

Continuous Improvement of Responsible Care Activities

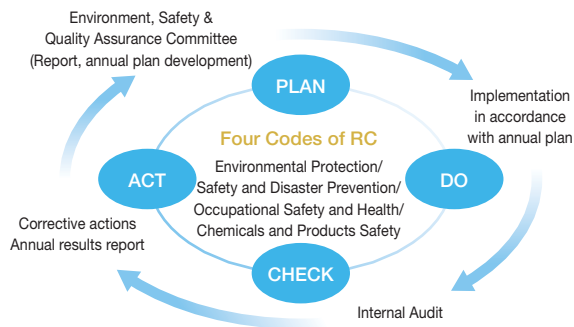
We are putting effort into Responsible Care (RC) activities designed to secure environment, health and safety (EHS) performance on voluntary basis throughout the entire process, from the development of chemical substances to manufacture, distribution, use, final consumption and disposal/recycling, and provide communication with society through the announcement of their results.

RC Management

System

To achieve our RC mid-term plan (2016-2021), we have established RC management system based on ISO14001*, and we carry out targets management and continuous improvements based on PDCA (Plan, Do, Check, Act).

* International standard for environmental management system. All of our plants have acquired ISO 14001 third party certification.



RC Audits

RC audits are activities for checking RC activities at each plant, laboratory and affiliate. They are carried out by Environment, Safety & Quality Assurance Department in accordance with the RC audit guidelines. In these audits, the auditors check whether RC activities, as well as internal audits and patrols, are carried out appropriately and the PDCA cycle is implemented steadily, and compliance about EHS at each location. Environment, Safety & Quality Assurance Department clarifies visible or potential problems related to EHS and promotes improvements in response after clarifying the problems, if any.

In FY2019, total of 44 RC audits were conducted for our plants, research laboratories and affiliates.

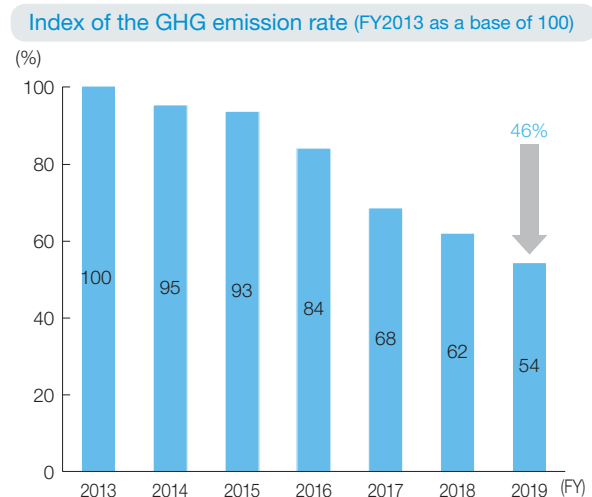
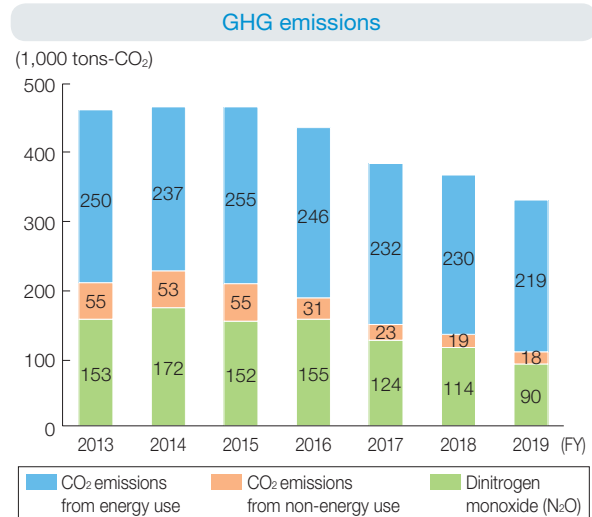


Environmental Protection and Countermeasures to Address Climate Change

Efforts for Reducing Greenhouse Gas (GHG) Emissions

Our Group actively works to reduce GHG in business activities and contribute to realization of a low-carbon society through the provision of eco-friendly products and services.

In FY2019, the volume of reduction of GHG emissions was 37,000 tons (CO₂ equivalent) compared to the level in FY2018 (emissions reduced by 29% from the FY2013 level). The GHG emission rate calculated as a ratio of emissions and sales (emissions/sales) was 54% of the FY2013 level.



Safety and Disaster Prevention

We carry out risk assessment, process risk predictions, and facility risk predictions by prior assessment for manufacture with the aim of ensuring safety, achieving stable operations, and improving our process safety capability.

As a result, in FY2019 there was no accident such as explosion and leakage. However, a fire broke out which is thought to be caused by sparks from flames used during construction work at our Nagoya Plant warehouse. The fire was extinguished through independent firefighting and did not turn into a major incident. However, in order to prevent recurrence, we carried out a comprehensive inspection and review of all locations where flames are used in work. Our plants, laboratories, and affiliates carry out various drills and training sessions, and are designed to make us ready to respond to emergencies or accidents in a reliable manner.



New Year firefighters' event (Toyama Plant)

Occupational Health and Safety

Through our RC management system, we prevent occupational accidents, promote the good health of staff, and build a comfortable workplace environment in our efforts to improve the level of safety and health at each business location. In addition, we carry out various drills and training sessions annually with the aim of ensuring safety, achieving stable operations, and improving our process safety capability to make us ready to respond to emergencies or accidents in a reliable manner.

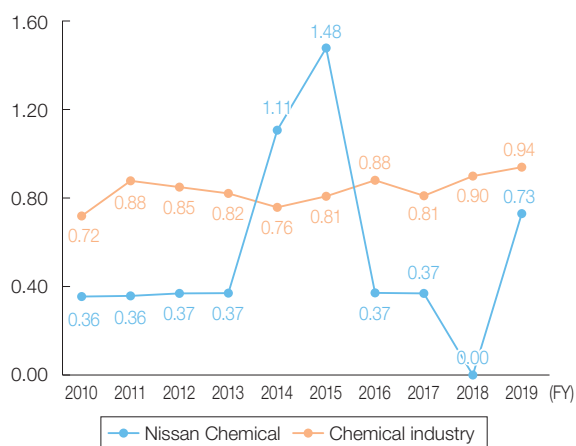
In FY2019, there were two cases of accidents requiring staff time off from work and three cases of accidents not requiring staff time off from work. We will continue aiming to achieve zero accident by promoting risk assessment, prior-work risk predictions, risk predictions training, HHK¹, 5S², and appropriate

wearing of protective equipment and by raising awareness of safety through the safety meeting and the occupational safety newspapers.

*1 HHK stands for Hiyari-Hatto (near miss incident) and Kigahari (alarming). It means the discovery of near-miss incidents that are not linked directly to serious injuries or accidents but could have resulted in such injuries or accidents.

*2 5S stands for Seiri, Seiton, Seisou, Seiketsu, Shitsuke. These words mean "Sort" "Set" "Shine" "Standardize" "Sustain" respectively.

Lost-time injury frequency rate*



* Number of deaths and injuries due to occupational accidents per million actual working hours

Chemicals and Products Safety

Risk Assessment in Products Lifecycle

We perform a risk assessment (prior assessment) of each step in handling chemical products, such as the R&D, manufacture and sales. The assessment of risks to human health and the environment is based on data obtained by the Biological Research Laboratories, either on its own or by outsourcing, raw material SDS (safety data sheets), safety test data obtained from literature and external databases, physicochemical properties, and work environment conditions. These results are reported to all the relevant people in the Company. The results are also made known to people in the value chain by means such as technology transfer documents.

In addition, we also participate in Long-Range Research Initiative, an international initiative promoted by Japan Chemical Industry Association (JCIA) that seeks to provide long-term support for research on the impact of chemicals on human health and the environment. The activities we engage in aim to advance research on the assessment of risks to human health and the environment.