

**SOUTH CENTRAL RAILWAY
HEADQUARTERS SAFETY ORGANISATION
BI-MONTHLY SAFETY BULLETIN – MAY & JUNE 2021**

**DETAILS OF ACCIDENTS AND UNUSUALS THAT TOOK PLACE
DURING MAY & JUNE 2021**

1. **Brief of the accident (fire):** On 29.05.2021 at about 11.00 hrs, between KOLR- PDPL stations of SC division, Train No. Up Oxygen special empty goods (6+1) while on run Guard has observed smoke coming from first tank from Loco and alerted the LP on walkie talkie to stop the train at Km 295/24-22 and at the same time Gateman of LC No.38E also exhibited danger hand signal. LP stopped the train at Km 295/5 and applied fire extinguishers to suppress the fire.

Cause of the Accident: excessive pressure built up in the cryogenic tanker during run resulting in opening of one of the safety valve located at the top portion of the right side of the tanker end, which could have resulted generation of heat and there by ignition/melting of the paint on the outer surface of the tanker and further catching up of the fire as the residual oxygen in the tanker has substantial pressure.

Or

Due to hair crack/small hole on account of material failure of the inlet pipe to heat exchanger arrangement (for pressure building) located in the central portion at the bottom of the tanker end resulting in leakage of liquid oxygen available in the tanker at high pressure which could have generated excessive heat triggering burning of the paint on the surface of the tanker and catching of fire.

Responsibility: M/s Linde India Ltd.

SUGGESTIONS AND RECOMMENDATIONS

Oxygen Carriers to ensure the following:

1. In all the empty containers air pressure should be maintained at 0.1 to 0.2mMPa & Liquid level should be zero and records of readings to be maintained.
2. Oxygen Carriers should certify that all valves of the containers including pressure building coil inlet valve must be in closed condition. The requirement of enroute venting out of pressure, if necessary, the firm staff should accompany and the same to be certified.
3. All such tankers transported through rail to be certified about its validity of statutory pressure testing at specified intervals as per Govt. Norms and guidelines.

CONCOR to ensure:

4. Few sample data of pressure rise during rail transport of LMO in cryogenic tankers to be collected from loading point and should be cross checked for ascertaining any abnormal rise of pressure inside tank.
5. Further, CONCOR has to ensure that every tanker which is being transported has valid 'Statutory Test Certificate' as per norms & guidelines for such cryogenic tankers obtained from Chief controller of Explosives, NAGPUR.
6. A suitable SOP (Standard Operational Procedure) to be issued by CONCOR duly consulting the all Oxygen Carriers for following the due procedure while decanting the Oxygen at unloading points.

7. Oxygen carrier Firm's Safety escorts shall be deputed along with the oxygen special train, if not necessary, a memo to that intent be served through M/s CONCOR for each rake.
8. Do's & Don'ts to be issued immediately to all Oxygen carriers by CONCOR for safe transport of Oxygen tanker by rail.

2. **Brief of the accident (Derailment):** On 25.06.2021 at about 17.30 hrs, between KRNT-DUU stations of HYB division, Dn Light Engine No.40530/KJM/WDP-4D, while on run one pair of front wheels (L1 and R1) derailed in the mid-section at KM 244/7.

Cause of the Accident: derailment has happened due to miscreant activity of placing stone/boulder on the track

Responsibility:

Primary: Boulder/miscreant activity

Secondary: NIL

Blameworthy: NIL

SUGGESTIONS AND RECOMMENDATIONS

1. Intensified security patrolling in the vicinity of GWD-DHNE section with special focus on railway track along/near to residential area.
2. Drive and counselling session to be conducted joint by Security, Operating and P.Way staff with people in residential area.

**Inspection Notes of PCSO/SCR of New Electrification work between BZA-GDV-BVRT
Stations of BZA division on 19th & 20th January' 2021**

1. General observations:

- a. Speed Indicator board on DN RMV station Home signal post is faded & not retro-reflective.
- b. At ROB No.5A – barricading/fencing to be provided between column & OHE mast no.6/33 to avoid tress passing.
- c. TRD staffs not wear gloves during measurements in SP/Nidamanur. Staff has been counselled.
- d. UPL station – Road No.1 at KM 18/33, AT weld on RH side one gas cutting hole at bottom of head portion nearer to drilled hole. Its very unsafe, rail need to be replaced.
- e. ATD Y-value found abnormal to be adjusted at 21/15 on UP line as per chart at @temperature 35°C, Y value should be 2.30mts but it was 2.13mts. The same should be examined & to be attended. Lean on outside is 35mm.
- f. At TSS/GDV - It was observed that in circulating area of the control room, some bolts of 2 inches length are protruding outside on base foundation at few locations and it was advised to remove them early.
- g. Foundation of location box is damaged at KM 62/22 nearer to S1D signal, corrective action to be taken.
- h. It was observed that at most of the locations, earthing is not done for Location Boxes.
- i. GDV Jn Yard - It was noticed that one DEMU Indication board infringing to IRSOD. It was advised to remove this board.
- j. "J" type ERCs shall be provided at prescribed locations such as fish plated joints, GJs & CMS crossing joints.
- k. S&T and OHE bond holes have not been drilled at prescribed location of rail section and also holes have not been chamfered.
- l. Gang Unit No.3 attending slack packing work at KM 21/15 with 4 Trackmen. Sanction strength of this unit is 1+1+14. Actual strength is 1+1+9. DRM is advised to ensure fill up the vacancies and productive/effective utilization of manpower for track attention works. The gang was counselled for the precautions to be taken while working in Electrified Territory and found satisfied.
- m. At Km.41/43, redundant tie-bar fencing was noticed between two tracks and same was infringing to running lines as per IRSOD. It should be removed immediately.
- n. It was observed that at KM 41/44-42/0 on DN line fish plate with two far end bolts is provided to RH side rail where defective rail due to scabbing(marked by USFD)which is very close to FB weld of over aged (protected with joggled fish plate with two far end bolts). Similarly, at KM 42/0-2 also scabbed rail protected with 1.0m fish plate to RH side rail is very much close to SKV weld (over aged) is already protected with joggled fish plate with two far end bolts. The Defective rail is very nearer to over aged weld kept in running line is not advisable in view of safety. It was advised to replace the rails on priority.
- o. It was observed at Km.15/20-22 (near LC No.16), a thick rusted patch separated

from the web portion of newly laid rail for the new double line track. DRM was advised to check the quality of these newly laid rails and if required rails to be changed.

- p. OHE mast numbers should be mentioned while imposing caution orders instead of hectometre post numbers since section is electrified.
- q. Steel Girder Bridge No.60 (1x61.0m) on UP line – LH side hand railing provided, the lateral distance from track centre is 2.14m. Vertical members of open web girder from track centre are 2.41m. Hand railing need to be relocated outside of the vertical members to avoid infringements.
- r. Bottom surface of FOB/Mandavalli is corroded. Vertical members pedestal are covered in flooring instead of visible.

2. Ramavarappadu Station:

- a. Control message given on 15.02.2020 regarding energising of OHE from 13.3.2020 at 20.45 hrs. Staff acknowledgement also available.
- b. Platform no.1, 2, 3 &4 COP under construction.25KV warning boards to be provided.
- c. FOB provision available in the station. (Presently under construction) same was not mentioned in SWR.
- d. VDU panel not having OHE power block & rusty rail options

3. Traffic Interlocked LC No.9 at KM 07/27-29:

- a. TVUs 95568, RVUs 2172, date of census mentioned wrongly as November'2022. Need to be corrected.
- b. Gate lodge side EOLB boom i.e. 'A' boom was in bend condition.
- c. Hotter sound to be increased.
- d. In GWR, location of gate lodge mentioned in KM/hectometre instead of KM/OHE mast number. Same should be corrected. Date of GWR issued is not mentioned.
- e. Vertical clearances of height gauges are 4.72m, 4.65m against 4.78m. Height gauge for one bye-pass road is not provided. It should be provided immediately in view of safety.
- f. Lateral clearances of EOLBs are 1.05m (UP) & 0.9m (DN) against 0.8 to 1.0m.
- g. Road surface on track portion needs attention.
- h. Check rails are lower than running rails. Flange-way fully covered with muck, need to be cleared.
- i. LC warning boards on approaches are not provided properly.

4. Engineering LC no.12 at KM 10/2-4

- a. As per English GWR census due on July-2020, this is overdue.
- b. Auto PN generation machine available. Same was not mentioned in GWR.
- c. Both side lifting barriers "STOP" board was in faded and not retro-reflective.

5. Traffic Interlocked LC No.14 at KM at KM 12/3-4:

- a. Gate lodge location to be mentioned in between OHE masts.
- b. Wicket gates are not available.
- c. Protection diagram not available.

6. Traffic Interlocked LC No.16 at KM at KM 15/20-22:

- a. LBs are mechanical type, faded & not retro-reflect, to be replaced with EOLB type with retro-reflective.
- b. Vertical clearances of height gauges are 4.76m & 4.73m against 4.78m. Height gauges are standard but not painted.
Check rails are lower than running rails.

7. Nidamanuru Station

- a. There are many errors in the data painted on disaster management board. Phone numbers,/station codes are written wrongly. Sr.DOM was advised to ensure correctness of the information by arranging periodical check by SM/Safety Counsellors/TIs.
- b. Goods R&D lines are not electrified. But same was not mentioned in SWR.
- c. BSNL phone number 0866 -2843770 was not working from last two weeks.
- d. Block instrument of NDM-RMU, section not mentioned on shunt key.
- e. In SWR Para 5(i) in case of an obstruction at LC gate, Gateman shall maintain the gate signal in the 'ON' position. But this station not having Gate signal. Necessary modifications should be done in SWR.
- f. Control message given on 15.02.2020 regarding energising of OHE from 13.3.2020 at 20.45 hrs. Staff acknowledgement also available.
- g. In SWR, page no.7, Telecommunications chapter, TPC phone not mentioned.
- h. FOB available in station, but same was not mentioned in SWR.
- i. VDU panel not having OHE power block & rusty rail options.
- j. There is no proper entrance for passengers while entering through general waiting hall & ticket booking counter to PF No.2 & 3.

8. Traffic Interlocked LC No.20 at KM 18/16-18:

- a. Gate lodge location km to be mentioned in between OHE masts.
In the English GWR, section mentioned as single line instead of Double line.

9. Uppaluru Station:

- a. VDU panel not having OHE power block & rusty rail options.
- b. In the yard GS-1, GS-2 and TM siding not have OHE supply .same should be mentioned in the SWR.
- c. Control message given on 25.12.2020 regarding energising of OHE from 26.12.2020 at 20.45 hrs. Staff acknowledgement also available.
- d. FOB available in station, but same was not mentioned in SWR.
- e. LC no.18 was in electrified section, but same was not mentioned in Appendix-A of SWR.

10. Traffic Interlocked LC No.32 at KM 29/28-30:

- a. In SWR Para 5(i) "in case of an obstruction at LC gate, Gateman shall maintain the gate signal in the 'ON' position". But this station not having Gate signal. Necessary modifications should be done in GWR.
- b. Latest Date of census to be painted.
- c. Speed breaker board painted, yellow instead of black.
- d. Auto PN generation machine available. Same was not mentioned in GWR. Presently it is not working and Gate lodge location km to be mentioned in between OHE masts.

11. Indupalli Station:

- a. VDU panel not having OHE power block & rusty rail options.
- b. Hindi SWR not available.
- c. FOB available in station, but same was not mentioned in SWR.
- d. Auto PN generation machine available. Same was not mentioned in SWR. It was observed that SM is not aware of the changes made in SWR.
- e. Control message given on 26.12.2020 regarding energising of OHE from 26.12.2020 at 20.45 hrs. Staff acknowledgement also available on same day.
- f. GDV end platform no. one side (station side), road vehicles may enter on track. Required barricading.

12. Engineering LC No.41 at KM 35/26-28:

- a. Gate lodge location km to be mentioned in between OHE masts
- b. Census due on November 2023, same to be mentioned in Telugu & Hindi SWR.
- c. Speed breaker board painted, yellow instead of black.

13. Engineering LC No.42 at KM 36/34-36:

- a. Gate lodge location km to be mentioned in between OHE masts
- b. In the English GWR it is mentioned as single line instead of double line.
- c. In the English GWR, the gate is under control of "Uppaluru", but wrongly mentioned as "Dosapadu" Presently it is a (Dosapadu) is a halt station.

14. Gudivada junction Station:

- a. Control message given on 26.12.2020 regarding energising of OHE from 26.12.2020 at 20.45 hrs. Staff acknowledgement also available on same day
- b. In the SWR, Para 2.Description to be mentioned as "Double" line.
- c. VDU panel not having OHE power block & rusty rail options.
- g. Two FOBs are available in station, but same was not mentioned in SWR and not marked in VDU panel.
- d. TM siding, OHE supply not available, but same was not mentioned in SWR. On VDU panel not mentioned as Junction.

15. Moturu Station:

- a. Control message given on 26.12.2020 regarding energising of OHE from 26.12.2020 at 17.35 hrs. Staff acknowledgement also available on same day
- b. FOB available in station, but same was not mentioned in SWR and not marked in VDU panel.
- c. VDU panel not having OHE power block & rusty rail options.

16. Mandavalli Station:

- a. Control message given on 26.12.2020 regarding energising of OHE from 26.12.2020 at 17.35 hrs. Staff acknowledgement also available on same day
- b. FOB available in station, but same was not mentioned in SWR and not marked in VDU panel.
- c. In the SWR, Para 2.Description to be mentioned as "Double" line
TM siding, OHE supply not available, but same was not mentioned in SWR.

17. Engineering LC No.79 at KM 68/3-5:

- a. Gate lodge location km to be mentioned in between OHE masts
- b. Double line protection diagram, detonators wrongly shown. It should be corrected.

c. Wicket gates are not available.

18. Kaikaluru Station:

- a. Control message given on 26.12.2020 energising of OHE from 26.12.2020 at 17.35 hrs. Staff acknowledgement also available.
- b. FOB available in station, but same was not mentioned in SWR.
- c. In the SWR, Para 2. In Description mentioned as Non-electrified section instead of Electrified and to be mentioned as "Double" line.
- d. BSNL phone number 08677-222080 not works from last two months.
- e. Dy. SSs are working 12 hrs shift from last one month. Divisional authorities should ensure 08 hrs for shift.

19. Engineering LC No.83 at KM 73/33-35:

- a. Non standard height gauges are available.
- b. Auto PN generation machine available. Same was not mentioned in GWR.
- c. Double line protection diagram, detonators wrongly shown. It should be corrected..

20. Engineering LC No.86 at KM 76/29-31:

- a. Non standard height gauge available.
- b. Auto PN generation machine available. Same was not mentioned in GWR.
- c. Double line protection diagram, detonators wrongly shown. It should be corrected.

21. Engineering LC No.93 at KM 84/7-9:

- a. Double line protection diagram, detonators wrongly shown. It should be corrected.

22. Akividu Station:

- a. In the SWR, Para 2 of Description to be mentioned as "Double" line.
- b. TM siding, OHE supply not available, but same was not mentioned in SWR.

23. Bhimavaram Town Station:

- a. SS and Pointsman are not having "Electrical Isolator competency certificate".
- b. In the SWR Para 2, in Description mentioned as GDVJN-BVRM JN mentioned as electrified section, but between Bhimavaram Town to Bhimavaram JN not electrified. FOB available in station, but same was not mentioned in SWR.

24. Undi Station:

- a. VDU panel not having OHE power block & rusty rail options.

ATTENTION
STATION MASTERS

S.R.5.07. In case of T/A to T/H 602, T/J 602, T/609, T/A to T/D 1425, T/A to T/D 912, T/A 1525 and T/1525, the prescribed printed forms shall only be used.

ATTENTION

LOCO PILOTS / ASISTANT LOCO PILOTS/GUARDS

load/train is stabled with locomotive attached or light engine(s) is/are shut down or stabled:-

1. Application of both SA-9 and A-9 brakes;
2. Application of hand brake and parking brake;
3. Secure the loco with wooden wedges/iron skids provided on the loco;
4. Loco Pilot while on duty should not leave loco 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 3 (3.1), (3.2) & (3.3) above;
5. Before leaving the Station/Yard, the Loco Pilot and Guard should jointly sign record in the stabled train register to be maintained with Station Master that the load & loco has been secured as prescribed above. If the Loco is not stabled with the formation only guard has to sign in the stabled load register.

ATTENTION S&T staff

Appendix XI, II-6-ii. I- Do's for S&T staff.

18. Maintain track circuit and battery history cards.
19. Examine over-energisation of track relays.
20. Remove brake dust and rust and burr formation at block joints.

ATTENTION Engineering

S.R.15.25.12. General:-

(2) Movement of Motor Trolley, within station limits:- A Motor Trolley shall not be placed on any line at a station without the permission of the Station Master. A Motor Trolley which has arrived at a station or which has been placed on line can be moved from one line to the other only with the consent of the Station Master. The movement may be either a shunt move or by lifting the Motor Trolley off the track.