

EAST COAST RAILWAY

Office of the
Chief safety officer,
Bhubaneswar.

No:- ECoR/SFY/Alert advice-33/2023/51

Date: 16.01.2024

To

The Divisional Railway Manager
KUR, SBP & WAT

ALERT MESSAGE-33

Sub:- Lesson learnt from recent accidents & unusual incidents.

The recent accidents/unusual incidents discussed as under happened due to casual approach, ignorance to safety rules, adoption of short-cuts and bad practices attributed to human failure.

A. Roll down of MELE (Loco No 28177 & 28565 WAG-7) and side grazed BCNHL at Nimpura (NYT) yard at 02:40 hrs in KGP Div of SER on 09.11.2023:-

1. While performing shunting of multiple loco in Nimpura Goods Yard (NTY), during the cab changing & handing over of charge from shunter to incoming crew, the multi loco got rolled down at a speed of 5 kmph and side grazed the BCNHL wagon resulting derailment of two wagons and loco infringing line No. 2 & 3.
2. Loco pilot (shunter) stable the locomotive on Line No.3 and supposed to change the cab towards KGP end for handing over charge to outgoing LP. During cab changing he has not ensured securing of the loco through skids and hand brakes of Loco.
3. Again without observing the proper procedure of cab changing he isolated the inlet and outlet cock, IP and LT cock and kept MU-2B valve in trail mode of the leading loco which will be rear after cab changing.
4. During changing of cab to trailing loco, he gave charge to the incoming LP outside the locomotive instead of inside locomotive violating the stipulated rule.
5. The incoming LP after entering into the driving cab open the inlet and outlet of SA-9 and A-9 and sent his ALP to open the LT and IP cock and kept MU-2B valve into leading position without applying SA-9 of leading loco and also not ensured the BC gauge pressure 3.5 kg/cm² and MR pressure 10 kg/cm².
6. LP proceeded to corridor to operate MU-2B valve as ALP complained for tightness of the MU2B knob. In the meantime, loco started rolling down towards KGP end and immediately LP came to driving cab and operated RS-valve and try to apply hand brake of loco but it could not be controlled and further dashed with the train No. HL BCN /TFGN/PHNJ causing derailment of loco as well as two nos. of wagons.
7. During cab changing of Electric loco the following guide lines as per technical circular no.02/23-24 of date 16.06.2023 issued by Principal ELTC/TATA which is as under to be adhered to:

A. CAB CHANGING PROCEDURE IN CONVENTIONAL ELECTRIC LOCOMOTIVES

i) Single Unit

1. Stop the Train / Loco. Build up MR pressure up to 9.5 Kg/cm² by closing BLCPD.
2. Keep SA-9 on application position; ensure 3.5 kg/cm² pressure in BC gauge and the physical application of Loco brakes.
3. Keep A-9 on release position.
4. Close A-9 and SA-9 inlet and outlet COCs.
5. Close the cab doors and windows before going to other cab.
6. Switch OFF all auxiliary switches, open VCB, lower pantograph, put MPJ to 'O', lock BL and remove all loco keys. Proceed to other cab.

In other cab, (which is to be working as leading cab).

7. Keep SA-9 on application position and A-9 on release position.
8. Open A-9 and SA-9 inlet and outlet COCs.
9. Unlock BL, raise pantograph, close VCB and start auxiliaries.
10. Ensure proper function of SA-9 and A-9 after changing cabs every time.
11. Loco brake power test to be done before starting the Loco.

Note: -On gradient section before leaving the cab, apply hand brakes of loco and apply wooden wedges.

ii) MU/Consist Unit

Driving Cab

1. Stop the train/loco. Build up MR pressure 9.5 kg/cm².
2. Keep SA-9 on application position and A-9 on Full-service position.
3. Ensure 3.5 kg/cm² pressure in BC gauge and the physical application of Loco brakes.
4. Apply hand brake/ wooden wedges towards falling gradient.
5. Do not change any pneumatic COCs position.
6. Open VCB, switch off all auxiliary switches, lower pantograph, put MPJ to "O", lock BL and remove all the loco keys. Proceed to other loco.

In the other loco (which is to be working as leading loco):

7. Apply loco brake through SA-9 and keep A-9 in release position.
8. Open A-9 and SA-9 inlet & outlet COCs. Ensure BC gauge is showing 3.5 kg/cm²
9. Put MU2B on „LEAD“ position, open BP charging L/T (A-8) cock and open IP cock.
10. Unlock BL, raise panto, close VCB, start auxiliaries.

Proceed to rear loco.

11. Change MU2B to „TRAIL“ position. Close L/T (A-8) cock, IP cock, inlet & outlet cocks of A-9 and SA-9. Keep A-9 on release position. Close the cab doors and windows.

Then return to leading loco.

12. Check the working of A-9 and SA-9.
13. Release hand brake/ remove wooden wedges of trailing loco, if applied.
14. Before moving loco, conduct loco brake power test.

B. CAB CHANGE PROCEDURE IN 3-PHASE ELECTRIC LOCOMOTIVES:-

i. Single Unit (E-70 & CCB 2.0)

1. Stop the train/loco. Apply Direct brake (SA-9) and ensure BC gauge is showing 3.5 kg/cm² (5.0 kg/cm² in WAP-5 Loco).
2. Ensure MR pressure up to 10kg/cm² (if required, hold BLCP in 'MAN' position).
3. Open 'VCB' and ensure LSDJ is glowing.
4. Lower the pantograph. Physically ensure it and 'U' meter should show '0'.
5. Move automatic brake (A-9) handle to Emergency position and ensure BP dropped.
 - ❖ **In E-70 brake system** - Put A-9 handle into 'Neutral' position and remove it.
 - ❖ **In CCB 2.0 brake system** - i) Move A-9 handle to FS & Lock it by locking pin.
ii) Change the position of MODE switch from LEAD to TRAIL.
6. Operate BL key from 'D' to 'OFF' and remove it.
7. CE will remain ON in Self hold mode for 10 mins. Parking brakes will apply (If provided). Release SA-9 handle. Close the doors and windows.
8. **Go to the other cab.** Apply direct brake (SA-9).
 - ❖ **In E-70 brake system** - Insert A-9 handle in Neutral position and keep it in 'Run' position.
 - ❖ **In CCB 2.0 Brake system** - i) Change the MODE switch position from TRAIL to LEAD. ii) Unlock the A-9 handle and bring A-9 handle from FS position to RUN position after LCD display OK to RUN.
9. Operate BL key from 'OFF' to 'D'. Raise pantograph and close VCB as per procedure.
10. Conduct loco brake power test.

ii) Multiple Unit (E-70 & CCB 2.0)-

1. Stop the train/loco. Apply Direct brake (SA-9) and ensure BC gauge is showing 3.5kg/cm² (5.0 kg/cm² in WAP-5 Loco).
2. Ensure MR pressure up to 10 Kg/cm² (If required, hold BLCP in 'MAN' position).
3. Open 'VCB' and ensure LSDJ is glowing.
4. Lower pantograph. Physically ensure it and 'U' meter should show '0'.
5. Move automatic brake (A-9) handle to Emergency position and ensure BP dropped.
 - ❖ **In E-70 Brake System** - Put A-9 handle into 'Neutral' position and remove it.
 - ❖ **In CCB 2.0 brake system** - i) Move A-9 handle to FS & Lock it by locking pin.
ii) Change the position of MODE switch from LEAD to TRIAL.
6. Keep feed pipe cock '136' in 'Close' position.
7. Operate BL key from 'D' to 'OFF' and remove it.
8. CE will remain ON in Self hold mode for 10 mins. Parking brakes will apply (if provided). Release SA-9 handle. Close the doors and windows.
9. Proceed to the other Loco's leading cab. Apply direct brake (SA-9).
 - ❖ **In E-70 brake system**- Insert A-9 handle in Neutral position and keep it in 'Run' position.

- ❖ In CCB 2.0 brake system - i) Change the MODE switch position from TRAIL to LEAD. ii) Unlock the A-9 handle and bring A-9 handle from FS position to RUN position after LCD display OK to RUN.
- 10. Operate BL key from 'OFF' to 'D'. Raise pantograph and close VCB as per procedure.
- 11. Keep feed pipe cock '136' in 'Open' position.
- 12. Conduct loco brake power test.

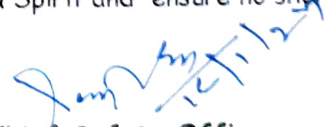
Note:-

- The control electronics remains in 'self-hold mode' for '10' minutes after putting BL key in 'OFF' position. Within this time cab changing is to be completed in 3-phase loco.
- After cab changing ensure the working of A-9 and SA-9 in working cab.
- After cab changing conduct 'Loco brake power' test.
- In case of 3 phase locos without parking brakes, on gradient section apply hand brakes of loco and apply wooden wedges, if necessary.

B. DERAILMENT OF EP AND FRONT POWER CAR OF TRAIN NO. 22433 AT PRYJ YARD ON 31.10.2023 AT 20.55HRS:-

1. On dt. 31.10.2023 train No. 22433 GCT-ANVT express arrived at PF No. 9 at 20:25hrs and departed at 20:45hrs with same EP No. 30117/WAP-5/GZB at DLI end. While train was passing line No. R&D-2 at 20:52hrs LP of train reported to power cabin about derailment of loco and LWRPM coach next to loco. Engine was found derailed by leading axle of leading trolley and both axle of trailing bogie. LWRRM coach was derailed by both axle (04 wheels) of leading DLI end bogie. No. injury to any passenger or railway staff reported.
2. A heap of 300mm height ballast was found along the R&D line No.2 (affected line). PQRS work was carried out in adjoining line No. 1 upto 16.00hrs by P.Way supervisors. CST 9 pots were also kept on the ballast.
3. During run, due to vibration; the CST 9 pots along with ballast came inside the track entangled with wheel obstructed the check rail which cause obstruction in movement of wheels of trailing bogie of loco resulting into lifting of wheels and derailment.
4. Engineering officials who are involved in PQRS and other Engineering maintenance/Renewal works at site should ensure clearance of the adjoining lines and proper clearance of ballast and other p way materials so as not to infringe the SOD parameters.

All section DTIs, CLIs, SSE/P.Way, SSE/TRD are advised to counsel the staff and monitor strict adherence of the instructions in letter & Spirit and ensure no short cut to be allowed under any circumstance.


Chief Safety Officer
Bhubaneswar

Copy to-

1. Secy. to GM for kind information of GM.
2. Secy. to AGM for kind information of AGM.
3. PCE, PCME, PCOM, PCEE, PCCM, PCSTE, PCSC & CAO (Con) for information.
4. Sr.DSO/ KUR, SBP & WAT for information & necessary action.
5. Principal MDTC/VSKP & MDZTI/BBS for information & necessary action.