

# ENGINE DEVELOPMENT

## RESEARCH DESIGN & DEVELOPMENT

### Measurement of Exhaust Emissions of Diesel Locomotives of Indian Railways

Mobile Emission Test Car (ETC) developed by Engine Development Directorate is being used to measure the emission parameters of diesel locomotives of Indian Railways since year 2012-13. Approx. 75 Locomotives of different diesel sheds has been tested using ETC. As per guidelines of Hon'ble NGT, an emission standard is required to be developed for diesel locomotives of Indian Railways. Railway Board has awarded a contract to



View of Emission Test Car (ETC)

M/s RITES for development of emission standards for diesel locomotives of Indian Railways. RITES hired M/s FEV as technical consultant and M/s Terri as environmental consultant for framing of emission standards of diesel locomotives of Indian Railways. RDSO is providing emission data to RITES measured from different diesel locomotives.

### Testing of Nano-additised Diesel Fuel offered by M/s IOCL

M/s Indian Oil Corporation Limited (IOCL) offered 'Nano-additised diesel' fuel for performance evaluation on engine test bed of Engine Development Directorate. As per firm, 'Nano-additised diesel' improves the fuel economy and emissions particularly PM and slight reduction in NOx emission with respect to conventional BS-IV diesel.

Performance evaluation of the product was carried out on HHP engine test bed. After data analysis, it was found that, no significant improvement in fuel consumption or emission reduction was found in comparison to BS-IV diesel. Technical report no. TR/ED/2018/252 of December 2018 has been issued.

