



## Ensuring Safety Measures

The Cosmo Energy Group has made safe operations and the stable supply of energy one of its most important material issues.

We have intentionally included ensuring safety measures in the governance items as an important foundation for improving our corporate value. We have set KPIs in the sustainability plan and are reinforcing our safety management structure.

### Safe operations and stable supply

Chapter 1 of the Cosmo Energy Group Code of Conduct states, "We are determined to be a safe, accident-free corporate group." Our sustainability plan includes preventing work-related accidents and preventing major accidents as targets for ensuring safety measures, and we have been proactive in implementing safety measures. In FY2020, there was no major work-related accidents or major accidents at the Group. However, the number of non-major work-related accidents increased from the previous year. We are therefore taking measures to prevent their recurrence by determining the causes of those accidents. Our refineries and plants achieved zero serious accidents,

including zero serious labor-related accidents. In FY2021 Cosmo Oil, which possesses refineries, is continuing to execute safety management procedures by using the frequency rate\* of lost-worktime accidents and injuries, the rate of unplanned stoppages, and the number of days of stoppage of incoming and outgoing shipments as management indicators. In addition, the company strives for safe operations and stable supply by establishing good workplaces and work environments and by managing the Operational Management System (OMS).

\*Frequency rate represents the number of casualties from work-related accidents and injuries in one million work hours and indicates the frequency of occurrence of accidents and injuries.

Cosmo Energy Group's Number of Work-Related Accidents	FY2018		FY2019		FY2020	
	Accidents requiring time off from work	Accidents not requiring time off from work	Accidents requiring time off from work	Accidents not requiring time off from work	Accidents requiring time off from work	Accidents not requiring time off from work
Accidents during work	37	83	13	85	33	95
Accidents during commuting	9	22	11	13	12	19
TOTAL	46	105	24	98	45	114

(Supplement) Including accidents that occurred at subcontracting companies

### Quality assurance: enhancing the quality assurance structure

With the objective of the economical, stable supply of safe products that fulfill customers' requirements for quality, Cosmo Oil and Cosmo Oil Marketing have a CS and Quality Assurance Committee to decide on a quality assurance policy and encourage related activities. The CS and Quality Assurance Committees of the two companies worked with the Sustainability Strategy Committee of Cosmo Energy

Holdings to establish the quality assurance structure of the Cosmo Energy Group. Cosmo Oil engaged in quality management activities by setting the prevention of serious product (quality) accidents as a KPI. In FY2020, our refineries and oil depots had no serious quality-related issues and continued to record no shipments of non-conforming products.

### Certified as super nintei jigyoisha, a business operator with high-level voluntary safety activities (Chiba Refinery)

In April 2021, Chiba Refinery was certified as a super nintei jigyoisha (tokutei nintei jigyoisha). In this special certification program, the Ministry of Economy, Trade and Industry certifies businesses which have achieved high-level

voluntary safety activities, through activities such as the utilization of big data, high-level risk assessment, and the third-party evaluation of safety capabilities. Chiba Refinery is the first in the Group to be certified under the program.

#### Benefits of being certified

Category	Conventional certification program	Super Nintei certification program
Period of continuous operation	Fixed (2 years/4 years)	Arbitrary with an upper limit of 8 years (The business operator is allowed to set the period on their own in accordance with risks.)
Completion inspection/safety inspection methods	Methods specified by the Minister of Economy, Trade and Industry	Wider inspection method options (To be determined by the business operator)
Equipment renewal (Same specifications)	Prior permission required	Prior permission not needed in a wider range

The benefits described at left enable more flexible, efficient business operation than before. They also lead to the greater competitiveness of the refinery. Our ability to obtain the certification of the Chiba Refinery, which has the largest refining capacity among Cosmo Oil's refineries and is located close to the Greater Tokyo Area.

#### Initiatives for obtaining certification

At Cosmo Oil's refineries, we have been carrying out and continuously improving safety management activities to achieve a level of safety that exceeds the global standard, with an Operation Management System (OMS) that is the foundation of our operating base, in our efforts to improve our safety capabilities. As part of these initiatives, we took the measures described at right at the Chiba Refinery. We will continue to take actions to remain a safe, accident-free corporate group as set forth in the Cosmo Energy Group Code of Conduct, as we work to eliminate imperfections. At the same time, we will contribute to the enrichment of customers' lives through safe operations and a stable energy supply.



Chiba Refinery



Use of drone technologies

#### 1 Autonomous safety management activities

We have established various autonomous safety management activities with the goals of ensuring that operations are safe and eliminating work-related accidents. We also take measures to develop workers' risk sensitivity, including systematized risk assessment training.

#### 2 Enhancing measures to develop specialized human resources

We are enhancing measures to develop specialized human resources capable of assessing the safety of refining equipment, including assessing the risk of fire and other problems in the refining process, assessing the need to maintain various equipment, and plant safety management.

#### 3 Measures to prevent major accidents

We conduct disaster drills that assume the occurrence of major accidents, assess risk and simulate emergencies. We have also introduced a method of evaluating the frequency of occurrence of accidents and the probability of failure of equipment to prevent these accidents and create analyses with clearer technological grounds.

#### 4 Implementation of advanced technologies

To automate our voluntary safety activities and increase their sophistication, we are demonstrating a monitoring system that uses drones to patrol and inspect equipment and high places in plants. Further, we are proactively introducing advanced technologies, such as our online pipe monitoring system that collects data about pipe wall thickness to improve equipment reliability.

### Ensuring safety measures by Group companies

#### Cosmo Eco Power

Cosmo Eco Power, which is engaged in the wind power generation business, performs regular check-ups, responses to malfunctions or issues, and 24-hour remote monitoring to operate wind farms safely and efficiently. Based on past records and experience, we estimate potential issues and timing and focus on preventive maintenance comprising the replacement of certain components ahead of any long suspension in operation.

#### Maruzen Petrochemical

Maruzen Petrochemical declares in its management principles that "Our goal is to be the number one company in safety" and

believes that safety is its top priority and its corporate mission. The company also pledges in its Action Standard (CC10), which it has established, to strive to predict risks of accidents or incidents and prevent their occurrence, thereby continuing to achieve zero accidents or incidents. The entire company, including Chiba Plant and Yokkaichi Plant, is promoting concerted safety management efforts focused on process safety, disaster prevention, labor, and logistics, which are called "the Number One Safety Activity." The company will continue safe, stable operations and thorough safety management while taking measures to control COVID-19 infections which have been a concern since 2020.