied with the proper functioning of the track circuits on which the train was earlier stabled, the signals leading on the line shall be suspended and the S & T maintenance staff be informed to attend.

13. **LOCKING OF RELAY ROOM:**

THE Relay Room at the station is provided with double locks (two independent locks) as necessary vide Optg. Manual - 1.14. One key shall be kept with the signal maintainer of the station and the other key shall be with Dy. SS/SM on duty. The Relay room cannot be opened unless both keys are used.

Dy. SS/SM on duty shall ensure that the Relay room key is given to S&T maintenance staff under clear signature as and when required for normal maintenance and for special works and that the key should be returned by the S&T staff immediately after completion of the work ad documentation shall be made in the Relay Room key register maintained at the station according to SR 3.51.05 and OM 1.14.

14. **MAINTENANCE OF S & T INSTALLATION AND ADHERENCE TO MAINTENANCE SCHEDULES**:

Regular maintenance of the S&T installations, adherence to schedules of maintenance testing of points, track circuits, level crossing gates, associated interlocking apparatus cables and the interlocking functional tests is must for safe and satisfactory working of these installations at this station.

The tests, checks and replacements etc., shall confirm to the schedules of maintenance as indicated in the Signal Engineering Manual as also as per the current and extant instructions/circulars on the subject.

15. **PROCEDURE TO BE FOLLOWED INCASE OF FAILURE OF AN INTERLOCKING GEAR**:

In case of failure of any interlocking gear at the station, the failure report should be communicated by the Station Master to the sectional Maintainer, the signal inspector of the section and others through a memo as per GR and SR 3.51.04 and 3.68.04 and document all such transactions.

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

Before declaring a point as defective, the setting of the point on the route to which it applies shall be inspected by the Station Master on duty irrespective of the position of the buttons.

17. **RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:**
After receipt of the failure information, the sectional Maintainer shall attend to the failure after giving a 'Disconnection Memo'. After rectification of the fault, the Sectional Maintainer shall give 'Reconnection Memo' detailing the rectification. Thereafter the Station Master on duty shall personally check this defective apparatus. After satisfying himself that the gear is in good and proper working order, he shall resume the normal working of the said defective apparatus in terms of SR.3.68.04 (C) and (D).

18. **PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORK:**
Whenever any normal maintenance or special works for major renewals etc., are involved, the Signal and Telecom department should preplan these works. Field staff and the Inspector of the section should give to the Station master in writing 'Advance Intimation' about this work in terms of G and SR.15.08.01.

19. **EMERGENCIES:**
Notwithstanding, anything contained in the aforesaid paras when equipment is found defective and unsafe for passage of trains, the Signal and Telecom staff must at once suspend the working of the equipment and associated installations and issue 'Suspension Memo' explaining the seriousness of the defect or damage to the interlocking installation to the Station master and take the Station Master's acknowledgement. After this, the usual practice of exchange of disconnection memo and reconnection memo can follow. The Station Master must act promptly on such messages and take adequate precaution treating the S&T installation as defective and pass trains over the affected interlocking equipment's according to extant instructions as contained in GR and SR.3.77.

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

20.1 Whenever a Signal or a Point become defective any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by Station Master on duty personally for all trains at the Station.

20.2 In case of failure of Signal or a Point and in case the Point can not be operated from the Panel, the emergency Crank Handle which is Interlocked with the system has to be extracted and the following procedure has to be observed.

20.3 One common emergency Crank Handle is provided for all the Motor operated Points. This is mechanically riveted to the Key of HKT. This Key along with Crank Handle can be released from the HKT by pressing the Common HKT Push Button after cutting the seal between HKT and the Crank Handle. The Station Master on duty in case of Point Motor failure will take out the Crank Handle set the Point manually by inserting Crank Handle on the Motor.

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20.4 When the Crank Handle is removed from HKT for operation of the defective Motor Operated Points, the responsibility for its safe custody re-sets with the ASM/SM on duty till it is replaced back in HKT and sealed by Signal Maintainer.

20.5 The case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.

20.6 Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the Station Master on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and than handover to him the emergency Crank Handle for the Points concerned. All the Points will be treated as defective till the Emergency Crank Handle is returned back to Station Master on duty.

20.7 Before parting with the Emergency Crank Handle either for attending failure or for Maintenance work by Signal Maintenance Officials, the Station Master on duty will ensure that the reception and departure Signals are put back to on position. The Points of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The Station Master on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.

20.7.1 The Emergency Crank Handle Register is to be maintained in the following proforma by the Station Master on duty wherein the particulars of usage of the Emergency Crank Handle must be recorded:

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

IMPORTANT NOTE:

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When performing shunting operations in the sidings it must be clearly noted that the siding Points are interlocked with the system in the NORMAL position of the Points and in REVERSED position they are not interlocked. The Official responsible for shunting operation must clamp the Points at the both ends before permitting any movement.

21. INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

21.1 INTERLCOKING WITH HOME SIGNALS:

All the UP and DOWN HOME Signals are Electrically interlocked with the respective DLBI so that before the handle of the DLBI Instrument can be turned from TRAIN COMING FROM position to LINE CLOSED position of UP or DOWN direction as the case may be must be in their NORMAL position.

21.2 The Down advanced starter signal is controlled and interlocked with DN IB Axle counter section between NWP-PUN and DN IB Home signal is interlocked with DLBI of section NWP-PUN, so that DN IB Home signal cannot be taken OFF until the handle of the concerned Block instrument is in LINE CLEAR position.

21.3 The UP advanced starter signal is controlled and interlocked with UP IB Axle counter section between KBM-NWP and UP IB Home signal is interlocked with DLBI of section KBM-NWP, so that UP IB Home signal cannot be taken OFF until the handle of the concerned Block instrument is in LINE CLEAR position.

21.4 SUSPENSION OF LAST STOP SIGNALS :

When the Double Line Block Instrument for section KBM-NWP is suspended with its handle in any position for whatever reason the concerned IB Home signals connected by the DLBI must be treated as suspended and train shall be P/out.
When the Double Line Block Instrument for section NWP-PUN is suspended with its handle in any position for whatever reason the concerned IB Home signals connected by the DLBI must be treated as suspended and train shall be P/out.

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

22.1 Digital Axle Counters are provided on both Up and Down line Block Sections between NWP-PUN and NWP-KBM.

22.2 The occupation and clearance of the axle counter section are indicated on the VDU by ‘RED’ and ‘GREEN’ light.

22.3 If any Block proving Axle Counter [LVCD] section fails, the Last Stop Signal at the rear station cannot be taken ‘OFF’ and Block instrument at Advance Station cannot be turned to ‘Line Closed’ position after arrival of a train and in such case, resetting of last Vehicle Checking Device is to be resorted to either Section.

22.5. No train shall be allowed on signal to leave a station in any particular direction unless: -
Track clear indication is available for the relevant Axle Counter track circuited portion and Last Stop Signal is taken OFF. [Refer Para No:5 of appendix ‘B’ for procedure of resetting of LVCD Axle counter].

23.0 **TELECOMMUNICATIONS:**

a) The Station is connected to VSKP - PSA Main line Control Circuit.
b) Telephone attached to SGE type Lock and Block Instruments for sections NWP-KBM and NWP-PUN.
c) Railway Auto telephone is provided at the station.
d) Telephone communication is provided between Station Master on duty to Up CH locations and to Dn CH Locations.
e) Telephone attached to L.C.Gate at Km. ML-384, ML 386, ML 387, ML 388, ML 390, ML-393, ML-395 and ML-396. Bentron equipment is provided for 5 LC gates towards PUN end and 2 LC gates KBM end.
f) Bentron equipment is provided with NG-6 and NG-8 in NWP-GNPR section.
g) The station is connected to VSKP - PSA traction power control circuit.
The station is connected to VSKP - PSA traction loco control circuit.
h) BSNL telephone is provided at this station.
i) VHF set is provided at the station.
j) The station is connected to UP IB post at Km 707.440 between NWP-KBM and DN IB post at Km 695.330 between NWP-PUN.

NOTE

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

24.0 POWER SUPPLY ARRANGEMENT FOR SIGNALLING INSTALLATIONS

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

i] Normal supply from UP AT/ DN AT connected to OHE traction distribution.[230V 50HZ].

ii] Stand by supply – From AP Transco [Single-phase 230V-50 HZ].

Normal power supply [Single-phase 230V-50 HZ]. to the signalling and interlocking installation at the station is drawn from the traction power sources. Whenever traction power supply fails the SS/Dy. SS on duty shall operate the change over switch provided in the SM's office connecting the power supply from the healthy sources to the installation.

The SS/Dy. SS on duty however maintain the record of power failures either of the traction supply or local supply and he must promptly report the failure of any one or both the power sources immediately through the section controller and to the concerned Elect. Staff and S&T maintenance staff.

[I]. A change over switch is provided in the SM's office with the three power supplies viz., UP AT , DN AT and local for the changing the switch to the required supply position. The availability of the supply is indicated by luminous indicator above the circuit breaker for each supply.

[ii] Normally the switch will be kept towards UP AT/DN AT position. Whenever power block is to be given on the line the on duty SS/Dy. SS on duty must ascertain that power is available on the other AT and change over the switch to the desired position.

NOTE: If power block is to be given on the UP line DN 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 SS/Dy. SS has to check whether the circuit breaker has tripped [Three circuit breakers are provided in the change over 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 without any power block the local supply shall be utilized by operating the change over switch. If the circuit breaker is tripping even after resetting, no attempt shall be made to hold it by any means and a message shall be given to concerned SSE[Elect.] and SSE/PSI[OHE] for prompt rectification.

[iv] When ever there is failure of power supply in one AT the SS/Dy. SS on duty shall take prompt action to inform to all concerned for rectification.
The on duty SS/Dy. SS himself during each shift shall check & test the availability of power supply on both AT.s and make an entry in the station dairy duly initiating for rectification of failure if any.

25.0 WORKING OF INTEGRATED POWER SUPPLY [IPS, INDICATIONS & ACTION TO BE TAKEN BY SS/Dy. SS ON DUTY:

Power supply to the signalling installation is fed through Integrated Power Supply System [IPS] installed in the S&T power supply room. The IPS is normally fed through Up AT/Down AT traction power selected SS/Dy. SS on duty. Standby power supply is through AP TRANSCO local supply. One change over switch is provided in the SM's room for selection of out put of either traction power supply or local power supply. The available traction/local supply is fed to the IPS through auto-change over switch provided in IPS.

The IPS system is connected with battery as a backup power source for safe working during transition of power and in case no 230 AC supply is available due to any reason.

In the event of failures all the sources of 230V 50HZ AC supply, the signalling system shall be fed by power generated by backup battery bank connected to IPS for a limited power of 8 to 10 hours. The health of the battery bank is monitored through one IPS Monitoring Panel provided in the SM's room which shall display the voltage of 110 V.DV battery bank provided as backup source of power supply. Depending up on the health of the battery bank and the system the following indications/alarm will appear on the remote monitoring panel. The indications/alarm, their implications and action to be taken by SS/Dy. SS on duty is tabulated below:

S N	Instruction	Health of Battery	Visual Indicatio	Audio Indication	Action to be taken by SS/Dy.

		Bank/Equipment.	n		SS on duty
A	-	50% DOD	Red	Alarm	Alarm shall be acknowledged by SM on duty.
B	-	60% DOD	Red	Alarm	-do-
C	System shutdown	70% DOD	Red	Alarm	Signal feed cut off and all DC-DC converters to Work. Audio alarm will continue till power Supply is restored.
D	Call S&T staff.	Equipment fault.	Red,	Alarm	Failure of any module will give the alarm in ASM's panel. Alarm shall be acknowledged by SM on duty for audio cut off.

On duty SS/Dy. SS in each shift shall check and record the readings, indications, etc. in the station dairy duly initiating rectification of failures of IPS System, if any.

In the event of failure of Remote monitoring ASM console due to any reason when both traction power and local power failed the SM on duty shall inform concerned Electrical staff immediately. In case ' call S&T staff ' or 'system shut down' indication appear on the remote monitoring panel of IPS and/ or mal functioning of the remote monitoring panel SM on duty shall inform the same to concerned S&T staff immediately.

NOTE: [I] DOD indicates depth of discharge of battery bank of IPS [ii] In case of failure of all AC supply sources IPS battery bank can provide power supply maximum upto 8 to 10 hours before system shut down indication of APS

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APPENDIX 'C'

ANTI COLLISION DEVICE (RAKSHA KAVACH)

NOT APPLICABLE TO THIS STATION.

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APPENDIX 'D'
DUTIES OF OPERATING STAFF IN EACH SHIFT.

The following staffs are concerned with the movement of trains whose duties are given below.

1. STATION SUPERINTENDEDNT:

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. DY. STATION SUPERINTENDEDNT:

He is responsible for trains passing during his shift. He shall promptly bring to the notice of DY Station Superintendent all irregularities and accidents in course of his shift duties. During the absence of Dy. SS, the duties of the Station Manager will devolve on him. He shall follow SR 3.68.01© and (d) SR 14.07.l 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 Dy Station Superintendent.

3. TRAFFIC POINTS MAN :

He shall work under the orders Dy. SS /S.S. on duty. He shall couple and uncouple vehicles under the supervision of Dy. SS /S.S./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 SS/Dy. SS on duty. He will re-light the BLSB lamp during night.

3 Safiawala

He shall attend to the sanitation of the Railway premises including SS/Dy. SS's 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 fallow their rosters issued by DPO/WAT from time to time.

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APPENDIX 'E'

ESSENTIAL EQUIPMENT

List of essential equipment is given below vide OM 20.04(ii) which shall be maintained in good working order.

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

The above essential equipment provided at the station shall be maintained in good and proper working order vide OM 20.04(11).

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APPENDIX 'F'

WORKING OF D.K. STATIONS, HALTS, IBH, IBS AND OUTLAYING SIDINGS:

RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN NWP-KBM AND NWP-PUN

The block section between NWP-KBM has been split into two block sections by providing Intermediate Block Stop signals at KM 707.440 [controlled by NWP station] for UP line and, on DN line at KM 707.810 [controlled by KBM station]. Intermediate Block stop signals are controlled through double line lock and block instruments at the respective receiving ends.

Also the block section between NWP-PUN has been split into two block sections by providing Intermediate Block Stop signals at KM 695.330[controlled by NWP station] for DN line and, on UP line at KM 694.970 [controlled by PUN station]. Intermediate Block stop signals are controlled through double line lock and block instruments at the respective receiving ends.

a] **(i)**The Block working for section between NWP-KBM on UP and Down lines is controlled by the provision of Double line Lock and Block Instruments (SGE type) and are provided at NWP station and at KBM station. The UP Advanced starter signal No. S 25 of NWP and DN Advanced Starter signal No. S 12 OF KBM are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB Home signals are controlled in turn through the line clear position of respective Double line lock and block instruments at the receiving stations.

(ii)The Block working for section between NWP-PUN on UP and Down lines is controlled by the provision of Double line Lock and Block Instruments (SGE type) and are provided at NWP station and at PUN station. The UP Advanced starter signal No. S 13 of PUN and DN Advanced Starter signal No. S 26 are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB Home signals are controlled in turn through the line clear position of respective Double line lock and block instruments at the receiving stations.

b] Trains between intermediate block signal to respective Home signal of Station in advance in both the sides are worked by means of SGE type lock block instrument vide 5.07, 5.08, 5.09, 14.01 to 14.14 of the G & SR and chapter V of BWM.

c] Last stop signal to the intermediate block stop signal in both the sides are controlled by Electronic Axle counter and are worked under absolute block

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system in terms of G & SR 14.01, 14.13. Indications on VDU provided at NWP station.

d] **INDICATIONS PROVIDED ON VDU FOR I.B. SECTION.**

e] The indications of signals, IB and Block sections in both up and down directions are shown in the following table:

SECTION NWP-KBM:

SN	Signal Aspect [S-25]	IB Section Indication [25 AXT]	IB Home Aspect [S-29]	Block Section Indication	Remarks.
1	Green	Yellow Illuminated and when train enters the section RED illuminated	-	-	Advance starter No:25 is taken off to dispatch a train up to IB Home.
2	Red	Yellow illuminated	-	-	IB Section is occupied.
3	-	-	Green	Yellow Illuminated and when train enters the section RED illuminated	IB Home taken off for train up to Home of KBM.
4	-	-	Red	Yellow illuminated	Block section is occupied or IB Home passed at danger.

SECTION KBM-NWP .

SN	Signal Aspect [S-12]	IB Section Indication [12 AXT]	IB Home Aspect [S-14]	Block Section Indication	Remarks.
1	Green.	Yellow	-	-	Advance starter

		Illuminated and when train enters the section RED illuminated			No: 15 is taken off to dispatch a train up to IB Home.
2	Red.	Yellow illuminated	-	-	IB section occupied.
3	-	-	Green	Yellow Illuminated and when train enters the section RED illuminated	IB Home taken off for train up to Home of NWP.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

SECTION PUN-NWP:

SN	Signal Aspect [S-13]	IB Section Indication [13 AXT]	IB Home Aspect [S-15]	Block Section Indication	Remarks.
1	Green	Yellow Illuminated and when train enters the section RED illuminated	-	-	Advance starter No:13 is taken off to dispatch a train up to IB Home.
2	Red	Yellow illuminated	-	-	IB Section is occupied.
3	-	-	Green	Yellow Illuminated and when train enters the section RED illuminated	IB Home taken off for train up to Home of NWP.
4	-	-	Red	Yellow illuminated	Block section is occupied or IB Home passed at danger.

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SECTION NWP -PUN .

SN	Signal Aspect [S-26]	IB Section Indication [26 AXT]	IB Home Aspect [S-28]	Block Section Indication	Remarks.
1	Green	Yellow Illuminated and when train enters the section RED illuminated	-	-	Advance starter No: 26 is taken off to dispatch a train up to IB Home.
2	Red	Yellow illuminated	-	-	IB section occupied.
3	-	-	Green	Yellow Illuminated and when train enters the section RED illuminated	IB Home taken off for train up to home of PUN.
4	-	-	Red	Yellow illuminated	Block section is occupied or IB Home passed at danger.

e) **Buzzer/Bell**

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

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

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

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

i] No train should be allowed to leave station in any particular direction unless I.B. track clear indication is available for the relevant track circuited portion of I.B. section and last stop signal can not be taken off.

ii] A Resetting arrangement for the resumption of I.B. Axle counter under failure condition through co-operative features of both the SS/ Dy. SS on duty at either end station of the Block section is provided in respective VDU 's, which should only be ressorted after the train that was lastly sent arrives fully at the receiving station and is certified in this respect by the Dy. SS/SM at the receiving station through exchange of private number.

iii] For monitoring of I.B. section working & re-setting of I.B. Axle counters, Track Indications and Re-setting arrangements are provided with button icons on the VDU at NWP, PUN and KBM stations. Counters are also provided for the purpose of recording the re-settings for the I.B. Axle Counters in case of failures in IB section.

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

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

SECTION NWP-KBM ON UP LINE:

	DISPATCHING STATION [NWP]		**RECEIVING STATION [KBM]**
1	SS/Dy.SS on duty shall call the attention of SS/Dy. SS of KBM station through Telephone for Permission	1	SS/Dy. SS on duty at KBM after verifying that the said dispatched train arrives fully, shall exchange private number with

	granting to re-setting I.B. Axle counter zone as well as Train Passed signal with Danger [train run away condition] giving details of last train left the station into the section.		SS/Dy.SS on duty at NWP and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission Granting" option, you will find a "yellow" color Indication above the Push button. For each such operation the IB.reset counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register
2	On getting permission to reset from KBM, a flashing indication will appear on VDU {permission Received from KBM} above permission Acknowledgement button. which shall be acknowledged by Dy. SS/SM on duty by clicking 'Permission received from KBM' acknowledgement push Button and flashing indication will become steady. On duty SS/SM at NWP will then enable IB Reset key option by giving user name and password options. After entering username and password options the key will turn from Red to Green in color. Then the SS/SM will click the IB.reset Push button appearing on the VDU for getting IB.Axle counter to be reset. After applying reset On doing the above process for resetting of the IB Axle counter first train has to be piloted. On passing of the first piloted train IB.Axle counter will get reset.	2	SS/Dy. SS on duty at KBM shall withdraw the permission by clicking the' Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission restore" option, the yellow color indication above the Push button will goes Blank.

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	In case of train passed at danger ,the aforesaid resetting procedures is to carried out and no need of first train piloting. For each such operation the IB.reset counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.		

SECTION KBM-NWP ON DN LINE:

	DISPATCHING STATION [KBM]		**RECEIVING STATION [NWP]**
1	SS/Dy.SS on duty shall call the attention of SS/Dy. SS of NWP station through Telephone for Permission granting to re-setting I.B. Axle counter zone as well as Train Passed signal with Danger [train run away condition] giving details of last train left the station into the section.	1	SS/Dy. SS on duty at NWP after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy.SS on duty at KBM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission Granting" option, you will find a "yellow" color Indication above the Push button. For each such operation the permission granting counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed permission granting counter number in counter register
2	SS/Dy. SS on duty at NWP after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy.SS on duty at KBM and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the	2	SS/Dy. SS on duty at NWP shall withdraw the permission by clicking the' Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of

	VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission Granting" option, you will find a "yellow" color Indication above the Push button. For each such operation the IB.reset counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register		"Permission Granting" & "Permission Restore". Click "Permission restore" option, the yellow color indication above the Push button will goes Blank.

SECTION PUN-NWP ON UP LINE:

	DISPATCHING STATION [PUN]		**RECEIVING STATION [NWP]**
1	SS/Dy.SS on duty shall call the attention of SS/Dy. SS of NWP station through Telephone for Permission granting to re-setting I.B. Axle counter zone as well as Train Passed signal with Danger [train run away condition] giving details of last train left the station into the section.	1	SS/Dy. SS on duty at NWP after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy.SS on duty at PUN and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore".Click "Permission Granting" option, you will find a "yellow" color Indication above the Push button. For each such operation the permission granting counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed permission granting counter number in counter register
2	On getting permission to reset from NWP, a flashing indication will appear on VDU {permission Received from PUN} above permission Acknowledgement button.		

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	which shall be acknowledged by Dy. SS/SM on duty by clicking 'Permission received from PUN' acknowledgement push Button and flashing indication will become steady. On duty SS/SM at PUN will then enable IB Reset key option by giving user name and password options. After entering username and password options the key will turn from Red to Green in color. Then the SS/SM will click the IB.reset Push button appearing on the VDU for getting IB.Axle counter to be reset. After applying reset On doing the above process for resetting of the IB Axle counter first train has to be piloted. On passing of the first piloted train IB.Axle counter will get reset. In case of train passed at danger ,the aforesaid resetting procedures is to carried out and no need of first train piloting. For each such operation the IB.reset counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.	2	SS/Dy. SS on duty at NWP shall withdraw the permission by clicking the' Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission restore" option, the yellow color indication above the Push button will goes Blank.

SECTION NWP-PUN ON DN INE:

	DISPATCHING STATION [NWP]		**RECEIVING STATION [PUN]**

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1	SS/Dy.SS on duty shall call the attention of SS/Dy. SS of PUN station through Telephone for Permission granting to re-setting I.B. Axle counter zone as well as Train Passed signal with Danger [train run away condition] giving details of last train left the station into the section.	1	SS/Dy. SS on duty at PUN after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy.SS on duty at NWP and gives permission to re-set by clicking the 'Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission Granting" option, you will find a "yellow" color Indication above the Push button. For each such operation the permission granting counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed permission granting counter number in counter register
2	On getting permission to reset from PUN, a flashing indication will appear on VDU {permission Received from TIU} above permission Acknowledgement button. which shall be acknowledged by Dy. SS/SM on duty by clicking 'Permission received from PUN' acknowledgement push Button and flashing indication will become steady. On duty SS/SM at NWP will then enable IB Reset key option by giving user name and password options. After entering username and password options the key will turn from Red to Green in color. Then the SS/SM will click the IB.reset Push button appearing on the VDU for getting IB.Axle counter to be reset. After applying reset On doing the above process for resetting of the IB	2	S/Dy. SS on duty at NWP shall withdraw the permission by clicking the' Permission Granting' Push button provided on the VDU.after clicking of Push button , a pop up menu will appear consists of "Permission Granting" & "Permission Restore". Click "Permission restore" option, the yellow color indication above the Push

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	Axle counter first train has to be piloted. On passing of the first piloted train IB.Axle counter will get reset. In case of train passed at danger ,the aforesaid resetting procedures is to carried out and no need of first train piloting. For each such operation the IB.reset counter provided in VDU shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.		button will goes Blank.

h] <u>DISPATCH OF TRAINS</u>:

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

i] <u>From NWP towards KBM and PUN.</u>

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

j] <u>NWP TO IBS ON UP AND DOWN LINES</u>:

The Dy. SS/SM on duty shall ensure that the portion of line between Advanced Starter and 400 Mtrs beyond IBS at their respective ends is clear of obstruction and indication to this effect is available in the VDU and shall also ensure any non-isolated shunting at their respective ends suspended and shunting authority issued if any is with drawn and kept in his custody.
Advise the Station Master at the station in advance, of the train No. and description of such intended train to be dispatched and shall take his assent supported by Private Number and shall then set and lock the route and take off the Starter and Advanced Starter.

k] <u>IBS SIGNAL TO THE STATION IN ADVANCE</u>:
The Dy. SS/SM on duty shall obtain line clear over lock & Block instruments from the station in advance to dispatch a train past the IBS signal at the respective ends and shall take off the IBS signal by means of taking of signal No.29 of NWP for UP line and Signal No.14 of KBM for DN line for section NWP-KBM.
After the train passes the intermediate Block Stop signal of NWP a buzzer will ring in the VDU. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by clicking train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the SS/Dy.SS of the

station in advance who in turn will turn commutator of the Double line Lock and Block Instrument from the line clear position to Train On Line position and acknowledge train entering section. After dispatch of a train from NWP into the Block section between KBM and intermediate Block Post in case when the intermediate stop signal is not taken 'off' but the buzzer has started ringing, this may be either due to the train passing intermediate Block stop signal at 'ON' position or due to failure of the track circuit in advance of that intermediate Block Signal. The Dy. SS/SM on duty at KBM will then inform the matter to SCR on duty and concerned S&T official.

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

l] (i) Dispatch of trains towards PUN and KBM stations in case of failure of the Down or Up Advanced Starter signal as the case may be at NWP Station due to failure of "Axle Counter" device or otherwise. If the failure of the Advanced starter of NWP due to the failure of axle counting device or the indication lamp (repeated by indication lamp) showing 'Red' light either due to power failure or due to any other causes, the re-setting " Button Icon" provided on VDU with Veeder counter at the SS/Dy. SS office for restoring the normal function of the signal, should be operated accordingly to the following instruction whenever the UP or DN Advance starter signal of NWP is found defective by the Station Master and the following procedure shall be adopted.

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

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

M] **DESPATCH OF TRAINS IN CASE OF FAILURE OF INTERMEDIATE BLOCK STOP SIGNAL:**

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

[b] If the SS/Dy.SS of NWP station, on being contacted over Telephone by the locopilot, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorized the locopilot on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give Locopilot the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance.
The locopilot shall then sound one short, one long and one short whistle and, on receipt of Guard's signal shall proceed ahead duly exchanging signals with him.
The station Master on being contacted by the Locopilot on signal post telephone if he is unable to obtain "Line Clear" for the train due to total interruption of communications, shall call for the Guard's through the Locopilot and on being contacted by guard, he shall advise the guard of the circumstances and give a Private Number for the train to proceed up to the next block station. The guard shall prepare a memo in duplicate authorizing the Locopilot to proceed with the Private Number received from the Station Master. In such case the speed of the train shall be restricted as prescribed in GR 3.75(3).

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

On reaching the block station ahead the Locopilot shall report the failure of the signal to the Station Master. If, the telephone is provided at the intermediate Block Stop signal Post is out of order the Locopilot will pass the IB signal as per GR 3.75(3) & SR 3.75.02, and on reaching the block station ahead, the Locopilot shall report the failure of the signal to the Dy. SS/SM, Following train shall not be allowed to leave **NWP** unless the complete arrival of the receiving train is certified by the SM on duty at **PUN or KBM** under exchange of Private Numbers.

The station Master of the block station working the intermediate block stop signal on becoming aware that such a signal is defective shall, before dispatching the train, treat the entire section up to the block station immediately ahead of the intermediate block post as one block section and issue a written authority to the locopilot to pass the defective intermediate Block Stop Signal at "ON" without stopping at the signal. In accordance with the procedure prescribed by special instruction.
A written authority as mentioned in GR 3.75(4) shall be in Form T/369[3b] in which the Private Number and identification Number obtained from the station in advance in support of the "Line Clear" shall be recorded. Display of "Proceed hand signal at the foot of defective Intermediate Block Stop Signal may be dispensed with.

[d] However, if the SS/DY.SS on the Block station immediately in rear of an intermediate Block Signal is aware that UP/DN intermediate Block Signal is defective shall before Dispatching a train shall verify that all trains which had left his Block Station had arrived complete and intact at PUN/KBM station (by exchanging Private Number with SS/Dy.SS PUN/KBM Stations) shall press the resetting button of Axle counter equipment. Thereafter locopilot shall be handed over the authority of T-369[3b] to pass IBS Signal at "ON" position where in, the Private Number and Identification number obtained for line clear, shall also be written. The use of this re-setting push button is registered on the veeder counter and SS/DY.SS should record this usage giving details of the occasion with timings in the veeder Counter/register and also train registers.

[E] **INDICATION CUM RESETTING PROVISION IN THE VDU AT NWP**:

The VDU Provided for following light indications:

a) Yellow indications for the track- circuited portion by Axle Counter, which remain normally lit to indicate that the track is clear. These lamps extinguish no sooner the train passes the last stop signal and their place red indication are lit to indicate that the track is occupied.

b) Red indications for the last stop signal replacement track circuit which remain lit so long this track- circuit is occupied or in under failure condition.

c) Red indication ahead of the IBS Signal, which are lit if the train passes the IB signal in "ON" Position. These indications continue to glow till such time the lock and block working is resumed through emergency re-setting feature.

d) Red indications just ahead of IBS Signal for the IBS signals replacement track circuit. These indications normally remain yellow and are lit either during occupation by a train or during failure of this track circuit.

e) red indications for the block section for receiving trains. These indications shall normally remain yellow indications and shall be lit only when the incoming train passes the IBS signal. It remains lit till such time train arrives fully and Block Instrument is normalized.

q] RE SETTING PROVISION IN THE VDU AT NWP STATION:

For resetting of I.B. Axle counter please refer Para No: 5.1 of Appendix 'B' of this SWR

r] SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBH AT 'ON' POSITION:

I] In case train run away indication appears the SS/Dy.SS receiving Station shall not turn the block instrument handle to line clear position and SS/Dy.SS at

sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

II] Every case of a train passing IB signal at 'ON' position without strictly following the provision of GR 3.75 should be treated as a breach of block rule by the locopilot and action to be taken accordingly.

III] When train run away indication appears at the Dispatching Station without any train in the section, the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after duly taking line clear treating entire section as one Block section as per GR 3.75(4).

IV] when ever a train after having obtained line clear passes IBS (when not taken off) in "ON" position the train run away indication appears at the Dispatching station and train entering section indication appears at the receiving station, under such circumstances no further train shall be allowed in the section till the said train arrives completely at the receiving station i.e., station in advance, and its complete arrival received at the receiving station i.e. station in rear supported by Private Number treating the entire block section as single section.

V] If any train passes IB Signal at 'ON' position when there is a train in the Section between IBS and the station ahead, the train run away indication will appear at both receiving and Dispatching station. Under such circumstances the SS/Dy.SS in the receiving station shall not turn the Block instrument to Line Clear position and SS/Dy.SS at sending station shall not take action to dispatch the (3^{rd}) train, unless the 2^{nd} train which passes the IBS in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

VI] Permission button icon to be pressed for the run away train by only after verifying that the last vehicle of the run away train has arrived in tact and ensured by exchange of private number with the SS/Dy.SS of the sending station. In case of failure of Axle Counter equipment at the sending station, permission button may also be pressed for normalizing the system only after verifying that there is no train in the section and after duly exchanging Private number with the SS/Dy.SS of the sending station.

VII] Whenever a train run away indication appears when there is a train in the section, no further train should be allowed in the section till resetting is done as per item No.30.3 above.

VIII] Before any re-setting operation is done, the Dispatching station should advise the receiving station giving details of the last train that has entered the section and should ensure by exchanging of private number that the last train has arrived complete at receiving station.

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

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

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1	2	3	4	5	6	7

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

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

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

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

II] In case the bottom needle of the SGE type block instrument is in its 'Line closed' position action should be taken to turn the block instrument comutator to 'TOL' Position vide BWM 5.16(2)(iv) and must not turn to "Line closed" and then to "Line clear" position unless the train which had passed the "Intermediate Block Stop Signal" in the 'ON' position arrives complete and its complete arrival is verified.

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

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

I] After the complete arrival of the last train, according to the information received vide sub-para (b) above, the SS/Dy.SS of the block station in advance shall communicate the same to the SS/Dy.SS of the station in rear supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the SS/Dy.SS of the dispatching station and the

SS/Dy.SS of the receiving station shall operate the 'Resetting ' and 'reset' panel respectively in conjunction. This simultaneous operation will cause the 'counter' to 'reset panel' at the dispatching station to illuminate then the Station Master

shall operate the push button which in turn will record the next higher number in the counter at the cabin.

II] the SS/Dy.SS of the Block Station in advance shall then take steps or authorized Station Master of the receiving end cabin supported by a Private Number to normalize the block instrument.

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

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

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

(b) In the event of failure of IBS signal No. "28" on down line between NWP-PUN, the same signal shall be treated as gate signal at L.C Gate 695/3-5 failed accordingly a caution order shall be given to all trains to stop at 30 meters and obey the signals exhibited from the gate man or ensure the closure of gate against road traffic and shall proceed giving continuous whistles.

(C) In the event of failure of IBS signal No. "29" on UP line between NWP-KBM, the same signal shall be treated as gate signal at L.C Gate 707/19-21 failed accordingly a caution order shall be given to all trains to stop at 30 meters and obey the signals exhibited from the gate man or ensure the closure of gate against road traffic and shall proceed giving continuous whistles.

t] **RUNNING OF MOTOR TROLLYS ON IBS ZONE:**

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

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

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

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

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

SIGNAL POST TELEPHONE:

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

NORMAL POWER SUPPLY TO IBS GOOMTIES AT KM 695.175 AND AT KM 707.641:

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

EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'G'

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS

Details of the working for 25 KV AC Traction of NWP station.

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EAST COAST RAILWAY
WALTAIR DIVISION

APPENDIX 'H'
WORKING INSTRUCTIONS OF TRAINS BETWEEN NWP-GNPR ON ONE TRAIN ONLY SYSTEM

1. **Working of trains:**

Trains under ONE TRAIN ONLY system shall work in terms of G&SR 13.01.

2. **Essentials of ONE TRAIN ONLY system:**

Under this system only one train shall be in section between NWP-GNPR vide GR 13.02.

3. **Authority to proceed:**

A metallic badge with inscription thereon as per SR 13.03.01 will be authority for the loco pilot. In lieu of metallic badge, a line clear ticket can also be issued for the loco pilot by the SM/NWP, which shall be valid till the train return back to NWP vide SR 13.03.01.

4. **Level crossing gates intervening between NWP-GNPR:**

All the manned level crossing gates intervening between NWP-GNPR are required to be closed against road traffic. Before the departure of train from NWP, the SM/NWP will inform gateman of NG-6 and NG-8 LC gates through Bentron regarding the actual departure and expected arrival of the train at the gates and the gateman of NG-31 shall inform NG-37 and in the same manner to the other gates NG-38 , NG-39 and NG-55 also. While returning from GNPR, the Guard of the train will inform SM/NWP through BSNL phone well in advance about the expected departure of the train. The same message will be informed to all gateman of LC gates by SM/NWP. The Loco pilot shall stop the train at 30 Mtrs. short of the LC gate for which 'Stop' board will be provided. The Engg. Gateman, after ensuring that the gate is closed, will exhibit proceed hand signal. The Loco pilot will start the train after receiving proceed hand signal. After passage of the train, gateman shall open the Gate for passage of road traffic. As a back up VHF communication is also provided at the manned LC gates. In case SM/NWP is not able to contact the gateman through BSNL phone, VHF sets will be used for indirect communication between LC gate and SM/NWP.

SM/NWP shall issue caution order to the crew and guard of trains leaving NWP towards GNPR clear by mentioning the BSNL phone numbers of all the intervening manned LC

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gates, CUG No of SMR/NWP, section controller and crew controller.

5. **Shunting:**

Guard is authorized to supervise shunting vide SR 5.13.03. When the train is brought to a stand at GNPR station, before detaching the engine, the loco pilot shall seek permission from the Guard, who shall satisfy himself that the hand brakes are tightened and then grant permission for detaching engine. The TPM/NWP shall accompany the engine with clamps, padlocks & safety chains. He will uncouple engines from the train and will attach the engine on train. The Guard and Loco pilot shall be jointly responsible for checking the adequacy of brake power of the train following the rules laid down in SR 4.31.03. The train will proceed back to NWP with the authority vide SR 13.03.01. Before the schedule return of the said train it shall be ensured by the SM/NWP to set the correct route and take off Reception signal. SM/NWP shall not obstruct the line which is nominated for the train to return back from GNPR.

6. **Accident:**

In the event of any accident on said line the guard/loco pilot of the said trains shall observe GR 13.04 and relevant SRs and intimate the fact to the SM/NWP after protecting the train in terms of provisions under GR 6.03 and relevant SRs.

7. Messages of accidents or unusual incidents shall be communicated through any means of communications available.

8. In the event of failure of any communication SR 13.04.01 shall be observed.

9. It shall be the duty of the loco pilot and guard of the train under one train only system to stop his train at all the passenger halt stations as nominated for such period as specified with consideration to passengers boarding.

10. During the stay at GNPR the working LP, ALP, Guard and TPM will avail rest at the nominated accommodation and work the train as per schedule.

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EAST COAST RAILWAY

WALTAIR DIVISION

APPENDIX- ‘G’

TO

SWR

OF

NAUPADA STATION

STATION WORKING RULES FOR 25 KV A.C ELECTRIC TRACTION

NAUPADA STATION YARD

1. GENERAL & SUBSIDIARY RULES :

i) The rules applicable to Electrified Section have been given in Chapter XVII of the General Rules and in the Subsidiary rules made hereunder for Electric traction. The General principles governing operation and maintenance of Traction Overhead Equipment, Electric Locomotives, Signal & Telecommunications installations have been given in the A.C. Traction Manual. These rules books and an extract of the relevant paras of A.C. Traction Manual, shall be kept in each station and yard office and all the staff dealing with staff working shall make themselves thoroughly familiar with the same (GR 17.01).

ii) Brief reference to important rules required to be followed by Station / Yard staff in their day to day work has been given in this Appendix. These are, however, illustrative and not exhaustive.

2. GENERAL SAFETY PRECAUTIONS :

i) All staff are warned that contact with or very near (within 2 meters, unless protected by a screen as per rules) to live portion of the 25 KV Traction Overhead Equipment is dangerous and shall be strictly avoided.

ii) No work on overhead lines or in the zones within two meters, of any live equipment shall be carried out unless a regular 'permit to work' is obtained from the authorized Traction staff and line is made dead and earthed as per rules (GR 17.04) ACTM 20600 to 20619 Vol.II Pt.I.

3. SECTIONING DIAGRAM(Station Working Rules Diagram for Electric Traction)

i) A Diagram No. WAT/TRD/SWR/235/12 indicating schematically the lines which have been equipped with for Electric traction is exhibited. The diagram also indicates different electrical stations (Sectors, Sub-Sectors or Elementary sections) the Controlling Switches (Isolator Switches or Interrupters) Insulated Over laps and Section Insulators where the over head equipment is electrically separated. The limits of an Electrical section (Sub-Sector or Elementary Section) and are indicated by relevant section. A copy of this diagram is also enclosed with these special working rules and will form part of the same.

ii) For all purposes connected with train movements and power blocks, this diagram is the only authorized document to be referred to. The normal position of various switches is indicated on the diagram.

4. UNWIRED TRACKS : No electric locomotive with pantograph raised shall under any circumstances be taken to an un wired section.

5. OPERATION OF SWITCHES :

I) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller except in respect of Switching operations for local blocks, which may be carried out by authorized traction staff, after they have been granted local block by the Station Master or Assistant Station Master accordance with GR 17.04.09 and ACTM 20600,20601, Vol.II Pt.I.

II) "In case of emergency, Authorized and trained station staff may open Isolator switches under specific instructions of the Traction Power Controller (GR.17.04.14-B) with exchanging of Private Nos. to perform the operations of the following isolator switches as well as any other isolators within the station limits".

Sl. No.	Isolator No.	Loc. No.	Sl. No.	Isolator No.	Loc. No.
1	SM 146	701/39	2	SM-147	701/1
3	SM-148	700/26	4	SS-217	702/4N
5	SS-369	702/2A	6		

6. POSITION OF SWITCH HANDLES :

When a switch is in the closed position, the operating handle of the Switch is at the top.

7. LOCATION OF KEYS OF SWITCHES : The keys for the padlocks of various isolator switches are kept in the ASM's Office in a box with a glass mounted cover (GR 17.04.13). The Station Master shall daily check the locks on switches within the station limits and report any defect or deficiency to the Traction Power Controller.

8. PROCEDURE AND PRECAUTIONS FOR OPERATING ISOLATORS :

The procedure for Operation of Isolator Switches have been given in and GR 17.04.15 and SR 17.04.14 (b) which must be rigidly observed.

Isolator switches may be opened only after ensuring : -

A) If the Isolator switch is on the main line that the adjacent interrupters on either end of Isolators switch have been opened.

B) If the Isolator switch is controlling supply to yard lines, that either the Elementary Section controlled by the Isolator switch is free of raised pantographs of Electric Locomotives, on the Interrupters controlling the supply to the yard lines in question are open (GR.17.04.15).

9. POWER BLOCKS :

i) The detailed procedure for obtaining Power Block has been given in (GR.17.04.02, 17.04.03 & 17.04.04) ACTM 20603, 20604, 20611, 20612 & 20613 which must be rigidly followed except in case of emergency.

ii) The sequence of switching operations for granting and canceling the Power block for particular section, are included in the Annexure. These shall be strictly followed by all staff. Failure to follow the sequence indicated, is likely to lead to dangerous consequences. When any isolator switch is changed from its normal position, for staff to work in over head equipment, a danger board shall be exhibited on the switch with the caption "DANGER MEN WORKING". An adequate number or such Danger Boards have been provided at each stations.

10. PROTECTION AT THE TIME OF POWER BLOCK :

i) All sections over which a power block has been granted shall be protected against the entry of Electric Locomotives with pantograph raised from either end during the period (GR 17.04) and ACTM 20620, 20621 to 20627 Vol.II Pt.I strict enforcement of longitudinal and transverse, protection as per the Annexure attached shall be ensured before imposing power block. If there is / are locomotive on the section over which the power block to be given, the Loco Pilot of such, locomotives shall be given a memo by the Station Master on duty or authorised Traction staff to lower the pantograph and not to raise it until further instructions and an acknowledgement shall be obtained. The Loco Pilots shall not be given instructions to raise the pantograph still the power block is cancelled.

ii) Station master or station staff conducting shunting operation with electric locomotive will ensure that under no circumstances any electric locomotive approaches near the traction structure limiting electrical sections power with the power block may be granted. Limits of each electrical section at a station are shown in the station sectioning diagram.

11. SECTION INSULATORS : In order to insulate main and loop lines on different grid in the yard, cross over / turn out connecting main and loop lines or different grids of the yard are provided with section insulators, so that, when one line / or grid is made electrically dead and there be any fault on the same, the other line / grid is not affected. The speed of the electric locomotives with pantograph raised over such section insulators shall not exceed 50 KMPH subject to other speed restriction which may be in force. When one of two sections separated by a Section Insulator is dead, the pantograph of the electric locomotive on the live section shall not proceed closer than 30 feet (10 meters) towards the section insulator marking the end of the dead section.

12. BREAK DOWNS OF TRACTION OVER HEAD EQUIPMENTS : All the break downs or defects noted or reported on the Traction Overhead Equipment or any other traction equipment including bonding, shall immediately be reported to the Traction Power Controllers (GR 17.03.02) ACTM 20605 Vol.II Pt.I. Necessary caution order should be issued to the Loco Pilot concerned as directed by the Traction Power Controller observing the existing rules regarding issue of Caution Orders.

13. REGISTER OF MESSAGES : All messages relating to faults on the Traction over head equipment, operation of switches custody of keys of out-door switches and other important communications in connection with the operation and maintenance of Traction Overhead Equipment shall be recorded serially in a register by both the sender and the receiver indicating the time at which the messages are received of exchanged (GR 17.04.12) ACTM 20610 Vol.II Pt.I.

14. MOVEMENT OF OTHER THAN ELECTRIC TRAINS

Goods or Passenger trains hauled by other than electric locomotives may be allowed to pass through the dead section subject to the following conditions :-

(a) This has not been prohibited specifically in the power block message.

(b) Other than Electric trains hauled by such engines shall be brought to a stand at the station preceding the station/section at which power block is granted and the Station Master or this station shall satisfy himself by personal inspection that there is no electric locomotive in the train.

(c) He shall also give a Caution Order to the Loco Pilot of such engine or train, warning him of the power block ahead and instructing him to watch for hand signals and observe them.

(d) No Station Master shall give line clear or lower signals for a train to run over a section under power block unless he has received an assurance (supported by Private Number) from the Station Master of the preceding station that there is no electric locomotive or Inspection Car with pantograph raised in the train. (ACTM 20627 Vol.II Pt.I.)

Note : For purpose of this Rule a Dead Electric Engine dispatched as a vehicle shall not be considered as a Electric Locomotive.

15. ELECTRIC LOCOMOTIVE : Provisions included in A.C. Traction Manual must be completed with in case of double heading or banking by electric locomotive and precautions indicated therein must be complied with when dispatching locomotive ACTM 30636 Vol.III.

16. ESM : Any direct contact or close proximity to 25 KV line conductors is dangerous, the station ESM climbing up the Signal post for removing or fixing or cleaning the signal should not carry any long article which may accidentally touch or come in close proximity to live conductors. The ESM shall also be warned against bringing any part or body near live conductors.

17. WORK ON ROOF OF ROLLING STOCK :

No person shall climb on to the top of engine or tenders or on the roofs of carriages or wagons, when these vehicles are located beneath, overhead equipment except, when a regular ' permit to work' has been obtained from authorized traction staff and the overhead equipment is dead and earthed (GR 17.05 (02), at ACTM 10402 & 10403 Vol.I)

18. BLOCK INSTRUMENTS OR ANY OTHER ELECTRICAL,SIG.EQUIPMENT:

The Station Master or cabin man on duty must always watch for any unusual working in the Block Instrument or any other Signaling equipment which may arise due to voltage induced from the Traction system. The block instrument or the signaling equipment must be suspended whenever there is any signs of unusual working and the nearest Signal & Telecon Maintenance Inspector contacted to inspect and certify the same. In the event of break of catenary, the Station Master must immediately check up whether all block and Morse signaling equipment are working normal before permitting any train movement (ACTM 10430 Vol II)

19. TELECOMMUNICATION CIRCUITS :

The details of the Telecommunication facilities available on the electrified sections and the use of the same have been given to ACTM 10213, 10429 VolI, 20703 Vol .II Pt.I

20. ELECTRIC SHOCK :

The Station Masters shall exhibit prominently the instructions issued regarding the treatment to persons suffering from Electric Shock. In the Station, he shall ensure that all class-III staff are familiar with these instructions.

21. F I R E : Regarding Fire on or adjacent to any Electrical equipment refer GR 6.10 & SR there to

22. Nothing in these rules amends or supersedes any general or subsidiary Rules or instructions included in A.C. Traction Manual. These working rules shall be read as supplement to the aforesaid Rule books and also to the existing station working rules of the station.

23. AMENDMENTS FOR SUPPLEMENTARY CORRECTION SLIPS :

Any amendment to these working rules or any of the Annexure will be notified by Correction slip to the Station Working Rules. The correction slip will be serially numbered and it is the responsibility of SM in charge of a station to bring the contents to the notice of the staff concerned and take their acknowledgement.

24. CONTINUOUS WATCH BY INSPECTING STAFF : The inspecting staff of operating, Telecommunication and Traction Department , shall make regular checks at all points to which these special working rules are supplied to ensure that the rules corrected up to date and the staff concerned are fully conversant with the rules and abide by them.

NOTE : Whenever the codes "GR" and "SR" appear in these special working Rules please refer to the General and Subsidiary Rules for 25 KV A.C. Electric Traction, Chapter-XIX.

OPERATING STATION WORKING ON A.C. TRACTION AREA.

DO(s) AND DON'T(s)

A) FOR ALL STAFF :

(a) DO(s) :

1. In case of fire on Electric Traction equipment or wires
   - i) Inform Traction Power Controller.
   - ii) Extinguish Fire by Special extinguishers if available.
   - iii) Ensure no water jet is used under any circumstances.

2. Anything unusual on Traction wires or electric locomotives inform Traction Power Controller of nearest Station Master.

3. In any emergency speak to Traction Power Controller on emergency Telephone system (Sockets for connecting emergency Telephone) are provided at interval of approximately every Kilometer and defection to nearest socket is indicated on OHE Mast.

(b) DON'T(s) :

1. Do not approach within a range of 2 meters (Approx. 7 feet of any traction wires on line equipment)
2. Do not work on or near Traction wires or any line equipment unless they are made dead, earthned and 'Permit to Work' obtained from an authorized traction staff.
3. Do not permit unauthorized persons to operate any equipment even if it be for making it dead.
4. Do not disturb any earthing bonding' or tractions wires.
5. Do not enter any switching station or remote control center unless specially permitted and accompanied by authorized Traction staff.
6. Do not attempt to turn the person in contact with live traction wire either by touching him or with the help of wooden bamboo pole or by grabbing his clothing or with the help of rubber gloves if or any other means. Under such conditions contact the TPC switch off the power supply and remove the person in contact with the live traction wire by using wooden bamboo pole on by grabbing his clothes or with rubber gloves if available only after ensuring from TPC that the power supply has been switched off.
7. Do not forget to give artificial respiration to the victim.

B. FOR RUNNING STAFF :

(A) DO(s)

1. Avoid slipping of wheels
2. Load coal or oil in loose outside the electrified zone only.
3. Keep a safe distance of two meters (7 feet) from Traction wires while working on the locomotives.

(B) DON'T (s) :

1. Do not lift or raise your tools towards traction wires, (keep the tools in their respective position immediately after use).
2. Do not load coal on the engine tender to a height more than 4 mtrs. above rail level.
3. Do not take electric locomotive with raised pantograph to any unwired line, power block working limit or near the section insulators at the end of section under power block.
4. Do not climb on the locomotive (of any type) on the engine tender for any purpose, while under traction wire unless power is cut-off and permit to work obtained (for watering, use the water column from the ground with the special device provided for this purpose and open tank over by the special devial device provided).
5. Do not place a steam locomotive with chimney directly opposite a traction mast or under any insulator or under bridge.
6. Do not allow long articles like fixing rod, shovel or any other thing to protrude above the engine while on electrified tracks.
7. Do not direct any jet or spray towards the traction wires (Jets of water, if necessary may be used horizontally of size the safety zone of 2 Mtrs (7 feet).

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C) FOR STATION MASTER :
(A) DO (s) :

1. Ensure all staff are conversant with safety precautions.
2. Report defects in traction wires or any electric locomotives of Electric Multiple Unit promptly to the traction power controller.
3. Keep sufficient number of button collars and ensure safety understand their use.
4. Ensure fitting of button collars to the points and signal buttons which give access to selection under power block.
5. Observe procedure given in Station Working Rules for 25 KV A.C. Electric Traction while operating Isolator switches.
6. Ensure safe custody of isolator switch keys.
7. Ensure that traction power staff protect sections from all directions by banner flag during power block
8. Suspend working of block and signals if single of unusual working are noticed always check block instruments and signaling equipment seen by breakdown in traction wires occurs.

(B) DON'T (s) :

1. Do not permit an electric locomotive or multiple unit with raised pantograph to approach any section under power block beyond (Power block) working limit or near section insulators.
2. Do not permit any crane to work adjacent to live with traction wires.
3. Do not permit your staff to approach live traction wires within the danger zone of 2 mtrs. (approximately 7 feet)
4. Do not permit electric locomotive with raised pantograph to enter any unwired section.
5. Do not take off signals for direct reception for any electric engine or train, if there is a power block within the adequate distance of the signal.

NOTE : This Appendix-G supersedes the previous appendix-G.

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ANNEXURE TO APPENDIX 'G'

Station Working Rules for NAUPADA for 25 KV AC Traction

These Rules are to be read along with existing Station Working Rules and Annexures

These rules apply only to Electric trains or Electric engines considered as such and indicated the protection required to prevent them from entering a sector, sub-sector OR an elementary section, over which a POWER BLOCK exist.

Sl. No.	Description of Electrified Section	Steps for precautions to be taken during Power Block in respect of Electric Locos Hauling Trains or running Light or Standing with Pantograph raised		Sequence of Switching Operation for granting Power Block	Sequence of Switching Operation for restoring Power
		Longitudinal Protection	Transverse Protection		
1	2	3	4	5	6
A)	SECTORS				
1.	Sector between NAUPADA/TSS – PALASA/SP on UP & DN Lines (E/S 12002,12004,12402 12404 and 12101 12103,12105 12301 and 12303)	1)Movement of Electric Trains / Locos shall not be permitted into NAUPADA-PUNDIDI Section & NAUPADA-Kotabommali Section on UP & DN Lines. 2)Necessary UP & DN Reception / Dispatch Signals shall be kept at ON.	NIL	1)Ensure no Electric Loco is stabling with its panto raised position. 2)Ensure BM/127 & BM/128 are in open position at PALASA/SP. 3)Open BM/120 & BM/121 at NAUPADA/TSS.	1)Close BM/120 & BM/121 at NAUPADA/TSS.
2.	Sector between NAUPADA/TSS – ULM/SP on UP & DN Lines (E/S11802,11804,11602, 11604,11402,&11404 and1901,11903,11701, 11703,11301 &11303)	1)Movement of Electric Trains/Locos shall not be permitted into NAUPADA-KBM Section on UP & DN Lines. 2)Necessary UP Dispatch and DN Reception Signals shall be kept at ON.	NIL	1)Ensure no Electric Loco is stabling with its panto raised position. 2)Ensure BM/109 & BM/110 are in open position at ULM/SP. 3)Open BM/118 & BM/119 at NAUPADA/TSS.	1)Close BM/118 & BM/119 at NAUPADA/TSS.

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1	2	3	4	5	6
B)	SUB-SECTORS				
1.	DN Sub-Sector between NAUPADA/TSS – KMB/SSP on DN Line (Elementary Section Nos. 11802 & 11804)	1)Movement of Electric Train/Locos shall not be permitted into section NAUPADA-KBM on Down Line. 2)Necessary DN Reception Signals shall be kept at ON.	NIL	1)Open BM/118 at NAUPADA/TSS. 2)Open BM/116 at KBM/SSP.	1)Close BM/116 at KBM/SSP. 2)Close BM/118 at NAUPADA/TSS.
2.	UP Sub-Sector between NAUPADA/TSS – KBM/SSP on UP Line (Elementary Section Nos. 11901 & 11903)	1)Movement of Electric Train/Locos shall not be permitted into NAUPADA-KOTABOMMALI Section on UP Line. 2)Necessary UP Dispatch Signals shall be kept at ON.	NIL	1)Open BM/119 at NAUPADA/TSS. 2)Open BM/117 at KOTABOMMALI/SSP.	1)Close BM/117 at KOTABOMMALI/SSP. 2)Close BM/119 at NAUPADA/TSS.
3.	DN Sub-Sector between NAUPADA/TSS – PUNDI/SSP on DN Line (Elementary Section Nos. 12002, 12004 , X-217&x-369)	1)DN Trains shall not be admitted / dispatched to / from DN Main and Common Loop (i.e. Line Nos. 3 and 4) 2)UP Trains shall not be received / dispatched to / from Common Loop i.e. Line No. 4. 3)Necessary DN Reception and Dispatch Signals shall be kept at ON. 4)Necessary UP Reception and UP Dispatch Signals of Common Loop i.e. Line No. 4 shall be kept at ON.	1) Point Nos. 31A&B and 32A&B shall be kept in Normal Position. .	1)Ensure that no electric loco is stabling with its panto raised position on Line Nos. 3, 4 and Stabling Line. 2)Open BM/120 at NAUPADA/TSS. 3)Open BM/124 at PUNDI/SSP.	1)Close BM/124 at PUNDI/SSP. 2)Close BM/120 at NAUPADA/TSS.

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1	2	3	4	5	6
4.	UP Sub-Sector between NAUPADA/TSS to PUNDI/SSP on UP Line (Elementary Section Nos. 12101, 12103 & 12105)	1)Movement of Electric Trains / Locos shall not be permitted on NAUPADA-PUNDI Section on UP Line and in NAUPADA Yard on Line Nos. 1 and 2. 2)Line clear shall not be obtained from KOTABOMMALI for dispatch of trains on UP Line. 3)Necessary UP Reception and Dispatch Signals shall be kept at ON.	1)X-over Point Nos. 32A&B at South End shall be kept in Normal Position. 2)X-over Point Nos. 31A&B at North End shall be kept in Normal Position.	1)Ensure that no electric loco is stabling with its panto raised position on Line Nos. 1 and 2. 2)Open BM/121 at NAUPADA/TSS. 3)Open BM/123 at PUNDI/SSP.	1)Close BM/123 at PUNDI/SSP. 2)Close BM/121 at NAUPADA/TSS.
C)	<u>ELEMENTARY SECTIONS</u>				
1.	DN Elementary Section No. 11802 between NAUPADA/TSS to SM/143 at KOTABOMMALI Yard on DN Line	1)Line clear shall not be granted to KOTABOMMALI for Trains on Down Line. 2)Necessary DN Reception Signals shall be kept at ON. 3)There shall not be any shunt movement on DN Line at South End of the Yard beyond DN Home Signal.	NIL	1)Open BM/118 at NAUPADA/TSS. 2)Open BM/116 at KOTABOMMALI/SSP. 3)Open SM/143 at KOTABOMMALI Yard. 4)Close BM/116 at KOTABOMMALI/SSP.	1)Close BM/118 at NAUPADA/TSS. 2)Close SM/143 at KOTABOMMALI Yard.

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1	2	3	4	5	6
2.	DN Elementary Section No. 12002 between NAUPADA/TSS to SM/148 on DN Line (i.e. On Line No. 3,4 &5) (E/S X-217& x-369 i.e. Stabling Line also gets blocked)	1)Line clear shall not be granted to KOTABOMMALI for Trains on Down Line. 2)Line clear shall not be obtained from PUNDI for Trains on Down Line. 3)Necessary DN Reception and Dispatch Signals shall be kept at ON. 4)Up Trains shall not be admitted / dispatched to / from Common Loop i.e. Line No. 4 &5. 5)Up Reception / Dispatch Signals for Common Loop i.e. Line No. 4&5 shall be kept at ON.	1)X-over Point Nos. 32A&B at South End shall be kept in Normal Position. 2)X-over Point Nos. 31A&B at North End shall be kept in Normal Position.	1)Ensure that no electric loco is stabling with panto raised position on Line Nos. 3, 4 and Stabling Line. 2)Open BM/120 at NAUPADA/TSS. 3)Open BM/124 at PUNDI/SSP. 4)Open SM/148 at Loc. No. 700/26. 5)Close BM/124 at PUNDI/SSP.	1)Close BM/120 at NAUPADA/TSS. 2)Close SM/148 at Loc. No. 700/26.
3.	DN Elementary Section No. 12004 on DN Line between NAUPADA-PUNDI Section (Between SM/148 at NAUPADA Yard to BM/124 at PUNDI/SSP)	1)Line clear shall not be obtained from PUNDI for Trains on Down Line. 2)DN Trains shall not be dispatched from Yard. 3)Necessary DN Dispatch Signals shall be kept at ON.	NIL	1)Open BM/120 at NAUPADA/TSS. 2)Open BM/124 at PUNDI/SSP. 3)Open SM/148 at NAUPADA Yard Loc. No. 700/26. 4)Close BM/120 at NAUPADA/TSS.	1)Close BM/124 at PUNDI/SSP. 2)Close SM/148 at NAUPADA Yard Loc. No. 700/26.
4.	Elementary Section No. X-217 on Over Run Line cum Stabling Line at South End	1)Shunting of Electric Trains / Locos on Over Run Line cum Stabling Line at South End of the Yard is prohibited. 2)Necessary Shunt Signals shall be kept at ON.	1)X-over Point Nos. 36A&B and D/S Point No. 40 at South End shall be set to against entry of trains on ORL Cum Stabling Line.	1)Ensure that no electric loco is stabling with its panto raised position on Over Run Line cum Stabling Line. 2)Open SS/217 at Loc. No. 702/4N.	1)Close SS/217 at Loc. No. 702/4N.

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1	2	3	4	5	6
5.	UP Elementary Section No. 11901 on UP Line Section NAUPADA-KOTABOMMALI (Between NAUPADA/TSS to SM/142 at KOTABOMMALI)	1)Line clear shall not be obtained from KOTABOMMALI for trains on UP Line. 2)Up Trains shall not be dispatched from Yard. 3)Necessary UP Dispatch Signals shall be kept at ON.	NIL	1)Open BM/118 at NAUPADA/TSS. 2)Open BM/117 at KOTABOMMALI/SSP. 3)Open SM/142 at KOTABOMMALI Yard. 4)Close BM/117 at KOTABOMMALI/SSP.	1)Close BM/118 at NAUPADA/TSS. 2)Close SM/142 at KOTABOMMALI Yard.
6.	UP Elementary Section No. 12101 on UP Line (Between NAUPADA/TSS to SM/146)	1)Line clear shall not be obtained from KOTABOMMALI for trains on UP Line. 2)Up Trains shall not be dispatched from Yard. 3)Necessary UP Dispatch Signals shall be kept at ON.	1)X-over Point Nos. 32A&B at South End shall be kept in Normal Position.	1)Open BM/121 at NAUPADA/TSS. 2)Open BM/123 at PUNDI/SSP. 3)Open SM/146 at Loc. No. 701/39. 4)Close BM/123 at PUNDI/SSP.	1)Close BM/121 at NAUPADA/TSS. 2)Close SM/146 at Loc. No. 701/39.
7.	UP Elementary Section No. 12103 on UP Main & UP Loop i.e. Line Nos. 1 and 2 (Between SM/146 to SM/147)	1)UP Trains shall not be received on UP Main & UP Loop i.e. Line Nos. 1 and 2. 2)UP Trains shall not be dispatched from UP Main & UP Loop i.e. Line Nos. 1 and 2. 3)Necessary UP Reception and UP Dispatch Signals for UP Main and UP Loop i.e. Line Nos. 1 and 2 shall be kept at ON.	NIL	1)Open BM/121 at NAUPADA/TSS. 2)Open BM/123 at PUNDI/SSP. 3)Open SM/146 at Loc. No. 701/39. 4)Open SM/147 at Loc. No. 701/1. 5)Close BM/123 at PUNDI/SSP. 6)Close BM/121 at NAUPADA/TSS.	1)Close SM/146 at Loc. No. 701/39. 2)Close SM/147 at Loc. No. 701/1.

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1	2	3	4	5	6
8.	UP Elementary Section No. 12105 between NAUPADA-PUNDI Section on UP Line (Between SM/147 at NAUPADA to BM/123 at PUNDI/SSP)	1)Line clear shall not be granted PUNDI for Trains on UP Line. 2)Necessary UP Reception Signals shall be kept at ON.	1)X-over Point Nos. 31A&B at North End shall be kept in Normal Position.	1)Open BM/123 at PUNDI/SSP. 2)Open BM/121 at NAUPADA/TSS. 3)Open SM/147 at NAUPADA Yard Loc. No. 701/1. 4)Close BM/121 at NAUPADA/TSS.	1)Close BM/123 at PUNDI/SSP. 2)Close SM/147 at NAUPADA Yard Loc. No. 701/1.
9	Elementary Section No. X-369 on line No.5 of Gunupur line.	1) Electric Trains/ loco shall not be admitted/dispatched from line-5.1)Shunting of Electric Trains / Locos on both ends of the line-5 2)Necessary reception, dispatch and Shunt Signals shall be kept at 'ON'.	1) Point Nos. 37A&B and 38A&B shall be kept in normal position.	1) Ensure that no electric loco is stabling with its panto raised position on Over Run Line cum Stabling Line. 2) Open SS/369 at Loc. No. 702/2A.	1) Close SS/369 at Loc. No. 702/2A.

I) NOTE :-

1. Points leading to unwired tracks shall not be used for movement of electric locos with pantograph raised.
2. For any unusual movement of electric locos the stationmaster on duty must refer to the station working rules, Diagrams of his Station and ensure that there is no chance of energising the section where power block has been granted.
3. Refer Drawing No. WAT/TRD/SWR/235/12
4. This Appendix-G supersedes the previous Appendix-G Drg. No. BKRE/OHE/WRD/NAUPADA/01.

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