

Thorough safety management is the starting point of our corporate activities.

Establishment of the Safety Guidelines

Cosmo Oil regards safety management as the starting point of corporate activities and has an activity guideline for safety in place in order to carry out our social responsibilities. "We shall take the maintenance and development of safe and stable operation as one of the most important problems, and aim at securing the safety of not only the employee but also local populace in the work place that handles combustibles and high-pressure gases, etc., and aim at living together with the local society." (Cosmo Oil Group Corporate Activity Guideline)

We have been working hard to make our workplace safe and healthy and achieved zero operational accidents at our refineries.

In FY 2003, we recorded no operational accident at refineries, no labor accident with lost work time and one labor accident with no lost work time. Our Chiba Refinery maintained its No.1 position in the oil industry for its record of total hours of no accident record (15,700,000 hours as of end December 2003). We had two operational accidents at our oil storage depots. We have investigated their causes, considered preventive measures and applied these measures to other business sites in an effort to prevent them from re-occurring. In view of serious accidents that the industry experienced in 2003, the Company and its affiliated companies have re-checked works management procedures and reviewed emergency response manuals for earthquakes, etc. to ensure more thorough safety management.

Reference For details, please see p. 18 of Data Book.

Framework for safe operation at refineries, etc

At our refineries where large quantities of combustibles are handled, our employees and cooperating companies are working together to secure the safety of the refineries and other facilities. The health and safety committee chaired by the head of each refinery carries out planning of various safety promotion activities and reports their results. The measures for prevention of operational and work accidents include the development of activities that enhance the safety awareness of each employee such as early risk detection training, the application of preventive measures developed from accidents to other business sites and the training of employees by safety education and the use of training simulators.

Introduction of the Safety Management System at refineries

Our refineries conducted safety management reinforcement activities for 2 years to March 2003 which included the expansion of the coverage of age-related deterioration diagnosis for facilities, active participation in facilities maintenance in the operation division and the reinforcement of change control for facilities and operation. In FY 2003, we established the PDCA-Type Refinery Safety Management System (SMS) which systematically integrated the results of our previous safety management activities and safety management reinforcement activities for continuous improvement of safety management standards. From FY 2004, we will incorporate the equipment safety assessment system into the SMS and commence full operation of the system in order to further reinforce our safety management regime.

The SMS Concept



Thorough safety management by prevention and swift response

Safety management requires both a prevention aspect and a swift response aspect to minimize damage in the event of a disaster. We are endeavoring to improve safety management by implementing both equipment ("hard") measures and procedure ("soft") measures for both aspects at each stage of our operations - refineries, oil storage depots, distribution (tanker trucks and coastal tankers) and service stations.

Prevention and early detection

Early detection of abnormalities is important in preventing accidents and disasters. Our early detection efforts include the monitoring of day-to-day operating conditions, regular inspections of facilities, careful patrol and the installation of abnormality detection devices.

Hard measures

Refineries and oil storage depots

- Safety considerations in facilities design
- Installation of safety devices
- Installation of abnormality monitoring devices

Distribution

- Installation of oil contamination prevention devices

Service stations

- Safety considerations in facilities design
- Installation of anti-electrostatic sheeting
- Installation of anti-overflow facilities

Soft measures

Refineries and oil storage depots

- Thorough management of operation, works and facilities
- Early risk detection activity (early risk detection training, reporting minor concerns)
- Organization-wide utilization of information gained from accidents
- Operation skills training using educational simulators
- Education system based on competency mapping
- Small group activities, etc.

Distribution

- Establishment of a safety assessment system for transportation companies
- Establishment of an audit program by the head office
- Dissemination of safety management information and driver education information

Service stations

- Displaying posters raising anti-electrostatics awareness of customers
- Clear marking of guidepaths
- Non-smoking signage
- Monitoring of self-service stations by employees

Response to accidents

In preparation for fires, our refineries have heavy-duty chemical fire engines and an in-house fire brigade has been set up and carries out regular fire drills. In the event of any oil spillage during loading and unloading, our wharves have oil booms to prevent the spread of oil in the ocean. As a measure against marine pollution from major oil spills, Cosmo Oil has joined the Petroleum Association of Japan's Oil Spill Co-operative Organization and set up a base for storing oil spill prevention equipment and materials at its refinery in Yokkaichi (Base No.3) as part of the mutual support system.

Hard measures

Refineries and oil storage depots

- Installation of fire prevention and fire fighting facilities and equipment
- Installation of safety and protective devices
- Deployment of heavy-duty chemical fire engines
- Deployment of oil booms at wharves

Distribution

- Installation of fire prevention and fire fighting facilities and equipment
- Carrying equipment and materials on board
- Installation of radios on tanker trucks

Service stations

- Installation of fire extinguishers and fire fighting equipment
- Installation of fire walls

Soft measures

Refineries and oil storage depots

- Development and establishment of an emergency response body
- Fire drills (at each business site and jointly with neighborhood and local fire brigades)
- Development of mutual support system
- Preparation of manuals

Distribution

- Development and establishment of an emergency response body
- Education and training relating to accidents and problems during transportation
- Preparation of manuals
- Support by the operations manager

Service stations

- Fire drills
- Disaster prevention education
- Preparation of service station risk and safety management manual



Comprehensive emergency drill



In-house fire brigade (fire engines)



In-house fire brigade drill



Marine emergency drill