

**SOUTH CENTRAL RAILWAY**  
**HEADQUARTERS SAFETY ORGANISATION**  
**BI-MONTHLY SAFETY BULLETIN – SEPTEMBER & OCTOBER 2023**

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**DETAILS OF ACCIDENT AND UNUSUAL THAT OCCURED DURING SEPTEMBER 2023.**

**I. Brief of the Accident :** On 05.09.2023 at 21:15 hrs., Train No. HX/N with Loco No. 33324/WAG9/LDH arrived Cuddapah (HX) Station of GTL Division, derailed while giving placement on Jumbo siding after its arrival at 19:30 hrs. on Rd-4 of HX yard. Shunting Authority in Form T.806 was served to the Loco Pilot & Train Manager (Guard) for shunt movement from Rd-4 to block back on to UP line via Point Nos.19 A&B, 17 A&B and from there to back it to Jumbo siding via Point Nos. 17 B & 21 B & A. It is un-signalled movement over the point Nos. 19, 17 & 21. After clearing 17 B, Axle counter area while backing over the point No. 17 B, BV + one BCN (empty) derailed, another BCN wagon is in floating condition.

This accident is categorized as – D6.

**Derailment mechanism :**

When shunting started for the train No. HX/N, from Rd – 4 on un-signalled movement all the related points shall be set correctly, clamped and padlocking to be done for entire program, but here only 3 clamps were carried to site but they were not clamped. Hence while backing the formation as the point No. 17 B was in open condition and developed gap, when train entered into switch portion due to which it has taken two routes and got derailed.

**Cause of the Accident :**

1. On arrival of train No. HX/N, Dy. SS/HX has planned to give placement of rake at jumbo siding for which, started the shunting at 20:50 hrs from Rd-4, on un-signalled movement over the point Nos. 19, 20, 18, 17 and 21 to jumbo siding, during this juncture, on duty Dy. SS ( Shri. Lal Babu Singh) duty hrs were from 13:00 to 21:0 hrs, reliever arrived in time at 21:00 hrs, mean while the rake passed over 17B point and 17B AC cleared at 21:02:03 hrs, point No. 17 is operated from reverse to normal at 21:02:15 hrs, and immediately operated point No. 21 from normal to reverse. As both the points were operated simultaneously in less than 3 seconds, 17 point operation got interrupted. So point No. 17 is flashing continuously on VDU, same was verified through Data logger. But on duty Dy. SS did not observe the flashing indication of point. Vide SWR vide SWR. No. G/37/HX Page No.38, 6.8.6 Note : 4 and G&SR Appendix-XI “ Do’s and Don’ts of Station Master” clearly states that not to operate two points simultaneously. He was in hurry mood to HOC/TOC and without ensuring point indication and also without ensuring clamping and padlocking of point, he informed TMR & LP over walkie – talkie that route was set and allowed the back movement of the train over point No. 17B. After clearing

the 17 B AC at 21:02:33 hrs and it was again occupied at 21:06:44 hrs, “time taken to back the formation took 4:10 minutes during this short span of time it is not possible to remove the clamp at 17 A end and set the point 17 to normal and re-clamp point No. 17B end”. This proves that clamping and padlocking of points in the route was not done at site for the said un-signalled movement.

2. On duty pointsmen Shri. Jyothi Pratap and Smt. Shanthi also failed to clamp and padlock all the points over the shunting route but allowed the train movement. Vide SWR No. G/37/HX/BG Page No.51, Para No.8.6 Siding (A). Item. B and G&SR 3.38, SR 3.38.1 clearly states all the points over which un-signalled movement occurs are to be correctly set, clamped and padlocked.
3. Shri. C. Khasim TMR/NRE, did not ensure personally the correct setting of points, clamping and padlocking of points over which the shunting was carried out and did not supervise the movement (as per G&SR Rule No.5.14.1 and 5.14.5). He did not ensure whether PHS was exhibited by pointsman. But with the instructions of Dy. SS he allowed backing of train over the point No.17B. As the operation of point No. 17 is interrupted due to simultaneous operation of Point No.21 by on duty Dy. SS it is in open condition. Neither pointsman nor Train Manager (Guard) ensured it and allowed back movement of train. While train is entering into switch portion due to open condition of point, resulted BV + 1<sup>st</sup> BCN wagon all wheels derailed and 2<sup>nd</sup> BCN was in floating condition.

**RESPONSIBILITY :**

**PRIMARY :**

1. Shri. Lal Babu Singh, Dy. SS/HX,
2. Shri. C. Khasim, TMR/NRE,
3. Shri. T. Jyothi Prathap, Points Man/HX,
4. Smt. M. Shanthi, Points Woman/HX,
5. Shri. D. Narasima Reddy, SMR/HX,
6. Shri. P. N. V. S Ramesh Reddy, TI/HX.

**SECONDARY :** NONE

**BLAMEWORTHY :** NONE

**RULES VIOLATED :**

SWR No. G/37/HX, Page No.38, 6.8.6 Note : 4, Page No.51, Para No.8.6 Siding (A) item b, GR 3.38, SR 3.38.1, Appendix – XI of G&SR, G&SR : Rule No. 5.14.1, 5.14.5, 5.01 and 2.03.

## **MATTERS BROUGHT TO LIGHT**

Systematic procedural lapses for operations of trains during un-signalled movement :

1. Only indication on panel is ensured while dealing un-signalled shunting.
2. Only clamping of facing points is ensured trailing points are not clamped and padlocked.
3. Padlocks are not kept in the safe custody of Supervisor who is in-charge of shunt movement and are placed near point.
4. Mobile is used for communication while dealing such movements instead of Walkie – Talkie.
5. Walkie – Talkie sets were not working past two months and no action was taken neither by Dy. SS nor SMR / TI.
6. Operation of two points at the same time, even it is clearly mentioned to operate one at a time in SWR and G&SR Appendix-XI Do's and Don'ts for Station Masters & Train Manager (Guard) being the in-charge of shunting movement failed to ensure correct setting, clamping and padlocking of the points in the route for un-signalled movement.
7. When duty hours of Dy. SS completed and reliever arrived instead of handing over he decided to complete the movement in a hurry which resulted in failing to ensure indication on panel finally resulted in derailment.
8. SMR / TI never supervised the shunting process at this station nor counselled the staff regarding safe procedures.
9. All the staff are found to be casual and don't know the seriousness of unsafe working practices followed at HX station.

## **SUGGESTIONS AND RECOMMENDATIONS**

1. In order to avoid intermittent point operation interlocking logic may be changed so that even though Dy. SS gives point operation command simultaneously in less than 3 seconds points are to be operated sequentially one after the other.
2. To avoid un-signalled movement yard may be remodelled by shifting of cross over 18 towards KPU end so as to provide shunt signal to carry towards Jumbo siding.
3. Walkie – Talkie sets which are in good working condition shall be provided to ensure proper communication among staff for safe train operations.
4. Rigorous counselling shall be conducted to counsel the staff to adopt correct procedures in train operations.
5. All accident case studies in division to be discussed in safety seminars conducted at Stations.

6. Biodata and gradation shall be thoroughly reviewed, staff who are of less knowledge and frequently failed to adopt correct procedures during train working system shall be exclusively monitored by the Supervisors.
7. SMRs / TIs shall conduct surprise / ambush checks to ensure safe shunting practices and they must physically execute complete shunt movement at regular intervals.

**II. Brief of the Accident :** On 12.09.2023 at 22:08 hrs., while Train No. YTPY UP Goods with Loco Nos. 27884+28048/WAG7/ANGL with 59 + 1 BOXNRL passed Rukmapur (RMY) Station on through signals at 21:49 hrs and was rolling on to common loop No.3 at Tandur (TDU) Station of SC Division, front trolley (all wheels) of 20<sup>th</sup> wagon (No. SE 10079461893) from Train Engine (loco) derailed at point No.23 leading to CL-3 line and uncoupled in between 20<sup>th</sup> and 19<sup>th</sup> wagons on CL-3.

This accident is categorized as – D5.

**Cause of the Accident :**

1. The wheel has worn out root and sharp flange noticed at 03 out of 06 locations checked, where wheel measurements were taken.
2. Point No.23 RH tongue rail was reconditioned on March 2021 for the first time and second reconditioning was done on 12.04.2023 by M/s. Adore Agency, Hyderabad. Again, reconditioning was done after derailment on 13.03.2023 by departmental welder.
3. The broken pieces of tongue as well as rail were covered fully with oil and rail condition is rusty (red) in some parts.

In view of the above, the enquiry committee concluded that due to sharp flange at 03 locations and root wear throughout the periphery of the RH wheel of 20<sup>th</sup> wagon (SE 10079461893) front trolley leading wheel while passing on tongue rail of Pt. No.23 leading to Rd-5/CL-3 climbed due to positive eccentricity, the tight gauge (-10 mm near to the permissible limit), 15<sup>th</sup> station i.e., 15 meters ahead of POM loose packing under switch (Vide IRPWM 429(K)) and defective reconditioning done prior to the incident caused tongue rail chipped off as 03 pieces (at a width of 10 mm) except the tip which was intact on the rail.

**RESPONSIBILITY :**

**PRIMARY :**

Mechanical – C&W staff of DKJ where End to End BPC was issued on 10.09.2023 for this rake.

**SECONDARY : NONE**

### **BLAME WORTHY :**

Engineering – For poor reconditioning of tongue rail done during March 2021 for the first time and second reconditioning was done on 12.04.2023 by M/s. Adore Agency, Hyderabad, two times prior to the accident.

### **MATTERS BROUGHT TO LIGHT**

1. Sr. Supervisor did not observe any application of oil on the effected portion of tongue rail. Later while conducting the joint check they observed that oil was applied on the effected portion of tongue rail.
2. As per the joint readings of the track in the rear portion up to 45 m, the gauge varied from +14 to -10. Cross level at -4 station was found to be 17RL and gauge was -8. Gauge was 14, 12, 12 & 10 at station 0 (sleepers 1-4). As per Para No.429 of IRPWM Para No.8A reasonably uniform gauge is to be maintained over turnouts.
3. No point's man was available for 19-24 & 00-07 shift at RMY station. On duty Dy. SS/RMY informed that, point's man who was at home was called for duty. During morning shift also there was no Points man.
4. Readings of versine to be recorded by Supervisors during joint check. Condition of packing of sleepers was not mentioned in Supervisors committee report.

### **SUGGESTIONS AND RECOMMENDATIONS**

1. No work on site should be carried out without the witness and permission by neutral department / Safety at site.
2. CDO/SC & ADEE/M/SC should invariably attend movement of ART / MRV.
3. Pointsmen (Station staff) may be posted at all stations irrespective of work particularly during night shift.

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### **ATTENTION ..... STATION MASTERS**

#### **5.23. Securing of vehicles at station.—**

**The Station Master shall see that vehicles standing at the station are properly secured in accordance with special instructions.**

S.R. 5.23.1. Action by Station Master / Traffic Staff when vehicles /load/train is to be stabled at station:-

1. The vehicles/load/train shall be inside the fouling marks
2. The vehicles/load/train be chained and padlocked using at least two chains, one at either end. The padlock keys of the Safety Chains shall be in the personal custody of the Station Master.
3. At least four wooden wedges/iron skids be used, two each below the outermost pair of wheels at either end;
4. Hand brakes of at least 6 wagons from either end must be fully tightened. If hand brakes of any of the first six wagons at each end cannot be applied, hand brakes of subsequent wagons should be applied till six wagons in total are achieved. In case coaching vehicles are stabled, Guard's hand brakes in SLR(s) must be applied. The hand brakes must be operated under the personal supervision of the Guard, and in the absence of Guard, by SM/ASM on duty;

### **ATTENTION ..... Engineering**

S.R. 15.26.9. Passing of Level Crossings:

The Official in-charge of the Light Motor Trolleys/Moped Trolleys/Scooter Trolleys, while approaching level crossings, shall look out for the road traffic and ensure safe passage for his Cycle/Moped Trolley

S.R. 15.26.10. Trolley when not in use:

Whenever a Trolley is not in use and is placed on the platform for being loaded on a train or any other purpose, it shall be placed parallel to the track, properly locked and in charge of a railway servant. It should be so placed as not to come in the way of passengers and railway staff.

### **ATTENTION ..... LOCO PILOTS/ASISTANT LOCO PILOTS/Train Managers (Guards)**

#### **6.04. Trains unusually delayed.—**

**(1) If a train carrying passengers does not arrive within 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 Station Master at the station in advance shall immediately advise the station in rear and the Control of this fact. Thereafter on double or multiple lines, the Station Masters at either end of the block section shall immediately stop all trains proceeding into the block section on adjacent line or lines in either direction and warn the Loco Pilots and Guards of such trains by issue of suitable Caution Orders and shall also ascertain the whereabouts and the condition of the delayed train.**

**(2) The action mentioned above shall be taken earlier, should the circumstances so require.**