



# Safe Operations

The Cosmo Oil Group considers safe operations and stable energy supplies to be issues of the highest priority. The Group aims to serve as a responsible member of society by ensuring safety in all of its business practices.

## Initiatives for Safety

### ○ Safety Policy

#### Consolidated Medium-Term Safety Plan

The Cosmo Oil Group has been implementing initiatives for safety under its Consolidated Medium-Term Safety Plan since formulating it in fiscal 2005. Initiatives are formulated for each stage of business from production through distribution and sales, as well as for engineering and other departments.

The Group commenced its Second Consolidated Medium-Term Safety Plan in fiscal 2008. Based on the Plan's vision of "actively promoting activities aimed at achieving a zero accidents record and building a safe and secure Cosmo Oil Group that is trusted by society and a source of employee pride," the Group is committed to increasing safety by setting targets aimed at reducing accidents, evaluating safety conditions and implementing improvements.

#### Safety as Priority Number One

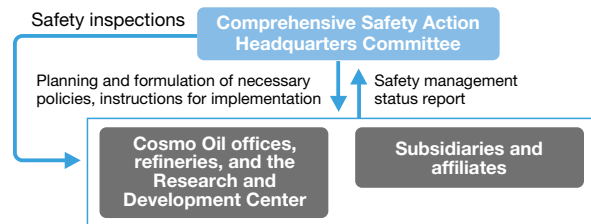
On April 1, 2009, the president of Cosmo Oil launched the fiscal year with a clearly defined policy on safety, issuing a message calling on all employees to make "safety priority number one." The message covered in detail the need to "increase awareness regarding the prevention of accidents, disasters and incidents in absolute terms, and a policy in all business practices that makes safety the first priority based on the active participation and self-awareness of each and every employee."

## Safety Management

To ensure safety in every stage of business operations from production through distribution, sales, and engineering, Cosmo Oil has established the Comprehensive Safety Action Headquarters Committee to oversee its safety management affairs. The director in charge of the Safety and Environment Control Department serves as the chairperson of the Headquarters, which is comprised of members from each of the Group's operational areas.

In addition to holding regular meetings each year, the Comprehensive Safety Action Headquarters Committee reviews and coordinates important matters related to safety issues, and verifies the Group's safety management status in each department and workplace. The Committee also conducts annual safety inspections at Cosmo Oil Group workplaces and the Head Office departments that oversee these workplaces.

### ▶ Safety Management System



### ▶ Fiscal 2008 Initiatives and Results under the Second Consolidated Medium-Term Safety Plan

Degree of achievement:  
○ Achieved △ Partially achieved × No progress

Divisions		Major Goals	Major Initiatives and Results in 2008	Achievement of Goal
Refining and manufacturing	4 refineries and Cosmo Matsuyama Oil Co., Ltd.	• Reduce unsafe and failure incidents by 90% or more from the benchmark year by 2010 (meaning 11 or less incidents)	• Unsafe and failure incidents: 142	N.A.
	Cosmo Oil Lubricants Co., Ltd. (manufacturer of lubricating oil)	• Zero work-related injuries • Reduce accidents/incidents by 30% over previous year	• Work-related injuries: 2 • The benchmark was determined for evaluating results from 2009	△
	Cosmo Petroleum Gas Co., Ltd. (LPG storage/delivery)	• Maintain zero accidents/incidents	• Accidents/incidents: 0	○
Distribution	Cosmo Delivery Service Co., Ltd. (ground shipments)	• Eliminate oil-mixing accidents to zero • Encourage employees to report near-miss accidents, with a target of 10,000 reports	• Oil-mixing accidents: 4 • Approx. 20,000 near-miss accidents reported	△
	Cosmo Kaiun Co., Ltd. (sea shipments)	• Maintain zero accidents involving marine oil spills/ships run aground • Reduce equipment failure to 50% of previous year	• Marine oil spills/ships run aground: 0 • The benchmark was determined for evaluating results from 2009	○
	Oil depots	• Maintain zero work-related injuries • Limit the number of fires/oil spills to less than 2 incidents per year	• Work-related injuries: 0 • Fires/oil spills: 0	○
Sales and other operations	Sales Support Department	• Maintain zero work-related injuries in service station construction	• Work-related injuries: 0	○
	Project Development Department (co-generation, etc.)	• Limit the number of accidents to no more than 1 annually	• Accidents: 0	○
	Research and Development Center	• Maintain zero work-related injuries • Reduce number of accidents/incidents	• Work-related injuries: 0 • The benchmark was determined for evaluating results from 2009	○
	Cosmo Engineering Co., Ltd.	• Steadily reduce work-related injuries to zero	• Work-related injuries: 14 • The benchmark was determined for evaluating results from 2009	N.A.

## Initiatives at Refineries

### Change 21 Activities

Cosmo Oil refineries have incorporated the Group's Change 21 Activities, setting a target of reducing unsafe and failure incidents by 90% or more by 2010 compared to the benchmark year, covering September 2006 to August 2007. The refineries' ultimately aim to achieve and maintain zero accidents.

### Unsafe and Failure Incidents

The number of unsafe and failure incidents totaled 142 in 2008, an increase over the benchmark year. However, in fiscal 2008 the Group recorded fewer extraordinary accidents, which are defined by the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities and include fires, explosions, spills, damage, and control breakdowns.

#### Number of Unsafe and Failure Incidents

	2008	Benchmark year (Sept. 2006 to Aug. 2007)
Unsafe and failure incidents	142	110
Extraordinary accidents (as defined by law)	14	21

### Future Initiatives

#### Boost Maintenance Levels

The Cosmo Oil Group is strengthening efforts to deal with narrow pipes and chemical pipes, as well as drainage pipes that carry trace amounts of oil, through proper maintenance. This issue had not received special attention in the past.

#### Eliminate Unsafe Actions

- The Group is conducting ongoing activities to ensure that all employees have a thorough knowledge of its declaration on promoting safety, which mandates that all business practices be grounded in a back-to-basics approach to safety.
- The Group is actively focused on a zero-accident campaign, which promotes respect for individuals based on the belief that every human life is irreplaceable. As an example, the campaign requires employees to point to and say aloud every step in certain work processes. Employees are also expected to stop and double check during certain operations in order to eliminate unsafe actions.

## Safety Inspections

In fiscal 2008, the Cosmo Oil Group carried out safety inspections at 12 workplaces and departments, and all four refineries. The refinery inspection teams, historically comprised of Head Office representatives, now include representatives from other Cosmo Oil refineries, better enabling the teams to provide practical guidance on making improvements to refinery practices and operations.

## Initiatives in Distribution

### Zero Accident Awards

Aiming to eliminate truck accidents during ground shipments, the Cosmo Oil Group raises awareness of safety by presenting annual awards to ground transportation companies and truck drivers who maintain a zero-accident record. Held on May 20, 2009, the fiscal 2008 awards ceremony presented these awards to a total of nine companies, including five that have maintained zero-accident records for seven years, and 16 truck drivers, including eight that have maintained zero-accident records for 20 years. Certificates and additional prizes were also handed out at the ceremony.

### Safety Management Systems

With the goal of establishing a voluntary safety system for contracted ground shipment service providers, in fiscal 2008 the Cosmo Oil Group began setting up a safety management system under the leadership of Cosmo Delivery Service Co., Ltd. Efforts focused on setting policies and targets, documenting plans, and compiling procedures and manuals for system enforcement and application. In fiscal 2009, the Group is aiming for the practical application and full-scale incorporation of this management system.

#### Surfacing of Ocean-Bottom Crude Oil Pipes

Crude oil pipes laid on the ocean bottom by the Chiba Refinery surfaced on June 19, 2008. The pipes then cracked on July 31 as they were being relaid, resulting in oil-tainted water spilling into the ocean. The director in charge of the Safety and Environment Control Department at Cosmo Oil formed the Comprehensive Disaster Countermeasures Headquarters Committee to develop measures for recovering the spilt oil and replacing sections of the surfaced piping. The pipeline was successfully restored in February 2009. The accidental surfacing was attributed to a failure during the execution of airtight inspections. To prevent a similar accident from recurring, the Group is revising methods for managing airtight inspections and systems for construction procedures based on the lessons learned from this accident.



Restoration of ocean-bottom crude oil pipes