

Promotion of Responsible Care Activities*

Under a Responsible Care management system based on our Basic Policy for Responsible Care, we implement a plan-do-check-act cycle (PDCA) for continuous improvement.

〈Basic Policy for Responsible Care〉

Based on the principle of actively contributing to Responsible Care activities* including environmental beautification and preservation through the creation of colors and landscape and the protection of materials and resources in the business activities, the Nippon Paint Holdings Group is committed to the activities through the coordination of all organizations in the Group, including all employees, with awareness of the respective missions and responsibilities, aiming to contribute to the establishment of relationships based on mutual trust with the global community, local communities, and customers.

To this end, all of our business activities are required to follow the rules below:

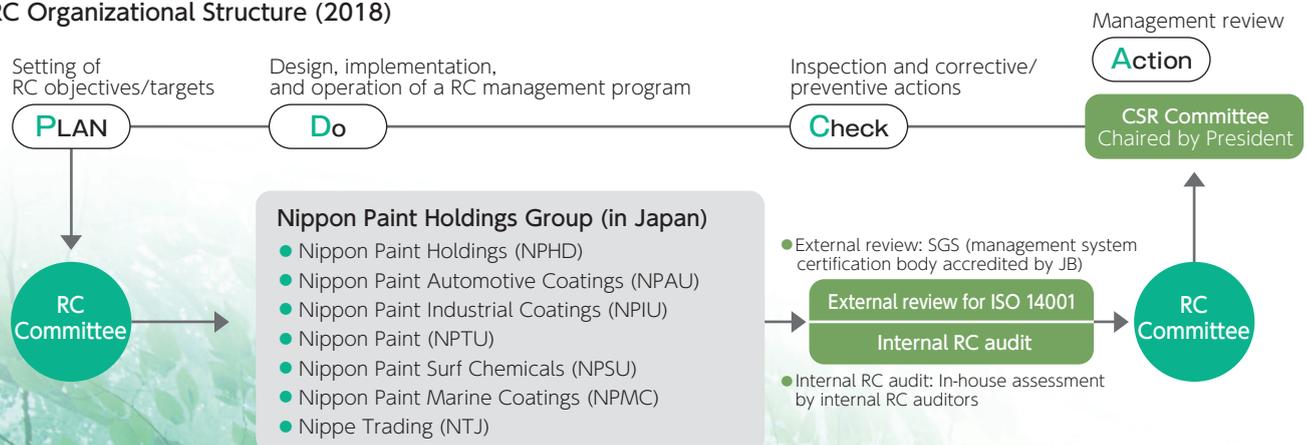
- 1) We will endeavor to preserve the global environment and protect the ecosystem while striving to conserve energy and other resources in the course of all business activities.
- 2) We will promote the development of products with less environmental impact and technologies that help the products reduce such impact and will consider the impact of our products on the environment, safety, and health at all stages of their lifecycle from development to disposal.
- 3) We will work to reduce the environmental impact of our operations and ensure security and disaster prevention while striving to ensure the health and safety of local residents and employees.

Responsible Care Organizational Structure

Considering that the understanding and management of the environmental impact and safety of chemical substances is an important duty for paint manufacturers, we have re-established a management system to expand the scope to include occupational health and safety and chemical and product safety, in addition to the environment, and conducted Responsible Care (RC) activities

since fiscal 2010. We will encourage employees to act in an autonomous and independent manner in the activities oriented to their primary duties for efficient operation of the system while also continuously improving the system through the PDCA cycle.

▼ RC Organizational Structure (2018)



*Responsible Care activities are voluntary management activities of business operators that handle chemical substances. Measures related to the environment, safety, and health, such as environmental protection, security and disaster prevention, occupational health and safety, and chemical safety, are taken for improvement at all stages of the lifecycle from development to disposal. Nippon Paint Holdings Group has implemented the activities as a member of the Japan Responsible Care Council (JRCC) since the foundation of the council in 1995 and also participates in Coatings Care activities, which are Responsible Care activities for coatings.



Responsible care plan and results

Under the Responsible Care organizational structure of Nippon Paint Holdings, the Group companies set their own RC priority targets at the beginning of each fiscal year. In the lifecycle of the products handled by each company, which covers the stages from development to production, distribution, use, final consumption, and disposal, the targets are set based on the risks and

opportunities for the company selected from among its unique internal and external issues in the stages after its involvement, as well as the demand and expectation of stakeholders. The targets are then included in the management system for spiral-up. The targets set by the Group for fiscal 2018 and the results on them are shown below.

Priority subjects	Targets	Group-wide results and their assessment
Occupational health and safety and security and disaster prevention	Improvement in the completeness of risk assessment and the planning and certain execution of risk reduction measures based on the assessment results. The basic KPI is zero occupational accidents and physical accidents.	The companies promoted safety activities based on the plan. As a result, a total of 24 accidents occurred in the Group in fiscal 2018 (while 14 accidents, including three accidents resulting in lost time, occurred in the previous fiscal year), which consisted of three accidents resulting in lost time and 21 accidents without lost time. Relatively minor accidents increased.
Environmental conservation	Reduction of CO ₂ emissions and energy consumption. The basic KPI is per unit reduction of 1%. Amount of landfilled industrial waste: achievement and maintenance of zero landfilled waste	Due to the operation of new equipment and an increase in the utilization rate of coating equipment in some companies, as well as a decrease in production volume, per unit CO ₂ emissions increased. All of the companies successfully maintained almost zero landfilled waste.
Chemicals and product safety	Promotion of the development and sales of products that reduce environmental impact at the time of coating or disposal and products that can reduce environmental impact based on the film-forming performance, such as process-shortening products, environmentally friendly products, and low VOC paints	The promotion of products that reduce environmental impact at the time of coating or disposal was advanced mostly as planned. Although the introduction of products that can reduce environmental impact based on the film-forming performance into the market made steady progress, the sales volume did not reach the target.

Environment and Work Safety Management Acquisition of ISO 14001 certification

Acquisition of ISO 14001 certification

Nippon Paint Holdings Group received ISO 14001 multi-certification for seven domestic operating companies (see "RC Organizational Structure" in P21) and their subsidiaries. In November 2018, we received surveillance and obtained the certification.

Overseas management

Nippon Paint Holdings provides active support to overseas Group companies for their health and safety activities. In Asia, action bodies on health and safety and environmental conservation have been set up in Group companies in China and other Asian countries together with the regional headquarters and are supported by us to enable Group companies to establish improvement activities based on mutual assessment or self-assessment. While the safety and environmental levels on the sites have been steadily improved in comparison with last year, we are working to enhance mutual communication and share information to help solve the problems to the maximum extent.

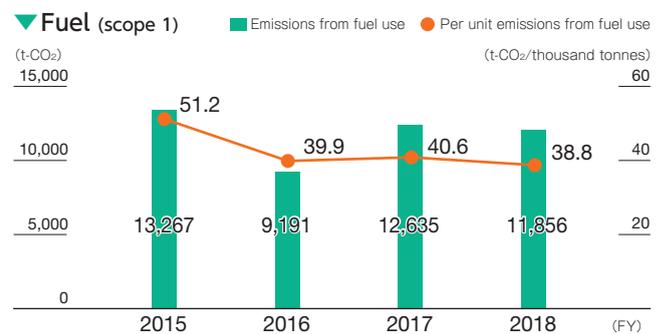
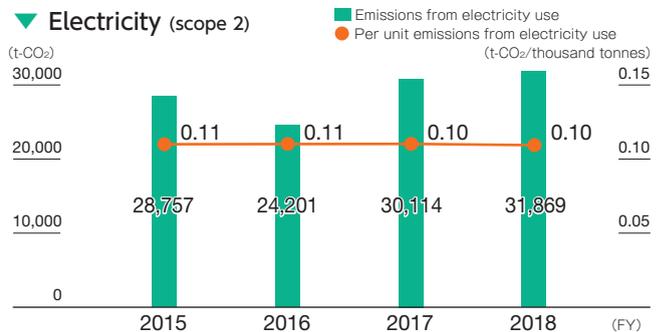
In Europe and the Americas as well, we conduct environment-related audits and provide support for corrective actions on an as-needed basis in cooperation with domestic operating companies.

Prevention of Climate Change

Nippon Paint Holdings Group is committed to the prevention of global warming in Japan mainly through efforts to reduce energy use.

More specifically, we promote the optimal use of various equipment and devices that consume power or gas. We also review the appropriate operating conditions of compressors, boilers, chillers, and other equipment on the production sites using large equipment. In other offices, we make meticulous efforts in daily operations to help reduce energy consumption, such as strict temperature control of air conditioners and efforts to turn off the power of unused office equipment. In fiscal 2018, CO₂ emissions from electricity use and per unit emissions increased. We will try to reduce CO₂ emissions through the review of the energy saving activities and the introduction of effective measures.

Data on the emissions of greenhouse gases other than CO₂ are not disclosed because they are negligible.



* Scope of data collection:
 NPAU, NPIU, NPTU, and NPSU for the data in FY2015
 NPAU, NPIU, NPTU, NPSU, and NPMC for the data in FY2016 and FY2018
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 April to December (nine months) only for FY2016



Chemical industry and climate change

The Paris Agreement, which is an international framework on climate change issues for 2020 and thereafter, entered into force in November 2016. It is anticipated that industries and individual companies are required to make more efforts to meet the greenhouse gas (GHG) emission reduction commitment by the countries.

Efforts to reduce GHG emissions by using smaller amounts of energy such as electricity and gas are made continuously.

In the meantime, paints and other chemical products that are widely used in society are mainly made of carbon in fossil

resources and it is also required to reduce the use of those substances, which cause the emissions of carbon dioxide and other GHGs. In addition to the efforts to reduce the substances causing climate change, efforts to reduce GHG emissions with the involvement of the whole value chain is expected to be expanded in consideration of the potential to reduce far more GHG emissions from the use of products than from the component manufacturing stage.

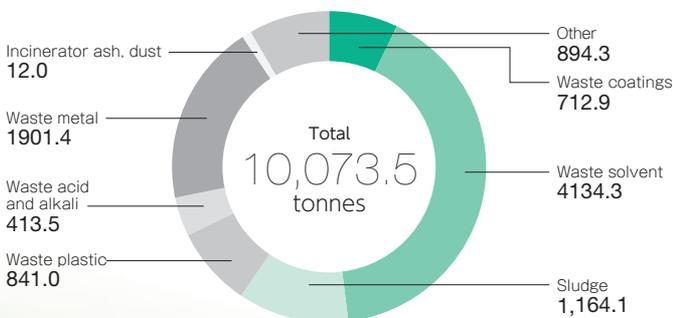
It is strongly required to take specific actions that combine those efforts.

Reduction of Waste, Etc. and Zero Emissions

In Japan, Nippon Paint Holdings Group introduced an integrated waste management system that can also address the electronic manifest system in fiscal 2015 and makes Group-wide efforts to reduce waste, etc., such as reduction of waste generation and proper disposal of waste, etc. generated including effective use. In fiscal 2018, the amount of waste generated increased year-on-year and the recycling rate was 99.9%.

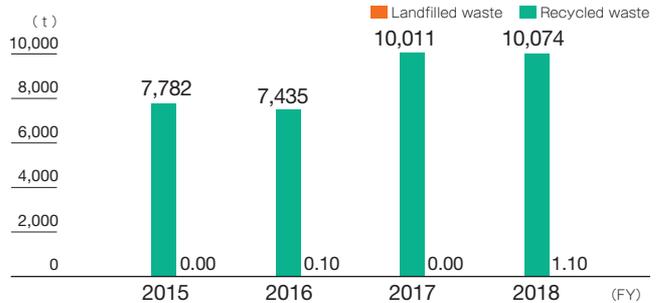
We will work to enhance waste management in order to reduce waste generation and achieve the recycling rate of 100%.

▼ Breakdown of waste, etc. (FY2018)



* Including valuable materials

▼ The amounts of waste, etc. generated, recycled, and landfilled by year



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Comprehensive Management of Chemical Substances

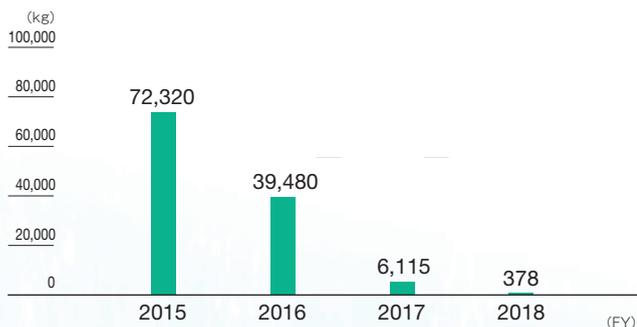
Basic Approach

Paints contain various chemical substances originating from the raw materials and some of them can be harmful to the human body or the environment. Laws and regulations concerning chemical substances have become increasingly stringent globally in recent years. For the management of chemical substances, our Group Product Safety Committee, which is set up under the Responsible Care (RC) Committee, makes discussions with Group companies and prepares management standards to standardize the handling of chemical substances and prevent incorrect operation.

Measures to Comply with Laws

We properly responded to legal changes made during fiscal 2018, including the revision of the Industrial Safety and Health Act, partial revision of the Cabinet Order for the Designation of Poisonous and Deleterious Substances, and revision of the Chemical Substance Control Law, and took additional measures such as modification of labeling and the issuance of Safety Data Sheets. We also take necessary measures to comply with the Poisonous and Deleterious Substances Control Law because our products include Dimethylaminopropylamine and drug products containing the substance. We have not been required to take corrective actions by the competent ministry or authority as to this issue. In preparation for a change in the notification form on low volume or low production volume new chemical substances in the Chemical Substance Control Law in fiscal 2019, we have notified it in the Group.

Use of lead compounds by year



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Initiatives in FY2018

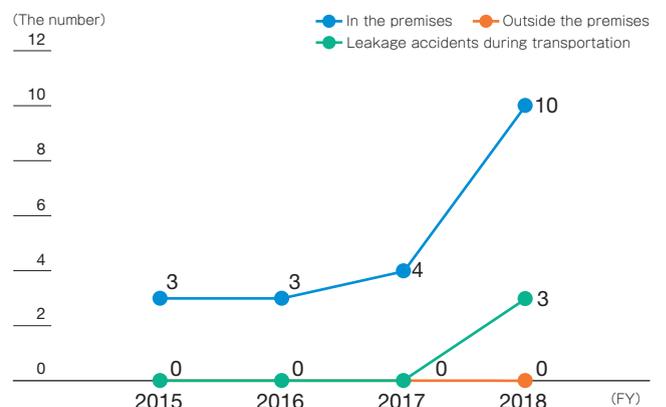
As we did in the previous fiscal year, we obtained information via various channels to ensure that we can respond to legal changes on chemical substances on a global scale and also worked to improve the mechanism.

Furthermore, in response to the international agreement to minimize the adverse impact of the manufacturing and use of chemical substances on human health and the environment by 2020, we have defined the substances the use of which is banned or restricted by domestic and international laws as "green standards: substances to be managed" and continuously check whether the raw materials purchased contain any of them or not.

Measures to prevent the leakage of hazardous materials

We have designed measures to prevent the leakage of hazardous materials, etc. and also provide training dedicated to the prevention of the leakage of hazardous materials in an emergency drill organized in each area every year. For example, we assume a case where products are leaked on the road after an accident of a truck transporting the products on a general road and provide training for preventing the expansion of the leakage and recovering the products in order to develop abilities to respond quickly to emergency situations.

Number of leakage accidents



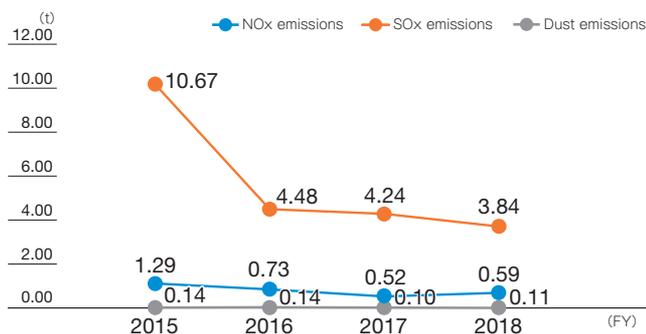
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Air and Water Conservation

Prevention of Air Pollution

Nippon Paint Holdings Group complies with laws and regulations pertaining to air pollution through the setting of voluntary reference values and other measures in Japan. In FY2018 as well, none of our plants exceeded statutory limits. We reduced the generation of NOx and SOx emissions in comparison with the levels in fiscal 2016.

▼ NOx, SOx, and Dust emissions by year

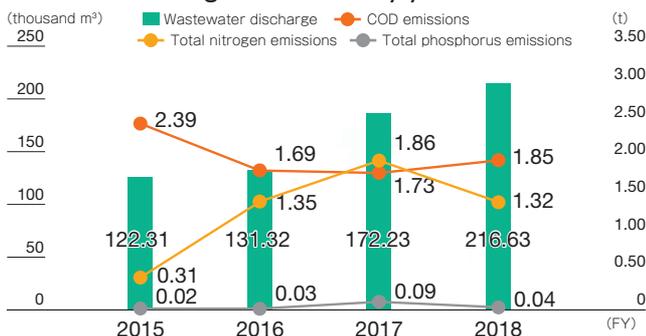


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Prevention of Water Pollution

Our Group complies with regulations pertaining to water pollution through the setting of voluntary reference values and other measures in Japan. Wastewater discharge increased year-on-year in fiscal 2018.

▼ Wastewater discharge and COD, total phosphorus, and total nitrogen emissions by year

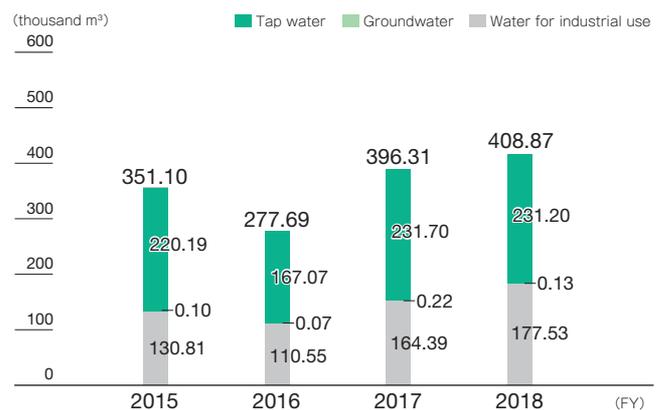


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Effective Use of Water Resources

Our Group strives to use water resources more efficiently through the effective use of water in the cleaning process and the recycling of cleaning water on the production sites in Japan. However, the use of industrial water increased in fiscal 2018.

▼ Water use by year



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