

## Safety

Safety Health & Environment Management system has been formulated with the following objectives

- No harm to any human being
- No harm to environment & ecological system

CPCL firmly believes that a sound SHE management system will ensure (i) improved employee morale,(ii) Nil lost time, and therefore SHE management has been a part of CPCL's daily business.

This is being practiced in CPCL due to a strong commitment from top management to personnel at all levels by combining SHE standards with performance standards & imparting continuous training on SHE issues at all possible ways for all personnel entering the premises of CPCL namely employees, contractors, security personnel including drivers of material supplies etc.,

The level of implementation of SHE management system is judged by (i) statistical reports,(ii) Opinion surveys, (iii) risk analysis (iv) periodic inspections and (v) process improvement initiatives (vi) Master Health Check up for employees (vii) Environmental Quality Analysis

For ensuring success in SHE Management the following best practices are adopted

- Development of SHE policy
- Conducting self- assessment & communicating the results to all concerned
- Recognition and rewards
- Conducting Awareness program for all concerned

CPCL periodically carries out Internal Safety Audit, External Safety audit Comprehensive Risk Analysis and HAZOP study periodically

The fire protection systems and equipments are provided as per Oil Industry Safety Directorate (OISD) Standards and other relevant guidelines. Adequate no. of Fire Fighting Vehicles & Emergency Rescue Vehicle equipped with rescue apparatus / gadgets, fire water storage, fire water pumps, fire fighting chemicals meeting the specified norms are available.

Automatic gas detection and alarm systems are installed in refinery units and tank farm for quick detection of hydrocarbon leaks and emergency mitigation. CCTV is installed at critical locations and linked to the Control Rooms for continuous monitoring.

For Communication of emergency scenarios, Fire Call telephones, Manual Call Points (MCP), Plant Communication System, UHF handsets and emergency sirens have been provided.

CPCL has entered into Mutual Aid Agreement with two of the neighbouring industries. Well documented On-site Emergency Preparedness Plan, offsite Emergency preparedness plan & Disaster Management Plan (ERDMP) are in place

### Occupational Health Services

Occupational Health Services (OHS) Centre located in the Refinery premises, is well equipped for immediate medical treatment during emergencies. CPCL's OHS Centre is the first amongst Oil Industries to be set up and this is a Resource Centre providing professional and technical assistance to other industries. The OHS Centre is manned round the clock and is equipped with ambulances and beds.

### Environment Management

Following pollution control/ mitigation measures are adopted to minimize the impact of Refinery operation on Environment :

- Continuous operation of 3 numbers of Effluent Treatment plants and reuse of treated effluent.
- Monitoring of treated effluents from Effluent Treatment Plant for compliance against Minimum National Standard (MINAS), surface water & Ground water
- Use of low sulphur fuel & low Nox burners to maintain emissions from heaters at permissible limits
- Use of Gas turbine in captive power plant with cleaner Naphtha as main fuel.
- Monitoring and inventerisation of Fugitive emissions by using Leak deduction & Repair (LDAR) program in the entire plant area for minimizing emission of Hydrocarbons.
- Continuous improvement in Energy consumption reduction and use of alternate energy like solar & wind power to reduce Carbon-di-Oxide emission.
- Continuous monitoring of Ambient Air Quality & Continuous Emissions Stack Monitoring Green house gas emissions reporting and control measures taken for reducing the GHG
- Continuous operation of VOC collection & removal system with Activated carbon adsorbent to reduce the VOC emissions.
- Ensuring Hazardous waste management in the refinery as per Hazardous Waste Rules, 2008
- Safe disposal of Hazardous waste in segregated & dedicated, Hazardous Waste Treatment Storage & Disposal Facility (HAWTSDF)
- Monitoring of ground water quality