

Business Safety and Emergency Countermeasures

For the petroleum industry, a basic element of environmental response is the knowledge that safety preparations are ready. From the development of crude oil to product sales, ensuring safety in all our business activities is one of the most important subjects for Cosmo Oil, as we implement safety countermeasures ready to respond to the unlikely occurrence of an emergency.

Tanker Safety Measures: Ready to Respond to Emergencies

Massive oil spills from tankers can cause widespread ocean pollution. Cosmo Oil is very careful in the selection of shipping companies used for the chartering of vessels, and continues to introduce ships with double-hull construction, which reduces the danger of spills. To ensure the safety and quality of charters, we request that ship owners hold an independent safety check every year from January to March; under our direction, a careful inspection is made of everything from hull condition to all documentation.

From 1997, we have also held drills in cooperation with ship owners involving a simulated tanker accident, covering all necessary communications both internally and outside the company, including the establishment of a disaster control headquarters and announcements to the media.

Cosmo Oil is also a major contributor to the International Oil Pollution Fund, providing 2.2 percent of all funding. This fund provides compensation to the victims of major oil spills beyond the limit of responsibility of ship owners, to a top figure of approximately 10 billion yen.

Oil Refinery Safety Measures and Emergency Preparedness

Oil refineries handle large quantities of combustible materials. Acting independently with a strong sense of responsibility for the preservation of order and public safety, the head of the refinery acts as chairman in organizing a safety and health committee which plans preventative safety measures for transportation, operations, facilities and other business activities. Through this systematic annual safety goal management, ongoing safety management is ensured.

As a new initiative from January, 2001, The Safety Administration Strengthening Committee has been organized to strengthen administra-

tion covering facilities, construction and operations, to more firmly deal with safety issues.

To prepare for the highly unlikely occurrence of an emergency at the oil refineries, our emergency systems have been reinforced. Along with the preparation of comprehensive, heavy-duty firefighting facilities and emergency materials, an internal fire brigade has been established, with ongoing oil refinery-specific emergency and reporting training being carried out. Joint emergency systems have also been established with neighboring industrial complexes, while joint training with public organizations further strengthens local protection against disasters.

The early detection of abnormalities is also an important of disaster protection for Cosmo Oil. This is reflected in fire alarm systems, gas detection units, a monitoring system and very careful daily patrolling, all serving to identify problems early on.

Oil fences* have also been installed on piers and preparations for their use completed in anticipation of oil spills during transport operations. Other preparations against large-scale oil spills include participation in the Petroleum Association of Japan's Oil Spill Cooperative Organization (POSCO), a mutual support system. Preparations against major oil spills at the Yokkaichi Oil Refinery include setting part of the facilities aside to be managed and made available to others as a base for oil spill prevention materials and facilities.



Oil fence (in stored position)

*Oil Fence

A fence which rides on the surface of the ocean, preventing the spread of spilled oil. It is towed into place by a tugboat or other vessel.



Double-hull VLCC tanker

System for the Strengthening of Oil Refinery Safety Administration



The Service Station Crisis and Safety Management Manual



Company fire brigade at oil refinery



Comprehensive disaster drill

Safety Measures at Service Stations

Each service station has a great many tasks to perform; the *Service Station Crisis and Safety Management Manual* was produced to help deal with regulations, equipment safety and maintenance, emergency and crime prevention, emergency response, response to environmental problems, and communications with the community.

Consulting service station management (SVs) provide instruction to the service stations based on the *Manual*.