

## **EXECUTIVE SUMMARY**

### **1. Environment Management in Indian Railways -Workshops, sheds and Production units**

*Parliamentary Standing Committee (1997-98) in their Fourteenth Report on Modernisation and Capacity Utilisation of workshops in Indian Railways observed that working conditions in workshops posed hazards to the health of workers. The Committee recommended efforts to be made to improve working conditions and to create new facilities so that smoke emission and sewage disposal would conform to environment requirements.*

*In Indian Railways (IR), there are 432 workshops/ sheds and six production units. Operation and maintenance of these units cause air, water and noise pollution and generate significant waste. Being a bulk consumer of energy, these units have the potential to conserve energy by adopting energy efficient measures. There was also a high risk of non-compliance with statutory provisions relating to control of pollution and waste management and with the instructions/guidelines issued from time to time by Railway Board (RB).*

*This report presents the results of the review of “Environment Management in Workshops, Sheds and Production units” which was taken up as a second phase of the audit exercise to assess the performance of IR in addressing the environmental impact of its operations and maintenance activities at workshops, sheds and production units.*

*It was observed that RB had issued guidelines and instructions on pollution control, waste management and energy conservation. It was also noticed that some progress had been made by workshops, sheds and production units on these issues. The important deficiencies noticed in environment management are elaborated below.*

*Statutory obligation to obtain Consent to Establish (CTE) and Consent for Operation(CFO) was not adhered to by 88 per cent (CTE) and 68 per cent (CFO) of the workshops and sheds test checked. Absence of effective monitoring of the Zonal Railways and the RB resulted in non-compliance with the conditions specified while granting consent. Monitoring of air quality and noise pollution in workshops and sheds along with the provision of pollution control equipment was inadequate. In addition, existing pollution control equipment was not maintained in working condition.*

*Effluent Treatment Plants (ETP) were either not installed or wherever installed, quality of discharge was not monitored leading to improper disposal of ETP sludge in open area. The progress on implementation of RB's instructions/guidelines on Water Recycling Plant (WRP) and Rain Water Harvesting (RWH) was insignificant.*

*Initiatives of workshops and sheds to generate electricity from solar energy were partial. In the absence of concrete action plan and monitoring at RB level, significant progress in the field of energy audit and implementation of their recommendations was not observed.*

*There was a lack of proper disposal of wastes coupled with partial maintenance and submission of records/returns and handling of hazardous wastes. The procedures adopted by the workshops and sheds for disposal of wastes were not environment friendly. Manifest system was also not followed in 128 out of 138 workshops and sheds test checked*

*Periodical inspections by Medical Officers of the workshops, sheds and production units to ensure the health and safety of the employees were not complied with even though health units were attached to 89 per cent of the workshops and sheds. Deficiencies were observed in maintenance of medical records relating to preventive medical examination of workers. In all, 10,420 accidents occurred during 2007-12 and of them, 51 per cent of the accidents occurred in 12 workshops and 18 sheds across Central, Eastern and Northern Railways.*