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Government of India (Bharat Sarkar)
Ministry of Railways (Rail Mantralaya)
(Railway Board)

No. 2007/Sig/PCDO/REL

June 19, 2007

The General Manager,
All Indian Railways.

Sub: Reliability Improvement Action Plan and (ii) Training/ Counseling of Signal Maintenance Staff at the works spot.

Ref: AM/Signal's DO letter No. 2005/Sig/PCDO/Format dt. 18th Aug, 2006.

Reliability of signaling and telecom systems has assumed very high level of importance of train operations specially when Indian Railway is on a high growth path. Any signal failure not only eats into some portion of the line capacity but also lowers the level of safety on account of adoption of manual procedures for train running, which are required to be followed in case of a signaling failure. All manual procedures are also prone to mistakes being made by the traffic staff and/or train crew.

In view of the above, it is extremely important to improve the Reliability, Maintainability and Availability of signaling systems substantially. The Reliability and Maintainability of S&T systems is built into its design. Accordingly, in the Corporate Safety Plan, Reduced frequency of maintenance, Increased Mean Time Between Failures (MTBF), Reduced Mean Time to Repair (MTTR), Reduced Cost of Maintenance – Cost Effective are stipulated as the guiding Maintenance Strategy and Principles.

These parameters are largely controllable through specification enhancement, design improvements, use of high quality material, dependence on better manufacturing processes and improved installation techniques. The only controllable factor at the field level in the MTTR. The desired MTTR would be a function of the intensity/density of train operations on the section/route. On high density routes, the impact of failures would be cascading with higher and higher values of MTTR, which would require a commensurate maintenance system/organization.

Railways have been following a Reliability Improvement Action Plan in the past. This was updated, enlarged and again issued vide AM/Signal's DO letter No.2006/Sig/PCDO/Misc. dt. 18th Aug, 2006 detailing the procedure to be followed for reliability improvement as well as training. In addition to this programme Railways have also been following a local reliability improvement action plan focusing on items, which are specific to the Railway are aimed at eliminating specific causes predominant on that Railway based on the analysis.

Based on the analysis of signal incidences and feedback received from Railways, a comprehensive Plan for Reliability Improvement and Maintenance Effectiveness (PRIME) has been finalized for 2007-08 and beyond, to focus on quantum improvement in the performance and quality of service (copy enclosed). For items included in PRIME the total quantum of work to be done (sanctioned and non-sanctioned together), target for 2007-08 and overall target should be worked out by Railways. Wherever works are required to be sanctioned, they should be done on priority. PRIME should be closely monitored by CSEs and the status should be sent every month in the PCDO to ML.

An immediate action is required.

Encl: As above (on reverse)

19.06.07

(Arun Saksena)
ED/Signal