

Chapter 2

We aspire to become a safe, accident-free company

Fostering an acute awareness of safety in the workplace on the part of each and every employee is as important to establishing a safe business environment as instituting technologies and systems to prevent accidents. The Cosmo Oil Group focuses daily on safety in order to build an environment in which employees are able to work with peace of mind. Placing the highest priority on safety at all times and working to eliminate accidents entirely, the Cosmo Oil Group is committed to building a society where all people can feel safe and secure.

Raising Safety Awareness from the Bottom Up

Yoji Senga
Technical Training Center,
Yokkaichi Refinery,
Cosmo Oil Co., Ltd.



“Cosmo Oil has focused on human resource development as the foundation for safe operations. This is based on the belief that people are the ultimate line of defense when it comes to safety. The Company’s Technical Training Center was established in 1994 as a place for employees to acquire techniques for operating oil production equipment and to learn ways to deal with any problems that may arise.

In addition to learning on simulators for each piece of equipment, trainees learn about the design of machinery using miniature devices. The main objective is for trainees to learn normal operating techniques. However, after the Great East Japan Earthquake

last year, the Company is also putting effort into emergency training to teach employees how to deal with disasters.

The role of the Technical Training Center is to provide support for the improvement of operation techniques and safety awareness among operation personnel, from the standpoint of frontline manufacturing. Although responses to frequently occurring incidents are covered by the regular training, in order to further improve safety in refineries, we must foster the ability for people to think for themselves, make decisions, and take proper action when emergencies or unforeseen circumstances arise.”



Trainee Comment

The simulators are identical to the actual equipment, including the operations and alarm sounds. This helped us learn how to handle the actual equipment for specific products. The training on the simulator gave us confidence about operating the real machinery. Having the training makes a big difference in terms of how easy it is to do the job. Even though it was just on the simulator, we all felt a great sense of accomplishment when we first performed an operation correctly. It gave us a real sense of personal growth.

Safety and security depend on various measures to prevent accidents, and reliable preparations to deal with any accidents that may occur.

Change 21 Activities at Refineries

All Cosmo Oil refineries and Cosmo Matsuyama Oil Co., Ltd., have introduced Change 21 Activities,¹ the ultimate goal of which is achieving and maintaining a record of zero accidents. These activities are designed to strengthen the safety management system and further improve the level of equipment



At a meeting of the Comprehensive Safety Action Headquarters Committee

maintenance. As a result of these efforts, the number of unsafe and failure incidents² in 2011 stood at 111, a 13% decrease from the 127 incidents in 2010.³

A fire and several explosions occurred in the LPG tank area at the Chiba Refinery when the Great East Japan Earthquake struck on March 11, 2011, and there was an asphalt leak from an outside tank at the Chiba Refinery on June 28, 2012. After reviewing and learning lessons from these incidents, the Cosmo Oil Group is striving to steadily overcome challenges and foster a strong culture of safety in order to maintain safe operations and stable product supply.

1. Activities under the Third Consolidated Medium-Term Safety Plan, including Change 21 Activities, are based on a calendar year rather than a fiscal year.
2. "Unsafe and failure incidents," as defined by the Cosmo Oil Group, include the following: extraordinary accidents as defined by the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities; and trouble, failures and work-related injuries that do not rise to the level of extraordinary accidents.
3. In February 2011, the definition of "unsafe and failure incidents" was revised to include a wider range of incidents. Therefore, although 99 incidents were reported for 2010 in last year's Corporate Report, using the new definition, the number for 2010 has been revised retroactively to 127.

Disaster Drills

Each year, disaster drills are conducted at the Cosmo Oil Head Office and refineries. In fiscal 2011, a disaster drill was carried out based on lessons learned from the Great East Japan Earthquake. The drill at the Chiba Refinery, where a fire broke out following the quake, included a confirmation of the system for notifying the government and nearby companies and was conducted in cooperation with relevant government agencies and Maruzen Petrochemical Co., Ltd. which is located in the same industrial area.

Emergency drills assuming a tsunami warning were also carried out at the Yokkaichi Refinery, Sakai Refinery, and Sakaide Refinery, which would be affected in the case of an earthquake in the historically active seismic zones of Tonankai or Nankai.

The Cosmo Oil Group will continue to carry out disaster prevention training in order to minimize the impact of any future disaster, including secondary disasters. In this way, the Group strives to earn the trust and confidence of society, including people living near Cosmo Oil facilities.



Firefighting drill using an elevated water cannon

Safety Forum for Partners Involved in Service Station Construction

Cosmo Trade and Service Co., Ltd., which builds and maintains service stations under the Cosmo Oil service station strategy, holds a safety forum for all its partner companies every March. The forum is designed to improve the safety awareness of all those involved.

At the fiscal 2011 safety forum, partner companies involved in service station operations such as maintenance, painting, dismantling, and soil environmental protection gave presentations on their efforts to improve safety. A fuel pump manufacturer also gave a presentation on the condition of



Manual portable emergency pump (left) and an emergency generator for service stations

service stations affected by the Great East Japan Earthquake, and gave an estimate for reconstruction work. Participants left with a renewed determination to

improve day-to-day safety during service station construction, by focusing efforts on earthquake recovery work and applying the resources of the entire Cosmo Oil Group.¹

The Cosmo Oil Group has architectural engineers conduct safety patrols in each stage of construction, greatly contributing to worksite safety. The Group is determined to maintain its record of zero construction accidents in order to keep strengthening the Cosmo Oil brand.



Refueling using a portable emergency pump²

1. The safety forum also presented the actual initial responses during the earthquake, including rapid fueling for emergency vehicles using portable emergency pumps, even when service stations experienced power outages or were at risk from ruptured pipes. Information was also shared concerning fuel supply methods during emergencies.
2. Refueling from a vehicle was an emergency exception and was carried out under the watchful eye of the fire department.