People

"PASSION 2026" Priority Issue Targets and Fiscal 2023 Results

			Benchmarks	FY2023 Target	FY2023 Results	FY2024 Targets	FY2026 Medium-Term Plan
People	Occupational injury	A and B rank occupational injuries*1	2021 3 cases	0	7 cases	Zero	Zero
		Frequency rate of all occupational injuries*2	2021 2.89	1.9 or less	3.17	1.8 or less	1.3 or less
	Process safety	A, B, and C rank accidents*3	2021 3 cases	0	7 cases	Zero	Zero
		D_1 and D_2 rank accidents*3	2021 7 cases	3 cases or less	9 cases	3 cases or less	3 cases or less
	Diversity and inclusion	Global measures	—	—	—	- Develop personnel database and promote personnel recruitment (To visualize human resource status, leverage resources efficiently) - Promote global mobility (To expand career opportunities, invigorate human resource exchanges)	
		Ensuring diversity of core human resources*4	End September 2021: 12%	14%	16%	16%	20%

*1 Evaluation ranking of occupational injuries using Kuraray's proprietary system. Four ranks in order of seriousness: A > B > C > D.
*2 Frequency rate of all occupational injuries: Number of all occupational injuries (lost time and no lost time injuries) per million working hours.
*3 Evaluation ranking of process accidents using Kuraray's proprietary system. Five ranks in order of seriousness: A > B > C > D_1 > D_2.
*4 Ratio of managers in Japan who are women, foreign nationals and mid-career hires, excluding procuction sites

Occupational Safety and Process Safety

Activities at Workplaces

Interaction with Society

Sustainability Medium-term Plan for People

Kuraray's Approach to Safety

In the Kuraray Group's business activities, safety is the cornerstone, an absolute requirement that forms the basis for all activities. It is evident that realizing workplaces where people can safely work at ease without accidents is a critical theme both in maintaining a stable supply of products and in maintaining society's trust.

With these concepts in mind, the Kuraray Group has established and implemented a safety management system to undertake various activities. A number of initiatives are being promoted to raise the safety awareness of our employees and to have safety behavior and confirmations established as common practice at work.

At each workplace, we uncover risks related to occupational safety and process safety, conduct thorough risk assessment activities, promote fundamental equipment safety measures, and prevent process accidents and occupational injuries. Additionally, to prepare for the event of an accident or injury, we are carrying out training to minimize damage, sharing information on cases of accidents and lessons learned, and horizontally deploying countermeasures.

Guiding Principles for Ensuring Safety

Safety is the Cornerstone of Everything We Do

Action Courses for Ensuring Safety (FY2024)

1. **Practice Safety First, Production (Construction, R&D) Second**
2. **Practice "Prediction Hazards", "Make Sure" Safety Comes Before Taking Action, and "Confirm" If the Action Results are What You Expect**
3. **Every Individual Should Make Safety "Their Own Matter", and Every Organization, as a Whole, Should Ensure Safety.**

Safety Activity Management

In accordance with the Company's Safety Activity Management Regulations, the Kuraray Group develops a safety plan every year and implements it to ensure occupational safety and process safety. At the Safety Promotion Committee attended by the President and executives in charge, we make an overall assessment and have a discussion on safety activity performances of the current year and establish an activity policy for the coming fiscal year. This policy is reflected in and implemented through specific action plans of each plant and department. A group of safety representatives from headquarters, including executives in charge of safety, visit every plant of the Group in Japan twice a year to examine their management of implementation progress. In addition, staff members from headquarters visit the Group subsidiaries outside Japan once every three years to confirm their status as well as conduct examinations via remote conferencing. We perform an overall assessment of results based on the issues found through the surveys made at each plant, the safety results for that year, and other factors. We incorporate this assessment into the formulation of company-wide policies for the next year, thereby operating a management system for safe operations.

Verification of safety activities at Kashima Plant

Verification of safety activities at Okayama Plant

Priority Activities for Occupational Safety, Process Safety

2023		Safety Activities in 2024
Activity	Performance	
Practice basic safety actions (“Hazard Prediction”, “Confirmation”) to ensure the safety of the sites / workplaces	We believe our efforts to instill the habits of “predicting hazards” and “making sure the safety” achieve some positive effects. However, the degree of practice in the workplace have taken root varies. Cases of accidents and injuries caused from the skipping of basic actions continued to occur. Continuous efforts are needed to enable every employee to perform basic safety actions in every situation.	

2023		Safety Activities in 2024
Activity	Performance	
Understand actual state of works and work environment, consider risks of the works, and improve the situation from both perspective of “soft measures” and “hard measures”	We grasped risks in the workplace and improved of these risks from activities such as “5S” activities to better organize workplaces, activities to share "awareness" discovered in the workplace and reviewing the operation standards. However, accidents and injuries have occurred due to overlooked risk of being caught in machinery and to insufficient measures for safety that rely on human attention and skill. It is necessary to continue to identify serious risks that may lurk at workplace and implement safety measures from both the equipment and management perspectives.	・Practice of basic action for safety (prediction hazards, confirmation, etc.) on actual workplaces ・Understanding risks in actual workplaces (occupational and process safety) and considering countermeasures from the facilities and management aspects ・Ensuring safety of construction and maintenance works ・Improve overseas chemical plants’ process safety management level
Discover potential risks of process safety (fire, explosion, leakage, etc.), consider countermeasures, and implement measures to minimize realized risks	In addition to continuing to identify potential risks and countermeasures from the viewpoint of unusual tasks and conditions, efforts to conduct response drills for accidents assuming worst-case scenarios have also progressed. We will continue to identify and discover risks of process safety, our activities to explore countermeasures, and conduct response training.	
Ensure safety of construction and maintenance works	To ensure safe construction and maintenance work, we review systems and regulations and provide training. In particular, as a result of the implementation of advanced safety measures to provide safe workplaces, on-site, in-situ tripartite checks at work sites, and appropriate communication of information, the number of work-related injuries at work sites due to inadequate provision of safe workplaces has decreased. It is necessary to ensure that the rules for ensuring safety are operational and practiced on site.	
Improve overseas chemical plants’ safety management level	Continued safety audits of overseas chemical plants in the U.S., Europe, Asia, etc. We put into operation a system of safety policy briefing meetings and accident reporting meetings, etc., which were introduced to improve communication with our overseas groups. In addition, the global team of experts in process safety management (PSM) consisting of cross organizational members is promoting to confirm the current level of safety management system for each overseas sites and identify issues. We will continue to improve the level of safety management.	

Process Safety

At the Kuraray Group, we consider it our major responsibility to prevent the occurrence of explosions or fires, leakage of hazardous materials and other accidents that could have an immense impact on society, as well as to minimize any damage in the event of such occurrence. For this purpose, we have continuously undertaken activities such as risk assessment related to process safety, and strive to take earthquake and tsunami countermeasures for buildings and plants, and organize the safety management system for facilities.

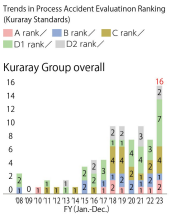
After accidents occurred at the other companies in the 2010s, we are paying particular attention to the risk assessment of unusual tasks and situations such as the starting and ceasing of an operation, a power and water outage, and an emergency shut-down. Moreover, we also extract various risks that may arise in the event of a failure of safety equipment or incompliance with standard procedures or rules, and consider countermeasures.

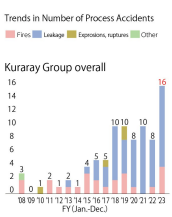
Additionally, we are also working to diverse equipment and management systems and develop human resources to respond quickly to an unusual situation before an accident occurs through educating members to raise their sensitivity to risks in order to detect any sign of abnormalities and to clarify standards to determine an unusual situation.

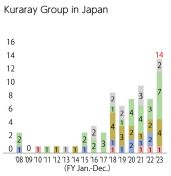
Employees are regularly trained through on-site drills on various situations including the night time, holidays, when managerial personnel are absent and situations that occur without notice, in a drill using an external facility or a joint drill with a local fire department. We are engaging in initiatives for receiving evaluations from an external organization about our safety-related foundations and culture, and we aim to be a safe company that does not suffer any accidents by operating the PDCA cycle with a thorough understanding of which areas need further reinforcement.

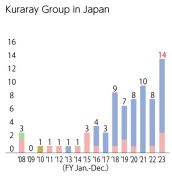
In the event of a significant accident, an Emergency Command Center led by President is ready to be established to promptly respond to the situation and provide on-site support. Media training is also provided to key managerial personnel in charge of public relations to enable them to appropriately provide information to the regional community and media in case of such an accident.

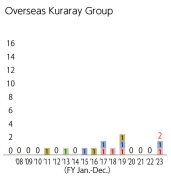
In 2023, the Group-wide total of A, B, or C rank accidents, which are classed as relatively serious process accidents according to our in-house standards, was seven (Group companies in Japan: A rank: one case of leakage, C rank: three cases of leakage and one of fire; overseas Group companies: A rank: one case of leakage, B rank: one case of fire). We thus did not meet our target of zero accidents.

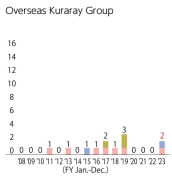










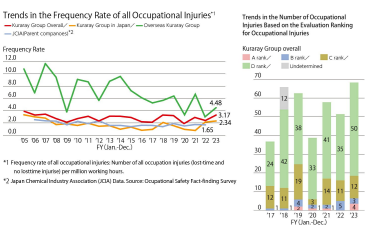


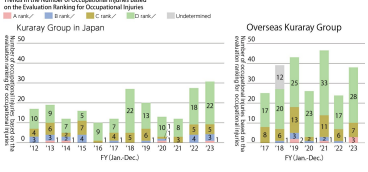
The total of A, B, or C rank accidents at Group companies in Japan has now stayed around the level of five per year for several years. Overseas Group companies experienced no accidents from 2020 to 2022 but recorded two in 2023. In 2023, the Group-wide total of D1 and D2 rank accidents, which are incidents classed as minor by our in-house standards, such as leakage of a very small amount of hazardous material and fires or flame outbursts that are quickly put out, was nine (Group companies in Japan: D1 rank: five cases of leakage and two of fire, D2 rank: two cases of leakage; overseas Group companies: none). This result fell short of our target of three or less. The number of process accidents increased year on year, and was the worst figure on record. Specifically, the figure included many cases where safety checks before and after procedures were neglected, such as forgetting to close a valve. We are working to address this, and will continue to identify workplace risks and measures to address them, targeting zero relatively serious accidents and a reduction in the number of minor process incidents.

In addition, while continuing the safety audits for overseas chemical plants that began in 2019, we formed a new team of global experts in Process Safety Management (PSM) and commenced activities in 2022. The purpose of this expert team is to identify and grasp issues by its cross-organizational members, share information on findings for improvement, and horizontally deploy the findings throughout the Kuraray Group. In 2024, we plan to conduct on-site audits of the implementation status of process safety at each site. We will thoroughly prevent recurrence of process accidents at our overseas chemical plants, as well as to improve the safety control level by addressing issues identified through audits and other means.

Occupational Safety

Realizing that the safety and health of its employees are the basis of business activities, the Kuraray Group aims to create safe and injure free workplaces by striving to enhance the safety level of each of its employees and organizations. Through Group-wide policies and activity items including Guiding Principles and Action Courses for Ensuring Safety, policies and plans are thoughtfully developed and put into practice according to each plant's and division's situations and their unique ideas. Safety activities and their challenges are discussed among workers and employers at the Safety and Health Committee held by





each of the domestic plants and factories every month, aiming to realize workplaces where people can safely work at ease without accidents.

Through safety measures to make equipment inherently safe and risk assessment activities, serious occupational injuries have been decreasing. However, many occupational injuries caused by individuals' unconsidered or unconscious behavior have still occurred. Therefore, education to raise the sensitivity of each employee to risks has been promoted to eliminate such occupational injuries.

The frequency rate of all occupational injuries for the Group in 2023 was 3.17 (2.34 for Group companies in Japan, 4.48 for Group companies overseas), falling short of our target rate of 1.9 or less. The frequency rate for Group companies in Japan showed deterioration for the second year in a row and was the worst result in the last ten years. Although the rate for Group companies overseas was worse than the previous year, the long-term trend appears to be improving. We have introduced a unique index to assess the severity of occupational injuries using a four-level ranking, from A to D. Our target is to eliminate A and B rank (more serious) occupational injuries. There were a total of seven A and B rank occupational injuries across the Group in 2023 (one A rank and three B rank injuries in Japan, and three A rank injuries overseas), a result that fell short of the target. The A and B rank injuries all involved personnel becoming caught or entangled in machinery. The causes were a failure to identify risks and insufficient measures for safety that rely on human attention and skill, which we are now addressing. We are steadily implementing initiatives to deal with related issues as we continue to work toward safe, injury-free workplaces.

Number of Fatal Occupational Injuries

Bounary

Japan: Kuraray Co., Ltd. and subsidiaries in Japan
Over seas: Plants of overseas subsidiaries

	2018	2019	2020	2021	2022	2023
Japan	0	0	0	0	0	0
Overseas	0	0	0	0	0	0

-No fatal incidents have occurred in Kuraray Group in Japan since the one in December 2005.

-No fatal incidents have occurred overseas since fiscal 2002. the earliest year for which data is available.

Number of Workers Killed by Occpational Injuries (at subcontractors)

Bounary

Japan: Workers of subcontractors that engage in maintenance and constrution works at the Company's plants, etc.
overseas: Same as above

	2018	2019	2020	2021	2022	2023
Japan	0	0	0	0	0	0
Overseas	0	0	0	0	0	0

-No fatal incidents have occurred at subcontractors in Japan since the one in March 1992.

-No fatal incidents have been reported at overseas subcontractors in the past.

Risk assessment of new business, capital investment, etc.

The Kuraray Group has in place and operates a system that carries out prior surveys and risk assessment regarding process safety and occupational safety and health of new projects and capital investments in and outside Japan through the functions of the Technical Evaluation Committee, the Technology Review Meeting and the Safety and Environment Examination to verify that safety measures and environment measures are sufficiently considered before moving to the next step. In addition, changes in raw materials, facilities, operating conditions and the organization as well as personnel transfer in line with the organizational change (supervisors, administrators, persons in charge, etc.) are implemented after taking measures required upon assessing risks as part of the change control process. The Kuraray Group ensures safety in introducing new business and facilities by steadily implementing these initiatives.

Investigation and Prevention Measures Concerning Fire Incident at U.S. Plant

In December 2023, we announced the results of an investigation into a fire incident that occurred in 2018 at a plant belonging to a subsidiary in the United States. The investigation examined the incident from three perspectives—technology, governance, and response to lawsuits—and put together recurrence prevention strategies in each of these areas, which are now steadily being implemented. Additionally, we compiled a Group-wide set of measures based on the results of the investigation and informed by the recurrence prevention measures, and are rolling these out horizontally across the Group through on-site safety checks and other activities. By extending these initiatives to Group companies in Japan and overseas, we are aiming to further reinforce safety and risk management frameworks across the Kuraray Group.

› Management Briefings

Safety Audits for Chemical Plants outside Japan

We initiated safety audits for chemical plants outside Japan in 2019 and we have continued to grasp process safety risks and review and strengthen safety measures to strive the safety and stable operation of the Group outside Japan. In 2023, Safety audits were conducted on-site at our plants in the U.S., Europe, and Asia (including our newly operational plant in Thailand). In addition to following up on the status of responses to issues identified in the previous year's safety audit, we check on the progress of on-site 5S and the status of implementation of non-routine operations (fire-using operations, etc.), and the progress in identifying the causes of safety problems that have occurred and the progress of countermeasures improve the safety level at the site. In 2022, in addition to the existing Japan-based audit team, we have formed a global in-house team of experts in process safety management (PSM) and started audit activities. For reducing the risk of occupational injuries, this expert team will confirm the current status of overseas chemical plants and will give us a better grasp of the process safety management level of each production site and enable us to take appropriate countermeasures.

Kuraray's Proprietary Evaluation Method for Process Accidents

Up to now, the Kuraray Group set targets for process accidents by evaluating safety performance based on the number of accidents, regardless of their severity. However, this method was insufficient for setting the appropriate targets according to risk. Accordingly, we tried to classify process accidents according to their size and include them in the evaluation rank. However, most of the process accidents that occurred within the Kuraray Group were classified as the lowest rank according to the generally used classification method (the CCPS method, etc.), which did not meet our objectives. In 2020, therefore, we developed a proprietary evaluation method. This evaluation method classifies the scale of an accident by the type of accident (fire, explosion, leakage, etc.), and determines rank by taking into account the presence or absence of human damage and factors that led to the occurrence of the accident, etc. The method

also enables further sorting and classification of accidents with the lowest rank in the CCPS classification. In this way, we aim to eliminate major accidents that fall into the A, B, or C rank as “accidents that should never occur.” For minor accidents classified as D1 or D2 rank (slight leakage of hazardous materials, fire and ignitions extinguished by initial firefighting, etc.), we set targets for each type of “accident that requires a reduction in the frequency of occurrence of risk,” and use these targets to carry out appropriate safety risk reduction activities in accordance with risk. From fiscal 2021, we have set annual targets for process safety based on this evaluation method and are implementing measures accordingly.

Evaluation and Classification of Occupational Injuries

Generally, categories based on the severity of injuries, including fatal injuries, lost time injuries and non-lost time injuries, are used as an indicator for occupational injuries. In particular, the frequency rate of lost time injuries is often used to assess the level of or establish a target for organizational safety.
However, actual safety levels may deviate from the results of this assessment method for the following reasons:

(1) The severity of injuries is unpredictable in many cases.
(2) The occurrence factors of an injuries are not taken into consideration.
(3) (When it is applied to global management) criteria of determining the degree of injuries depends on the country.

In 2012, we therefore have established a proprietary evaluation and classification of occupational injuries by subtracting unpredictable factors and adding an assessment of occurrence factors. This quantifies not the actual severity of injuries but the potential severity of injuries that could have been caused by occupational injuries. Moreover, faults that caused such injuries are divided into human, equipment and managerial, rated numerically, and added to the potential severity of injury to determine the ranking from A, B, C to D.

As a result, the number of severe occupational injuries ranked A and B serves as an indicator for evaluating the level of organizational safety.

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