

Top Priority  
MR- reference

भारत सरकार **GOVERNMENT OF INDIA**  
रेल मंत्रालय **MINISTRY OF RAILWAYS**  
(रेलवे बोर्ड **RAILWAY BOARD**)

No. 2009/M (C)/141/6 Vol. III

New Delhi, dt. 30.12.2016

**Chief Mechanical Engineer,  
All Indian Railways**

**Sub:- Improving safety performances of Indian Railways**

**Ref:- EDPG/MR's Note No. MR/B/7093/2016 dated 02.12.2016**

Please find enclosed copy of the suggestions received by Hon'ble MR for improving safety performances of Indian Railways. Hon'ble MR has desired that compliance on all mentioned item should be put to him at the earliest.

The matters pertaining to (Coaching) Directorates may please be examined and arrange to furnish your comments within five days by FAX (No. 011-23388185) for the information of Hon'ble MR.

Matter 'MOST URGENT'.

  
(Shailendra Singh)  
Ex. Dir. Mech. Engg. (Chg.)  
Railway Board

DA: 3 pages.

## ACCIDENT MITIGATION MEASURES

### 1.0 SHORT TERM/IMMEDIATE MEASURES

#### 1.1 LAUNCH 15 DAYS SAFETY DRIVE

##### TRACK

- Safety focussed inspections by all levels especially of vulnerable stretches/ locations/ areas to check and ensure that stipulated measures are being taken and laid down provisions are adhered to and deficiencies noticed have been attended to
- Mapping of fracture/derailment prone stretches and increased vigil/ checks
- Incognito Night Inspections to check alertness of staff and to identify/resolve safety related problems
- Equip patrolmen with better equipment/torches to facilitate detection of cracks/fractures & other abnormalities etc.
- Sensitize & train the Level crossing & gang staff to look out & report for hot-axles, flat-tyre, hanging parts, etc.
- Incognito inspections of manned Level-crossings/patrolman
- Special drive to make good deficiencies in unmanned Level-crossings
- Identification of accident prone unmanned level crossings and special drive to educate/sensitize its road users

##### ROLLING STOCK

- Safety focussed Inspections to identify & make good deficiencies in the under-gear, etc.
- A special drive to detect and remove flat tyres
- Ensure that all WILD and weigh-bridges are in working order
- Inspection of electric wiring & system in coaches and all non-standard fuses to be replaced

##### S&T

- Safety focussed Inspections to identify and make good deficiencies
- Ensure that necessary arrangements/systems for changeover in foggy weather are in place
- Incognito Night Inspections including foot plate to check alertness of staff and to identify/resolve safety related problems & signal visibility issues

##### OHE

- Safety focussed Inspections to identify and make good deficiencies
- Ensure that OHE installations are greased and are geared to handle low temperatures

##### OPERATING

- Sensitize & train all staff to look out & report for hot-axles, flat-tyre, hanging parts
- Train passing by Station staff to be monitored, and guards to be sensitized
- Reports of jerk/abnormalities by Loco Drivers/Guards to be taken very seriously
- Goods rakes must be weighed
- VTOs to be in place
- Incognito Night Inspections to check alertness of staff and to identify/resolve safety related problems

## COMPLETE MECHANIZATION OF TRACK MAINTENANCE BY 2019

After adoption of heavy concrete sleepers track with LWR, heavy traffic density and scarce availability of maintenance blocks, complete mechanization of track maintenance has become a necessity. A comprehensive plan for this is ready, but cannot be implemented due to slow pace of acquisition of modern machines having high output and better quality. We need to increase the number of such machines from 750 to 1500 over next 3 years through higher sanctions and acquisition.

### 2.2 FIXED TIME CORRIDORS BLOCKS FOR MAINTENANCE

Inspection/testing/maintenance of track/signalling/RE assets require dedicated corridor blocks as per world railway practices. A proposal in this regard is shuttling in the Board for almost a year.

Such blocks have to be Integrated Blocks where all departments take advantage of the block. Furthermore information about the blocks as well as other traffic disruptions should be shared between the adjoining Divisions/Railways so as to maximise the use of blocks across divisions and zones, and also take advantage of any forced traffic disruptions. A suitable module for managing blocks should be incorporated in the Control Office Application.

### 2.3 PROCUREMENT SYSTEMS

PROCUREMENT OF SUPERIOR QUALITY RAILS has to be expedited. Globally, competition amongst the rail-manufacturers is leading to continual improvement in the quality of rails. IR has been wedded to SAIL for the supply of rails, and as a result has not benefitted from the improvement in technology. Global Expression of Interest had been invited for supply of head-hardened as well as ordinary rails. It is necessary that both types of rail are procured through open tenders.

PRODUCTION/DEPLOYMENT OF LONG RAILS has to be made the rule so as to reduce the number of in-situ welds, which are more vulnerable.

BETTER QUALITY OF IN-SITU WELDS- Strict quality control in respect of in-situ welding and manufacture of weld-portions by way of videography, geo-tagging, RFID control and live data feed through TMS (Track Management System), had been mandated. It needs to be rolled-out fully.

TRACK COMPONENTS/FASTENINGS- To ensure proper quality as well as timely

## 7.0 ACCIDENT INQUIRY:

Basic purpose of Accident Inquiry is to pin-point the reason for the failure- be it material, technological, staff or others. Unfortunately, rescue/restoration efforts tend to compromise if not destroy the evidence. The Inquiry Officer, who reaches the site much later, does not have the benefit of proper information and evidence. Consequently, the whole exercise tends to become avoid-the-blame game, and most of the time the real cause of accident does not get flagged. There is a need to lay down a proper scientific protocol for capturing the data/evidence at the accident site for the purpose of subsequent analysis at the time of Inquiry. Measurement protocols in respect of all assets - Civil, S&T, RE, Rolling Stock, Running Staff, etc. should be clearly stipulated, and procedure laid down for measurements as well as capturing the data by way of photographs, deployment of drones, etc.