

EAST COAST RAILWAY

Office of the
Chief safety officer
Bhubaneswar.

No:- ECoR/SFY/Alert advice-35/2024/189 Date: 18.03.2024

To
The Divisional Railway Manager
KUR, SBP & WAT

ALERT MESSAGE-35

Sub:- Lesson learnt from recent roll down of ballast train.

On 25.02.2024, there was a roll down of ballast (DMT) train loaded with 53 BOBYN from KTHU Station of JAT-JRC Electrified, double line "B" route section of FZR division in Northern Railway.

A. TRAIN PARTICULARS:-

- a. TRAIN NO:- Dn DMT-KTHU- BEAS LD,
- b. LOCO NO:- 13246+14806
- c. BPC NO:- 60000007226/PTK/FZR/NR of dt. 23.2.24 CC. Valid upto 23.03.24; Loaded at Kathua(KTHU) with ballast.

B. INCIDENT:- Initially ballast was loaded on Line No: 6 of KTHU Station. Shunting done and Load placed at Line No: 3 (DN main Line). The train was to be sent towards JRC side. After Shunting and placing load at Line No: 3, Power shut down & Load was stabled by the crew at around 5:40 hrs and Crew left the Engine as fresh crew was booked to clear the load. The Train started rolled down with multiple Diesel Loco at 7:06 hrs towards PTK end which was in 1:150 Down gradient and the train run at a speed of 72-75 KMPH passing MDPB station at 7.24 hrs. SJNP at 7.30 hrs., BHRL at 7.33 hrs., PTKC at 7.36 hrs., KNDI at 7.47 hrs, MRTL at 7.55 hrs., BNGL at 8.04 hrs., MEX at 8.14 hrs. & at UCB train stopped at 8.37 hrs. blocking fouling mark.

C. RELIEF DESCRIPTION: All LC Gates in the section from Kathua to JRC were closed. Train passed various stations at variable speed. As there is UP Gradient from Mukerian towards JRC, planning was done to stop train in loop line at Kala Bakra Station as it was anticipated that train will slow down. Due to UP Gradient train stopped itself on main Line at Unchibassi station at 8:37 hrs.

D. CAUSE OF ROLL DOWN:- The shortcuts and improper stabling procedure adopted by the crew and station staff violating the safety norms.

E. **LESSON LEARNT:-** In view of the above, precautions to be taken for stabling loads/trains and securing of vehicles/load/train/locomotives at stations as well as securing of trains stranded in block sections as per Railway Board Ltr. No. 2012/Safety(A&R)/19/1 dt. 24.02.2012 & other safety circulars/JPOs issued time to time are reiterated below for strict adherence in the field:

1. **Action by Station Master/Traffic Staff when vehicles/load/train is to be stabled at station running and non running lines except sick lines, Pit lines, departmental sidings :-**
 - a. The vehicles/load/train be chained and padlocked using at least two chains, one at either end (both ends) as per SR 5.23.01 (d) (i). As per SR 5.23.01 (d) (iii) every 20th one shall be chained in addition to the end vehicles and the end vehicles shall be secured by skids. The Safety chain shall be passed twice round the wheels and after tying the ends together they shall be locked so that no strain on the pad locks.
 - b. Coaching stock not fitted with hand brakes when not formed up as a train with brake vans coupled shall be secured by wedges/skids and safety chains in the manner described above.
 - c. At least four wooden wedges be used, two each below the outermost pair of wheels at either end (both ends);
 - d. Hand brakes of at least 6 wagons from either end (both ends) must be fully tightened (physically ensure the tight contact of brake block with wheel tread by kicking on foot). If hand brakes of any of the first 06 wagons at each end cannot be applied hand brakes of the subsequent wagons should be applied till 06 wagons in total are achieved.
 - e. In case coaching vehicles are stabled, Guard's hand brakes in SLR(s) must be applied fully. The hand brakes must be operated under the personal supervision of the Guard, and in the absence of Guard, by SM on duty. When coaching stock not fitted with guard hand brake; shall be secured with wedges/skids & chains.
 - f. The vehicles of stabled load/train should be coupled together. In case the stabled load has to be split for any reason, each such split part should be treated as a separate load for the purpose of securing;
 - g. The points must be set, clamped and padlocked against the blocked line and towards dead end or trap point (if available). Scotch blocks must be used, if available;
 - h. When scotch blocks or derails are provided vehicles shall be placed within them and the scotch blocks or derails locked across the line.
 - i. Stop Collars must be placed on relevant signals and point buttons/ slides/ levers etc.
 - j. Remarks should be made in TSR and/or SM diary in Red ink to the effect that 'Line No..... is blocked and all precautions for securing the load have been taken' as prescribed above;
 - k. After any load/train/locomotive is stabled, the station master must ensure and inform the section controller supported by private number that all laid down precautions for stabling and securing the load/train/loco have been taken.

1. In case of big yards, where vehicles remain stationary in the yard lines, other than running lines, the above precautions may be relaxed. However, hand brakes & skids shall be used in that end of the yard where the escaping of vehicles is apprehended. SR 5.23.01 d (viii).
2. Additional precautions to be taken while stabling vehicles/load/train at a station with gradient of 1 in 400 or steeper may have been prescribed under approved special instructions (by CRS) and mentioned in SWR of respective station. These should be followed scrupulously. In addition, following precautions must also be observed over and above those prescribed under approved special instructions:-
 - a. Before vehicles are uncoupled, the hand brakes should be applied, wooden wedges/skids, should also be used to prevent vehicles from rolling down;
 - b. As far as possible, the vehicles/load/train should be stabled on a line which is isolated from other lines, particularly running lines.
3. Action by Loco Pilot/Assistant Loco Pilot before leaving the locomotive in case load/ train is stabled with locomotive attached or light engine(s) is/are shut down or stabled:-
 - a. Application of both SA-9 and A-9 brakes;
 - b. In conventional locomotive Apply SA-9 and kept A-9 on emergency position. Close COC of SA-9 & A-9.
 - c. Application of hand brake and parking brake;
 - d. Secure the locomotive with at least four wooden wedges provided on the locomotive;
 - e. After shut down of the locomotive close all doors and windows. Keys of the locomotives (A-9 handle & BL key in 3-Ph locomotive and BL key, ZPT & Reverser handle in Conventional locomotive) may be handed over to incharge of the station/lobby supervisors.
 - f. Necessary entry may be done by Station Master in the stabling load register maintained at the station/lobbies duly signed by the LP/ALP/Shunter in prescribed column.
 - g. Shunter/LP, while taking over the charge of locomotive, should release the hand brake/parking brake and remove all the wooden wedges.
4. **The Loco Pilot /ALP /Shunter should not leave energized locomotive/s unmanned.** In case he is required to leave the locomotive unmanned, he should do so only after receiving written authority from the Station Master/Yard Master and ensuring para 3 (a), (b), (c), (d), (e) & (f) above; (Ref.-GR 4.61) Before leaving the station/yard, the Loco Pilot and Guard should jointly record in a register to be maintained with Station Master that the locomotive/s & load respectively has been secured as prescribed above.
5. **Action to be taken by Loco Pilot/Assistant Loco Pilot and Guard when the train is stalled in block section due to accident/failure/obstruction or any other reasons:-**
 - a. Loco Pilot/Assistant Loco Pilot and Guard should protect the train as per provisions of G&SRs 6.03.
 - b. The train should be secured by applying locomotive brakes (SA-9, A-9 & hand brake) and hand brakes of at least one-third of the wagons or 10 wagons behind the engine and 5 wagons inside the brake van which ever is more shall be pinned down (SR 6.04.02 d) The hand brake should be

operated by Assistant Loco Pilot from leading end and by the Guard from the rear end. In case the train is being worked without Guard, the duties of the Guard shall devolve on the Assistant Loco Pilot. In case of coaching trains, the Guard should apply hand brakes of the SLR in addition to the application of locomotive brakes by the Loco Pilot.

c. If MR pressure starts dropping while train is stationary, Loco Pilot has to secure the locomotive with the wedges. Since MR pressure cannot be noticed by Guard as there is no such gauge in SLR unlike engine, therefore, the Loco Pilot shall immediately inform the Guard regarding dropping of MR pressure and therefore the Guard will secure the train with at least four wedges in the last vehicle.

6. Station Staff, Guard, Crew and Section Controller should be aware of gradients at Stations/Yards/Sidings and block sections.

7. Those loads, which are stabled for longer period, daily securing of vehicles/wagons/coaches must be checked by competent Railway Servant as per the instructions of Station Master/Yard Master and endorsement of the checking may be done in charge book of Station Master.

8. Whenever, load has to be cleared, Guard, Points man and ALP, must ensure that all hand brakes have been released, all wooden wedges have been removed and all safety chains removed from the wagons/ coaches/ locomotives.

9. During shunting operations of attaching/detaching wagons/coaches in shunting line of the yard, if one portion of the wagons/coaches are to be stabled for longer period, wooden wedges should be placed immediately under the wheels of the wagons/coaches without fail. (Enclosed as Annexure-A)

10. **Securing of departmental trains/machines (Ballast special, Wiring special, BCM, HOTM etc.) when stabled at station -**

a. The departmental trains/machines shall normally be stabled on dedicated stabling siding or on a non running line.

b. When the departmental trains/machines is stabled on a running line due to unavoidable circumstances, the In-charge/Supervisor/ Operator shall ensure that it is berthed clear of fouling marks and traps and without obstructing the adjacent lines. The mechanical hand brakes shall be applied. The departmental trains/machines shall be securely chained to the rails and wooden wedges be placed to prevent movement in accordance with G&SR 5.23.

c. Levers/ Buttons Collars shall be placed on the concerned signal and Slides of line on which it is stabled. In VDU Line block to be done.

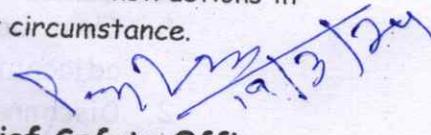
11. **Securing of material train when stabled at station-**

a. Material train shall not be stabled on running lines at a station, except in unavoidable circumstances.

b. When a material train is stabled at a station it shall be protected in the following manner and Station Master shall ensure that -

- The vehicles of the material train have been properly secured and are not fouling any points and crossings,
 - All necessary points have been set against the line on which the material train is stabled and such points have been secured.
- c. The Guard/supervisor shall not relinquish charge until he has satisfied himself that the material train has been protected as prescribed in this rule.
 - d. When the train is ready to leave, the Guard/supervisor must advise the Station Master in writing. The Station Master must then arrange for correct setting of the points.
 - e. When a material train is stabled in an outlying siding, the Guard/supervisor must ensure that it is inside the trap, clear of fouling marks and clear of running line. He must pin down sufficient number of brakes and if necessary, lock by means of safety chains or wedges/skids the wheels.
12. While stabling the machine, it should be ensured by the Supervisor that all the locking devices are properly secured and the switches are put 'off' by the operator of the machine.
 13. Wagons/loads/HOTMs/tower wagons etc, when stabled in the departmental/nominated sidings/lines will be secured by the respective In-charge/Supervisor/Operator concerned.
 14. Frequent counseling in this regard should be done by concerned Supervisors.
 15. Division must ensure availability of adequate number of wedges/skids and chains of approved design at stations and wooden wedges on locos. Regular checking of good condition of the wooden wedges may be monitored by the Supervisors and TIs.

All section DTIs, CLIs, TLCs, CC & P.Way supervisors/machine staff 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.

Shunting (Detaching of coaches/wagons) :

The Guard of the train shall be personally responsible for supervision of shunting enroute. If guard is not available then the person authorized to conduct shunting are as per SR 5.13.03.

A. Procedure for detachment of a coach :

Following procedure should be adopted in case of detachment of a coach on account of sick mark or due to any other reason:

1. Uncouple the electric and telephone couplers.
2. Uncouple the vestibules.
3. Uncouple the screw couplings.
4. Open the safety clamps provided on the angle cocks of the adjacent coaches.
5. Close the angle cock of the feed pipe and the brake pipe at both ends of adjacent coaches.
6. Uncouple the hose couplings of the feed pipe and brake pipe.
7. Release the brake cylinder manually.
8. Now detach the coach from the train.
9. After detachment of the coach re-couple all the fittings, screw couplings, electric and telephone couplers, vestibules and hose couplers.
10. Open the angle cocks of brake pipe and feed pipe and secure by safety clamp.
11. Charge the brake pipe and feed pipe by connecting to locomotive.
12. Fill up the Brake Power Certificate (Mechanical V-5) jointly with the Loco Pilot and Guard in proof for having tested continuity of brake pipe.

B. Procedure for detachment of wagon :

1. Close both the angle cocks of B.P. of concerned wagon as well as the adjacent wagon in rear and front.
2. Disconnect the air hose pipe couplers and destroy B.P. pressure of the rear load by opening B.P. angle cock to avoid rolling.
3. After shunting, adopt the procedure given above to disconnect the hose couplers of the front wagons.
4. The detached wagons should be left with brakes 'on' and opening B.P. angle cock. The hose couplings should be kept on suspension brackets.
5. After re-joining of loads, ensure correct coupling of CBCs. B.P. couplers should be connected first and then open their angle cocks.
6. Ensure that the prescribed B.P. pressure is obtained in engine and Guard's brake van.
7. Conduct the continuity test as per SR 4.32(9).