

INITIATIVES FOR PREVENTING ACCIDENTS

Safety Experience Education Using Virtual Reality (VR) Technology

As the number of occupational accidents in industry has fallen in recent years, the number of people who have direct experience of accidents has dropped accordingly, leading to a lower sensitivity to danger (ability to predict danger). To address this, we conducted safety experience education at two refineries in 2017 aimed at heightening employee sensitivity to danger through practical experience of the familiar dangers that exist in the workplace.



Safety experience education

INITIATIVES FOR PREVENTING RECURRENCE OF ACCIDENTS

Accident Countermeasures (Efforts to Prevent Recurrence of Lost Workday Accidents)

When an occupational accident has unfortunately occurred, it is important to formulate and ensure the implementation of measures to prevent recurrence so that a similar accident does not happen again. When an accident resulting in lost work days occurs in Showa Shell Group, we visit the scene of the accident and confirm the circumstances at the time when the accident occurred and the direct cause in addition to identifying the underlying causes. And then, we implement measures to prevent the recurrence of the underlying cause.

Moreover, after measures to prevent recurrence have been implemented, we verify the result of countermeasures after a certain period of time to check that the measures to prevent recurrence are truly functioning effectively so that we build a system where the same kind of accident will not occur again.

CULTIVATING A GROUP CULTURE OF SAFETY

HSSE Site Visits by Executives

All executives conduct HSSE site visits at refineries and business sites in light of the refinery accident that occurred in 2006. These visits were initiated with the objective of achieving Goal Zero by checking on the status of HSSE activities and increasing safety awareness at business sites through dialogue between executives and employees at those sites. The theme for the visits in 2017 was "A bilateral exchange of views between visited business sites and management to increase safety awareness." Lively discussions were held between top management and frontline employees through communication, such as introduction of examples of accidents and the safety activities at each workplace, and onsite inspection tours. Since 2015, HSSE Regional Reciprocal Visits have also been conducted in which managers of regional offices and branches visit the business sites they are responsible for to promote mutual understanding and strengthen collaboration around safety and crisis management. In 2017, HSSE site visits by executives were conducted at 29 locations and HSSE Regional Reciprocal Visits were conducted at 26 locations. These initiatives have allowed us to share our vision to prioritize HSSE and compliance with all employees throughout the Showa Shell Group. Moving forward, we will continue to strive for Goal Zero and promote HSSE activities at each workplace.



HSSE site visit at Seibu Oil by President, Executive Officer, CEO Kameoka

Safety Day

Showa Shell Group has been implementing the Goal Zero Movement with the aim of reducing serious accidents, such as an accident resulting in lost work days, to zero since 2011. As part of the Goal Zero Movement, we also hold a Safety Day in which each workplace discusses safety. For Safety Day in 2017, we identified unsafe practices during work in each workplace, and based on the results, we declared Goal Zero Declaration and took measures to prevent accidents.

Safety Awards

We have been holding the Safety Awards since 1992 as a means of raising safety awareness of employees and increasing the overall level of safety throughout the Group. In 2018, 28 business sites were presented with the Safety Excellence Award and two business sites received the Special Safety Award. At the award ceremony, the business sites that received the Special Safety Award gave presentations on the safety initiatives that led to their achievement of zero accidents over a long period, sharing their success stories throughout the Group.



Safety Awards ceremony

Establishing the Safety Compliance Rules (SCR)

We established the Safety Compliance Rules (SCR), new safety rules aimed at preventing accidents in daily life and work, based on the results from analysis of the unsafe practices identified on Safety Day in 2017. Showa Shell Group is aiming for zero fatal accidents in daily work based on compliance with the SCR.



PROMOTING EMPLOYEE HEALTH

Health Management for Employees

We annually conduct health examinations including various cancer checks that are more extensive than the legal requirements. Based on the findings of these examinations, we provide consultations with an occupational physician or follow-up with more extensive testing. In both 2017 and 2018, the rate for having the periodic health examination continued to be 100%, and ensure the prevention of more severe symptoms in employees who required follow up. We also provide pre-travel health examinations for employees posted overseas and overseas students, explain the results and give advice on how to manage health overseas. In addition, we provide lunches that consider nutritional balance in our cafeteria. In our health collaboration program with health insurance associations, we are implementing an exercise promotion program (core training in 2017), which is our health promotion plan, introducing an online health support service, holding health events, and taking other measures to maintain and promote the health of employees and their families.



Cafeteria



Experience seminar

Mental Health Care Initiatives

As a primary preventative measure, we carry out stress checks based on the Industrial Safety and Health Act, and provide an approach and follow up for employees with high stress levels. In addition to the grade-specific training (new employee training, new manager training, etc.) by medical professionals that we have provided in the past, we also provide self-care training for all employees and line care training for managers conducted by outside experts. As health measures for employees working long hours, we have established even stricter criteria than legally required to provide consultations with an occupational physician. For employees returning from leave, we carry out consultations with the individual concerned and their superiors respectively even after the return to work, making ongoing efforts to prevent recurrence.

### Health Counseling Desk

We have set up a Health Counseling Desk on Heart and Body Health Plaza, an intranet site that is periodically updated with information on health-related topics. This site enables employees to seek counseling regarding their mental or physical health with full privacy.



Intranet site "Heart and Body Health Plaza"

### Using Laughter to Promote Health

As a measure to promote employee health from a fresh perspective, we continued to offer the Lecture on Laughter and Health based on laughter which is deeply connected to health, working to achieve an improvement in employee health and an energetic workplace by flooding the company with laughter. Approximately 100 leaders from each division took part in the lecture and they have spread their knowledge about laughter and health within the company.



Lecture on Laughter and Health

## QUALITY INITIATIVES

### Our stance on Quality Control

As a matter that Showa Shell Group must implement, the Basic Policy on HSSE (P9) states, "The Company takes HSSE into consideration throughout all stages from product development to its disposal and offers information on proper handling and consuming methods of our product to consumers." In accordance with this basic policy, the Group companies strive to increase customer satisfaction by supplying safe and high-quality products and services.

### Quality Management System

We implement quality management initiatives based on the HSSE promotion system (P10). We have established the Product Safety Sub-Committee chaired by the executive officer responsible for the environment and safety as a subordinate committee of the Risk Management Committee. With the participation of managers of divisions that make up the supply chain for the Company's products, the Product Safety Sub-Committee reports issues relating to quality and safety in each division, reviews the effectiveness of improvement measures from a companywide perspective, and checks the progress of the improvement measures are progressing according to the plan.

Moreover, 12 companies and business sites in Showa Shell Group have obtained certification under the ISO 9001 quality management system as of December 31, 2017.

### Education on Quality

It is important to cultivate a company-wide culture that values quality in order to improve the quality of the products and services that the Company provides to customers and customer satisfaction levels. It is also essential that all employees, including new employees constantly have a high level of awareness about quality in order to increase the effects of our initiatives to improve quality.

As part of the Company's training for new employees, we provide basic education on quality, and new employees have the opportunity to learn about quality and quality control, the corporate risks, and other issues that could arise if they are neglected. Moreover, for the training and seminars organized by each division, education and exercises related to quality are carried out.

### Acquisition Status of ISO 9001 (Quality Management System) Certification

As of December 2017

Company / Site	Date of Certification	Certifying Organization
Yokohama Plant of Shell Lubricants Japan K.K.	December 1995	LRQA
Nippon Grease Co., Ltd.	December 1995	LRQA
Kobe Plant of Shell Lubricants Japan K.K.	January 1996	LRQA
Yokkaichi Refinery of Showa Yokkaichi Sekiyu Co., Ltd.	February 1998	LRQA
Yamaguchi Refinery of Seibu Oil Co., Ltd.	August 1997	LRQA
Shoseki Engineering & Construction Co., Ltd.	December 2002	KHK ISO CENTER
K.K. SVC Tokyo	April 2006	Registration Body for IS, Inc.
Atsugi Research Center of Solar Frontier K.K.	June 2009	DNV
Keihin Refinery of Toa Oil Co., Ltd.	December 1996	LRQA
Kunitomi Plant of Solar Frontier K.K.	March 2012	DNV
Solar Frontier K.K. Head office	September 2012	DNV
Rekisei Kagaku K.K.	December 2006	Registration Body for IS, Inc.

## CONDUCTING RESPONSIBLE MANUFACTURING AND ENSURING QUALITY

### Oil Products

We strive to improve customer satisfaction through quality control activities throughout the supply chain from the acceptance of crude oil to the delivery of the final product to the customer. We manage information on the chemical substances contained in our oil products in compliance with both domestic and international regulations, and we update safety data sheets (SDSs) and GHS labels to provide accurate information to customers.

Our Manufacturing Division has acquired certification under the ISO 9001 international quality management standard, and we strive to be able to obtain even higher customer satisfaction not only by working on activities to improve our quality control systems, but also by delivering products that meet in-house standards that are even more stringent than official standards using the unique advanced quality control methodologies possessed by the Shell Group.

As a Group-wide measure, the Product Safety Sub-Committee meets quarterly to discuss initiatives for improving product safety and ensuring product quality. This committee utilizes examples of quality management initiatives from within the Group as well as related insight from the Shell Group to strengthen quality management systems.

### CIS Thin-Film Solar Modules

Solar Frontier, a member of Showa Shell Group, has introduced a production management and facility control/management system that allows an individual product to be tracked by means of an embedded barcode with the aim of providing even higher quality products while meeting the requirements of ISO 9001. Solar Frontier also confirms reliability of solar modules based on international standards such as IEC and others. In addition, it performs various tests (environment tests, load tests, and hail impact tests, etc.) under and longer length of the tests and stress conditions that are more stringent during testing than actual use, in order to confirm durability of its products.

For quality assurance, Solar Frontier provides a warranty for modules and peripheral equipment installed in homes in Japan. Solar Frontier has obtained JETPVm Certification (Trust Assurance) (JIS Q 8901) from Japan Electrical Safety & Environment Technology Laboratories (JET), which recognizes our systems from design to production management as well as the warranty service systems.

