Health and Safety, and Quality Assurance Initiatives

The Nippon Kayaku Group engages in a wide range of health, safety, and quality assurance activities.

We conduct a safety screening whenever we institute new work flows or changing facilities and existing work flows, in order to prevent accidents, injuries or environmental accidents from happening. As part of our efforts, we also conduct risk assessments to ascertain inherent risk factors.

We have also created a database of troubles we have experienced in terms of our environmental, safety, and quality assurance initiatives that is used across all of our business sites. Central integrated environment, health and safety reviews and central integrated quality reviews are conducted at all of its sites and certain Group companies including five overseas plants.

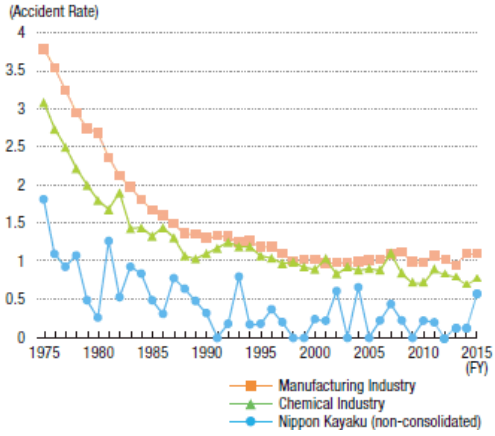
Health and Safety Initiatives and Results

The Nippon Kayaku Group takes a systematic approach to eliminating accidents and injuries at its business sites. In fiscal 2015, however, there were total numbers of three lost worktime accidents, five non-lost worktime accidents, and two non-injury related accidents. Furthermore, in terms of the number of traffic accidents, the accident rate was among the worst in recent years at 16.8%. Given these results, in fiscal 2016 we will work on further improving activities aimed at preventing injuries and accidents.
Further in 2015 (calendar year) our Group companies including overseas plants there were total numbers of eleven non-lost worktime accidents, nine lost worktime accidents and five non-injury related accidents with no injury, it was almost the same as 2014 (calendar year).

Fiscal 2015 Safety Targets and Performance

Items	Target	Actual
Major Injury / Accidents	0	0
Serious environmental accidents	0	0
Lost worktime accidents	0	3 cases
Accidents not accompanied by lost worktime	Rate of lost worktime accidents*1 of under 1	0.95
	Less than 5 cases	5 cases
Work and commute-rerated automobile collisions	Less than 4%	16.8 %
	Less than 15 cases	64 cases
Non-injury workplace accidents	0	2 cases

Rate of Lost Worktime Accidents



*1 Frequency rate of lost worktime accidents: It expressed in terms of numbers of deaths & injuries in industrial accidents per 1 million work-hours in the aggregate.

Initiatives to Enhance Quality Assurance Functions

In order to guarantee stable quality, we must carry out daily quality control activities with certainty and continually improve quality control techniques. In our plants we utilize quality control methods such as control charts, conduct quality patrols, carry out QYT* activities, carefully

manage changes and modifications, and implement various improvement activities. We also provide various training opportunities to employees in order to improve and promote the use of quality control techniques.

In order to bolster the capabilities of each workplace, we set up a Why-Why analysis promotion team comprising members from our six plants located in Japan, and we promoted the greater use of Why-Why analysis in the workplace, using our own created unique Why-Why analysis manual at fiscal 2014. Additionally in fiscal 2015 we translated this manual into Chinese, and to Chinese group companies we provided Why-Why analysis training.

*QYT: Quality hazard detection training

Occupational Health and Safety as well as Quality Assurance Initiatives

1. Safety and Quality Assurance Activities at Work Sites

We are undertaking a wide range of safety and quality assurance activities. We are also compiling databases on environmental, safety, and quality issues to be used across our business sites.

Safety Activities	Quality Assurance Activities
◦ Risk Assessment	◦ Quality Risk Assessment
◦ 5S Activity*2	◦ Quality Patrol
◦ *Hiyari Hatto* Activity	◦ Trend Management (Visualization)
◦ KYT Activity	◦ Campaign to Prevent the Reoccurrence of Quality Proble
◦ TPM Activity *3	◦ Quality Technology Training

*2 5S Activity: An acronym of five Japanese words phonetically starting with the letter "S".

*3 Total Productive Maintenance (TPM): Activities that maintain equipment and facilities in good working order to ensure safety and maintain productivity.

2. Conducting Safety Assessments (Risk assessment, understanding potential risk factors)

Each of our business sites performs safety reviews for new processes and facilities and whenever changes are made to existing processes and facilities. And we implements "Risk Assessments" in order to prevent business sites accidents, injuries, environmental accidents, complaints and quality issues. Risk factors in chemical reactions are analyzed primarily based on HAZOP.*4

*4 HAZOP: Hazard and Operability Study. A safety evaluation methodology used at chemical plants. Potential hazards associated with chemical reactions can be comprehensively extracted for evaluation.

3. 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. As a result, the Nippon Kayaku Group is working to share safety awareness across different workplaces by distributing work flow checklists to help eliminate shortcuts or omissions, having employees issue a safety declaration to prevent shortcuts and omissions, as well as displaying this safety declaration clearly in each workplace.

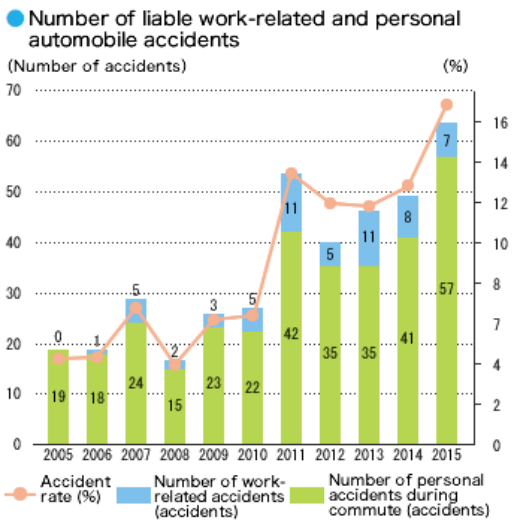
4. Traffic Safety Initiatives

Many Nippon Kayaku Group employees drive a car as part of their work duties or to commute to work. We perform safe driving reviews using a camera-equipped drive recorder *5. And for new MR (Medical Representatives) we perform safe driving leading using "Kuruma-i" *6 which immediately sends E-mail to their superior officer when he drove dangerously, and using the driving aptitude test approved by the National Police Agency*7. Our ratio of liable accidents is half of the average for the Japan Pharmaceutical Manufacturers Association. Nevertheless, in fiscal 2015 the accident rate was 16.8%, which marked a significant increase year on year and was among the worst accident rates in recent years. Therefore, we will not only continue with traffic safety reviews, but also expand driver's training for new employees, work toward reducing the number of traffic accidents.

*5 Camera-equipped drive recorder: A recorder that can analyze bad driving habits, such as sudden acceleration, sudden braking, and sudden turns using sensors for front/back and right/left acceleration, gyrocompass and GPS system.

*6 Kuruma-i: A system that uses sensors positioned throughout the vehicle to measure acceleration and local (GPS) to detect sudden acceleration, sudden breaking, and sudden turns and immediately notify the driver's supervisor by email.

*7 Driving aptitude test approved by the National Police Agency: An exam that measures the aptitude of driving based on seven written questions covering 11 topics, including decision making skills, ability to prevent collisions, and mental stability test.



*Fiscal 2012 represents 10 months of data due to a change in the fiscal term.

5. Promoting Health Management

Our employees undergo regular health checkups as well as special physical examinations because chemical substances are regularly handled on the job. Employees meet with an industrial physician following their regular health checkup to receive guidance and instructions on their health management and awareness. We also manage a database of information on the hazardous properties of chemical substances and utilize this information to prevent work related illnesses.

Mental Health Initiatives

To balance improvements in operational productivity with the creation of added value, employees need to have workplaces where they can thrive and also be in good mental and physical health.

The President of Nippon Kayaku issued a Mental Health Declaration in 2005 and since then we have provided thorough guidance to managers on the subject. Mental health care requires that all employees have the correct knowledge and understanding to ensure they can prevent or detect mental health issues at an early stage. We focus the greatest efforts on mental health issue prevention. After rolling out our mental health care program, we invited a speaker from our contract EAP*8 to lead a mental health care training program mandatory for all employees to take part in at least once that was set up on four occasions – in fiscal 2005, between fiscal 2006 and 2008, between fiscal 2009 and 2011 and between fiscal 2012 and 2014. We formulated a new three-year plan in fiscal 2015 and employees are planning to take part in this training.

We have also created the Return to Work Program for employees that were forced to take a leave of absence due to a mental health issue. In this manner, workplace supervisors (the company), industrial physicians, and EAP form a trinity of measures for ensuring employees can return to work smoothly with a focus on preventing relapses.

In addition, with regard to obligations under the "Stress Check System" of the Occupational Safety and Health Act implemented on December 1,2015, we have made preparations to establish the "Stress Check System", which is scheduled to be implemented in July 2016 for all the employees.

*8 EAP is an acronym for Employee Assistance Program.

6. Deployment of AEDs

Driving aptitude test approved by the National Police Agency: A driving aptitude test that measures driving ability based on responses to seven questions covering 11 items including situational awareness, collision prevention ability, and mental stability, among others.

KAYAKU CHEMICAL (WUXI) CO., LTD. (KCW)
Lectures on health check-ups at KAYAKU CHEMICAL (WUXI) Co. Ltd.

KAYAKU CHEMICAL (WUXI) CO., LTD. (KCW) is a Nippon Kayaku Group company, which was established in China in 2002 to manufactures and markets synthetic resins and also researches and develops technology services. KCW, as part of "employee health month," under the broader theme of environmental and safety month, organized health check-ups for all employees. Following a similar initiative in 2014, on April 28, 2015 KCW invited a specialist physician from the medical institution that performed employee health check-ups to visit the company to explain the health check-up items used for the results of employee health check-ups. Afterwards, the physician answered questions from employees and provided health guidance. This enabled KCW to encourage employees to make improvements in their daily lives and focus on health issues as well. These efforts will be continued in the future.

Health check-up lectures led by a

visiting specialist physician

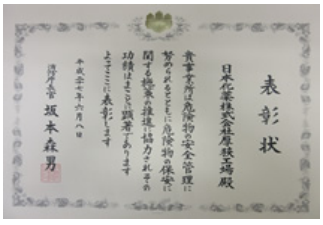
Further Expanding Interactive Safety Training Initiatives at Kowa Sangyo Co., Ltd.

Kowa Sangyo mainly carries out contract manufacturing work for Nippon Kayaku's Asa Plant. Kowa Sangyo conducts interactive safety training using equipment they have fabricated to provide employees with a greater sense of the importance of safety in accordance with its policy of placing safety as a top priority.
This equipment was given the name Esperanza (or hope in Spanish) because this was the same name given to the child born to a worker who was buried alive with 32 others in the 2010 Copiapó mining accident in Chile only to be rescued 69 days later miraculously along with all the missing workers.
The manufacturing floor involves work that carries with it an element of danger. Therefore, Kowa Sangyo is always heightening its awareness of safety, learning from past accidents and near misses, including through safety training. As part of these efforts, Kowa Sangyo uses Esperanza to simulate actual dangers to enable its employees to experience the scariness of accidents and reaffirm the importance of working safely. At the same time, interactive safety training enables employees to learn the correct usage of tools and the basics about equipment and component names, which helps to prevent accidents before they happen and to train employees about how to respond to accidents if they do occur.
All safety training equipment was created in-house. Also, the safety experience room makes use of an idle room, which was renovated, repainted and installed with unused work tables and equipment, making this learning lab completely homemade from reused equipment.
Learning with these interactive safety equipment helps to reaffirm dangers on the manufacturing floor, educating not only new employees, but veteran employees, too. Currently, Kowa Sangyo has nine kinds of equipment, which are also used by other workplaces for safety training. Kowa Sangyo will continue to further enhance these offerings so as to aid the safe operations of the Nippon Kayaku Group and train employees who are well versed in safety knowledge.

Polatechno Interactive Training on Getting Caught in Machinery

Polatechno fabricated original interactive machine in November 2012 to teach about and eliminate accidents involving employees getting caught in machinery. Initially, training was provided to all employees working at the company's plants and afterwards it has been held annually for new employees and workers using nip roll machines. The training includes reenactments of past accidents involving employees getting caught as well as how to operate the photoelectric tube sensor and the emergency stop button and rope switch to prevent accidents. Participants also get to experience the feeling of getting caught in machinery (a simple pinching feeling) using the proximity sensor function.
In the past, two lost worktime accidents have occurred at Polatechno involving employees getting caught in machinery. According to fiscal 2014 statistics of the Ministry of Health, Labour and Welfare, there were 180 fatalities in the manufacturing industry, and of these 36%, or 64 fatalities, were caused by getting caught in machinery. Of the 1,057 fatalities across all industries, 14%, or 151 fatalities, were attributed to getting caught in machinery. This indicates that this type of accident is quite serious and occurs quite frequently in the manufacturing industry.
Starting in fiscal 2015, Polatechno has been implementing a greeting campaign, mutual consideration, and onsite patrol instructions based on the general manager's policy, all on the theme of "Reinforcement of Safety Awareness." Going forward, Polatechno will implement the PDCA cycle to foster a corporate culture with an even greater focus on safety, as it underpins all corporate activities.

Asa Plant Recipient of the Fiscal 2015 Fire and Disaster Management Agency Commissioner's Award for Excellent Practices in Handling Dangerous Substances


表彰状

The Asa Plant was recognized with the Fire and Disaster Management Agency Commissioner's Award for Excellent Practices in Handling Dangerous Substances on June 8, 2015.
This award is presented by the Commissioner of the Fire and Disaster Management Agency to companies with an excellent track in ensuring the safety of people's lives by cooperating with government initiatives on the safety of hazardous substances and by voluntarily and proactively promoting the safe management of hazardous substances. The goal of this award is to encourage companies handling hazardous substances to establish their own safety system and help to facilitate the implementation of the fire department operations.
To achieve this goal, the Asa Plant has worked to share past accidents and create a database as part of its organized safety management, and it has in turn shared information of past accidents at Group companies and other companies in an effort to prevent similar mishaps from happening. Also, the Asa Plant conducts fire fighting training twice annually and disaster prevention training once annually to ensure that it can respond promptly in case of an emergency situation.
The Asa Plant carefully monitors the location, structure and equipment of hazardous substance facilities through Fire Prevention Week and Hazardous Materials Safety Week, as well as provides safety training to all employees and ensures safety measures related to the handling of hazardous substances. The Asa Plant was recognized with this award for its proactive commitment to safety and its clean track record of zero violations of related laws and regulations.

Takasaki Plant

Commended by the City of Takasaki for Wildfire Fire Fighting Activities

On July 28, 2015, the Takasaki Plant Self-defense Firefighters were recognized by the Mayor of Takasaki City for their contributions to the initial response to fighting a nearby wildfire.
This wildfire started on April 26, 2015 on the bank of the Ino River located close to the Takasaki Plant. A passerby reported the fire and several employees convened quickly to take the plant's fire engine to the scene of the fire, where they began to suppress the fire before the fire department arrived. Thanks to this initial response, the entire fire was contained and put out safely, keeping damage to a minimum.
The Takasaki Plant and the regional fire department covering the City of Takasaki and other areas have concluded an agreement on fire fighting cooperation for nearby fires. In addition to its fire fighting activities, this commendation also recognized the Takasaki Plant for its initiatives to build collaborative relationships with the local community.

Aiming for to Completely Eliminate Traffic Accidents Initiatives at Kayaku Safety Systems (Huzhou) Co., Ltd.

KSH is a Nippon Kayaku Group Company,which was established in 2006 in Huzhou city. China in order to manufacture automotive safety components. In 2014, KSH employees were involved in 14 traffic accidents. The growing number of employees commuting to work by car has lead to this increase in traffic accidents. Even an increase in minor accidents could lead to a major traffic accident one day.
On December 2, 2014, KSH's Safety and Environment Division took the lead in creating a new program called the Traffic Safety Declaration and conducted company-wide safety training in conjunction with China's National Traffic Safety Day. The slogan of the Traffic Safety Declaration is "Never violate Article 7*9 and always drive safely in accordance with traffic laws and regulations."
KSH's Safety and Environment Department added an additional six items to this declaration based on the company's situation. These six items are never talk on the phone or smoke while driving, never turn sharply or change your route suddenly, pay attention to cars in front and behind you, drive at the appropriate speed, use turn lights well before turns, pay attention when passing other vehicles.
All employees were trained to ensure they abide by this declaration, which included reading the declaration aloud and signing their name to a poster about the declaration. Finally, the signed poster was displayed in a highly visible location at the entrance to the company to remind all employees about the importance of traffic safety on a daily basis.
KSH established a goal within its fiscal 2015 company-wide safety policy and targets to fully comply with the Traffic Safety Declaration. KSH's Safety and Environment Department helped to completely eliminate legal violations by conducting checks more than twice a month on whether employees wore their seatbelt or helmet when arriving and leaving work and whether employees were speeding when driving.
As a result, KSH employees were involved in zero traffic accidents in fiscal 2015.

*9 Article 7 violations: speeding, excessive loads, drinking under the influence, drinking while taking medicine, running a red light, driving on roads reserved for emergency vehicles, and ignoring pedestrian crossings.

Nippon Kayaku Fukuyama Co., Ltd. honored with Responsible Care Award

On May 27, 2015, the Japan Chemical Industry Association held an awards ceremony at its annual meeting, where Nippon Kayaku Fukuyama co., Ltd. was recognized with a Responsible Care Award for Effort (RC Award*10).
Nippon Kayaku Fukuyama was recognized for its fundamental pointing and calling occupational safety activities based on the theme of ensuring safety through the implementation of pointing and calling.

*10 RC Award: An award presented to individuals or groups that contribute to the promotion and enhancement of Responsible Care activities.

Environment, Health and Safety (Integrated) Review with the Labor Union

The Environment, Health and Safety Review is conducted together with the Quality Review in an integrated review of 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.
During the review, the progress of the environment, health and safety policy and plan of the business sites and Group companies being reviewed is checked and results of activities are identified through meetings, documents and onsite audits. The labor union is also given the opportunity to point out issues, as part of efforts to increase the level of safety and health at the company-wide level.

Health and Safety Initiatives with the Labor Union

The labor union of Nippon Kayaku every year hosts the "Level-up Seminar (Health & Safety)," inviting participants from each branch to attend to receive health and safety training co-hosted by the company.
In fiscal 2015, participants took part in outside training using interactive safety training equipment to experience actual dangers first hand. The Environmental Protection & Safety Division also held a lecture entitled, "Strengthening one's ability to take notice of things and learning safety measures from past accidents."
Furthermore, training participants were asked to identify issues related to the health and safety activities of each branch (business site) that were then used as part of a group discussion on sharing information about health and

safety and how to improve the issues faced by participants' own business sites. This process greatly enhanced awareness of health and safety in the workplace.

Responding to Accidents and Disasters

1. Fire response

Each business location is equipped with a fire truck, fire hydrant, and fire extinguisher for chemical substances in preparation for potential fire hazards. In addition to holding on-site training, employees also participate in local fire fighting competitions at which they have achieved strong results.

2. Natural disaster response

As a precaution for earthquakes and other natural disasters at each workplace, we have compiled and distribute the Employee's Handbook of Disaster (Earthquake) Prevention to each and every employee. This handbook contains instructions on emergency response when an earthquake occurs, how to make contact and confirm one's safety, and alternative methods to reach home when public transportation is unavailable.

Employee safety during a disaster is monitored by a safety reporting and communication system that uses email. As an earthquake strikes, the disaster response headquarters will send out an instruction by email to all employees. Employees can reply to the email by a simple touch of a button, which allows data to be collected. This system will be used to confirm employee safety during an earthquake of a seismic intensity of 6 or higher in Japan.

Management of Chemical Substances

With countries around the world moving to tighten the management of chemical substances, we have seen a growing importance in complying with chemical related laws both in Japan and abroad and being able to aptly respond to customer requirements for chemical substances contained in our products.

The Functional Chemicals Group established the Chemical Management Office, which collects the latest information on laws and regulations around the world, instructs related departments with their response and provides training on general chemical substance related laws. Through these efforts, the Chemical Management Office is striving to maintain and improve compliance as it relates to chemical substances.

A representative of the Chemical Management Office has been assigned to the Functional Chemicals R&D Laboratories to closely monitor product safety and compliance with legal requirements from the development stage.

In fiscal 2016, we will continue to comply with Europe's REACH *11 and CLP *12, and continue to positively promote the response to the new chemicals legislation and legal reform around the world.

*11 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): An EU regulation for registering, evaluating, approving and restricting chemical substances.

*12 Regulation on Classification, Labeling and Packaging of substances and mixtures (CLP): An EU regulation on the classification, labeling and packaging of chemical substances based on GHS.

GHS Compliance

With each country implementing GHS *13, companies are now required to provide SDS *14 compliant with local laws and regulations that are written in the local language. The Functional Chemicals Group has instituted an SDS compilation system (MSDgen) that contains a large database of bilingual documents as well as data on the laws of various countries and data on the properties and toxicity of chemicals. This system enables it to create SDS that are fully compliant with local laws and regulations. The 2013 system update complies with the US version of GHS, which complements its prior compliance with GHS in Japan, Europe and Asia.

The Functional Chemicals Group manages and uses a database of SDS and SDS history to ensure that it always provides the most up to date information on GHS compliance.

Sample GHS-compliant label

*13 GHS: Globally Harmonized System of Classification and Labeling of Chemicals

*14 SDS: Safety Data Sheet.