

[Important Issues] Occupational Health and Safety in the Workplace

Policy and Basic Approach

The Nippon Kayaku Group is promoting a range of health and safety activities to achieve zero serious accidents and injuries based on the Group's Responsible Care Policy. In particular, we focus on promoting 30-second patrols and fixed-point observations, regarding them as important Responsible Care items. As its corporate responsibility, the Nippon Kayaku Group is working for zero accidents and injuries and is committed to helping employees maintain their physical and mental health and work with peace of mind. Giving first priority to safety, we will continue to conduct occupational health and safety promotion activities toward the achievement of our medium-term business plan, **KAYAKU Vision 2025 (KV25)**, including activities to ensure the appropriate management of chemical substances and deal with natural disasters.

The Declaration on Environment, Health and Safety, and Quality

> [The Declaration on Environment, Health and Safety, and Quality](#)

Responsible Care in the Nippon Kayaku Group

Nippon Kayaku Group Responsible Care Policy (Items related to occupational health and safety)

◆ < Targets >

- Serious accidents / disasters: zero
- Serious environmental accidents / disasters: zero
- Serious traffic accidents: zero

◆ 1. Key issues in Responsible Care

- Bolstering 30-second patrols and implementing fixed-point observation

◆ 2. Initiatives aimed at achieving zero accidents and disasters

- Diagnostic methods with an emphasis on risk assessments
- Fixed-point observations tailored to the characteristics of each business location
- Inspections and optimization of measures against heat stroke

◆ 3. Improvement of occupational health and safety in the workplace

- Optimization of RC progress tables and visualization of activity status
- Compliance with changes in national chemical substance management policies (voluntary management through risk assessments of chemical substances)
- Training and enhancement of disaster information communication systems

Safety Performance

1. Safety Performance

The following table shows the safety performance of Nippon Kayaku's business sites and all Group companies inside and outside Japan for FY 2021.

As in FY 2020, the Nippon Kayaku Group experienced no serious accidents in FY 2021. There was one lost-time accident within the Group in FY 2021, while there were two such accidents in FY 2020. The number thus decreased year on year. We also had two non-lost-time accidents (minor injuries) in FY 2021, which was down by three from the five recorded in FY 2020. We had no non-injury accidents in FY 2021.

As for automobile accidents involving our medical representatives (MRs) during their working hours (including commuting time)*, we recorded no serious accidents in FY 2021, as in FY 2020. Although the total number of automobile accidents amounted to 19—larger than the six that occurred in FY 2020—it was nearly half that of the number recorded in FY 2019 (34 accidents), before the outbreak of COVID-19.

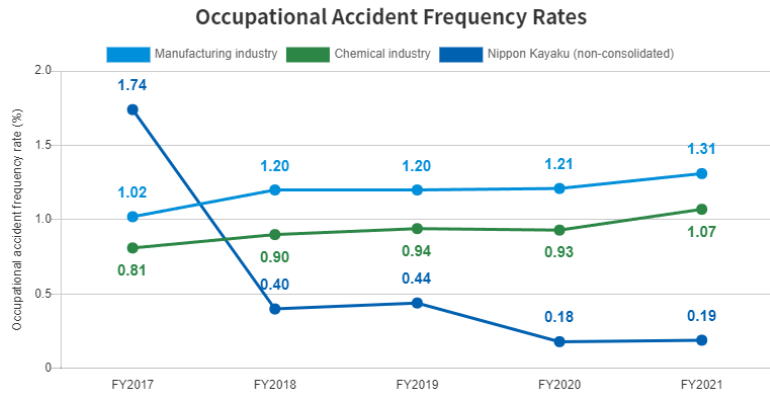
* The number of automobile accidents involving MRs who were using company-owned vehicles belonging to the Pharmaceuticals Group

◆ FY2021 Safety Performance

Item	FY2020			FY2021		
	Non-consolidated	Group	Total	Non-consolidated	Group	Total
(1) Serious accidents and injuries	0	0	0	0	0	0
(2) Environmental accidents	0	0	0	0	0	0
(3) Lost-time accidents	1	1	2	1	0	1
(4) Non-lost-time accidents (minor injuries)	3	2	5	2	0	2
(5) Non-injury accidents	1	0	1	0	0	0
(6) Automobile accidents involving MRs during working hours (incl. commuting)	Serious accidents	0		0		
	Personal injuries	0		1		
	Property damage	4		11		
	Self-inflicted	2		7		
	Total	6		19		

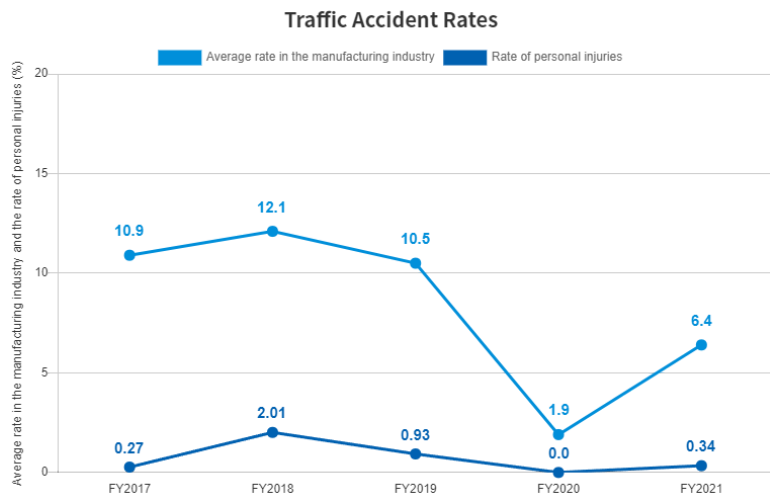
2. Graph Comparison of the Occupational Accident Frequency Rates

In FY 2017, Nippon Kayaku recorded an abrupt increase in its occupational accident frequency rate, which far exceeded the average rates of the manufacturing industry and the chemical industry. In response, we carefully examined the causes of the accidents and found out that non-regular work was involved in many of them. We have therefore included in our safety activities 30-second workplace patrol activities and fixed-point observations since FY 2018, with an eye to identifying unsafe behaviors and preventing non-regular work from leading to accidents or injuries. As a result, since FY 2018, Nippon Kayaku has been maintaining a low occupational accident frequency rate relative to the manufacturing industry and the chemical industry. For FY 2021, the rate came to 0.19.



3. Efforts to Prevent Traffic Accidents

The traffic accident rate of our MRs was 10.5% (34 cases) in FY 2019, decreasing to 1.9% (six cases) in FY 2020, partly because of the restrictions imposed on our activities due to COVID-19. For FY 2021, the rate increased again to 6.4% (19 cases) but is still lower than the rate that we recorded in FY 2019, before the outbreak of the pandemic. We will continue to work to bring the rate down.



Health and Safety Activities at Each Business Site

We define health and safety targets and are undertaking a wide range of health and safety activities at each of our business sites.

Details of the activities

- Risk Assessment
- 5S Activity*¹
- Hiyari-hatto Activity (Near-Miss incidents)
- KYT Activity
- TPM Activity*²

*1 5S Activity: 5S stands for sort, set, shine, standardize and sustain.

*2 Total Productive Maintenance (TPM) Activity: Conducted to maintain equipment and facilities in good working order to ensure safety and maintain productivity

◆ 1. Risk Assessment

Each of our business sites performs safety reviews for new processes and facilities and whenever changes are made to existing processes and facilities. Moreover, we make risk assessments to prevent injuries and environmental accidents at each of our business sites. We also analyze risk factors in chemical reactions based on HAZOP*.

* Hazard and Operability Study (HAZOP): Safety evaluation methodology used at chemical plants to exhaustively identify potential risks posed by chemical reactions for safety evaluation

◆ 2. Elimination of Shortcuts and Omissions

Accidents that have occurred within the Nippon Kayaku Group in recent years have tended to result from shortcuts or omissions. Accordingly, the Nippon Kayaku Group is working to share awareness across different workplaces by distributing workflow checklists to help eliminate shortcuts and omissions and requiring all employees to make a safety declaration, as well as displaying this safety declaration clearly in each workplace. The safety declaration is intended to help prevent not only occupational accidents but also traffic accidents.

◆ 3. Traffic Safety Initiatives

Many Nippon Kayaku Group employees commute to and from work by car and also drive a car for sales activities. We perform safe driving reviews using a camera-equipped drive recorder as well as using the driving aptitude test approved by the National Police Agency*. From now on, we will further enhance the education of new employees in practical skills to reduce traffic accidents involving our employees.

* Driving aptitude test approved by the National Police Agency: A written exam to check the examinee's aptitude for driving based on the person's answers to seven questions covering 11 items, including decision-making ability, impulse control and mental stability.

◆ 4. Deployment of AEDs

We have installed automated external defibrillators (AEDs) at our Head Office, plants and other business sites. We hold first-aid training as necessary and also provide employees with external training to deal with sudden heart attacks.



AED drill

◆ 5. Fire Response

Each of the Nippon Kayaku Group's business sites has a fire truck, fire hydrant and fire extinguisher for chemical substances in preparation against potential fire hazards. In addition to conducting firefighting drills on-site, employees also participate in local firefighting competitions, in which they have achieved good results.



Firefighting drill

> [Related article](#)

◆ 6. Measures against Natural Disasters

As a precaution against earthquakes and other natural disasters, we have compiled an Employee's Handbook of Disaster (Earthquake) Prevention at each business site and distributed copies to each employee. The handbook contains instructions on the emergency response to be followed in case of an earthquake, how to communicate and confirm each other's safety, and how to reach home when public transportation services are unavailable.

In the event of a disaster, such as an earthquake, the safety of employees is confirmed through our emailing-based safety reporting and communication system. For example, if an earthquake with seismic intensity of 6 or stronger occurs in Japan, the disaster response headquarters will instruct the system to send employees a safety confirmation email to which they can easily reply to facilitate data collection by the Company.

Initiatives

Kashima Plant Improving operator skills through the forklift certification program

There was a time when there were frequent occurrences of near misses involving forklifts at the Kashima Plant. The following initiatives were undertaken to prevent such incidents by improving the skills of forklift operators.



Improving operator skills through the forklift certification program

(1) Initiatives for improving skills

All forklift operators were required to take a practical skills short course led by an outside instructor covering the "basics of forklift operations" and "approaches to operator skills and educational guidelines."

(2) Introduction of operator certification program

Only those who pass the certification exam are allowed to operate forklifts (certification lasts for six months).

(3) Environmental improvements

A permanent training course was set up so that operators can practice and take practical exams at any time.

(4) Analysis of driver techniques

An omnidirectional driving recorder was installed on all forklifts to analyze operator conditions and habits using video footage.

Practical exam conducted in the training course

These initiatives have helped to drastically reduce the number of near misses involving forklifts. The Kashima Plant will continue to use this certification program in order to prevent accidents before they occur.

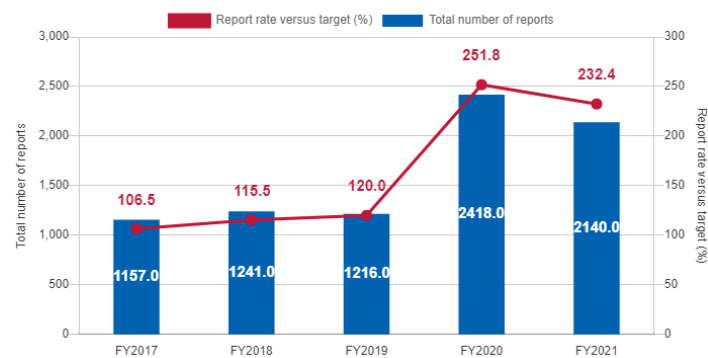
Joetsu Plant Safety education based on the use of a caught-in hazard simulator

Until 2017, the Joetsu Plant had minor work-related injuries including getting caught in roll machines almost every year. When analyzing the causes of the accidents, we found that 70% of them took place at the manufacturing department and nearly 80% of them occurred among new employees who had been with the Company for less than three years. In response, we improved our education system with the aim of eradicating such work-related injuries and have provided leaders of the manufacturing department with training to enhance their safety-related skills. We have also strengthened safety training for employees who are in their first three years at the Company to prevent the types of incidents that they tend to be involved in as they get used to their jobs. Specifically, the safety training is provided to employees in their first, second and third year at the Company with a focus on “5S/Awareness,” “KYT” and “Hiyari-hatto (near-miss incidents),” respectively. In this safety training lead by internal instructors, we utilize the simulation machine introduced in fiscal 2012 to provide hands-on experience of a “caught-in-machine” accident and teach trainees how to prevent this by using the photocell sensor, emergency stop button, and rope switch activator and proximity sensor functions. We also focus on the “Hiyari-hatto” activities with the aim of preventing work-related injuries by enhancing employees’ “improvement of awareness” and “mutual attention.” The target is to get employees to submit three or more “Hiyari-hatto” reports per year per person. In our manufacturing department, the activities are particularly strongly promoted.



Although work-related injuries occurred almost every year up to 2017, due to the activities mentioned above, there have been no such injuries since 2018, and the number of consecutive days of zero lost-time accidents has reached 1,670 (as of March 31, 2022). We will continue to execute a PDCA cycle to foster a corporate culture with a high level of safety awareness as the basis for our corporate activities.

Hiyari-hatto reports submitted by Joetsu Plant employees, and the report rate versus the target



Labor Union/Labor-management Relations

On June 1, 1998, Nippon Kayaku Co., Ltd. and the Nippon Kayaku labor union entered into a labor agreement “based on good faith and trust, in order to acknowledge the social significance and responsibilities of industry and labor, to mutually respect each other’s rights based on the spirit of the labor laws, and to establish stable and peaceful relations between labor and management.” Since then, this agreement has been renewed eight times in accordance with its purpose, so that today we maintain sound relations based on mutual trust between management and labor. Because Nippon Kayaku has a union shop system, with the exception of certain managerial and contract employees, all employees are members of the labor union. Nippon Kayaku and the labor union engage in active discussions, and the Company’s policy regarding these discussions is to be candid while disclosing as much information as possible. Also, the Central-Management-Labor Liaison Committee meets three times a year, at which time the executive team communicates the Company’s management policies as soon as the annual business plan, medium-term business plan and health and safety policy are finalized. A central management roundtable is held monthly to deepen mutual understanding, share information about the status of the Company and discuss how to solve problems. Also, we are making efforts to promptly communicate the outcome of these labor-management discussions to employees throughout the Company.

The labor agreement clearly states stipulations concerning discussions and negotiations. If there are major business-related changes that may have a profound impact on employees, employees and the employee representative are notified in advance. For example, notification of transfers requiring a change in residence are generally made at least one month in advance. Depending on the particulars, notifications and discussions occur even further in advance.

At the same time, with respect to issues faced by individual sites, we hold monthly business site management roundtables to obtain a shared recognition through discussions and opinion exchanges and to bring about a labor environment where employees can work in comfort.

Environment, Health and Safety Review

The Environment, Health and Safety Review is conducted at Nippon Kayaku’s business sites and certain Group companies based on the annual plan. This review process also involves the labor union of Nippon Kayaku, including its headquarters and branches located at the respective sites and Group companies.

During the review, regarding the Responsible Care policies and plans of the business sites and Group companies, the level of progress is checked, and the results of their Responsible Care activities are examined through meetings, documents and on-site audits. The labor union is also given an opportunity to point out issues for the improvement of the safety and health level of the entire company.

In FY 2021, however, to prevent the further spread of COVID-19, there were no physical inspections conducted at any of the targeted business sites or Group companies. Instead, a documentation inspection was conducted using a Responsible Care progress confirmation table compiled by the Environmental Protection & Safety Division. Also, the sites and Group companies were evaluated regarding how they had assessed the risks posed by their equipment, facilities and manufacturing processes.

Environment-, Health- and Safety-related Initiatives Implemented Jointly with the Labor Union

The Nippon Kayaku labor union conducts health and safety training titled the Level-Up Seminar (Health & Safety), which is co-hosted by the Company. The labor union puts safety at the top of its action policy and holds this training annually over two days. On the first day, participants attend a third-party specialist organization to take part in hands-on safety training about actual dangers, including getting caught in machinery and hanging from a safety harness, as well as why they need to follow the predefined rules. On the second day, members of the Environmental Protection & Safety Division lead lectures entitled “About learning safety measures from past accidents of Nippon Kayaku” and “How to strengthen safety awareness.” Also, the labor union holds a lecture called “Labor union safety initiatives” to explain the importance of a labor union tackling safety issues. After the lectures, a group discussion is held to allow participants to pick up and share valuable health and safety lessons and issues from each business site and each local branch of the union. In the discussion, they also focus on thinking about how to utilize and develop on the lessons learned and improve health and safety awareness at their own workplaces. Although the training was cancelled again in FY 2021 due to the pandemic, we plan to continue this initiative going forward.

In FY 2021, due to the restrictions imposed on people’s movement by the pandemic, the labor union conducted environmental, health and safety activities by using an online meeting system.

In addition to holding online seminars for mental healthcare, the labor union held lectures on Nippon Kayaku’s environmental activities and efforts to eliminate harassment by inviting employees of the Company to give talks.

Labor and management will continue to collaborate toward developing workplaces where employees can work safely and in good mental and physical health.