N.E. CHEMCAT emphasizes Responsible Care (RC) activities as one of its 16 key drivers for achieving Vision 2030 and is actively practicing them.

# **RC Activities**

RC activities are being promoted by chemical industry associations in more than 70 countries worldwide. RC is a voluntary initiative for members of the chemical industry to implement and improve their environmental safety measures. Participating companies pledge to ensure environmental protection, health and safety throughout the life cycle of their chemical products, from development, manufacturing, and distribution, to use, final consumption and disposal. Since fiscal 2020, we have been participating in meetings of the Responsible Care Committee established by the Japan Chemical Industry

Association (JCIA). Our participation involves presentation of activity results and engaging in dialogue with other members, and the aim is to earn the further confidence of society.



## **Responsible Care Policy**

The company acknowledges that the environment, safety, and health are the most important tasks and will make effort to engage in the following initiatives as our voluntary and continual Responsible Care activities:

- We will make efforts to reduce the environmental loads of our products and to conserve the environment throughout their lifecycles from their development to disposal.
- 2. Based on the principle of "Safety is the highest priority," we will strive to ensure the safety of all persons engaged in our corporate business activities and local communities with the aim for zero accident and zero injuries with upmost efforts in creation of a safe work environment and security management of the facility.
- 3. We will check the safety of chemical substances that are handled in raw materials, intermediate products, and finished products, provide information on their appropriate handling, and give consideration to the safety and health of all related persons, including our employees, logistics personnel, and customers.

We will disclose the efforts of our initiatives to the society and endeavor to engage in appropriate communication with our stakeholders.

# **RC Promotion System**

We have established an RC Committee to carry out RC activities.

In FY2023, we established an RC policy and RC promotion system that encompasses safety, disaster prevention, and logistics safety items to further improve safety, health, and the environment, throughout the entire life cycle of our products. The RC Committee manages the implementation of action plans to achieve goals based on the company's policy priorities.





# RC Management System

N.E. CHEMCAT has adopted the Responsible Care Management System (RCMS) to promote the company's RC activities. The RCMS satisfies the requirements of ISO 14001 and OSHMS (ISO 45001), and activities have been clarified for each management practice code.

#### RC Activities (Six Management Practice Codes)



# RC Audit System

Based on the RCMS, RC audits are conducted annually at each plant.

# RC Verification

In FY2023, N.E. CHEMCAT underwent verification of actions by JCIA for RC activities at Tsukuba Plant.

## Achievement Rates for Each RCMS Code



Every company has a social responsibility to be proactive in its efforts to protect the global environment. N.E. CHEMCAT seeks to minimize environmental impact in all processes of its business activities.

## **Environmental Management**

Guided by our corporate philosophy, which is to "fulfill corporate social responsibilities and seek to coexist with the environment and society around us," we actively engage in environmental protection activities through our business.

## Promotion System for Environmental Management

Each plant has established an Environmental Conservation Committees, chaired by the general manager, to carry out initiatives related to certain RC items, namely environmental protection, chemical substance management, and energy.

Company-wide progress with these initiatives is reported to and overseen by the RC Committee, which is chaired by the General Manager of the Production and Technology Div.

## Environmental Management System

N.E. CHEMCAT has obtained ISO 14001 environmental management system certification, and the company's system is constantly being enhanced. We have also prepared an environmental manual, and conduct environmental activities as part of daily operations.

# Business Sites with Environmental Management System Certification

ISO 14001:2

Numazu Plant, Tsukuba Plant

# Environmental Education

In addition to providing employees with our environmental manual, we conduct education and training to improve employee environmental awareness and to comply with relevant environmental laws and regulations.

#### FY2023 Environmental Training Programs

Environment Month (Message from the President)	Company-wide
Internal auditor course	Numazu/Tsukuba
Environmental safety patrol	Tsukuba
High pressure gas (LNG) leak training	Tsukuba
Chemical leak and emergency shutoff valve training	Numazu/Tsukuba
Chlorine gas leak training	Numazu/Tsukuba

## Initiatives to Reduce Environmental Impact

# Promote Energy Conservation

Our Energy Management Committee promotes company-wide energy plans, including the adoption of new energy-saving technologies.

We have also positioned dedicated efforts to reduce environmentally hazardous substances and prevent environmental accidents and occupational accidents and injuries in all business activities as one of the 16 key drivers to achieve Vision 2030.

In FY2023, we worked to conserve energy by implementing plans to improve production processes and upgrade deteriorated facilities.



## Annual Energy Consumption

# Target to Reduce Greenhouse Gas Emission Intensity

We have set a target to achieve a 50% reduction in our greenhouse gas (GHG) emission intensity by 2030, compared to the 2013 level. GHG emissions are considered to be the cause of global warming, and we are pursuing initiatives to reduce them.



#### Initiatives for Target Achievement

- · Energy conservation and loss reduction measures for electricity and liquefied natural gas (LNG) use (installation of LED lighting and higher-efficiency air conditioning equipment)
- Adoption of highly energy-efficient equipment and technology
- · Improvement in development and production efficiency
- Adoption of renewable energy

#### Annual GHG Emissions and Emission Intensity\*



# Effective Water Use

We have our own water supply facilities and strive to minimize water usage. In addition, some wastewater is reused for rooftop sprinkling and other purposes.

#### Annual Water Use and Industrial Wastewater Discharge



# Effective Resource Use

#### Precious Metal Recycling

Platinum (Pt), palladium (Pd), rhodium (Rh), ruthenium (Ru), and other precious metals can be found in spent catalysts. Since they are important resources, N.E. CHEMCAT has its own facilities for recovery and refining of these metals. High-quality precious metals can be separated, recovered, and refined using appropriate technology. This is true even when the post-use precious metal catalyst contains multiple precious metal types, additives, and/or toxic substances that accumulate during use.

Each metal is recovered with a purity of 99.9% or higher purity as shown below.



\*Ruthenium is recovered as ruthenium chloride

We are developing new adsorbents and further improving other recovery technology to enable more efficient precious metal recovery.

# Waste Reduction

Wastewater sludge accounts for the largest volume of waste emitted by the company. In order to reduce this waste, we have been enhancing our production processes and updating equipment and machinery.

#### Annual Industrial Waste Generation



Amount and Percentage of Industrial Waste Reused and Recycled



## Management of Chemical Substances

Along with managing chemical substances handled internally, we are promoting chemical substance management for all raw materials and products used in our processes from design to manufacturing and delivery.

### Compliance with Chemical Substances Regulations

N.E. CHEMCAT complies with all relevant laws and regulations including Japan's Act on the Regulation of Manufacture and Evaluation of Chemical Substances (Chemical Control Law), Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement (Chemical Management Law), and Industrial Safety and Health Act. The appropriate management procedures are stipulated in our Chemical Substance Management Regulations, and chemicals are being properly managed accordingly.

In addition, as part of our efforts to comply with the REACH regulation, we check the annual quantity of products exported to the EU and complete the necessary registrations.



## Management of Chemical Substances Contained in Products

For chemical substances contained in products, we have established control standards for each phase of the supply chain (1. purchasing, 2. manufacturing, and 3. delivery), and are working to ensure appropriate management throughout the supply chain.

To manage chemical substances contained in products throughout the supply chain, it is essential to manage chemical substances contained in products and intermediates converted from chemicals (raw materials).

Starting from the design and development stage of our products, we check for chemical substances contained in our supply chain and consider whether they are subject to legal regulations. Based on our findings, we implement product and process design that allows for managing chemical substance volume and preventing contamination.

# **Biodiversity Initiatives**

Our company, which operates in Numazu City, is working to protect the water environment as a participant of the Kano River System Water Quality Conservation Council, which works to promote water quality and environmental conservation in the Kise River, a tributary of the Kano River, and other rivers that flow into it. In FY2023, the council conducted activities that included aquatic life observation events, cleanup and beautification events, and environmental lectures on biodiversity and invasive species. By belonging to the organization and supporting its activities, we protect the water quality of the Kano River system, which is home to many organisms such as fish and birds, and contribute to biodiversity conservation. (See p. 34)