

ESG DATA BOOK 2020

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From the Biosphere to Outer Space NOF CORPORATION



Editorial Policy

This data book is prepared for the purpose of complementing the Integrated Report 2020 and disclosed in PDF format on the NOF CORPORATION's official website.

Reporting Period

Fiscal 2019 (From April 1, 2019 to March 31, 2020)

* Activities conducted prior to and after this period have also been included when deemed to be important for deepening the understanding of the reader.

Scope of the Report

The Report covers the entire NOF Group.

If it is necessary to specify the scope of coverage, the following terms are used. The term "NOF Group" is used to refer to the whole Group.

The term "NOF" is used to refer to NOF CORPORATION alone.

Environmental data Main items of environmental performance data are separately aggregated and stated with respect to domestic and overseas sources. In this Report, NOF and its 13 domestic consolidated subsidiaries are referred to as the "Domestic Group."

Social data Social data primarily covers NOF and includes certain affiliates.

Financial data Financial data covers NOF and its 24 consolidated subsidiaries.

Guidelines Referenced

ISO26000: 2010 Guidance on Social Responsibility, Japanese Standards Association

GRI Sustainability Reporting Guidelines Standard

Disclaimer

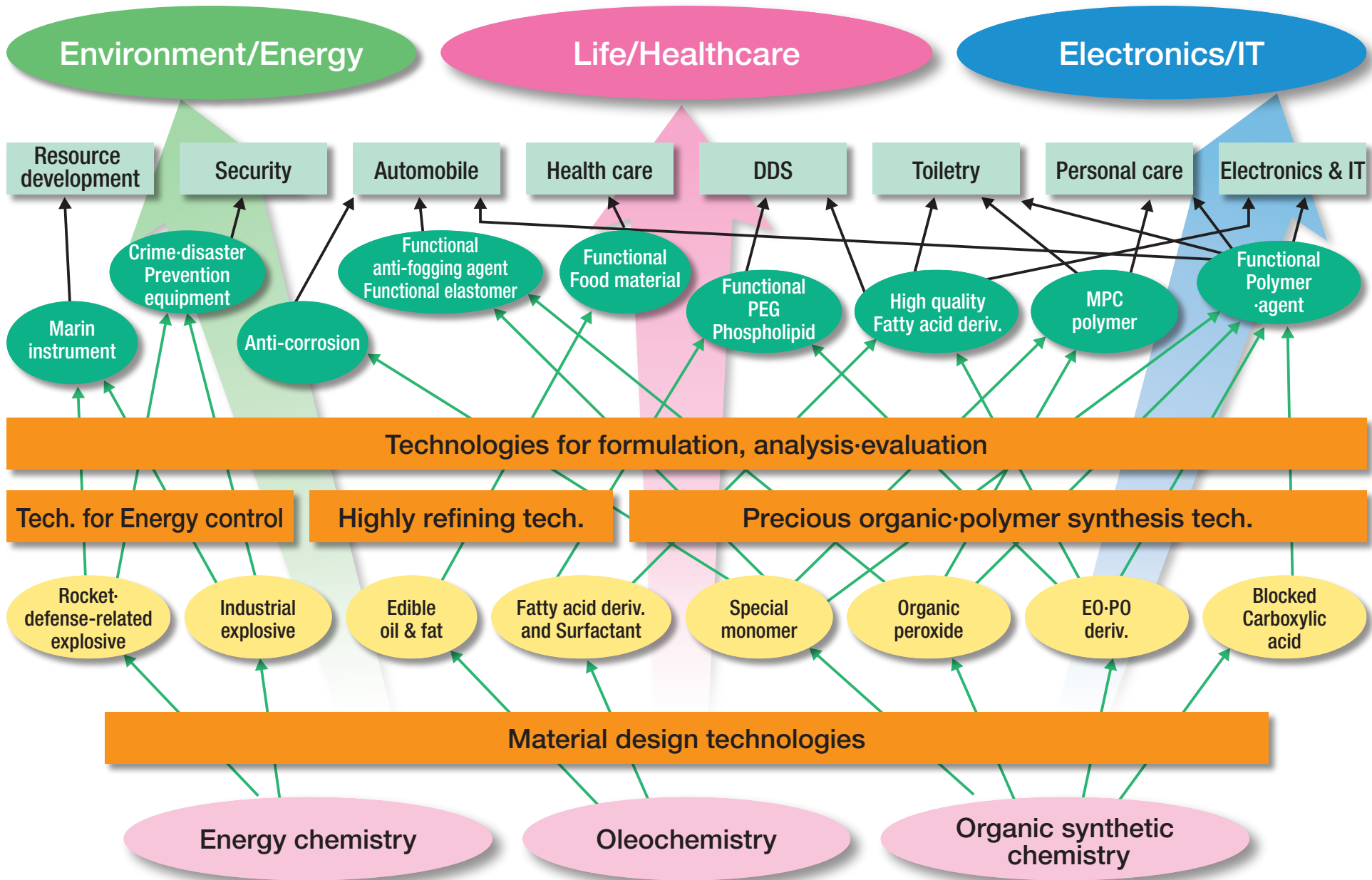
This Report contains forward-looking statements based on management plans and expectations at the time of publication, as well as past and present facts regarding the NOF Group. These forward-looking statements comprise assumptions and judgments based on currently available information, and thus the actual events and outcome of future business activities may differ from those predicted due to changes in various conditions.

General Topics

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Technologies and materials of the NOF Group



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Appendix

NOF Group's Eco-friendly Products

Based on its technologies and experiences built up over the years, the NOF Group continues to develop eco-friendly products.

[What the NOF Group means by “eco-friendly products”]

- (1) Products that facilitate resource saving and recycling
- (2) Products reduced in environmental load
- (3) Products containing neither hazardous nor legally regulated substances

The products of the NOF Group are almost wholly supplied to corporate users. Some of the products of the NOF Group delivered to corporate users are exhausted as they are used as processed foods or explosives, but many of them are further processed into end products. In such cases, we deliver products that contribute to recycling and energy-saving of the end products and eco-friendly products that are biodegradable or that do

not contain harmful substances in an effort to reduce environmental loads. Going forward we will strive to develop products and technologies that will contribute to reducing the environmental load from the standpoint of the entire life cycle from the procurement of materials to production, distribution, use, disposal and recycling.

Products that Facilitate Resource Saving and Recycling

Recycling of material resources is a vital key to the realization of a sustainable society. The NOF Group has proposed diverse resource saving and recycling techniques, which are now in practical use.

Deposit control agent (YUKA SANGYO CO., LTD.)

Recycled paper resources contain numerous impurities including sticky substances such as adhesives. These impurities lower the efficiency of the paper recycling process and impact the quality of the product. The pitch control agent MILLSPRAY®, SPANOL® and DETAC® and the removing agent BIOREX® have solved these problems and promote the recycling of waste paper.



These products demonstrate their superior performance in reducing impurities that generate in the paper-making process.

Vulcanized rubber substitutes (Functional Chemicals & Polymers, NOF CORPORATION)

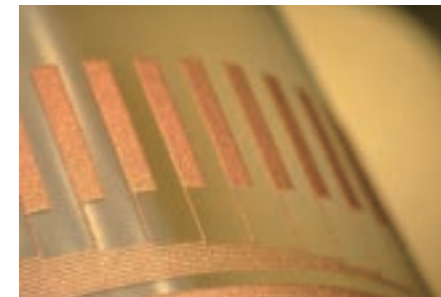
While large quantities of vulcanized rubber are used in auto parts and sealing materials, which have to be highly resistant to heat and oil, vulcanized rubber can never be molten once they are molded, and therefore refuse recycling. Unlike them, NOFALLOY® TZ series, which can be heated for re-melting as many times as wanted for recycling, are extensively utilized as substitutes for vulcanized rubber.



Products made recyclable by the use of NOFALLOY® TZ series

Copper paste for screen printing (NOF CORPORATION)

Etching is the standard method for forming copper wiring on electronic circuit boards. However, this method requires waste fluid processing because copper waste fluid is generated as most of copper foil is dissolved. The copper paste developed by NOF makes it possible to directly draw copper wire on the necessary areas through the screen printing method. For this reason, it is possible to form copper wiring that is not wasteful without generating waste fluid, which in turn makes it possible to use resources efficiently and contribute to environmental preservation.



Example of use in printing of copper paste by screen printing

Products Reduced in Environmental Load

We in the NOF Group, always asking ourselves “To reduce our environmental loads to the possible minimum, how can we utilize our technology”, are earnestly meeting many different requests from diverse fields.

Low-VOC*1 curing agents (Functional Chemicals & Polymers, NOF CORPORATION)

Bath tubs are manufactured by thermally curing unsaturated polyester resin. PERHEXYL® A is a curing agent that can shorten the molding cycle and moreover significantly reduce the VOC, an environmental load that remains in the molded product.

Antifog agents for automotive headlamps (Functional Chemicals & Polymers, NOF CORPORATION)

Today, LED lamps are in accelerated use for automotive headlamps by virtue of their reduced power consumption, extended service life, contributions to fuel efficiency of cars and less CO₂ emissions. However, as they do not make the lamp inside as hot as in conventional halogen lamps, LED headlamps involve the problem of susceptibility to fogging by dew drips. The MODIPER® H series are used for preventing such fogging within lamps and for keeping their front lenses clear.



Antifog agents used for automotive headlamps

Eco-friendly refrigerating machine oil (Oleo & Specialty Chemicals, NOF CORPORATION)

HFC (Hydrofluorocarbon) refrigerants, which do not deplete the ozone layer, are increasingly used as refrigerants for air conditioners and refrigerators. Eco-friendly refrigerating machine oil enhance co-solubility with HFC (Hydrofluorocarbon) refrigerants and improve its thermal stability, electrical insulation performance and other factors. Moreover, its low viscosity contributes to saving energy consumption. In recent years, the refrigerants having a smaller global-warming potential compared with previous products are required, and NOF is now supplying refrigerating machine oil for refrigerants having a low global-warming potential.

*1 Volatile Organic Compounds

Anti-sticking agents (Oleo & Specialty Chemicals, NOF CORPORATION)

In road construction, asphalt mixtures often stick to the cargo beds and hoppers used within plant facilities, and to prevent this trouble, petroleum-derived adhesion preventers have been used. However, conventional adhesion preventers are not friendly to the environment; they contaminate soil and/or water. ASPHASOL® and ASPHARAB®, made from natural oil, contribute to environmental conservation as a highly biodegradable product.

“How ASPHASOL® N-02” proves effective



Where ASPHASOL® is used

Where it is not used

Eco-friendly



Oil readily biodegradable in the environment (Biodegradability 60% or more in 28 days) (Under OECD 301C tests)

Eco Mark Certification Number 09110001

Name of utilizing contractor: NOF CORPORATION

Product: ASPHASOL® N-02, N-03

Eco Mark Certification Number 12110001

Name of utilizing contractor: NOF CORPORATION

Product: ASPHARAB® CE-R, LF

- Registered in NETIS (New Technology Information System) of the Ministry of Land, Infrastructure, Transport and Tourism
- Received the fiscal 2011 Kinki Chemical Society Japan Environmental Technology Award (ASPHASOL®)

Biodegradable hydraulic fluid (Oleo & Specialty Chemicals, NOF CORPORATION)

Leaking of hydraulic fluid (mineral oil) used in construction machinery for outdoor use or dam gates in accidental troubles or natural disasters and the resulting contamination of the environment is posing a problem. In view of this circumstance, NOF has developed hydraulic fluid MILLUBE® that is decomposed by natural bacteria (biodegradable) and is urging replacement of conventional hydraulic oils with this new product.

Eco-friendly



Oil readily biodegradable in the environment (Biodegradability 60% or more in 28 days) (Under OECD 301C tests)

Eco Mark Certification Number 08110006

Name of utilizing contractor: NOF CORPORATION

Product: MILLUBE® E-22A, E-32A, E-46A, E-56A, G-320A

- Registered in NETIS (New Technology Information System) of the Ministry of Land, Infrastructure, Transport and Tourism
- Received the fiscal 2010 Kinki Chemical Society Japan Environmental Technology Award

Products Reduced in Environmental Load

Steam pressure cracking agent, "GANSIZER®" (Nippon Koki Co., Ltd.)

GANSIZER® uses high vapor pressure that is generated during the thermolysis of the agent to crush bedrock, stone, and concrete structures with low vibration and low noise. It has gained a strong reputation as a crushing agent not containing explosives and is friendly towards the surrounding environment. It has a strong track record in situations such as crushing concrete and excavation works near rivers and it was also used for underwater crushing of breakwaters that were destroyed in the Great East Japan Earthquake.



Antifreezing agents (HOKKAIDO NOF CORPORATION)

Antifreezing agents such as sodium chloride conventionally used on road surfaces in cold areas have posed the problem of "salt damages." NOF's antifreezing agent KAMAGU®, an acetic acid-derived chemical containing no chloride, poses no fear of salt damages. AUTOKAMAGU® JET, an automatic antifreezing agent spraying device, is a sensor-based system that automatically sprays KAMAGU®, an environmentally-friendly acetic acid antifreezing agent, onto snowy or frozen roads. It is able to work 100% on natural energy using solar energy and it can also perform advanced road surface management via remote monitoring and control. AUTOKAMAGU® JET contributes to environmental conservation and road safety together.



KAMAGU®, together with AUTOKAMAGU® JET, is proving highly effective against the freezing of road surfaces.

Products Containing neither Hazardous nor Legally Regulated Substances

As a group of chemical companies manufacturing chemicals and supplying them to society, the NOF Group attaches foremost importance to the safety of products themselves.

Chrome-free anti-corrosion coatings (NOF METAL COATINGS ASIA PACIFIC CO., LTD.)

GEOMET® is a water-based anti-corrosion coating which contains no chrome compound. Satisfying the requirements of Europe's ELV and RoHS directives, GEOMET® Treatment Parts are used by automakers across the world.



Parts treated with GEOMET®

Cement capsule (NiGK Corporation)

Cement capsule is an (inorganic) adhesive-based capsule anchor for post-installed application intended for typical use in anti-earthquake reinforcement work. This product is more resistant to fire than resin products, and excels in safety as it contains no harmful chemicals, which might invite sick house syndrome, or endocrine disrupter.



Example of use in an actual project (anti-earthquake reinforcement of Shinkansen bridge piers)

CSR of the NOF Group

The NOF Group believes that its corporate philosophy of “contributing to mankind and society through the creation of new value in wide-ranging fields from the biosphere to outer space” represents the CSR that the Group aims to fulfill through its business activities. We will strive to maximize the values that we share with every stakeholder and with society.



Promotion of CSR

We will increase frequency of activities of the CSR Committee, an umbrella organization chaired by the President, as well as the various specialty committees to strengthen risk management system.



CSR Action Plan and Results

CSR Action Plan and Results

The CSR Action Plan and Results and Action Plan for fiscal 2019 are as follows.

Category of CSR Activity		Plan for FY2019	Results for FY2019
1. Governance	Compliance	Revised the NOF Group Compliance Manual (Japan version) Develop country-specific Compliance Manuals Promote compliance education Utilize the whistle-blowing system	Revised the NOF Group Compliance Manual (Japan version) Country-specific Compliance Manuals (Issued Italian Edition and South Korean Edition) Conducted compliance training (All the employees of the NOF Group) Held legal seminars (Revision of the civil law: 329 participants)
	Business continuity	Promote the business continuity plan	Conducted BCP audits: 9 locations Conducted BCP training on earthquakes Built an IT-BCP disaster recovery system
	RC management	Promote Group RC activities Audit the RC activities of consolidated subsidiaries	Conducted RC audits Total of 23 times at NOF Consolidated subsidiaries 8 domestic consolidated subsidiaries 2 overseas consolidated subsidiaries
2. Respect for Individuals	Work-life balance	Promote workstyle reform Promote health-conscious management	Annual paid leave usage rate: 66.4% (increased by 1.2 points y/y) Childcare leave usage rate: 58.9% (increased by 28.1 points y/y)
	Better performance of human resources	Utilize the reemployment system Employ people with disabilities	Retirees reemployed as of March 31, 2020 (estimate): 20 retirees Employment rate of people with disabilities: 2.60%
	Talent development	Support employees' self-enlightenment efforts Promote training at the organizational level, and regarding specific issues Encourage employees to obtain official qualifications	Correspondence courses and e-learning courses: Participated by a total of 307 employees Training held during fiscal 2018: 23 times, participated by a total of 583 employees New acquirers of public qualification: A total of 371 employees
	Safety education	Conduct RC education (labor safety, environmental safety, plant safety, product safety and transportation safety)	Number of participants: A total of 20,000 employees Training hours: A total of 34,000 hours
3. RC Activities	Environmental safety	Promote activities aimed at achieving mid- to long-term environmental targets Reduce greenhouse gas emissions Maintain Zero Emissions Reduce chemical emission volumes Promote biodiversity-friendly activities	Conducted efforts aimed at mid- to long-term targets with fiscals 2020 and 2030 as the final years respectively Greenhouse gas emissions: Target achieved (10% reduction from fiscal 2013) Zero Emissions: Target achieved (zero emission rate of 0.05%) Chemical emission volumes: Target achieved (40% reduction from fiscal 2010) Ongoing participation in biodiversity private sector participation partnership
	Labor safety	Reinforce efforts toward zero accidents	Labor accidents: 5 cases (decreased by 5 cases y/y)
	Plant safety	Ensure stable operation	No major plant damage
	Product safety	Ensure quality control Promote proper management of chemicals	No major complaints
	Transportation safety	Promote safe transportation	No major transportation accidents
4. Living in Harmony with Society	Fair competition and trade	Continue engaging in fair trade	Continued to engage in fair trade
		Promote CSR-based procurement	Provided guidance to suppliers on CSR-based procurement policy Conducted supplier questionnaire
	Information disclosure	Continue performing timely and appropriate disclosure of fair, unbiased information	Continued to perform timely and appropriate disclosure of fair and unbiased information
		Hold performance briefings Publish CSR reports	Held twice in May and November Issued CSR Report on June 30 and posted on website
	Dialogue activities	Promote dialogue activities with the community	Plant tours, informal meetings with local residents, participation in RC local dialogue meetings
Socially beneficial activities	Promote social contribution activities	Local volunteer activities, cleaning activities, donation of ¥14,700 thousand	

Contribution to the SDGs

It is regarded to be important for corporations to contribute to the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015. The NOF Group aims to contribute to SDGs through initiatives for materiality as presented in the table below.

Materiality	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Provide new values to realize a prosperous and sustainable society																	
Innovation through business									●			●					●
Contribution to drug, medical care, and health			●									●					
Contribution through environmentally-friendly products						●	●					●	●	●	●		
Contribution to smart society									●			●					
Strengthen the business foundation																	
Creation of comfortable workplace					●			●		●							
Better performance of human resources				●	●			●									
Promotion of CSR procurement																●	●
Resilience enhancement											●	●					
Promote responsible care activities																	
Response to climate change							●					●	●				●
Management of chemicals			●			●						●		●	●		●
Labor safety			●					●									

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Impact on society through supply chain

The businesses of the NOF Group have various impacts on society through its supply chain. The table below shows the relationship between the NOF Group's materiality and value chain.

Materiality	Purchase of raw materials	Development and production	Transportation	Sales	Use	Disposal and recycling
Provide new values to realize a prosperous and sustainable society						
Innovation through business					●	●
Contribution to drug, medical care, and health					●	●
Contribution through environmentally-friendly products					●	●
Contribution to smart society					●	●
Strengthen the business foundation						
Creation of comfortable workplace		●	●	●		
Better performance of human resources		●	●	●		
Promotion of CSR procurement	●	●				
Resilience enhancement	●	●	●	●		
Promote responsible care activities						
Response to climate change	●	●	●	●	●	●
Management of chemicals	●	●	●	●	●	●
Labor safety		●	●	●		

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Governance

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Outline of the organizational setup for corporate governance

With a view to architecting a management setup that can appropriately respond to changes in the business environment, NOF introduced the operating officer system in 2000; it was intended to strengthen the decision making function and the supervision function of the Board of Directors and at the same time to enhance the efficiency of the executive setup under authorization by the representative director by separating the decision making function and the business executing function of management. In addition, for the purpose of further strengthening the supervision function, two independently positioned outside directors are selected. The Board of Directors, consisting of eight members including outside directors, holds one regular meeting every month and extraordinary sessions are also convened as required; besides deciding on important matters set forth by the laws, regulations, the articles of incorporation and the rules of the Board of Directors, the Board supervises the state of business execution. Any important matter to be referred to the Board of Directors goes through preliminary deliberation, intended to ensure more appropriate decision making, by the Executive Committee from time to time attended by directors, standing corporate auditors and heads of the organizational unit or units concerned or the weekly Strategic Meeting as a rule attended by the directors authorized to execute business. To supplement these meetings, NOF from time to time receives advice from such experts as lawyers and certified public accountants regarding business management and daily execution of business for reference in making judgment on business affairs.

Development of internal control system

Each NOF Group company has developed an internal control system for ensuring adherence to laws and regulations, the articles of incorporation and various internal rules of the Company and appropriateness of business operations. Regarding observance of social norms and laws and regulations, the Company's code of conduct is formally spelled out as the NOF Code Ethical Conduct, based on the NOF Basic CSR Policy, and an Ethics Committee is established to ensure thorough adherence to the code. Further to secure safety in production sectors in the five aspects, including environment, product, plant, transportation and labor, the Responsible Care (RC) rules are instituted, with the RC

Committee checking conduct in actual scenes of production and performing internal auditing.

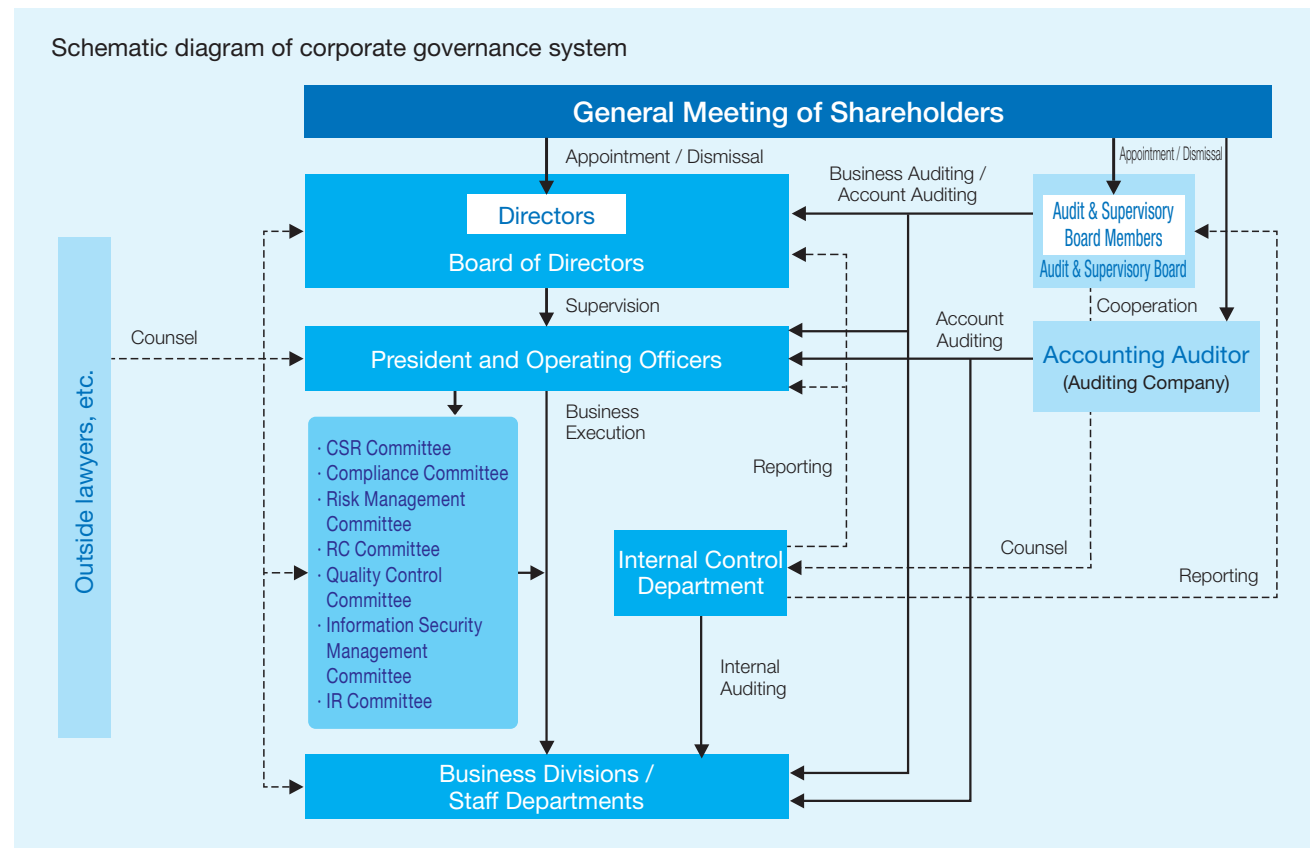
Internal audits and corporate auditor's audits

Internal audits are performed by the Internal Control Department, which is an independent organization reporting directly to the President.

Corporate auditor's audits are primarily performed by the standing corporate auditors as part of the framework of oversight over the directors' execution of business by attending every meeting of the Board of Directors and the Executive Committee, as well as proactive participation in various other meetings. The corporate auditors coordinate closely with the accounting

auditor by convening periodic meetings and other initiatives, and exchange various information on such matters as audit plans and audit reports.

Corporate auditors including outside corporate auditors receive periodic reports from the Internal Control Department regarding internal controls, while at the same time engage in exchanges of opinions, as necessary. Corporate auditors also engage in appropriate coordination with the relevant organs by attending the meetings of the competent committees on CSR and risk management, sitting in on internal audits conducted by the internal auditing organs of each committee and receiving and exchanging opinions on the audit result reports of the internal audit organs of each committee.



■ Promotion of the Business Continuity Plan (BCP)*1

NOF has formulated a BCP, to enable its core business to be continued or, if damaged, to be restored quickly while minimizing the loss of business assets in an emergency such as a natural disaster. The activities of the BCP Task Force to promote the BCP primarily focuses on the formulation of the BCP manual which sets forth the responses to be implemented in normal times and in emergencies, in addition to the preparation and yearly renewal of information on the estimated damages to the plant and various government-, infrastructure- and supply chain-related information, which will be required when resuming operations. Additionally, the BCP Task Force performs annual internal audits and training in an effort to firmly establish the BCP and to enhance its effectiveness.

*1: BCP (acronym for Business Continuity Plan) is a plan formulated by a company to set forth activities to be carried out in normal times and methods, means and so on for continuation of business in an emergency such as a natural disaster, conflagration or terrorist attack to enable the core business to be continued or, if damaged, to be restored quickly while minimizing the loss of business assets.

■ Information security management

(1) Management of trade secrets and protection of personal information

Recognizing the importance of information as one of vital management resources to business activities and the indispensability of active strengthening of corporate competitiveness by active utilization of information and firm establishment of information security to steady business management, NOF has set forth the Information Security Policy as a basic principle for promoting effective utilization and protection of information. At the same time, recognizing protection of personal information as its obvious social responsibility, NOF has formulated and announced the Privacy Policy.

Under such policies, the Company has set forth specific measures for enhancing the levels of confidentiality, completeness and utility of information and specific ways of handling personal information in its internal rules including information security management rules, personal information protection rules and information system-related sets of provisions, a confidential information handling manual and an information equipment handling manual, and is ensuring their thorough understanding by the staff.

(2) Management setup

In the organizational aspect, the Information Security Management Committee is set up, and under its chairperson, who has overall supervising responsibility for information security management, persons responsible for document information security management, electronic information and information system security management, and addressing complaints regarding personal information, as well as a person responsible for management at each level of organizational unit, are appointed to administer the implementation of specific measures. Against illicit accesses from outside and other risk factors including loss, destruction and alteration, safety measures are taken at appropriate and rational levels. In addition, NOF continually reviews through internal auditing setups and measures pertaining to information security management and protection of personal information to improve them wherever necessary.

Compliance

The NOF Group instituted the Code of Ethical Conduct in April 2002 to ensure that each member-company and each employee always conform to social ethics and win society's trust. In this connection, the Group set up the Ethics Committee in an effort to strengthen its responsibility to society and ensure the transparency of its business activities. Further, a consultation desk for NOF's employees is open at the secretariat of the Ethics Committee.



Compliance Manual

In order to instill a sense of compliance in its executives and employees, the NOF Group has prepared a Compliance Manual, which explains the Code of Ethical Conduct in detail and in easily understood terms. The universal Global Compliance Manual has been published in eleven different languages.



Country-specific compliance manuals

The NOF Group is preparing country-specific compliance manuals based on the legal systems of each country. Following the publication of versions for the U.S.A., China, Indonesia and France where the Group has a large number of employees, in fiscal 2018, we published versions for Germany and Belgium and began utilizing them in Group companies.

Compliance-related training

The NOF Group regularly holds legal seminars for employees. In fiscal 2018, a total of 5 legal seminars (seminars on English contracts) were held, attended by 133 participants. Training related to personal information management (1,648 participants) was also held.



Raising awareness by internal magazine

NOF uses its quarterly internal magazine to help raise employees' awareness of compliance. NOF continues activities to raise awareness through relatable articles using cartoon characters.



Whistle-blowing system

Consultation desks in Japanese / English / Chinese (Simplified Chinese) / Korean / Indonesian / Portuguese have been set up at external third-party institutions as contact points for whistle-blowing / consultation, in the event that an employee becomes aware of acts in violation of compliance or acts suspected of being in violation of compliance.

The number of whistle-blowing in fiscal 2019 was two cases, including one harassment issue and one issue related to workplace operation. We conducted internal investigation in a swift and careful manner, and have taken corrective and preventive measures.

Respect for Individuals

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Promotion of work-life balance

NOF is developing a work environment in which the staff can work well motivated while attaching due importance to the work-life balance between work and non-work activities including child care, nursing care, hobbies, studies, rest and community activities. In light of the

importance NOF attaches to the work-life balance of its employees, it has adopted the following systems to provide specific support. The “○” symbols in the table below indicate NOF’s own systems or systems that go above and beyond the scope of law.

Systems that support diverse working styles

Pregnancy and childbirth	Childcare	Nursing care	Other
○ Limitations on and exemptions from overtime*1, limitations on night work*1			○ Yearly paid holidays (up to 23 days)
○ Later or earlier work start or finish times*1		○ Nursing care leave (can be taken 3 times, up to 365 days)	○ Yearly paid half work days
○ Limitations on work on holidays	○ Childcare leave (maximum of 2 years)	○ Nursing care leave (10 days per year)*3	○ Cumulative saved leave*2
○ Consideration to and reduction of workload	○ Career and childcare balance support program		○ Refresh leave
○ Commuting relaxation (route changes, etc.)	○ Child nursing leave*1 (10 days per year)*3		○ Flex-time system
○ Hospital visit leave (may be paid)	○ Childcare hours (paid)		○ Discretionary work system (R&D position employees)
○ Prenatal and postnatal leave			○ Self-enlightenment support
			○ Sports and culture activities

*1: In the case of childcare, the systems apply for employees raising a child up to the third grade of elementary school.

*2: The cumulative saved leave is a system in which expired yearly paid holidays may be accumulated, and used for personal illness or injury, childcare, nursing of a family member, nursing care, self-enlightenment, or volunteer activities.

*3: Can be taken in half-day increments.

Workstyle reform

NOF is working to ensure proper labor management with a view to reducing work hours by improving operational efficiency and productivity and promoting fulfilling lifestyles outside of work, while making efforts to reduce work hours mainly through restricting work after the designated time and introducing a work interval system.

Recommending employees to take yearly paid holidays

NOF is developing a work environment in which the staff can work well motivated while attaching due importance to work-life balance. NOF encourages all employees to take their yearly paid holidays. Additionally, one such initiative is to encourage them to take yearly paid holidays in their respective birth months, and in this way an atmosphere that makes them easier to take yearly paid holidays is developed in the work environment.

In fiscal 2019, we will establish operation rules to comply with the revised laws that will require employees to take at least five yearly paid holidays, while verifying the status of yearly paid holidays taken by the employees and considering measures to further encourage employees to take their holidays.

Refresh leave system

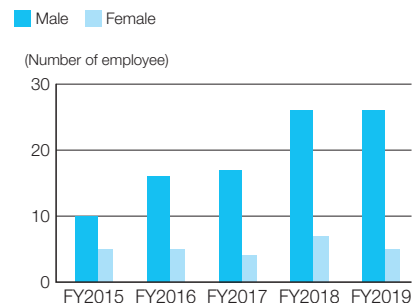
NOF provides a system under which employees having worked with the Company for 10, 20 or 30 years are given seven consecutive paid holidays (which otherwise would be workdays) so that they can refresh themselves both mentally and physically away from everyday duties, and find opportunities to expand their fields of vision and to increase the flexibility of thinking.

Days on which employees are encouraged to leave work on time

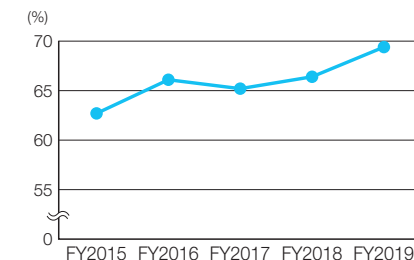
NOF encourages employees to work efficiently and sets one day of the week as a day on which employees are encouraged to leave work on time on a company-wide basis.

Employee-related data (NOF non-consolidated)

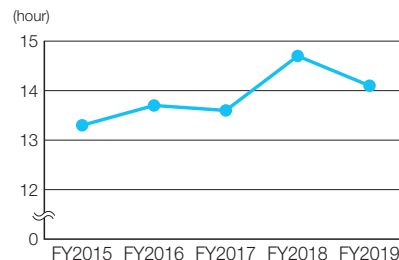
Number of employees utilizing childcare leave



Utilization rate of yearly paid holidays



Monthly average overtime work hours



* Based on the data as of March 31 each year.

* The utilization rate of yearly paid holidays is calculated for the period from September 21 of the previous year to September 20 of the current year (12-month period to take yearly paid holidays at NOF).

* Monthly average overtime work hours for previous years are recalculated based on objective data.

Introduction of childcare support program

A “career and childcare balance support program” was introduced at NOF from April 2016. Various forms of childcare support is provided under this program during periods of childcare leave, including the regular distribution via the Internet of useful information on childcare and information on events to refresh one’s spirit during the struggles of childcare and a contact point for childcare consultation. In addition, as the latest internal company information is regularly distributed and a wide range of contents for brushing up business skills are provided, this program supports a balance between childcare and work by supporting skill improvements during childcare leave and a smooth return to work. The program has been used by many employees, including male employees, and has a favorable reputation among people who have used the system.



Support for raising the next generation (Support for childcare and nursing care)

NOF provides a system that makes child-rearing / nursing care and working compatible with each other, and has proactively adopted support measures including raising the age limit for children subject to short hour work system and extending the duration of the nursing care leave and childcare leave. The requirements for utilizing the cumulative saved leave were expanded for nursing and nursing care from April 2016.

In June 2010, as its initiatives and records in the implementation of the action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children were appreciated, the Tokyo Labor Bureau recognized NOF as an “enterprise active in supporting childrearing.” In our subsequent action plan, we have been promoting the utilization and implementation of childcare leave for our male employees as an initiative aimed at establishing an environment that facilitates a balance between work and childcare / nursing care.

In April 2017, NOF has prepared a handbook that summarized information such as basic knowledge of the Long-Term Care Insurance System, how to balance work and nursing care, and internal systems related to nursing care, to enable employees to continue working and take balance, when they face nursing care.



Promotion of health-conscious management

NOF strives to create a pleasant working environment and engage in mental health care based on the belief that “securing the safety and health of employees and creating a pleasant working environment are the foundation for sustainable growth of a corporation.”

With a view to developing a workplace where employees can enjoy fulfilling lifestyles and maintain motivation for work, NOF designates the following objectives as priority areas. Going forward, NOF will proceed with initiatives to maintain and promote employees’ health.

1. Creation of a pleasant working environment
2. Mental healthcare
3. Maintenance and promotion of health

Additionally, in proceeding with these initiatives, we will strive to enhance the contents mainly by reporting at the meeting of officers.



<Example of initiatives>

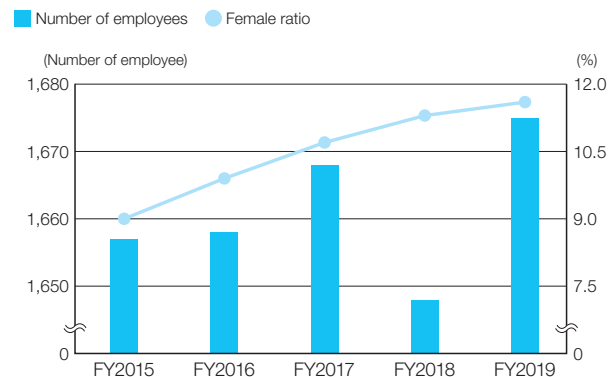
NOF is conducting stress tests in order to raise the employees’ awareness of self-care.

Stress check acceptance rate

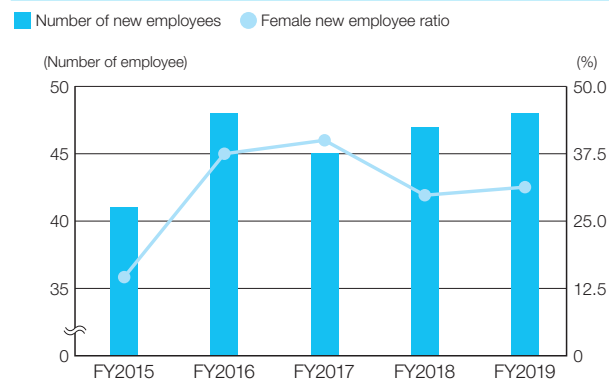
Fiscal 2017	Percentage of employees who took a stress test: 97.9%
Fiscal 2018	Percentage of employees who took a stress test: 99.3%

Employee-related data (NOF non-consolidated)

Number of employees / ratio of female employees



New employee / female new employee ratio



Fostering international human resources

In light of further overseas expansion in the future, the NOF Group has introduced the “Global Mind Seminar” as part of new employee training, and is currently promoting the systematic fostering of global human resources.

In global training for mid-career employees, employees learn the basics of overseas operations while working to become more globally minded and to improve their language skills.

In addition, for staff scheduled for overseas assignments, seminars are conducted by dedicated outside and internal lecturers on the laws, culture and commercial practices, including associated risk management, of their host countries based on the staff’s duties and roles in order to facilitate overseas operations.



Global Mind Seminar

Re-employment system (Re-employment of retirees)

NOF has introduced a reemployment system intended to provide age-limit retirees with opportunities to remain active in society and for self-realization to keep them well motivated to live on and work, and at the same time enable them to fully utilize the retirees’ high-level professionalism, skills and experience in their extended careers. (20 retirees were reemployed in fiscal 2018.)

Employment of the disabled

In order for persons with disabilities to demonstrate their capabilities and work actively in their respective workplaces, NOF is promoting the employment of the disabled, upon developing a favorable working environment.

The proportion of the disabled employed in March 2020 was 2.37% (30 persons), surpassing the legally prescribed proportion (2.2%).

The NOF Group will continue its efforts to expand employment of people with disabilities and establish a workplace environment where they can work comfortably.

Action plans of general business operators based on the “Act on Advancement of Measures to Support Raising Next-Generation Children” and “Act on the Promotion of Women’s Active Participation in Their Occupational Lives”

1. **Plan Period:** April 1, 2018 to March 31, 2023 (5 years)

2. **Details**

(1) Developing an employment environment that supports a balance between work and family life for workers who are raising children

Target 1: Implement initiatives aimed at developing an environment that facilitates a balance between work and child-rearing/nursing care.

<Measures> (1) Study and implement new policies to support a balance between work and child-rearing/nursing care.

(2) Establishing various working conditions that contribute to revision of workstyles

Target 2: Implement measures to encourage taking of yearly paid holidays.

<Measures> (1) Continue to raise awareness of taking yearly paid holidays and encourage employees to take holidays in their birth month.

(2) Study new policies to enhance the yearly paid holiday system and encourage taking of yearly paid holidays.

Target 3: Promote efficient workstyles

<Measures> (1) Study and implement new policies to reduce overtime work hours.

(3) Establishing an employment environment that enables active participation by women

Target 4: Implement measures for continuous employment of women.

<Measures> (1) Achieve a percentage of women among career-track hires of 30% or higher, and study and implement policies aimed at diversifying workstyles.

Promotion of the active participation of women

The active participation of women is promoted at NOF. Among the 33 employees who joined the Company in April 2019, 15 were women. In addition, NOF will continue to conduct training for new employees and new managers every year to promote the active participation of female employees. Going forward, NOF will actively promote the hiring of women while working to improve the workplace environment to allow the active participation of women.

Internal recruiting system

NOF has introduced an internal recruiting system that aims to foster independent human resource development by providing employees with opportunities to select work, etc. and assign motivated human resources to appropriate posts in order to improve employee morale and revitalize the organization.

Rewards for employee achievements

On July 1 of each year, NOF recognizes the accomplishments of employees who have contributed to the perpetual development of the Company’s businesses.

Employee invention reward

In April each year, NOF examines employee inventions and awards invention rewards to inventors.

Mental health initiatives

NOF is taking comprehensive initiatives for the prevention and alleviation of mental health troubles and supporting those suffering from such troubles until they have sufficiently recovered to return to work.

More specifically, these initiatives are taken in teamwork with industrial physicians specializing in mental health to ensure early detection and proper solution of mental health problems by providing stress checks, setting up out-of-house counseling facilities and institutionalizing a “return-to-work support program” to support persons absent from work for a long time or on sick leave on account of mental health disorder in ensuring their smooth return to work after recuperation.

In fiscal 2019, mental health care (line care) education was conducted for 30 participants as part of training for career-track employees promoted to manager. Measures are also implemented to maintain and improve the mental health of employees through supervisors.

Addressing sexual harassment / power harassment problems

The NOF Group has declared its position to prevent and prohibit sexual harassment and power harassment in its Guidebook on the Code of Ethical Conduct, the Compliance Manual and other internal notifications, and is taking steps to make the code and other relevant norms extensively known and understood. For consultation desks regarding sexual harassment and power harassment, one each of male and female consultants is appointed to make the workplaces transparent and pleasant.

NOF promotes a multifaceted talent development system including support for “correspondence courses,” in which each employee is allowed to choose his/her own training menu, “training at the organizational level,” which is made to suit employees with different issues in different hierarchy, as well as “training regarding specific issues,” which is suited to enhance the employees’ expertise and is made in accordance with specific issues that arise in execution of duties.

This system effectively promotes talent development suited to each individual and his/her work, while at the same time making work more rewarding, invigorating the organization, establishing a sustainable business foundation and enabling stable employment.

Support of self-enlightenment

NOF provides a wide range of self-enlightenment programs such as various correspondence courses and e-learning courses (e.g. business skills and languages) to support the spirit of challenge of the motivated employees and to encourage further skill development and the self-realization of each individual. In fiscal 2019, a total of 303 employees took advantage of the various correspondence courses and e-learning courses.



Pamphlet
“Correspondence Course Guide”

manager, training for career-track employees promoted to manager, training for employees promoted to executive positions, mandatory training for promotion candidates (correspondence course for candidates for senior instructional level positions, candidates for manager positions and candidates for executive positions), etc.



(Training regarding specific issues)

Training for those performing personnel evaluations, business skill reinforcement training, training for new sales staff, sales practices training, business R&D training for R&D position employees, training for managerial candidates (strategic business leader training, participation in outside business schools, NOF Management School), short-term overseas language training, training prior to overseas assignments, etc.



Promoting training at the organizational level and regarding specific issues

In an effort to provide a more effective training program, NOF has set up an education system that combines training at the organizational level and training regarding specific issues. The relatively junior employees mainly undergo training at the organizational level, while management-level employees undergo training regarding specific issues. Each organizational unit and division also plan and carry out, as necessary, training suited to their respective business operations. In fiscal 2019, a total of 717 employees took part in the training programs.

(Training at the organizational level)

Initial training for new career-track employees, follow-up training for new career-track employees, preparatory training for the study report conference for career-track employees, study report conference for career-track employees, follow-up training for the study report conference for career-track employees, training for supervisors, training for core employees promoted to

Promotion for acquiring official qualifications

The NOF Group supports employees’ attempts to acquire official qualifications in many aspects. In fiscal 2019, a total of 489 persons newly acquired 52 types of such qualifications at the Domestic Group out of about 100 different qualifications whose acquisition is recommended by the Company.

Type of qualification	Total number of persons who acquired qualifications
Energy control	4
Pollution control	7
Sanitation control	13
Specified chemicals control	42
Organic solvents control	58
Flammable materials control	91
Pressured gas control	13
Explosive production control	2
Explosive handling control	14
Firefitting facility control	1
Pressured vessels handling	8
Breathing safety control	26
Forklift	35
Crane	25
Hooking	24
Boiler	5
Machine maintenance	7
Drying equipment work chief	10
X-ray work	1
33 other types of qualifications	103
Total	489

Recognizing the importance of safety education, the NOF Group strives to enhance its occupational safety and health management system and reinforce its safety activities including safety education, in an effort to secure the safety and health of its employees.

RC Education of the NOF Group

To enable all the employees of the NOF Group to deepen their understanding of RC, emphatic efforts are put into RC education. In fiscal 2019, a total of 20,047 persons participated in and received RC-related education for a total of some 34,000 hours.

Field	Total number of participants	Total hours
RC and Environmental Safety	1,463	1,761
Labor and Plant Safety	17,064	29,694
Product Safety	1,416	1,804
Transportation Safety	104	367
Total	20,047	33,627



Amagasaki Plant Occupational Safety Education



Aichi Works Safety Lecture



RC education for new employees, Head Office



Aichi Office Fall Prevention Seminar

Responsible Care (RC) Activities

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Management policy regarding RC

For a chemical company to live together with society as one of its vitally important members, it has to seek harmony with social environment and natural environment, and be recognized, appreciated and accepted by society. With this fundamental awareness in mind, NOF has set forth its Management Policy Regarding Responsible Care as a set of norms to be faithfully observed by every officer and employee of the Group companies with a view to winning even greater trust from society.

Furthermore, NOF became a signatory of the Responsible Care Global Charter, proposed by the International Council of Chemical Associations in 2014, and declared its support of the Charter and its commitment to practice RC activities both in Japan and overseas.

The Five Components of Safety

The NOF Group classifies its RC activities into “Five Core Components” including 1) environmental safety, 2) labor safety, 3) plant safety, 4) product safety and 5) transportation safety, and according to this classification each works sets priority items, which are practiced in specific activities. Since 2003, “dialogue with society” has been added to the Five Core Components as a theme of activities.



Management Policy Regarding Responsible Care

NOF is dedicated to protecting the safety and health of customers, the public and employees, as well as the environment, ecosystems and resources. For this purpose, based on the principles of Responsible Care, NOF, its group companies, and all executives and employees observe the following management policies on safety concerning the five areas of environment, products, plants, transportation, and labor.

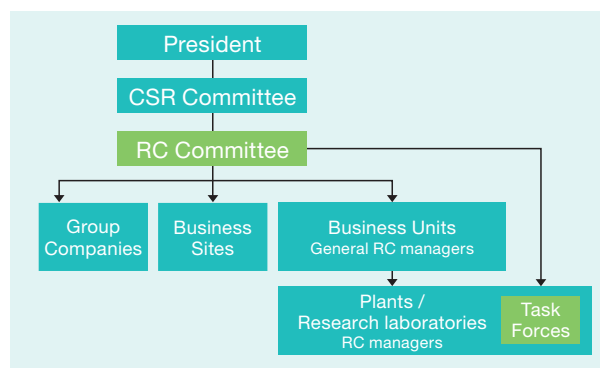
- (1) Retain an awareness concerning safety issues involving the social and natural environments.
- (2) Conduct activities based on appropriate self-management along with close collaboration with other business units.
- (3) Conduct highly reliable safety checks and adhere to all laws and regulations.
- (4) Everyone must work to minimize the impact of products on the environment, safety and health. This covers every aspect of products, from their development and manufacture through retail, use and disposal.

(Amended September 2001)

RC promoting organization

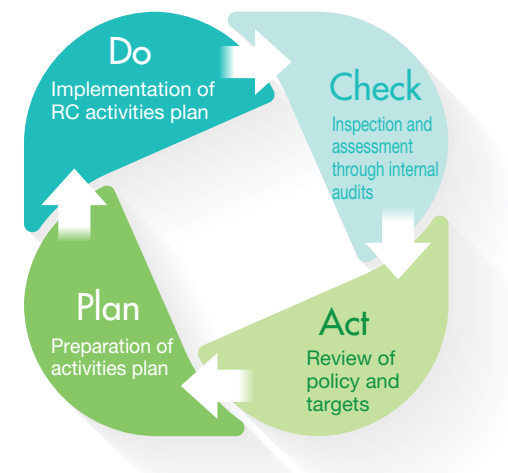
The RC Committee has 26 members (certain operating officers, works or plant general managers, the Planning Department manager of each business division and the general managers of Research Laboratories), chaired by the general manager of the Responsible Care & Production Engineering Department (concurrently director and executive operating officer).

The RC Committee, whose decision is immediately made thoroughly known as a policy of the NOF Group, has an executive function as a body to which authority is delegated by the President. A general RC manager is appointed to each business division, and an RC manager to each plant or research laboratory, to ensure concrete representation of environmental targets.



Flowchart of RC activities

RC activities are unfolded by keeping the cycle of CAPDO (Check-Act-Plan-Do) turning without interruption.



If any item needs improvements, the progress is assessed at the time of the next auditing, a half year afterwards, and completion is checked.

The NOF Group is promoting the acquisition of certification by competent outside bodies as a means of improving transparency and objectivity of RC activities.

Development status of EMS*1 (Environmental Management Systems)



Every works and plants of NOF with production sectors have acquired ISO14001 certification, and are implementing systematic environmental improvement activities, with the particulars of business

and local characteristics taken into consideration. Seven of the companies affiliated with NOF have acquired ISO14001 certification, and one more is seeking for new acquisition. Also, Nichiyu Logistics has obtained Green

Management certification from the Foundation for Promoting Personal Mobility and Ecological Transportation.

Development status of OSHMS*2 (Occupational Safety and Health Management System)

The NOF Group, under its labor safety and health policy, is undertaking buildup of the Occupational Safety and Health Management System. Referencing the guidelines of the International Labor Organization and the Ministry of Health, Labor and Welfare, we are building up our own system and promoting activities. The Risk Assessment program*3, which started in fiscal 2008 at every works of NOF, is now adopted by domestic member-companies of the NOF Group as well.

Development status of QMS*4 (Quality Management Systems)

NOF is building up the optimal QMS for each product line. The Daishi Plant has acquired certificates under FSSC22000*5 (Food Safety Management System) in January 2019, in addition to ISO9001. The DDS Plant exercises control conforming to the GMP for pharmaceuticals. ISO9001 certificates have been acquired by 14 of the Group companies.

Showa Kinzoku Kogyo Co., Ltd. and NOF METAL COATINGS KOREA CO., LTD., active in the anticorrosion business, have also obtained ISO/TS16949*6 certification.

*1: Acronym for Environmental Management System. A management system comprising a framework for an organization to formulate implement, review and maintain its environment policy; and encompassing planning activities, responsibilities, practices, processes and resources.

*2: Acronym for Occupational Safety and Health Management System. A management system that determines the organization, responsibilities, practices, processes and management resources required for an operator to continuously mitigate potential occupational safety and health risks.

*3: Method of identifying, eliminating and reducing potential risks or hazards in the workplace.

*4: Acronym for Quality Management System. A system by which an organization formulates policies and sets targets in order to dictate and manage its quality, and achieve such targets.

*5: Acronym for Food Safety System Certification 22000. It comprises individual specifications established for each food industry as Prerequisite Programs (PRP) based on ISO22000 (Food Safety Management System) and original FSSC22000 standards as additional requirements.

Through food defense and management including management of allergens, more reliable food safety management can be ensured. (A certification scheme recognized by non-profit organization GFSI)

*6: International standards on quality management systems for the automobile industry.

How much we can improve the effectiveness of internal auditing is an important point of RC activities.

Status of internal auditing

For the auditing of RC in fiscal 2019, regular audits (twice a year for the Company's own eight plants and once a year for domestic and overseas subsidiaries having manufacturing sectors) were held by field checking in the presence of the Company's auditors or paper screening with the RC Committee Chairman as auditing leader. Priority themes in recent years are listed on the right.

Internal auditing of overseas Group companies

For domestic subsidiaries having manufacturing sectors, an informal RC meeting (for exchange of views) started in fiscal 2001 as a preliminary step, and RC auditing as

such has been implemented since fiscal 2005 so that the NOF Group could promote RC activities in a desirable way of group management by strengthening autonomous inspecting activities.

Since fiscal 2010, RC auditing of Changshu NOF Chemical Co., Ltd. in China and PT. NOF MAS CHEMICAL INDUSTRIES (NMC) in Indonesia has been conducted with an eye to further improvement of RC activities by the NOF Group.

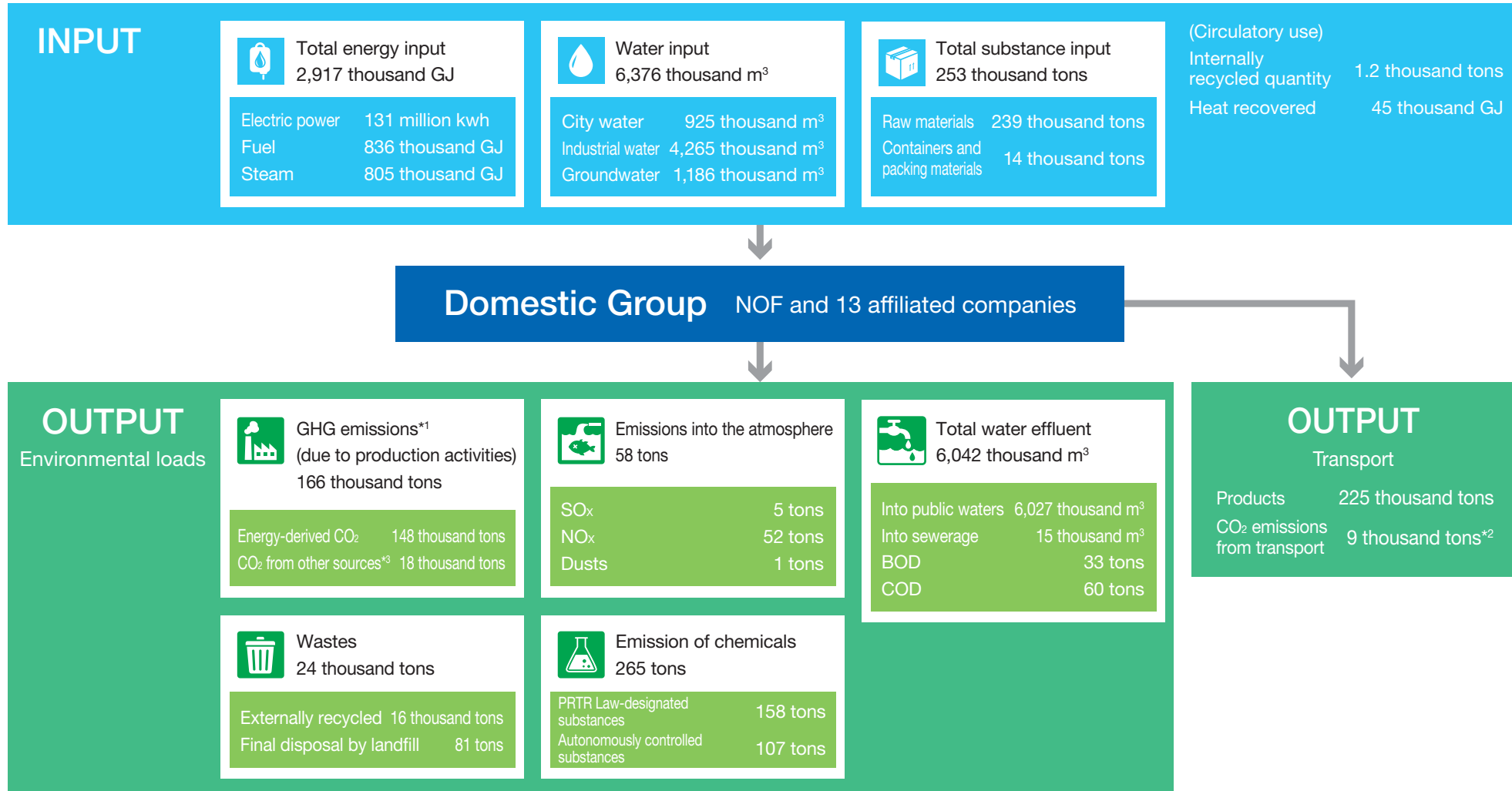
Term	Priority theme in audit
1st half, FY2015	Confirmation of prevention measures for being caught and entangled
2nd half, FY2015	Confirmation of the status of revitalization measures aimed at achieving "completely zero accidents"
1st half, FY2016	Confirmation of high-place work safety measures
2nd half, FY2016	Confirmation of compliance with environmental laws (Revised Act on Rational Use and Proper Management of Fluorocarbons, Waste Management and Public Cleaning Law)
1st half, FY2017	Confirmation of implementation status of "pointing and calling" method and safety measures
2nd half, FY2017	Confirmation of Amended Waste Management and Public Cleansing Act (mercury waste), PCB waste management
1st half, FY2018	Details of measures for past labor accidents, reconfirmation of actions for prevention
2nd half, FY2018	Confirmation of measures to enhance understanding of rules and manuals
1st half, FY2019	Confirmation of the status of maintenance and management for environmental facilities and the status of SDS management
2nd half, FY2019	Confirmation of safety upon delivering hazardous materials and the status of management of specific chemical substances

Environmental Safety: Environmental Loads Ensuing from Business Activities

301-1, 301-2, 302-1, 303-1, 303-2, 303-3,
303-4, 303-5, 305-7, 306-1, 306-2

The standing of environmental loads ensuing from business activities by the Domestic Group in fiscal 2019 is shown below.

Main environmental performance factors (Domestic Group)



*1: The calculation period of GHG emission volumes is the fiscal year for other gases than chlorofluorocarbons (PFC, etc.) and the calendar year for chlorofluorocarbons (PFC, etc.).

*2: CO₂ counts involved in transportation do not include part of the carried volume attributable to JAPEX Corp.

*3: The 5.5 gas refers to the 6 types of greenhouse gas less 0.5 (types) for energy-derived CO₂.

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Appendix

The environmental accounting*1 of the Domestic Group in fiscal 2019 is stated below. The period covered is from April 1, 2019 through March 31, 2020.

Environmental expenses

		(in million yen)		
Category	Major activities	Investment	Expenses	
(1) Business area expenses	(1)-1 Pollution prevention	Wastewater treatment/water pollution prevention	273	808
	(1)-2 Global environmental protection	Energy conservation	388	412
	(1)-3 Resource recycling	Industrial waste treatment and recycling	25	794
(2) Upstream/downstream expenses	Reduction in containers and packaging materials	0	4	
(3) Management activity expenses	Environmental audits/improvements/personnel	0	416	
(4) R&D expenses	R&D to curb environmental impact	0	314	
(5) Community activity expenses	Support for regional environmental activities	0	9	
(6) Environmental damage response expenses	—	0	0	
Total*2		686	2,757	

Environmental benefits

Benefit item	Item	FY2019	vs FY2018
(1) Benefit from resources used in business activities	Total energy input (thousand GJ)	2,917	▲87
	Total substance input (thousand tons)	253	▲20
	Water resource input (thousand m ³)	6,376	24
	Gas emissions (thousand tons of CO ₂)	175	▲2
(2) Benefit from environmental impact and waste materials of business sites	Production activities: Energy-related	148	▲5
	Production activities: Others	18	3
	Transportation-related	9	0
	PRTR chemical releases (tons)	158	▲19
	Plant emission volumes (tons)	23,662	▲2,314
	Final disposal of waste by landfill (tons)	81	▲14
	Waste water volumes (thousand m ³)	6,042	510
	COD emission volumes (tons)	60	▲6
	NOx emission volumes (tons)	52	▲8
	SOx emission volumes (tons)	5	▲1

Real economic effects

		(in million yen)
Particulars of effects		Sum
1) Profits	Business income from recycling of wastes from main business or recycling of used products, etc.	134
	Other business income	0
2) Costs saved	Reduction in energy cost by energy saving	28
	Reduction in waste disposal ensuing from materials saving or recycling	20
	Other reductions	8
Total*2		190

Changes from the past

Category	Item	FY2015	FY2016	FY2017	FY2018	FY2019
Environmental Expenses	Investment (million yen)	508	491	623	593	686
	Expenses (million yen)	2,375	2,605	2,739	2,741	2,757
Resource volumes used in business activities	Total energy input (thousand GJ)	3,016	3,018	2,987	3,004	2,917
	Total substance input (thousand tons)	263	267	280	273	253
	Water resource input (thousand m ³)	6,389	6,560	6,374	6,352	6,376
Environmental loads ensuing from business activities	Greenhouse gas emissions (thousand tons of CO ₂)	179	188	179	177	175
	Production activities: Energy-related	156	162	156	153	148
	Production activities: Others	14	17	14	15	18
	Transportation-related	9	9	9	9	9
	PRTR chemical releases (tons)	187	170	166	177	158
	Plant emission volumes (tons)	20,508	21,351	23,466	25,976	23,662
	Waste sent to landfills (tons)	111	157	117	95	81
	Waste water volumes (thousand m ³)	6,118	6,365	6,030	5,532	6,042
	COD emission volumes (tons)	78	68	73	66	60
	NOx emission volumes (tons)	60	90	62	60	52
SOx emission volumes (tons)	7	9	6	6	5	

*1: In business activities, Environmental Accounting is a procedure necessary for communicating quantitatively the results based on costs and effect for the environmental conservation activities by the monetary unit or material quantity, the purpose of which is to promote efficiently and effectively the environment conservation, keeping the good relationship with the society.

*2: Rounding of fractions may sometimes make the total inconsistent with individual figures.

Environmental Safety: Global Warming Prevention

302-1, 302-3, 302-4, 305-1, 305-2,
305-5, 305-6

Energy consumption and CO₂ emissions

Energy consumption for fiscal 2019 decreased 2.9% from the previous year for the Domestic Group, and decreased 2.9% from the previous year for NOF. The total volume of energy-derived CO₂ emissions decreased 3.3% from the previous year to 148,000 tons for the Domestic Group, and decreased 3.6% from the previous year to 134,000 tons for NOF. Energy intensity per product was 13.0 GJ/t for the Domestic Group and NOF, remaining essentially flat compared with the previous year. NOF will continue to implement energy-saving measures to produce even greater results.

CO₂ emissions other than from energy consumption

At the Aichi Works, NOF manufactures products for specific purposes using perfluorocarbon (PFC), which has a high global warming coefficient, as the diluent.

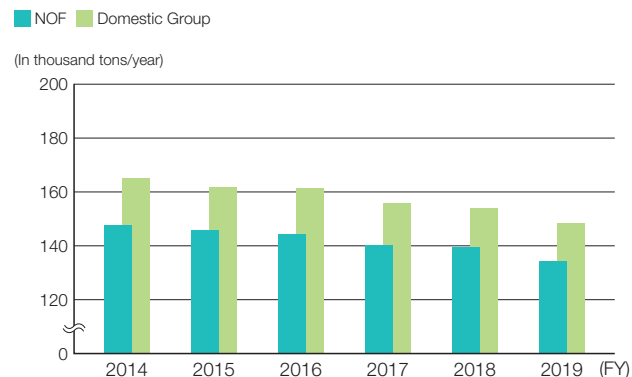
Efforts have been made to reduce PFC emission by improving the manufacturing equipment on numerous occasions. As a result, PFC emission has been reduced substantially compared with that in 1995 (the reference year for PFCs). In fiscal 2019, PFC emission decreased approximately 36% from fiscal 2018. The Company will continue making further efforts for emission cutback including maintaining steady operation of recovery equipment and promoting the use of alternative diluent.

Future actions planned

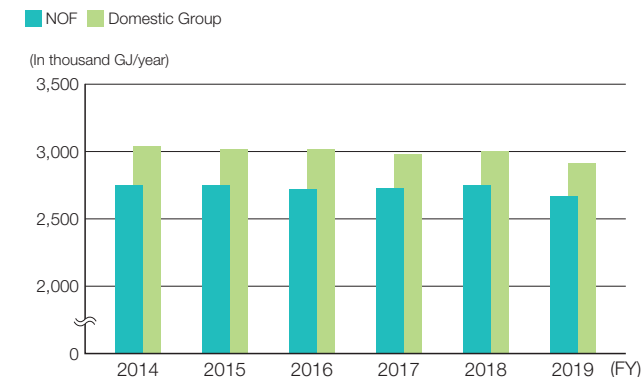
NOF and the domestic consolidated subsidiaries set new mid- and long-term targets from fiscal 2016 (6.5% reduction of CO₂ emissions compared to the fiscal 2013 level by fiscal 2030) in accordance with the Japanese government's policy under the Paris Agreement.

We will continue to promote systematic measures to reduce CO₂ emissions.

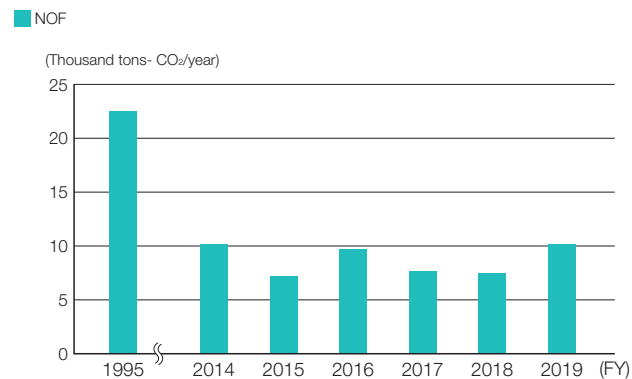
CO₂ emissions*¹ by energy consumption



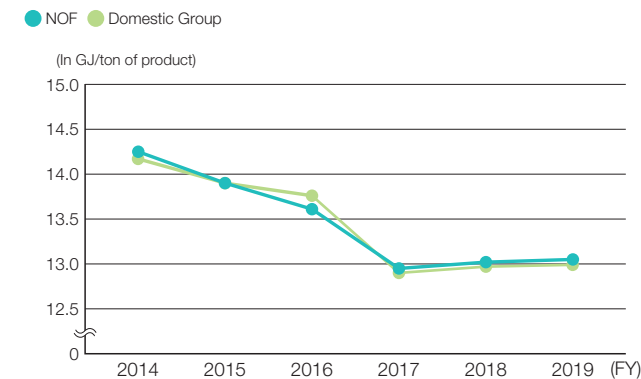
Energy consumption*²



PFC emissions



Energy intensity per product



*1: The coefficient used in converting the electricity consumption into CO₂ emissions is the emission coefficient used by electric power supply companies in the fiscal year.

*2: The energy consumption is estimated using 9.76 kJ/kWh as the coefficient when converting electric power consumption into the calorific value.

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CO₂ emission per product by transportation

Starting the operation of an integrated delivery system in fiscal 2006, NOF has since been endeavoring for more efficient transportation. Additionally, NOF has also engaged in modal shifting*1 and joint delivery.

With regard to modal shifting, the percentage of rail or marine transport in the total volume of our product transport had been around 20%.

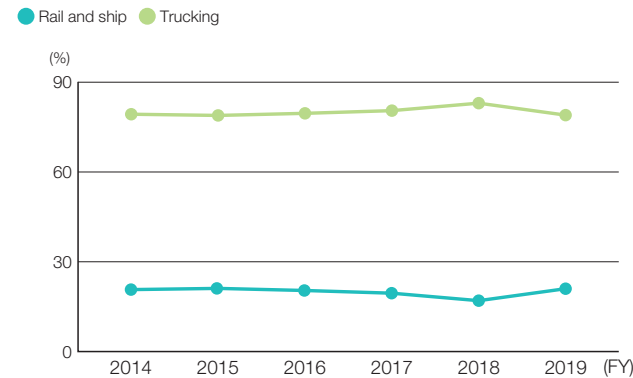
CO₂ emission per product by transportation was reduced from 100 in fiscal 2006 to 59.5 in fiscal 2019.

$$\text{CO}_2 \text{ emission per product by transportation} = \frac{\sum (\text{CO}_2 \text{ emitted by each means of transport})}{\text{Sales}}$$

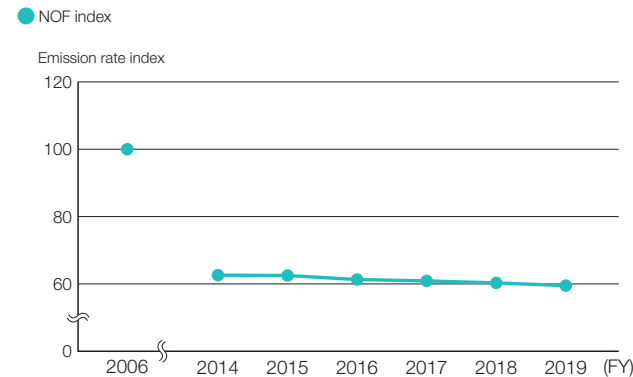


Modal shifting in Kawasaki

Transportation modal shifting (NOF)

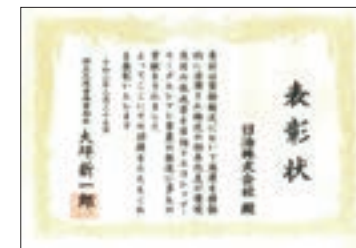


CO₂ emission per product by transportation



Excellent enterprise award for eco ship modal shift

Oita Plant received an award from Director General of the Maritime Bureau of the Ministry of Land, Infrastructure, Transport and Tourism for its contribution especially to the reduction of environmental burden as an enterprise that carried out modal shift from logistics system mainly centered on land transportation to marine transportation with higher transport efficiency.



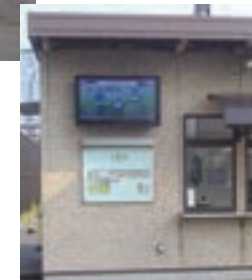
Renewable energy measures (Domestic)

Kawasaki Works installed solar power generation facilities in 2018 to use renewable energy to provide part of the electricity used in production activities in an effort to realize a low carbon society.

Annual power generation output in fiscal 2019 was 17 MWh.



Solar power generation panels



Power generation surveillance monitors

*1: Enhancing the efficiency of transport and at the same time reducing energy consumption and environmental loads by shifting the mode of transport to such large per-unit capacity means as cargo trains and ships.

Environmental Safety: Global Warming Prevention

305-1, 305-2, 305-3

Scope 1, 2 CO₂ emissions

(t-CO₂)

	Scope1	Scope2	Total
NOF	51,417	100,748	152,164
The NOF Group	58,539	107,777	166,316

Scope 3 CO₂ emissions

(t-CO₂)

Category	CO ₂ emissions in FY2019	Calculating method
Purchased products and services	Not determined	—
Capital goods	16,625	Calculated by multiplying acquisition cost of fixed assets by CO ₂ emission per product in guidelines, etc.
Fuels and energy-related activities not included in Scope 1 or 2	38,392	Calculated by multiplying the sum of electricity consumption and steam consumption by CO ₂ emission per product in guidelines, etc.
Transportation and distribution (upstream)	Not determined	—
Waste generated in business activities	26	Calculated by multiplying the weight of each type of waste generated in production sites by CO ₂ emission per product in guidelines, etc.
Business travel	236	Calculated by multiplying the number of employees by CO ₂ emission per product in guidelines, etc.
Employee commuting	546	Calculated by multiplying the amount of commuting expenses by CO ₂ emission per product in guidelines, etc.
Leased assets (upstream)	—	Not applicable
Transportation and distribution (downstream)	8,639	Calculated by the ton-kilometer method
Processing of sold products	Not determined	—
Use of sold products	Not determined	—
End-of-life treatment of sold products	Not determined	—
Leased assets (downstream)	—	Not applicable
Franchises	—	Not applicable
Investments	—	Not applicable
Total	64,464	—

Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry) was used for calculation.

General Topics

Governance

Respect for Individuals

RC (Responsible Care) Activities

Living in Harmony with Society

Appendix

Promotion of drive toward Zero Emissions*1

The volume of wastes discarded by the Domestic Group for final disposal by landfill was 81 tons in fiscal 2019, with the Zero Emissions rate standing at 0.05%. We will continue to make efforts to reduce the final landfill volume to maintain Zero Emissions.

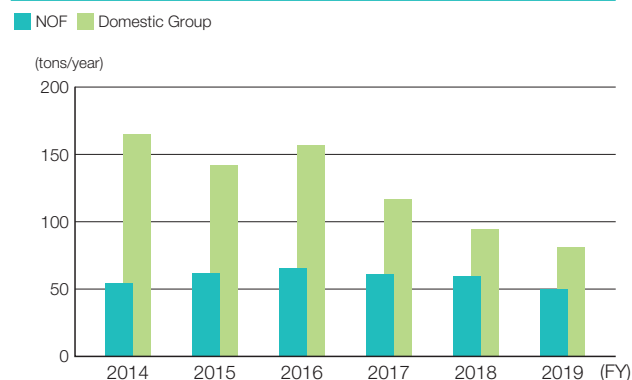
Meanwhile, NOF's final landfill volume was 50 tons, with the Zero Emissions rate standing at 0.03%.

NOF achieved Zero Emissions at all its works in fiscal 2019. We will continue to maintain these efforts.

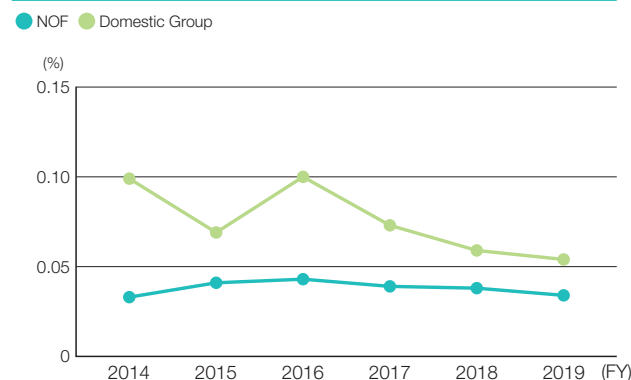
Consumption of water resources

NOF has been carrying out the efficient use of water resources by estimating the amount of the water consumption. The volume of water used by the Domestic Group in fiscal 2019 amounted to 6,376 thousand m³, of which 1,186 thousand m³ was groundwater and 925 thousand m³ was city water.

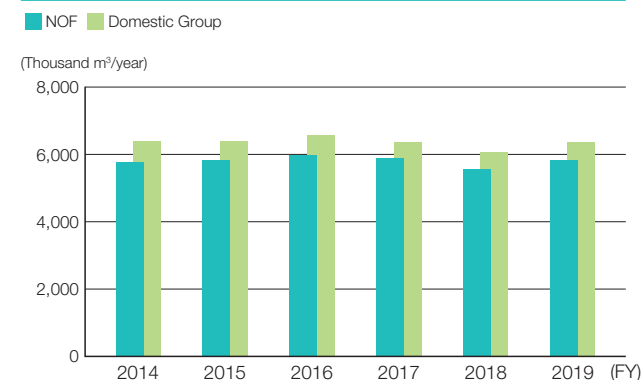
Final disposal volume by landfill



Zero Emissions rate



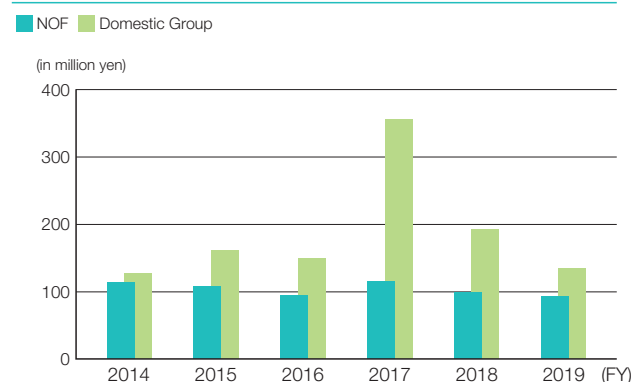
Water consumption



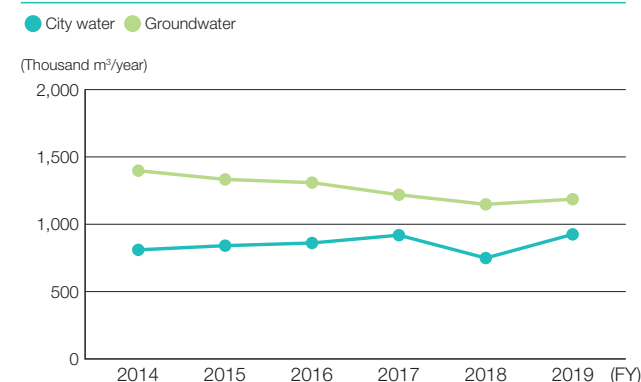
Recycling of valuables from wastes

In fiscal 2019, the sales (sum of valuables sold) of recycled waste matters of the Domestic Group amounted to approximately ¥134 million. We will continue our efforts to recycle valuables from waste matters.

Sum of valuables sold



Volumes of city water and groundwater used



*1: Here, this means an endeavor to make the disposal quantity of industrial waste close to zero.
NOF's definition of zero emission: Volume of final disposal by landfill/volume of wastes, etc. generated × 100 ≤ 0.10

Initiatives to reduce emissions of chemical substances

Each member-company of the Domestic Group is making efforts to reduce emissions of chemical substances by assessing and making notifications of PRTR Act*-controlled substances.

PRTR Act**2-controlled substances

The emission volume of PRTR Act-controlled substances by the Domestic Group in fiscal 2019 was 158 tons, a decrease by 11% from 177 tons in fiscal 2018. As a result, 41% reduction of emission volume was achieved from the 269 tons in fiscal 2010, the reference year of the Mid-term Target. The outcome was due to the full-scale operation of treatment facilities installed at each plant since fiscal 2014.

PRTR Act-controlled substances with an emission volume of 10 tons or more in fiscal 2019 are indicated in the table.

Substances high in volume (10t or more) discharged into the environment

Cabinet order No.	Name of substance	Emission volume (tons/year)
186	Dichloromethane	33.8
300	Toluene	31.0
83	Cumene	22.5
128	Chloromethane	19.0
392	Normal hexane	18.2
Total emission volume		158.4

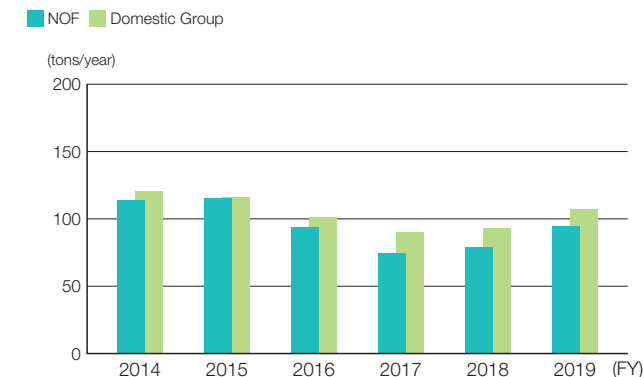
Substances under JCIA-recommended autonomous control

The Domestic Group is also engaged in initiatives to assess and reduce emissions of substances recommended by the Japan Chemical Industry Association (JCIA). The total quantity of such substances emitted in fiscal 2019 was 107 tons, an increase of 15% from the previous year of 93 tons.

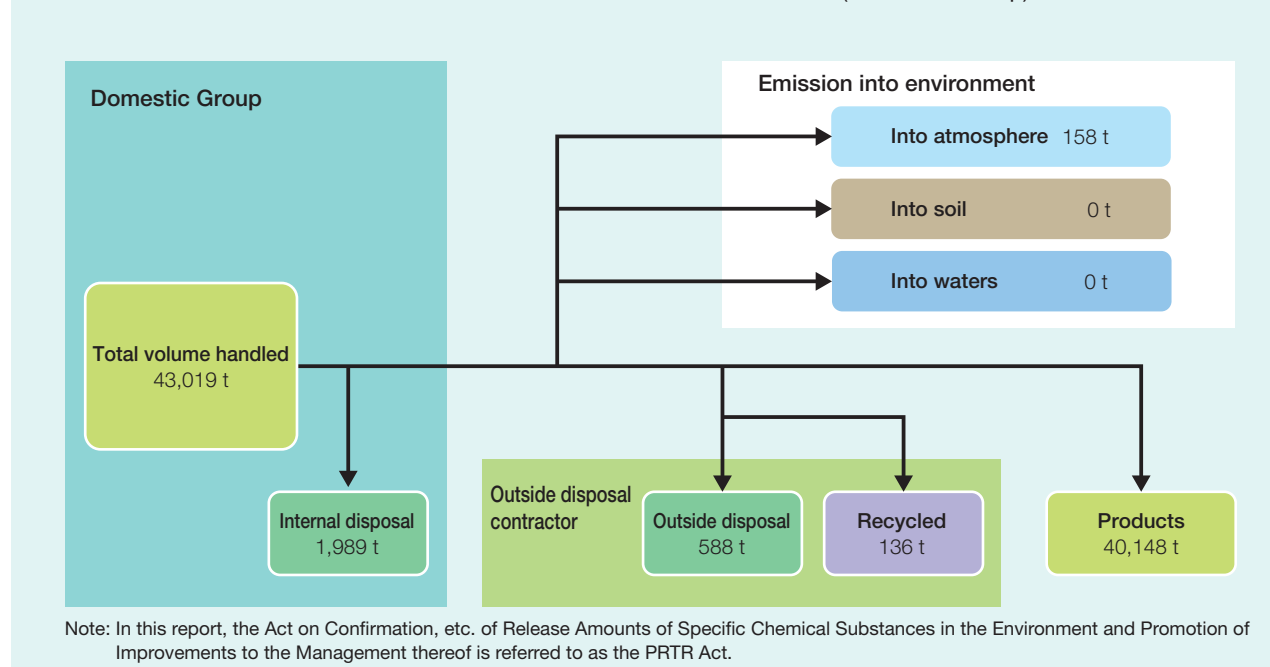
Emissions of PRTR Act-controlled substances



Emissions of substances under JCIA-recommended autonomous control



Balance of emissions of PRTR Act-controlled substances in fiscal 2019 (Domestic Group)



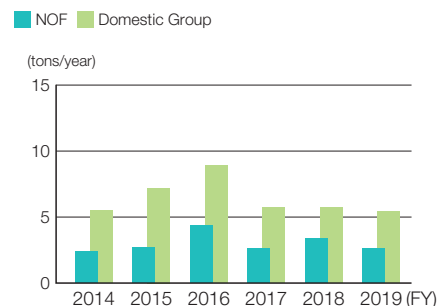
*1: Pollutant Release and Transfer Register Act (PRTR Act, or PRTR). The Act is intended to promote and improve chemical substance control and prevents the occurrence of problems in environmental conservation in Japan.

*2: PRTR Act: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management thereof

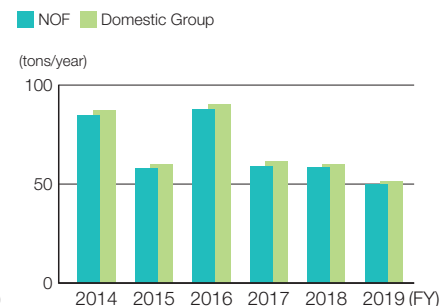
Eco-friendly action: Air

For exhaust gas from boilers and other combustion equipment, we regularly measure sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust*1 among others to conform our operation and management to prescribed limits.

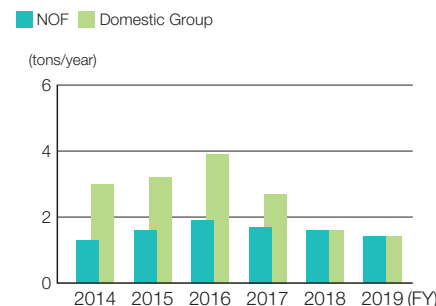
SOx emissions



NOx emissions



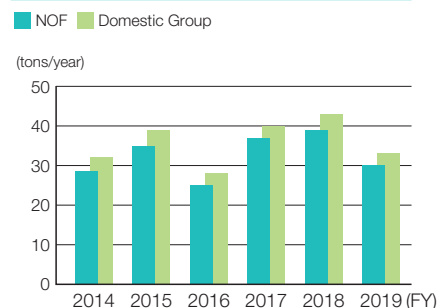
Soot-dust emissions



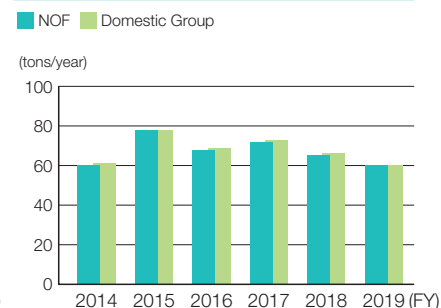
Eco-friendly action: Water

Regular measurement of biochemical oxygen demand (BOD), chemical oxygen demand (COD) and suspended solids*2 among others contained in drainage discharged in connection with production activities is another aspect of our dedication to operation and management conforming to prescribed limits.

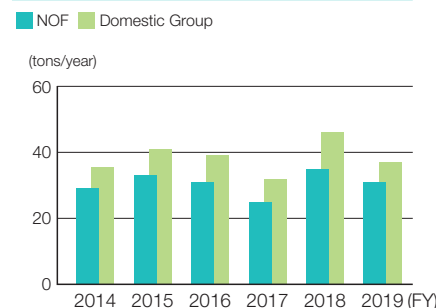
BOD emissions



COD emissions



Suspended solid emissions



*1: Out of particulate substances arising from operations in plants and other business establishments, those generated in conjunction with the combustion of fuel or any other substance.

*2: Particulate substances of 2 mm or less in diameter floating or suspended in water; one of the indicators of water quality.

*3: RSPO is an acronym for the Roundtable on Sustainable Palm Oil, established in 2004 with an eye to promoting sustainable production and profitability of palm oil through the formulation of globally creditable authentication standards and participation of stakeholders. RSPO is headquartered in Zurich, Switzerland.

Actions for biodiversity conservation

The NOF Group is committed to the conservation of the environment from preserving the immediate environment to addressing environmental problems on a global scale, as well as the conservation of ecosystem and natural resources.

From fiscal 2010, the NOF Group took up “Promoting conservation of biodiversity” as one of the targets of its RC activities, and from October 2012, NOF joined the Round-table on Sustainable Palm Oil (RSPO)*3 as “Palm Oil Processors and Traders” to contribute to the healthy development of the palm oil industry. In 2014, the NOF Group endorsed the Action Policy of and joined the Japan Business and Biodiversity Partnership, which promotes initiatives towards biodiversity by business operators. Furthermore, in April 2019, NOF became a founding member of the Japan Sustainable Palm Oil Network (JaSPON), which comprises of 18 companies and organizations including manufacturers, retailers and non-governmental organizations, and also engages in activities to encourage the entire industry to procure and use RSPO certified palm oil.

Additionally, NOF joined the Japan Initiative for Marine Environment (JaIME), which was launched in fiscal 2018, with strong recognition that the ocean plastic waste is one of the issues that the chemicals industry needs to take the lead in addressing.

Proper management of polychlorinated biphenyl (PCB)

The NOF Group properly stores and manages PCB waste in accordance with the Law Concerning Special Measures Against PCB Waste, and disposes of such waste by commissioning disposal operators as prescribed by laws and regulations.

Registered with Japan Environmental Storage & Safety Corporation, NOF disposes of its high-concentration polychlorinated biphenyl (PCB) wastes sequentially. NOF also disposes of its low-concentration PCB wastes systematically upon confirming the disposal operators.

Compliance status to Acts related to the environment

There was no violation of environmental protection law.

Occupational Safety and Health Policy

The whole NOF Group, including the staffs of cooperating companies assigned to NOF's works, is making all-out efforts to eradicate occupational accidents. In order to clearly express the Group's determination to make its workplaces secure and safe for all the workers involved in its activities and to realize this ideal, NOF set forth its labor safety and health policy in April 2006.

Under this policy, an occupational safety and health management system is organized, under which required management and improvement are pursued.

Results of activities in fiscal 2019

In fiscal 2019, the Group targeted "completely zero accidents,"*1 and under the slogan of "elimination of unsafe actions and unsafe conditions," worked towards reviewing past cases and reinforcing understanding of rules and manuals. However, we were unable to achieve the goal of "completely zero accidents."

Occurrence of labor accidents in fiscal 2019

The Domestic Group in fiscal 2019 suffered five labor accidents, a decrease of five from the previous year. However, the number of lost workday accidents was three, unable to achieve no accidents as in the previous fiscal year.

The frequency rate of labor accidents*2 in the Domestic Group was 0.83, down from the previous year's 1.70. This rate was lower than that of the member companies of the Japan Chemical Industry Association (JCIA), an industry association.

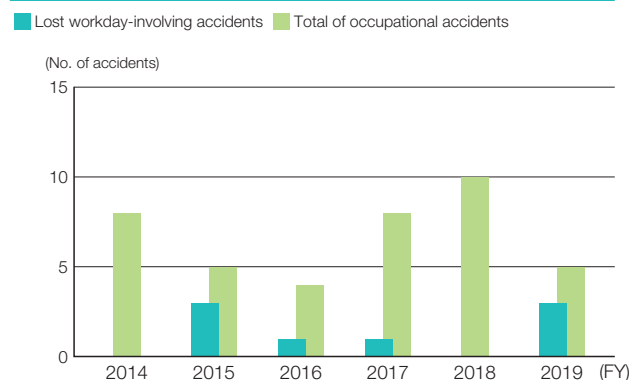
Occupational Safety and Health Policy

<Fundamental idea>
We, as a group of chemical companies, shall endeavor to secure the "safety" and "health" of our employees and local communities in the belief that "no business can be viable without safety." All the officers and employees shall be committed to the buildup of "workplaces where we can work safely and securely" in close teamwork consistent with responsible care activities, and positively promote activities for occupational safety and health.

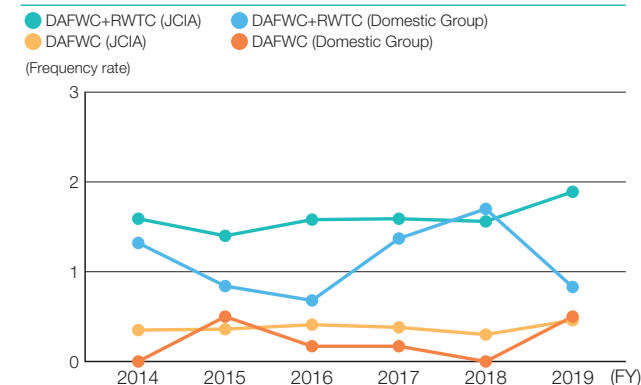
<Fundamental principles>
(1) We shall organize an appropriate self-management system regarding occupational safety and health, and continue necessary management and improvement.
(2) Our target shall be the eradication of labor accidents by improving the working environment, making the equipment intrinsically safe and carrying out risk reducing activities in anticipation of future changes in the working environment.
(3) We shall faithfully observe relevant laws and regulations and our own rules and standards.
(4) We shall endeavor for the creation of a pleasant working environment and support efforts for keeping and promoting health.
(5) We shall make the Labor Safety and Health Policy thoroughly known to all the employees, and review it every year or as necessary. These principles shall be broadly disclosed to the public.

(Revised in March 2013)

Changes in frequency rate of labor accidents (Domestic Group)



Frequency rate of labor accidents (Domestic Group)



*1: The Group's own target to achieve zero lost workday accidents and zero accidents not involving lost workdays.

*2: This is an indicator of the frequency of occurrence of occupational accidents, whether involving absence from work or not. It is the rate of the number of workers suffering occupational accidents per million work-hours.

Safety education by try-and-sense method

The NOF Group has introduced safety education by a try-and-sense method, which aims at labor accident prevention by having the trainees gain a simulated experience of danger with a view to making the employees more sensitive to potential danger and more conscious of safety.

We offered educational programs mainly for external entities so far, and we are currently working on more field-oriented education for our employees through the introduction of education by experience.



Hazard education by experience, Amagasaki Plant



Hazard education by experience, Amagasaki Plant



Training by experience, Nippon Koki Co., Ltd.



Training by experience, Nippon Koki Co., Ltd.

Each individual's "safe practice declaration" activities (Domestic Group)

The need for enhanced safety awareness to eliminate labor accidents was recognized in fiscal 2011, as a result of the frequent occurrence of such accidents attributable to human factors including the lack of a sense of danger and carelessness. Since fiscal 2012, we have been implementing "each individual's 'safe practice declaration' activities," namely the setting of action targets for labor safety by each individual person and taking action to achieve the targets. This system is implemented in a way considered suitable for each plant, such as safe practice declarations of individuals, including the personnel of cooperating companies at the site, being made open to everybody by posting on a bulletin board.

Safety campaign activities report meeting

Oita Plant participates in meetings to report safety-related issues, which member companies of Oita Petrochemical Complex are to attend, with the aim of sharing information of safety activities at member companies and improving such activities.

Kawasaki Works, which has three plants producing chemicals, foods and pharmaceutical materials, reports at briefing sessions on their unique safety campaign activities in line with each plant's character. We promote mutual exchanges and strive to foster a safety culture in the entire Kawasaki Works.

NICHYU LOGISTICS CO., LTD. reports at small-group briefing sessions on its daily safety activities at each workplace, and strives to raise mutual enlightenment.



Oita Plant



Kawasaki Works



NICHYU LOGISTICS CO., LTD.

Safety activities in fiscal 2020

We have been striving for "completely zero accidents" since fiscal 2015. In fiscal 2019, there were 5 labor accidents, and we did not achieve the target.

Causes of labor accidents in fiscal 2019 were estimated to be carelessness, insufficient risk identification, and sense of haste. In order to prevent such accidents, we will promote our efforts to improve the sense for hazards, ensure thorough implementation of safety activities, and reduce disaster risks.

In addition, in fiscal 2019, there were frequent occurrence of accidents during commutes and work-related traffic accidents, amounting to 28 cases in total. Accordingly, from fiscal 2020, we will strive to identify the cause of and implement preventive measures against traffic accidents and aim for "zero traffic accidents (self-inflicted or caused by another person)."

The NOF Group's target in RC activities and labor safety initiatives in fiscal 2020

- 1) Enhancing the sensitivity towards danger and thoroughly enforcing safety actions
- 2) Reducing disaster risks
- 3) Identifying the cause of and implementing preventive measures against traffic accidents

Elimination of traffic accidents

In order to reduce the number of accidents during commutes and work-related traffic accidents, which occurred frequently during fiscal 2019, we enhanced our traffic safety measures. Each business workplace and affiliate implements its own traffic safety activities according to its own circumstances. The activities implemented included distribution of pamphlets during a traffic safety week, safety lecture by the police, and raising a road safety slogan banner.



Traffic safety week, Amagasaki Plant



Safety lecture, Amagasaki Plant



Safety lecture, Oita Plant



Road safety slogan banner, Aichi Works

Investment in safety and physical prevention of accidents

In connection with measures for safety and accident prevention, NOF Group is carrying out a program of physical projects for prevention of accidents including explosion, fires and leaks, labor safety and working environment amelioration. Further to provide against anticipated heavy earthquakes, projects are under way to strengthen buildings.

Disaster prevention drill



Amagasaki Plant



Kawasaki Works



Nippon Koki Co., Ltd.



NiGK Corporation

Self-defense fire-fighting demonstration



Oita Plant



Amagasaki Plant

Tightened collaboration with the local community

In providing against accidents that might happen, close collaboration with local disaster-fighting organizations is indispensable. The NOF Group is actively trying to create opportunities to strengthen its disaster preparedness by engaging in joint drills with local organizations for damage prevention. Joint disaster-fighting drills and emergency support drills with neighboring companies are increasingly adapted to practical needs year after year. Large-scale drills have become frequent with the participation of local fire and police stations.

The Kawasaki Works entered into an agreement with the municipal government of Kawasaki to offer itself as a refuge facility against tsunami, and would open its general office building to general citizens seeking help. Besides these drills, individual works also participate in local disaster-fighting drills at the request of organizations they belong to.

Commendation for safety drives

Member-companies of the NOF Group are taking active parts in fire-fighting skill demonstrations that are held locally. The training sessions our employees regularly participate in have proved effective, and they are often given higher awards, which further motivate them.

The NOF Group's safety drives have also been recognized, and have been awarded the following commendations.

In addition, ongoing zero accident operations in facilities using high pressure gas and boilers have also led to receiving several awards.

Nippon Koki Co., Ltd. set a record of zero accident operations for 6.9 million hours in July 2019, and received the Class 2 Certificate of No Accident from the Labour Standards Bureau of the Ministry of Health, Labour and Welfare.



Certificate of no accident, Nippon Koki Co., Ltd.



Certificate of no accident, Nippon Koki Co., Ltd.

Works/Plants	Date awarded	Title of commendation
Amagasaki Plant	2019/6/6	Exceptional Boiler Engineer Award for fiscal 2019, etc.
	2019/6/13	49th Hyogo High Pressure Gas Control Officer Conference Award
	2019/11/5	Firefighting Skill Competition of Amagasaki City Fire Protection Association, Highest Excellence Award
Kawasaki Works	2019/10/31	55th Kawasaki City Labor Accident Prevention Slogan, Highest Excellence Award
Aichi Works	2019/10/4	Aichi Prefectural Police Headquarters Chief / Aichi Prefectural Traffic Safety Association Chairman's Joint Award, Excellent Automobile Driver Award
Nippon Koki Co., Ltd.	2019/5/17	Excellent Hazardous Materials Handler Award (Awarded by Shirakawa Area Fire and Disaster Prevention Association)
	2019/9/2	The Labour Standards Bureau of the Ministry of Health, Labour and Welfare, Class 2 Certificate of No Accident
	2019/12/18	Tohoku Branch of Kanto Tohoku Industrial Safety and Inspection Tohoku Branch Manager Award for Explosive Safety Management
NiGK Corporation	2019/5/28	Saitama Prefectural Explosive Safety Association, Excellent Long Service Employee Award

Meeting international requirements for control of chemical substances

Chemical substances are being subject to stricter control on a global basis. At the World Summit on Sustainable Development (WSSD) held in 2002, a target was set as part of the international agenda to “use and produce chemicals in ways that minimize significant adverse effects on human health and the environment by 2020,” in an effort to realize sustainable development. Based on this agenda, countries around the world including the emerging countries are being encouraged to adopt and firmly establish risk-based management of chemicals and implement GHS. In terms of chemical substances, there is a rising trend requiring control of relevant risks from the standpoint of the entire supply chain, i.e. from manufacture to disposal, while also being required to disclose information on the risks caused by chemical substances and its control to the general public including our customers and consumers.

The NOF Group is implementing control of chemical substances in line with this trend to tighten controls over chemical substances by complying with the laws of each country and region.

Meeting domestic requirements

In Japan, prior notification of new chemical substances is mandatory, pursuant to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. and the Industrial Safety and Health Act.

In order to make proper notifications, when launching a new chemical substance on the market, the Responsible Care & Production Engineering Department confirms compliance with laws, and such substances remain under strict control as internal audits are conducted to ensure that there are no excesses beyond the volume that has been authorized for manufacture or

import. NOF also trains its responsible personnel regarding related regulatory matters in order to keep them up-to-date with the latest information.

In terms of reports on the actual quantity of general chemical substances manufactured, we practice appropriate control with the cooperation of our clients.

We also positively disclose information on the risks and other negative aspects of chemical substances through the Japan Initiative of Product Stewardship, which is the chemical industry’s institution for voluntary activities for the control of chemicals.

Compliance with REACH

REACH*1 is a comprehensive system of registration, evaluation, authorization and restriction of chemical substances within the EU. REACH aims to protect human health and the environment, and to maintain and enhance competitiveness of the EU chemicals industry, among others, and includes almost all chemical substances exported to the EU within its jurisdiction.

The NOF Group engages in active exports to the EU region and complies with REACH in accordance with the export volume of the chemical substance involved. We practice appropriate compliance by obtaining the latest information from industrial associations and related authorities.

Other countries and regions

There has been increasing legislation of late for stricter controls over chemical substances not only in the US but also in the Asian countries such as South Korea, China and Taiwan, and we are gathering the latest information regarding exports to such countries, and practicing appropriate compliance, when the situation arises.



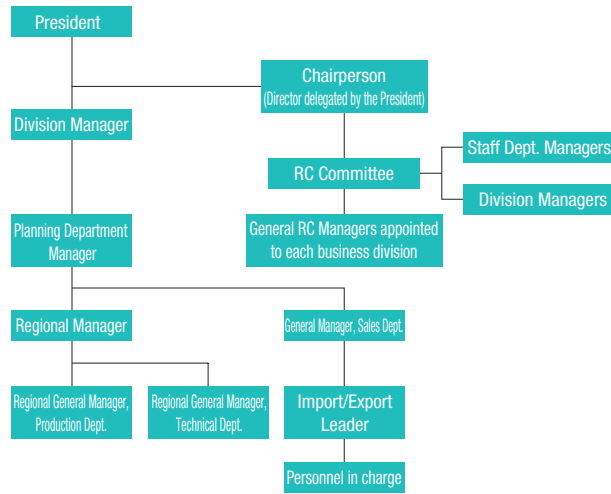
Education for new employees, Head Office



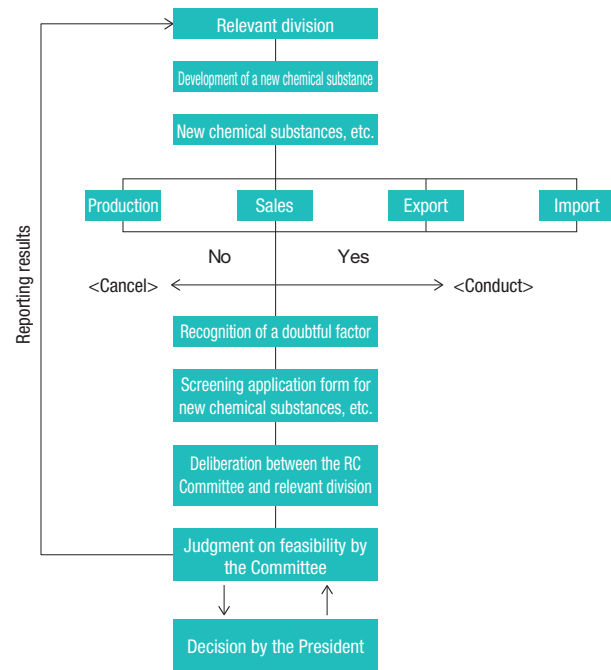
Group education, Amagasaki Plant

*1: Acronym for Registration, Evaluation, Authorization & Restriction of Chemicals. REACH represents EU’s quality control regulations on chemicals and is applied to the registration, evaluation, authorization and restriction of chemicals.

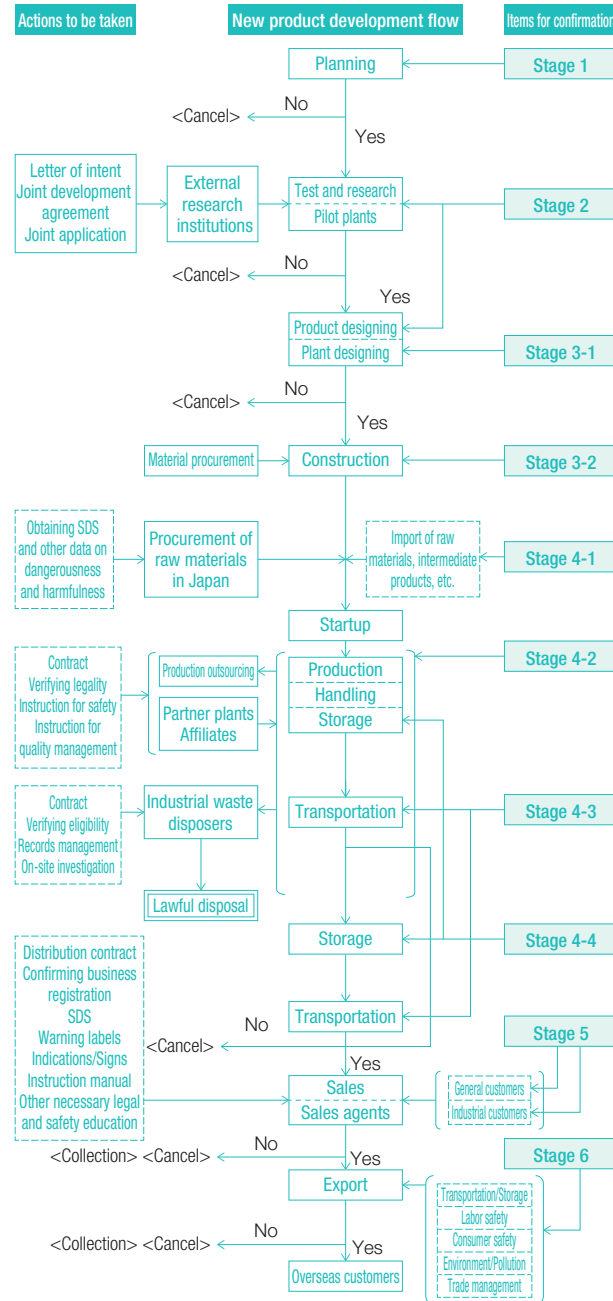
System diagram of sales, production, export, and import of new chemical substances, etc.



Management flow of new chemical substances, etc.



Management flow chart of new chemical substances, etc.



Items for confirmation in management flow of new chemical substances, etc.

Stage	Principal Items for confirmation
1	(1) Quality planning (terms of use and impact on the environment, quality of competitors' products, performance demanded by customers, selling points), (2) Trademark/Patent, Response plan to laws and regulations in Japan and overseas, (3) Development plan (system, schedule, R&D expenses, safety test expenses, etc.), (4) Production plan (production processes, facilities for research and trial experiments), (5) Sales and export plan, (6) Budget
2	(1) Confirmation of the details of marketability and salability (functions, safety, container/package, transportation method, measures against industrial wastes, expenses for production and selling, sales prices, energy saving issues, etc.), (2) Establishment of production processes and analysis/inspection method, (3) Research for the necessity of GLP and GMP (4) Research for specific value, reactivity, and explosiveness, (5) Confirmation of safety test expenses, etc., (6) Application of new chemical substances (Act on the Regulation of Manufacture and Evaluation of Chemical Substances and Industrial Safety and Health Act), (7) Research for CAS, TSCA, HCS, CEPA, WHMIS, EINECS, FD&C Act, etc., (8) Confirmation of SDS, warning labels, indications and signs, instruction manual, information on each type of toxicity, (9) Sales manual, (10) Contract details, (11) Application for patent and trademark, (12) Retention of documents and records
3-1	(1) Evaluation of cleaner production (reduction of wastes and prevention of generation), (2) SA on safety and disaster prevention for equipment, processes, and operations (including health problems), (3) Judgment on the effectiveness of the investment
3-2	(1) Industrial Safety and Health Act, (2) High Pressure Gas Control Act, (3) Fire Service Act, (4) Explosives Control Act, (5) Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities, (6) Air Pollution Control Act, (7) Ozone Layer Protection Act, (8) Energy Saving Law, (9) Water Pollution Prevention Act, (10) Noise Regulation Act and Vibration Regulation Act, (11) Offensive Odor Control Law, (12) Waste Management and Public Cleansing Act, (13) Act on Prevention of Marine Pollution, (14) Building Standards Act, (15) Poisonous and Deleterious Substances Control Act, (16) Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices, (17) Food Sanitation Act, (18) Act on the Regulation of Manufacture and Evaluation of Chemical Substances, (19) Agricultural Chemicals Regulation Act, (20) Act on Prevention of Radiation Hazards due to Radioisotopes, etc., (21) Act on Port Regulations, (22) Civil Aeronautics Act, (23) Road Transportation Act, (24) Factory Location Act, (25) Act Concerning the Restrictions on Plant Construction, etc., (26) Municipal ordinances on prevention of fire, pollution, etc.
4-1	(1) Prior confirmation of the presence of dangerous and harmful substance, (2) Examination of laws and regulations for the relevant substance, (3) Securing sufficient labor for SDS, warning labels, indications and signs, instruction manual, and others
4-2	(1) Building Standards Act, (2) Fire Service Act, (3) Act on the Regulation of Manufacture and Evaluation of Chemical Substances, (4) Explosives Control Act, (5) High Pressure Gas Control Act, (6) Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities, (7) Heat Management Act, (8) Electricity Business Act and Gas Business Act, (9) JIS, (10) Law for Promotion of Effective Utilization of Resources, (11) Waste Management and Public Cleansing Act, (12) Act on the Regulation of Manufacture and Evaluation of Chemical Substances, (13) Industrial Safety and Health Act (Article 57-4 Ordinance on Prevention of Organic Solvent Poisoning, Ordinance on Prevention of Dangers Due to Specified Chemical Substances, Ordinance on Prevention of Tetraalkyl Lead Poisoning, Ordinance on Prevention of Lead Poisoning, Ordinance on Prevention of Dangers Due to Dust, Ordinance on Prevention of Ionizing Radiation Dangers), (14) Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices, (15) Poisonous and Deleterious Substances Control Act, (16) Food Sanitation Act, (17) Agricultural Chemicals Regulation Act, (18) Act on Prevention of Radiation Hazards due to Radioisotopes, etc., (19) Implementation of SA, SOP, and measures for health problems, (20) PM system, QA (ISO 9000 series and JIS 29900 series), and the completion of SDS, warning labels, indications and signs, instruction manual, etc.
4-3	(1) Explosives Control Act, (2) High Pressure Gas Control Act, (3) Poisonous and Deleterious Substances Control Act, (4) Fire Service Act, (5) Act on Prevention of Radiation Hazards due to Radioisotopes, etc., (6) Railway Operation Act, (7) Road Transport Vehicle Act, (8) Road Act (underwater tunnel), (9) Ship Safety Act, (10) Act on Port Regulations, (11) Act on Prevention of Marine Pollution, (12) Maritime Traffic Safety Act, (13) Civil Aeronautics Act, (14) Postal Act, (15) Others (carrying documents, qualification, vehicle, container, loading standards, and indications and signs)
4-4	(1) Confirmation of precautions for indication/sign, (2) Confirmation of precautions for storage
5	(1) General and industrial customers: distribution of warning labels, indications and signs, and instruction manual, (2) Industrial customers: SDS, quality warranty card, contract, confirmation of business registration
6	<ul style="list-style-type: none"> ○Transportation/Storage (1) UN, IMO (each code of IMDG · IBC · BC), ICAO, IATA (2) Europe: ADR, RID, EC Directives, (3) The US: 49CFR, CHEMTREC, NFPA, HCS, etc. ○Labor safety (4) HCS, SDS, warning labels, indications and signs, instruction manual, etc. ○Consumer safety (5) In addition to items presented in (4) above, product liability insurance and warranty card (limitation of warranty) ○Environment/Pollution (6) The US: CAA, CWA, RCRA, CERCLA, SARA, TSCA, HCS (7) Canada: CEPA, WHMIS, (8) Europe: The Sixth and Seventh EEC Directives for Amendment, etc. ○Trade management (9) Materials for chemical weapons, (10) Materials for narcotic drugs, (11) Harmful chemical substances, (12) Strategic materials (management and operation standards for strategic materials)

Joint Article Management Promotion-consortium (JAMP)

JAMP*1, which was formed in 2006 for the purpose of establishing and promoting specific structures for facilitating the disclosure and communication of information over the whole supply chain by appropriately managing and disclosing information on chemical substances. The NOF Group utilizes the chemSHERPA tool for sharing information recommended by JAMP to supply downstream users with information on chemical substances.

SDS (Safety data sheets)

SDS is a document stating the necessary information on the nature of and the handling of chemical substances and is presented to the users, sales agents and other companies handling our products, including product transport businesses, in order to ensure safe handling of the chemical substances. In the product development process the NOF Group conducts safety assessment and related evaluation, classifies the planned product according to the Globally Harmonized System (GHS), and prepares the SDS.

GHS

GHS*2 is a criteria for the classification of health, environmental, physical and chemical hazards of chemical substances and mixtures according to a given set of standards, which contributes to the communication of information for the prevention of accidents and the protection of people's health and environment through the reflection of the results of such classifications in GHS labels and SDS.

The NOF Group attaches GHS labels stating the toxicity and hazardous properties on the substance containers. By doing so, the NOF Group is alerting its users, sales agents and other companies handling our products, including product transport businesses, in order to ensure safe handling.



Transportation safety

The NOF Group is promoting the reduction of the environmental load in transportation, while at the same time engaging in activities to ensure the safety of products in transport. The Group has always treated transportation safety with desirable care, as it handles a wide range of hazardous materials.



Forklift safety training session, NICHYU LOGISTICS CO., LTD.



Forklift practical training session, NICHYU LOGISTICS CO., LTD.

Yellow Card

Should an accident occur during the transportation of chemical substances, it could have dire consequences on human life, the neighboring area, the cargo and the road. The Yellow Card states the measures transport operators, the fire brigade and the police should take as well as contact and notification information, in the event of such an accident. The NOF Group strictly requires that such cards should be provided to transport operators involved, who are also required to carry the card with the corresponding product while in transportation.



Excellent enterprise award for eco ship modal shift

NICHYU LOGISTICS CO., LTD's Oita Works received an award from Director General of the Maritime Bureau of the Ministry of Land, Infrastructure, Transport and Tourism for its contribution to the reduction of environmental burden as an enterprise that carried out modal shift from logistics system mainly centered on land transportation to marine transportation with higher transport efficiency.



Award for eco ship, NICHYU LOGISTICS CO., LTD



Certificate for eco ship, NICHYU LOGISTICS CO., LTD

*1: Acronym for Joint Article Management Promotion-consortium. JAMP was inaugurated in September 2006 by 17 companies subscribing to the underlying idea as promoters to serve as a cross-sectorial body to promote safety activities.

*2: Acronym for Globally Harmonized System of Classification and Labelling of Chemicals. An internationally harmonized system for the classification and representation of chemicals. The GHS is reflected in SDS and the label of the container. The SDS and labels of hazardous products carry characteristic graphic displays.

Living in Harmony with Society

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CSR Procurement Policy

In the procurement of its raw materials, NOF will fulfil its social responsibility by viewing the entire supply chain in order to respect human rights, comply with laws and regulations, and give due consideration to labor conditions, the environment, and safety. In order to realize its corporate philosophy, NOF is committed to deal sincerely with its suppliers based on the concept that all of them are important partners.

We will comply with laws inside and outside Japan and engage in fair transactions based on corporate ethics.

We will engage in procurement in a manner that is responsible toward the environment, safety, health, and quality and is friendly to the global environment.

We will provide fair business opportunities to entities both inside and outside Japan when selecting suppliers.

We will consider quality, cost, and delivery and select our suppliers by making a fair judgment.

We will respond quickly to emergencies and engage in the appropriate disclosure of information.

In the procurement unit, we provided our main suppliers with necessary explanations on NOF's CSR procurement policy and commenced questionnaires on the status of CSR activities at our main suppliers. We will continue these activities in fiscal 2020.

Fair trade practices

The NOF Group is promoting fair trade practices by stipulating the compliance with laws such as the antimonopoly act and the subcontract act, as well as the prohibition of bribery, in the Global Compliance Manual and the Compliance Manual (Japan version) and carrying out ongoing employee education.

In addition, in order to avoid the risk of violation of "prohibitions against payment delays" and "prohibitions against reductions" under the subcontract act, the NOF Group is standardizing its payment conditions to those that comply with the act in comprehensive and uniform manner in all Group companies in Japan.

Green Procurement

NOF has added "environmental friendliness" to its previous criteria for procurement of materials, which are "quality, cost and delivery time." In order to confirm the status of suppliers or products in terms of environmental measures, and to procure products with lower environmental load from suppliers that make greater environmental efforts, we have established a list of managed substances, based on which we conduct a survey of suppliers. The managed substances list is decided on the basis of the POPs treaty, RoHS directives, REACH regulations, Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., Industrial Safety and Health Act and Poisonous and Deleterious Substances Control Act, and is reviewed once a year.

Dealing with conflict minerals

When using four minerals of tin, tantalum, tungsten and gold, we investigate their origins, as necessary, to avoid using conflict minerals, or the four minerals extracted in the Democratic Republic of Congo and neighboring countries, which may potentially impact human rights, among other things.

Procuring sustainable palm oil

NOF joined the Round-table on Sustainable Palm Oil (RSPO) in 2012 and obtained supply chain certification from the organization in 2014. NOF, a founding member of the Japan Sustainable Palm Oil Network (JaSPON) which was launched in Japan in 2019, conducts activities to procure sustainable palm oil.

To win the understanding of the members of the local community and in society at large regarding the corporate activities of the NOF Group, the Group is engaged in various dialogue activities.

In fiscal 2019, we welcomed a plant tour by local residents and held local dialogue meetings on RC, all with a view to smoother two-way communication.



Ward mayors visited Aichi Works



RC dialogue meeting, Kawasaki Works

Organizational unit	Date	Name of event	Activities
Kawasaki Works	2020/1/25	The 12th Kawasaki area regional dialogue meeting on responsible care	We participated in a meeting where we reported on RC (responsible care) activities by 7 companies in Kawasaki area and mingled with local residents. (4 participants from Kawasaki Works; 104 participants in total)
	2019/7/15	Works tour for representatives from neighboring wards	We invited 18 representatives from neighboring wards to a works tour and exchanged opinions.
Aichi Works	2019/7/30	The 1st information exchange meeting for personnel in charge of corporate safety	We invited personnel in charge of safety from Taketoyo Town (1 person) and a chemical company in the Town (9 persons) to exchange information, and held a maritime inspection of the quay of the Port of Kinuura. (3 participants)
	2019/9/18	Exchange of health information between the public and private sectors of Taketoyo Town	We held a briefing session on the initiatives implemented by the participant companies in Taketoyo Town concerning occupational health and safety and health management, as well as on the government's health insurance plan.
	2020/1/24	Social gathering with new and former mayors from neighboring wards	We met and exchanged opinions with 13 new and former mayors from seven neighboring wards.
Oita Plant	2019/7/24	Accepted interns	We offered internships to three second-year students studying chemical engineering at Prefectural Tsurusaki Technical High School.
	2019/10/23	Accepted interns	We offered internships to four second-year students studying industrial chemistry at Prefectural Oita Technical High School.
Tsukuba Research Center	2020/3/10	Working group on safety and health of the eastern region business association	We discussed the issues such as decontamination works in case of finding COVID-19 positive cases.
Nippon Koki Co., Ltd.	2019/7/10	Accepted training for leaders at business sites	We offered a training session to 33 persons from 14 companies in the southern region of Fukushima Prefecture.
NiGK Corporation	2019/9/24	Social gathering with neighboring residents' association	We invited representatives from the residents' association of the neighboring area to participate in a briefing on the Company's overview and its environmental activities, a plant tour and a social gathering.
Showa Kinzoku Kogyo Co., Ltd.	2020/2/5	Social gathering with companies in Sakuragawa City	We (President of Showa Kinzoku Kogyo) participated in social gathering and a training session held outside the City.
	2020/2/11	Exchange with local residents	We paid a courtesy call to 40 neighboring residents and landowners. (77th anniversary commemorative event)
HOKKAIDO NOF CORPORATION	2019/5/30	Challenge Day	We participated in "Challenge Day" hosted by Bibai City.
	2019/10/10	Bibai City lifelong education - social interaction course	We held a plant tour as a part of Bibai City lifelong education - social interaction course.
	2019/12/13	Bibai area partnership promotion meeting for measures against terrorism	We participated in the board meeting of Bibai area partnership promotion meeting for measures against terrorism.



Interns, Oita Plant



Social gathering with neighboring residents' association at NiGK Corporation

Volunteer Participation in “Amagasaki Forest Central Green Space Forest Planting”

On June 2, September 20 and December 20, 2019 total of 24 employees from the Amagasaki Plant participated in the “Amagasaki Forest Central Green Space Forest Planting,” one of the initiatives of the “Amagasaki 21st Century Forest Project” promoted by Hyogo Prefecture.

Participants cooperated with other volunteers and organizers to carry out tasks ranging from delicate work to heavy lifting. Main activities consisted of cutting trees,



chopping wood, planting seeds and planting trees, and participants engaged in tasks that they normally would not experience in their corporate life.

In addition to learning about the forest-planting process and the importance of biodiversity, these volunteer activities allowed our participants to directly feel the passion of members of the general public for volunteering.



Donating the Sacred Fire Torch®

Nippon Koki Co., Ltd. donated the Sacred Fire Torch® for sports day to 19 elementary schools in five neighboring municipalities, including Shirakawa City. Nippon Koki Co., Ltd. has been engaged in this activity since 2016, after Tokyo was selected as the host city of the Olympic Games. This activity has been well accepted by students and parents, enlivening the events held in the region.



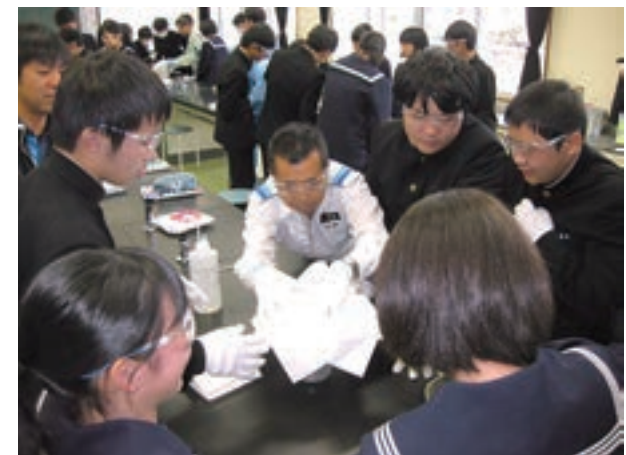
Received the Award for Activities to Nurture Green and Waterfront

In December 2019 at the administration office of the Port of Amagasaki, the Amagasaki Plant received an Award for Activities to Nurture Green and Waterfront for its longtime contribution through cleaning activity.



Cooperation with “visiting class”

The Oita Plant cooperates with visiting classes for local elementary and junior high schools hosted by companies within the neighboring industrial complex. Through chemical experiments, this activity has provided opportunities to think about environmental issues and has been highly evaluated by the local community.



Cooperation with blood donation activities

Kawasaki Works participates in blood donation activities twice a year. A bus for blood donation operation is sent to Works from Kanagawa Red Cross Blood Center. In 2019, which marked the 40th year since the start of this activity, the Works received a letter of thanks in October from the Japanese Red Cross Society for its long time record, and received an award certificate in November from the Mayor of Kawasaki City as an “enterprise that has done distinguished service in promoting business to address blood issues.”



Cleaning volunteer activities

The NOF Group is actively engaged in volunteer activities to clean the areas surrounding its plants.



Cleaning volunteer activities within the industrial complex with neighboring companies (Oita Plant on June 20, 2019)



Cleaning volunteer activities in Sunagawa Park (Aichi Works on October 26, 2019)



Road-cleaning activity along the Amaho Line (Amagasaki Plant on September 25, 2019)



Participated in the village-wide concerted cleanup in Nishigomura, Fukushima Prefecture (Nippon Koki Co., Ltd. on July 6, 2019)

Sponsoring of the “Japan Ground Self Defense Force 10th Band Fureai Concert”

The “Japan Ground Self Defense Force 10th Band Fureai Concert in Taketoyo,” which was sponsored by Aichi Works, was held on August 31, 2019, at the Yumetarou Plaza. As this year marked the 65th anniversary of the organization of Taketoyo Town, the event was a greater success than previous years.



Participation in “Community Interaction and Welfare Festival”

In November 2019, NiGK Corporation participated in Community Interaction and Welfare Festival held in Kasumigaseki-kita area and donated 300 bags of leaf mold produced by NiGK Corporation, which were favorably accepted by people in the area.



Various donations

<Donations aimed at raising the next generation>

- JCIA, Science Human Resources Development Program
- Children's Future Support National Campaign, Children's Future Support Fund
- Keidanren Scholarship Program to Nurture Global Talents
- Hatachi Fund
- People's Hope Japan

<Donations aimed at protecting the global environment>

- Keidanren Nature Conservation Fund
- National Land Afforestation Promotion Organization, Green Fund
- World Wide Fund For Nature (WWF) Japan

<Disaster Relief Donation>

- Disaster relief donation for Typhoon Hagibis in 2019

Other socially beneficial activities

<Aichi Works>

- Sponsored model rocket-making class and the rocket launch contest (April 20, 2019)
- Taketoyo Region Tree Planting Festival (35 participants, supported 60 shares) (May 3, 2018)
- Miyuki Street Summer Festival (Offered plant premises and donated sales at the festival) (July 28, 2018)
- Supported Taketoyo Town's "Science Talk" (November 23, 2019)
- New Year Feast at Tamafuku Inari Shrine (January 1, 2019)
- Supported Taketoyo Town's "Yumetaro Smile Marathon" (January 27, 2019)
- Supported Taketoyo Town's event related to Hayabusa 2 (February 15, 2020)
- Supported Taketoyo Town's "Barrier-free Collaboration" (March 24, 2019)

<Oita Plant>

- Accepted interns (July 24 to 26, 2019: three students at Prefectural Tsurusaki Technical High School; October 23 to 25, 2019: four students at Prefectural Oita Technical High School)

<Nippon Koki Co., Ltd.>

- Lecture on a collider of Hayabusa 2 Shirakawa City Central Library (for general citizens) (May 31, 2019)
- Snag golf competition (for elementary school students); nighttime study meeting (July 14, 2019) Iwate Prefectural Senmaya High School (September 12, 2019)
- Memorial lecture for the 40th anniversary of the foundation of the Women's Committee at Shirakawa Chamber of Commerce and Industry (October 10, 2019) Fukushima Prefectural Shirakawa High School (November 8, 2019)
- Visiting class: Koriyama City Kinto Elementary School (November 11, 2019)

<Showa Kinzoku Kogyo Co., Ltd.>

- Supported Ikiiki Ibaraki Yume Kokutai Athletics 2019 in its public relations activity and jointly produced welcome banners (August 8, 2019)

<HOKKAIDO NOF CORPORATION>

- Supported Bibai Sakura "Fireworks Festival" (April 10, 2018)
- Participated in Bibai City "Challenge Day" (May 30, 2018)

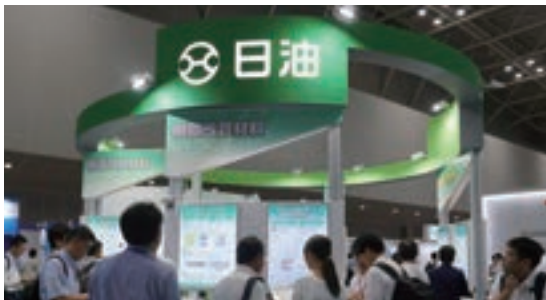
Recognition from Outside the Company

- Ranked 249 in 13th Toyo Keizai CSR Ranking by TOYO KEIZAI INC.
- Selected as a constituent of Japan Empowering Women Index (WIN) by MSCI
- Others
 - NOF received a letter of thanks on July 12, 2019, from the Cabinet Office for its donation to the Fund to Support Children's Future.
 - NOF and NICHYU LOGISTICS CO., LTD received an award on February 25, 2020 as an excellent enterprise for its eco ship modal shift business in fiscal 2019 from the Maritime Bureau of the Ministry of Land, Infrastructure, Transport and Tourism.

Information Disclosure

Information disclosure

In today's age of ceaseless globalization and advancement in information technology, disclosing of corporate information has become indispensable in order for an entity to fulfill its responsibility to society. Disclosure of corporate information is also becoming increasingly important for the NOF Group, as we strive to win the trust of society as an "open group" both inside and outside the Group. The NOF Group engages in timely disclosure of its corporate information including management information and business activities to its shareholders and the capital markets in accordance with relevant laws and regulations such as the Companies Act and the Financial Instruments and Exchange Act.



Chemical Material Japan 2018 (May 17-18, 2018)

Business results briefings

The NOF Group conducts IR activities geared towards shareholders and investors that focus on the reliability and fairness of its investment information. NOF makes efforts to provide timely, appropriate and fair disclosures by holding business results briefings for institutional investors twice a year and posting the briefings materials on the Company's website for general investors. Additionally, in fiscal 2018, the NOF Group held 163 small meetings for institutional investors and analysts.



Information dissemination

The NOF Group proactively releases information on its new products and technology. In fiscal 2018, in addition to our 67 news releases, we responded actively to mass media coverage, which resulted in 88 mentions of the NOF Group businesses in the newspapers. We also present NOF Group products at various exhibitions and trade shows.

Fair disclosure

Fair disclosure rules legally mandating fair disclosure of information by listed companies were introduced following the enforcement of the Amended Financial Instruments and Exchange Act on April 1, 2018. NOF discloses information in a timely and appropriate manner in accordance with various laws and regulations, including the Financial Instruments and Exchange Act and the Rules on Timely Disclosure set by the Tokyo Stock Exchange. In addition, among information that does not fall under the scope of the Rules on Timely Disclosure, we conduct fair and impartial disclosure of information which we consider to have significant impact on the investment decisions of shareholders and investors, and we have made the "Disclosure Policy" available on our website.

Notice of General Meeting of Shareholders

NOF sends its Notice of Annual General Meeting of Shareholders three weeks prior to the meeting. In addition, we strive to provide information promptly by disclosing both Japanese and English versions as digital information four weeks in advance of the day of the meeting.

Publishing of CSR Reports

The Environmental Reports (Report on Responsible Care Activities) that had been published since fiscal 1995 have been published as the CSR Report since fiscal 2015 to report CSR activities of the NOF Group.

From fiscal 2020, the former CSR Report is combined into and issued as an Integrated Report, and items that were previously included in the CSR Report are compiled into an ESG Data Book to complement the information in the Integrated Report.

Naruhodo NOF!
(Company website, Japanese only)

"Naruhodo NOF!" on the Company website introduces the businesses of the NOF Group.

We use easily understood, user-friendly terms to explain our business, in an effort to further the understanding of the general public towards our undertakings.



Top page of NOF CORPORATION
(<http://www.nof.co.jp/index.html>)



Top page of "Naruhodo NOF!"
(<http://www.nof.co.jp/about/index.html>)

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Environmental Performance Data

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305-7, 306-1, 306-2

Performance data by organizational unit (Fiscal 2019 Results)

Item	Unit	Amagasaki Plant	Kawasaki Works	Oita Plant	Aichi Works	NOF, etc.
Production volume	[thousand tons]	103	62.2	22.0	17.3	—
Gross-energy input	[thousand GJ]	1,193	593	300	577	9.8
Total material input	[thousand tons]	94.1	64.3	37.6	37.5	—
Water resource input	[thousand m ³]	3,488.0	761.8	365.7	1,216.6	0.2
GHG emission	[thousand t-CO ₂]	64.7	28.8	18.2	40.0	0.5
SOx emission	[tons]	0.07	0.00	0.11	2.39	—
NOx emission	[tons]	37.03	2.81	5.18	4.98	—
COD emissions	[tons]	18.6	1.4	5.3	34.9	—
Waste quantity emitted by plants	[tons]	10,209.1	5,331.7	594.2	6,574.0	12.3
Internal recycling quantity	[tons]	0.0	0.0	0.0	1,182.0	—
External recycling quantity	[tons]	7,547.1	5,230.7	63.9	2,391.0	2.7
Finally disposed waste quantity	[tons]	17.1	1.2	0.0	30.7	0.7
Emissions of substances regulated by PRTR law	[tons]	31.4	59.1	0.7	26.2	0.0

Item	Unit	Nippon Koki	NiGK	Showa Kinzoku	HOKKAIDO NOF	Nippo Kogyo	YUKA SANGYO
Production volume	[thousand tons]	3.7	3.2	0.4	2.0	0.1	2.2
Gross-energy input	[thousand GJ]	116	36.8	11.0	32.6	3.8	1.8
Total material input	[thousand tons]	4.8	3.6	0.4	5.0	0.1	1.2
Water resource input	[thousand m ³]	430.0	20.7	20.1	16.6	3.0	4.8
GHG emission	[thousand t-CO ₂]	7.1	1.8	0.5	2.2	0.2	0.1
SOx emission	[tons]	1.00	0.00	0.00	1.79	0.00	0.00
NOx emission	[tons]	1.00	0.00	0.00	0.00	0.00	0.00
COD emissions	[tons]	0.0	0.0	0.0	0.2	0.0	0.0
Waste quantity emitted by plants	[tons]	139.9	103.3	123.4	92.1	16.2	149.8
Internal recycling quantity	[tons]	0.0	0.0	0.0	0.0	0.0	0.0
External recycling quantity	[tons]	119.4	81.5	85.3	30.3	11.8	147.9
Finally disposed waste quantity	[tons]	4.2	1.3	3.4	19.4	1.1	1.9
Emissions of substances regulated by PRTR law	[tons]	5.4	3.0	0.0	0.0	0.0	0.5

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Environmental Performance Data

301-1, 302-1, 303-1, 303-2, 303-3, 303-5,
305-7, 306-1, 306-2

Performance data by organizational unit (Fiscal 2019 Results)

Item	Unit	Nichiyu Kogyo	NOF METAL COATINGS	NIKKA COATING	NICHiyu LOGISTICS	Other Domestic total	Overseas total
Production volume	[thousand tons]	2.4	2.8	3.0	—	—	34.0
Gross-energy input	[thousand GJ]	9.0	7.7	16.3	8.0	1.1	413.2
Total material input	[thousand tons]	2.3	2.2	—	—	—	—
Water resource input	[thousand m ³]	39.2	8.3	1.0	—	—	1,855.7
GHG emission	[thousand t-CO ₂]	0.5	0.4	1.0	0.4	0.1	24.2
SOx emission	[tons]	0.00	0.00	0.00	—	—	0.00
NOx emission	[tons]	0.55	0.00	0.00	—	—	0.00
COD emissions	[tons]	0.1	0.0	0.0	—	—	0.0
Waste quantity emitted by plants	[tons]	47.3	164.5	104.3	—	—	4,783.7
Internal recycling quantity	[tons]	0.0	0.0	0.0	—	—	0.0
External recycling quantity	[tons]	45.4	155.0	90.0	—	—	423.8
Finally disposed waste quantity	[tons]	0.2	0.0	0.0	—	—	1,220.9
Emissions of substances regulated by PRTR law	[tons]	0.0	0.1	31.8	—	—	—

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Environmental Performance Data

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305-7, 306-1, 306-2

Changes in performance data (NOF Group)

Item	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019
Production volume	[thousand tons]	225	214	216	214	217	219	231	232	225
Gross-energy input	[thousand GJ]	3,083	2,975	3,033	3,039	3,016	3,018	2,987	3,004	2,917
Total material input	[thousand tons]	267	255	256	259	263	267	280	273	253
Water resource input	[thousand m ³]	6,312	5,924	6,454	6,396	6,389	6,560	6,374	6,352	6,376
GHG emission	[thousand t-CO ₂]	168	180	186	183	171	179	170	169	166
SOx emission	[tons]	12	13	13	6	7	9	6	6	5
NOx emission	[tons]	60	68	86	87	60	90	62	60	52
Soot and dust emissions	[tons]	2	3	4	3	3	4	3	2	1
BOD emissions	[tons]	34	38	35	32	39	28	40	43	33
COD emissions	[tons]	60	69	71	61	78	68	73	66	60
Suspended solid emissions	[tons]	36	30	38	35	41	39	32	50	37
Waste quantity emitted by plants	[tons]	20,127	19,038	19,395	19,966	20,508	21,351	23,466	25,976	23,662
Internal recycling quantity	[tons]	4,864	5,609	2,242	5,100	3,929	1,177	1,190	955	1,182
External recycling quantity	[tons]	11,612	11,876	13,025	14,011	14,576	16,696	17,267	18,676	16,002
Finally disposed waste quantity	[tons]	162	103	149	159	111	157	117	95	81
Emissions of substances regulated by PRTR law	[tons]	241	232	233	232	187	170	167	177	158

Changes in performance data (NOF)

Item	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019
Production volume	[thousand tons]	204	192	194	193	198	200	211	211	205
Gross-energy input	[thousand GJ]	2,789	2,705	2,725	2,751	2,753	2,739	2,728	2,753	2,673
Total material input	[thousand tons]	248	232	234	236	243	248	259	253	233
Water resource input	[thousand m ³]	5,668	5,368	5,832	5,760	5,838	5,967	5,879	5,843	5,832
GHG emission	[thousand t-CO ₂]	153	165	169	164	154	162	155	154	152
SOx emission	[tons]	8	9	10	2	3	4	3	3	3
NOx emission	[tons]	58	66	84	85	58	88	59	58	50
Soot and dust emissions	[tons]	1	2	1	1	2	2	2	2	1
BOD emissions	[tons]	26	30	31	29	35	25	37	39	30
COD emissions	[tons]	60	69	70	60	78	68	72	65	60
Suspended solid emissions	[tons]	19	21	32	29	33	31	25	35	31
Waste quantity emitted by plants	[tons]	19,311	18,196	18,694	19,156	19,716	20,350	22,372	25,061	22,721
Internal recycling quantity	[tons]	4,864	5,609	2,242	5,100	3,929	1,177	1,190	955	1,182
External recycling quantity	[tons]	11,048	11,302	12,631	13,466	14,017	16,132	16,355	17,965	15,235
Finally disposed waste quantity	[tons]	81	52	63	55	60	66	61	60	50
Emissions of substances regulated by PRTR law	[tons]	187	183	192	188	143	123	121	127	118

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PRTR Data

Emissions/transfer quantity of substances regulated by PRTR Law in Fiscal 2019 (Domestic Group) (tons/year)

Cabinet order No.	Substance	Emission quantity				Transfer quantity	Recycling quantity
		Air	Water	Earth	Total		
4	Acrylic acid and its water-soluble salts	1.7	0.0	0.0	1.7	0.0	0.0
8	Methyl acrylate	0.0	0.0	0.0	0.0	22.9	0.0
13	Acetonitrile	0.1	0.0	0.0	0.1	140.3	41.9
68	1,2-epoxypropane	4.1	0.0	0.0	4.1	0.0	0.0
80	Xylene	2.9	0.0	0.0	2.9	1.5	0.0
83	Cumene/Isopropylbenzene	22.5	0.0	0.0	22.5	104.6	74.6
123	3-chloropropene	8.5	0.0	0.0	8.5	9.4	0.0
127	Chloroform	1.5	0.0	0.0	1.5	15.8	0.0
128	Chloromethane	19.0	0.0	0.0	19.0	0.0	0.0
131	3-chloro-2-methyl-1-propene	3.6	0.0	0.0	3.6	0.0	0.0
186	Dichloromethane	33.8	0.0	0.0	33.8	60.4	16.5
262	Tetrachloroethylene	2.3	0.0	0.0	2.3	0.0	0.0
281	Trichloroethylene	1.9	0.0	0.0	1.9	0.0	0.0
300	Toluene	31.0	0.0	0.0	31.0	69.3	1.5
308	Nickel	0.0	0.0	0.0	0.0	2.4	0.0
330	Bis (1-methyl-1-phenylethyl) peroxide	0.0	0.0	0.0	0.0	1.0	0.0
366	tert-Butyl hydroperoxide	0.5	0.0	0.0	0.5	48.2	0.0
392	n-hexane	18.2	0.0	0.0	18.2	40.8	0.0
400	Benzene	0.0	0.0	0.0	0.0	6.2	0.0
407	Poly (oxyethylene)=alkyl ether (limited to alkyl group with C numbers of 12 to 15 and mixtures thereof)	0.0	0.0	0.0	0.0	3.0	0.0
414	Maleic anhydride	0.0	0.0	0.0	0.0	1.8	0.0
420	Methyl methacrylate	2.0	0.0	0.0	2.0	0.0	0.0
436	alpha-Methylstyrene	0.3	0.0	0.0	0.3	55.4	0.0
440	1-Methyl-1-phenylethyl hydroperoxide	0.0	0.0	0.0	0.0	1.4	1.0
—	Other substances (100 materials)	4.2	0.3	0.0	4.5	3.2	0.0
	Total*1	158.1	0.3	0.0	158.4	588.0	135.5

*1: The round-off will produce differences.

Emissions of substances regulated by PRTR Law in Fiscal 2019 (tons/year)

Cabinet order No.	Substance	Emission quantity				Transfer quantity	Recycling quantity
		Air	Water	Earth	Total		
4	Acrylic acid and its water-soluble salts	1.7	0.0	0.0	1.7	0.0	0.0
8	Methyl acrylate	0.0	0.0	0.0	0.0	22.9	0.0
13	Acetonitrile	0.1	0.0	0.0	0.1	140.3	41.9
68	1,2-epoxypropane	4.1	0.0	0.0	4.1	0.0	0.0
83	Cumene	22.5	0.0	0.0	22.5	104.6	74.6
123	3-chloropropene	8.5	0.0	0.0	8.5	9.4	0.0
127	Chloroform	1.5	0.0	0.0	1.5	15.8	0.0
128	Chloromethane	19.0	0.0	0.0	19.0	0.0	0.0
131	3-chloro-2-methyl-1-propene	3.6	0.0	0.0	3.6	0.0	0.0
186	Dichloromethane	1.8	0.0	0.0	1.8	60.2	0.0
240	Styrene	0.6	0.0	0.0	0.6	0.2	0.0
300	Toluene	29.8	0.0	0.0	29.8	69.1	0.1
308	Nickel	0.0	0.0	0.0	0.0	2.4	0.0
330	Bis (1-methyl-1-phenylethyl) peroxide	0.0	0.0	0.0	0.0	1.0	0.0
366	tert-Butyl hydroperoxide	0.5	0.0	0.0	0.5	48.2	0.0
392	n-hexane	18.2	0.0	0.0	18.2	40.8	0.0
400	Benzene	0.0	0.0	0.0	0.0	6.2	0.0
407	Poly (oxyethylene)=alkyl ether (limited to alkyl group with C numbers of 12 to 15 and mixtures thereof)	0.0	0.0	0.0	0.0	3.0	0.0
414	Maleic anhydride	0.0	0.0	0.0	0.0	1.8	0.0
420	Methyl methacrylate	2.0	0.0	0.0	2.0	0.0	0.0
436	alpha-Methylstyrene	0.3	0.0	0.0	0.3	55.4	0.0
440	1-Methyl-1-phenylethyl hydroperoxide	0.0	0.0	0.0	0.0	1.4	1.0
—	Other substances (76 materials)	3.7	0.3	0.0	3.9	1.5	0.0
	Total*1	117.3	0.3	0.0	117.5	584.2	117.6

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Outline of NOF Group Companies (ISO certification acquisition status)

NOF CORPORATION

Business location	Address	Contact	ISO-14001	ISO-9000's
Head Office	20-3, Ebisu 4-chome, Shibuya-ku, Tokyo 150- 6019, Japan	+81-3-5424-6670 (Responsible Care & Production Engineering Dept.)	—	—
Amagasaki Plant	56, Ohamacho 1-chome, Amagasaki, Hyogo 660- 0095, Japan	+81-6-6419-7292 (Environmental Safety Administration Office)	BV 4363598-2A Renewed on Oct. 1, 2019	BV 4371906 Renewed on Oct. 21, 2019
Kawasaki Works (Chidori Plant) (Daishi Plant) (DDS Plant)	3-3, Chidori-cho, Kawasaki- ku, Kawasaki, Kanagawa 210-0865, Japan	+81-44-288-2153 (Environmental Safety Administration Office)	BV 4298129 Renewed on Mar. 5, 2020	Chidori Plant BV 3607007 Renewed on July 15, 2019 Daishi Plant FSSC22000 JMAQA-FC270 Certified on Jan. 23, 2020
Oita Plant	2, Oaza-Nakanosu, Oita, Oita 870-0111, Japan	+81-97-527-5201 (Environmental Safety Administration Office)	BV 4019501 Renewed on Dec. 10, 2019	BV 3931371 Renewed on July 25, 2019
Aichi Works (Kinuura Plant) (Taketoyo Plant) (Display Materials Plant)	61-1, Aza-Kitakomatsudani, Taketoyo-cho, Chita-gun, Aichi 470-2379, Japan	+81-569-72-1955 (Environmental Safety Administration Office)	BV 4437880 Renewed on Nov. 22, 2019	Kinuura Plant BV 4341946 Renewed on Jun. 11, 2019 Taketoyo Plant JQA-AS0183 Renewed on July 8, 2019

Group Companies (16 Manufacturing Companies)

Business location	Address	Contact	ISO-14001	ISO-9000's
Nippon Koki Co., Ltd. Shirakawa Plant	Aza Tsuchio 2-1, Oaza Nagasaka, Nishigomura, Shirakawa-gun, Fukushima 961-8686, Japan	+81-248-22-3691 (Environmental Safety Control Office)	JSAE741: Renewed on Oct. 15, 2019	JSAQ2282: Renewed on Apr. 3, 2019
NiGK Corporation	21-2, Matoba Shinmachi Kawagoe, Saitama 350-1107, Japan	+81-49-231-2103 (Environmental Security Control Office)	—	LRQA 0066885: Renewed on Feb. 3, 2020
Showa Kinzoku Kogyo Co., Ltd.	Iwase 2120, Sakuragawa, Ibaraki 309-1211, Japan	+81-296-76-1811 (Environmental Safety Planning Dept.)	—	02479-2011-AQ-KOB-JAB Renewed on Mar. 7, 2019
HOKKAIDO NOF CORPORATION	549 Koshunai, Bibai, Hokkaido 079-0167, Japan	+81-126-67-2211 (Administration Dept.)	—	—
Nippo Kogyo Co., Ltd.	Chabatake 1838, Susono, Shizuoka 410-1121, Japan	+81-55-922-0476 (Operations Dept.)	—	—
YUKA SANGYO CO., LTD. Yamato Plant	13-13, Yanagibashi 5-chome, Yamato-shi, Kanagawa 242-0022, Japan	+81-46-267-2684 (Production Technology Dept.)	—	BV 4106832: Renewed on Feb. 13, 2020
Nichiyu Kogyo Co., Ltd.	22-1, Dou-cho 4-chome, Takatsuki, Osaka 569-0011, Japan	+81-72-669-5141 (Production Dept.)	—	—
NOF METAL COATINGS ASIA PACIFIC CO., LTD.	3-3, Chidori-cho, Kawasaki-ku, Kawasaki, Kanagawa 210-0865, Japan	+81-44-280-3024 (Operation Planning Dept.)	BV 4280820: Renewed on Nov. 22, 2019	BV 4448171: Renewed on Nov. 29, 2019

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Outline of NOF Group Companies

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Business location	Address	Contact	ISO-14001	ISO-9000's
NIKKA COATING CO., LTD.	Higashi-Saitama Technopolis, 3-6 Asahi, Yoshikawa, Saitama 342-0008, Japan	+81-48-991-9854	—	JICQA 3357 Renewed on Feb. 22, 2018
NICHIYU LOGISTICS CO., LTD.	3-2, Chidori-cho, Kawasaki-ku, Kawasaki, Kanagawa 210-0865, Japan	+81-44-280-0560 (General Affairs Dept.)	Green Management T 140069 Renewed on Nov. 18, 2017	—
NOF METAL COATINGS NORTH AMERICA INC.	275 Industrial Parkway Chardon, Ohio 44024-1083, U.S.A.	+81-44-280-3024 (Operation Planning Dept. of NOF METAL COATINGS ASIA PACIFIC CO., LTD.)	—	66561-IS8 Renewed on Aug. 1, 2017
NOF METAL COATINGS EUROPE N.V.	Bouwvelven 1, Industriezone Klen-Gent, BE-2280 Grobbendonk, Belgium	Ditto	ANT10200: Renewed on Dec. 25, 2019	ANT10200: Renewed on Dec. 25, 2019
NOF METAL COATINGS SOUTH AMERICA IND. E COM.LTDA.	Rua Minas Gerais No85 Vila Oriental CEP 09941-760 Diadema Sao Paulo, Brazil	Ditto	320993UM15 Renewed on Dec. 4, 2017	320993QM15 Renewed on Dec. 4, 2017
NOF METAL COATINGS KOREA CO.,LTD.	9F Munhwaillbo B/D, 68, Chung Jeongno1-ga, Jung-gu, Seoul 04516, Korea	Ditto	REM1342 Renewed on Feb. 28, 2019	IATF16949 Renewed on Nov. 16, 2017
PT.NOF MAS CHEMICAL INDUSTRIES	Kawasan Industri Bekasi Fajar, Block D-1 Mekar Wangi, MM2100 Industrial Town Phase III Cibitung-Bekasi 17520, Indonesia	+81-3-5424-6838 (Planning Office, Functional Chemicals & Polymers Div., NOF)	—	ID00/18019 Renewed on Dec. 10, 2017
Changshu NOF Chemical Co., Ltd.	Wan fu road, Riverside Industrial Park, Chang shu Economic Development Zone, Jiang Su Province 215537, China	Ditto	00117E33937R3M/3200 Renewed on Dec. 26, 2017	00117Q311499R3M/3200 Renewed on Dec. 22, 2017

Group Companies (8 Sales Companies)

Business location	Address
NICHIYU TRADING CO., LTD.	Ebisu Neonato, 1-18 Ebisu 4-chome, Shibuya-ku, Tokyo 150-0013, Japan
JAPEX Corp.	Shinbashi Chuo Bldg., 11-5 Nishi-Shinbashi 1-chome, Minato-ku, Tokyo 105-0003, Japan
CACTUS Co., Ltd.	Sengoku Coathouse Bldg., 37-4 Sengoku 4-chome, Bunkyo-ku, Tokyo 112-0011, Japan
NOF METAL COATINGS EUROPE S.A.	ZAET Creil Saint Maximin, 120 rue Galilee, CS 50093, 60106 CREIL CEDEX, France
NOF AMERICA CORPORATION	One North Broadway, Suite 912, White Plains, N.Y. 10601, U.S.A.
NOF EUROPE GmbH	Hamburger Allee 2-4, 60486, Frankfurt am Main, Germany
SIE s.r.l.	Via. Avogadro,11 10121 TORINO(TO), ITALY
NOF (Shanghai) Co., Ltd.	Room 2402, 24F, Huanning Plaza North Building, No. 300 Xuanhua Road, Changning District, Shanghai 200050, China

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100: Universal Standards			
GRI 102: General Disclosures 2016		Relevant Section in Data Book (or Disclosure outside this report)	
1. Organizational profile			
102-1	Name of the organization	Corporate Overview http://www.nof.co.jp/english/company/outline.html	—
102-2	Activities, brands, products, and services	NOF Businesses http://www.nof.co.jp/english/business/oleo/index.html	—
102-3	Activities, brands, products, and services	Corporate Information http://www.nof.co.jp/english/company/outline.html	—
102-4	Location of operations	Business Locations http://www.nof.co.jp/english/company/plant.html	—
102-5	Ownership and legal form	Corporate Information http://www.nof.co.jp/english/company/outline.html	—
102-6	Markets served	Segment Information http://www.nof.co.jp/english/company/business.html IR Library http://www.nof.co.jp/english/ir/library.html	—
102-7	Scale of the organization	IR Library http://www.nof.co.jp/english/ir/library.html	—
102-8	Information on employees and other workers	Integrated Report 2020 (P23) Employee-related data	—
102-9	Supply chain	—	—
102-10	Significant changes to the organization and its supply chain	—	—
102-11	Precautionary Principle or approach	RC Management Promotion system	P23
		Product Safety: Management flow chart of new chemical substances	P37
		Plant Safety: Tightened collaboration with the local community	P35
		Information security management	P13
102-12	External initiatives	Contribution to the SDGs	P9
		Responsible Care Global Charter	P23
102-13	Membership of associations	Procuring sustainable palm oil (RSPO, JaSPON)	P40
		Product Safety: Japan Initiative of Product Stewardship (JIPS)	P36
		Integrated Report 2020 (P26) Long-Range Research Initiative (LRI)	—
2. Strategy			
102-14	Statement from senior decision-maker	Integrated Report 2020: Message from the President (P3-10)	—
102-15	Key impacts, risks, and opportunities	Integrated Report 2020: Materiality (P19), Value Creation Process (P15), Risk Management (P39)	—
3. Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	Integrated Report 2020: Message from the President (P3-10) Corporate Philosophy http://www.nof.co.jp/english/company/management.html Code of Conduct http://www.nof.co.jp/english/company/conduct.html Basic CSR Policy http://www.nof.co.jp/english/company/csr.html Code of Ethical Conduct http://www.nof.co.jp/english/company/ethical.html	—
102-17	Mechanisms for advice and concerns about ethics	Compliance: Whistle-blowing system	P14
4. Governance			
102-18	Governance structure	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-19	Delegating authority	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate Governance : Schematic diagram of corporate governance system	P12
102-21	Consulting stakeholders on economic, environmental, and social topics	—	—

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100: Universal Standards			
GRI 102: General Disclosures 2016		Relevant Section in Data Book (or Disclosure outside this report)	
4. Governance			
102-22	Composition of the highest governance body and its committees	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-23	Chair of the highest governance body	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-24	Nominating and selecting the highest governance body	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-25	Conflicts of interest	Corporate Governance Report http://www.nof.co.jp/english/ir/governancereport.html	—
102-26	Role of highest governance body in setting purpose, values, and strategy	—	—
102-27	Collective knowledge of highest governance body	—	—
102-28	Evaluating the highest governance body's performance	Integrated Report 2020 (P36) Analysis and Evaluation of Effectiveness of the Board as a Whole	—
102-29	Identifying and managing economic, environmental, and social impacts	Integrated Report 2020 (P39) Risk Management	—
102-30	Effectiveness of risk management processes	Integrated Report 2020 (P39) Risk Management	—
102-31	Review of economic, environmental, and social topics	—	—
102-32	Highest governance body's role in sustainability reporting	—	—
102-33	Communicating critical concerns	—	—
102-34	Nature and total number of critical concerns	—	—
102-35	Remuneration policies	Integrated Report 2020 (P35) Policy on determining compensation	—
102-36	Process for determining remuneration	Integrated Report 2020 (P35) Policy on determining compensation	—
102-37	Stakeholders' involvement in remuneration	Integrated Report 2020 (P35) Activities of the Nomination Committee and Compensation Committee	—
102-38	Annual total compensation ratio	—	—
102-39	Percentage increase in annual total compensation ratio	—	—
5. Stakeholder engagement			
102-40	List of stakeholder groups	—	—
102-41	Collective bargaining agreements	—	—
102-42	Identifying and selecting stakeholders	—	—
102-43	Approach to stakeholder engagement	—	—
102-44	Key topics and concerns raised	—	—
6. Reporting practice			
102-45	Entities included in the consolidated financial statements	Group Companies (16 Manufacturing Companies)	P51
		Group Companies (8 Sales Companies)	P52
102-46	Defining report content and topic Boundaries	Integrated Report 2020 (P50) Editorial Policy: Scope of the Report	—
102-47	List of material topics	Integrated Report 2020 (P19) Materiality	—
102-48	Restatements of information	—	—
102-49	Changes in reporting	—	—
102-50	Reporting period	Integrated Report 2020 (P50) Editorial Policy: Reporting Period	—
102-51	Date of most recent report	Integrated Report 2020 (P50) Editorial Policy: Published	—
102-52	Reporting cycle	Integrated Report 2020 (P50) Editorial Policy: Published	—
102-53	Contact point for questions regarding the report	Integrated Report 2020: Back cover	—

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102-55

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100: Universal Standards			
GRI 102: General Disclosures 2016		Relevant Section in Data Book (or Disclosure outside this report)	
6. Reporting practice			
102-54	Claims of reporting in accordance with the GRI Standards	—	—
102-55	GRI content index	GRI Standards table	P53
102-56	External assurance	—	—
GRI 103: Management Approach 2016			
103-1	Explanation of the material topic and its Boundary	Integrated Report 2020 (P19) Materiality	—
		Impact on society through supply chain	P10
103-2	The management approach and its components	Integrated Report 2020 (P19) Materiality	—
		Integrated Report 2020 (P17) Process of identifying materialities	—
		Integrated Report 2020 (P18) Materiality matrix	—
103-3	Evaluation of the management approach	Integrated Report 2020 (P17) Process of identifying materialities	—
200: Economic topics			
GRI 201: Economic Performance 2016		Relevant Section in Data Book (or Disclosure outside this report)	
201-1	Direct economic value generated and distributed	—	—
201-2	Financial implications and other risks and opportunities due to climate change	—	—
201-3	Defined benefit plan obligations and other retirement plans	—	—
201-4	Financial assistance received from government	—	—
GRI 202: Market Presence 2016			
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—	—
202-2	Proportion of senior management hired from the local community	—	—
GRI 203: Indirect Economic Impacts 2016			
203-1	Infrastructure investments and services supported	—	—
203-2	Significant indirect economic impacts	—	—
GRI 204: Procurement Practices 2016			
204-1	Proportion of spending on local suppliers	—	—
GRI 205: Anti-corruption 2016			
205-1	Operations assessed for risks related to corruption	—	—
205-2	Communication and training about anti-corruption policies and procedures	Compliance	P14
205-3	Confirmed incidents of corruption and actions taken	Not Applicable	—
GRI 206: Anti-competitive Behavior 2016			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Not Applicable	—

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300: Environmental topics			
GRI 301: Materials 2016		Relevant Section in Data Book (or Disclosure outside this report)	
301-1	Materials used by weight or volume	Environmental Safety: Main environmental performance	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
		Environmental Performance Data: Changes in performance data (NOF)	
301-2	Recycled input materials used	Environmental Safety: Main environmental performance factors	P25
301-3	Reclaimed products and their packaging materials	—	—
GRI 302: Energy 2016			
302-1	Energy consumption within the organization	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: Energy consumption	P27
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
302-2	Energy consumption outside of the organization	—	—
302-3	Energy intensity	Environmental Safety: Energy intensity per product	P27
302-4	Reduction of energy consumption	Environmental Safety: Energy consumption and CO ₂ emissions	P27
302-5	Reductions in energy requirements of products and services	—	—
GRI 303: Water and Effluents 2018		Relevant Section in Data Book (or Disclosure outside this report)	
303-1	Interactions with water as a shared resource	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: Water consumption	P30
		Environmental Safety: Volumes of city water and groundwater used	
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
		Environmental Performance Data: Changes in performance data (NOF)	

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300: Environmental topics		Relevant Section in Data Book (or Disclosure outside this report)	
GRI 303: Water and Effluents 2018			
303-2	Management of water discharge-related impacts	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: Emissions of PRTR Act-controlled substances	P31
		Environmental Safety: Emissions of substances under JCIA-recommended autonomous control	
		Environmental Safety: Substances high in volume (10t or more) discharged into the environment	
		Environmental Safety: Balance of emissions of PRTR Act-controlled substances in scal 2019 (Domestic Group)	
		Environmental Safety: BOD emissions	P32
		Environmental Safety: COD emissions	
		Environmental Safety: Suspended solid emissions	P47-48
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	
		Environmental Performance Data: Changes in performance data (NOF Group)	
		303-3	Water withdrawal
Environmental Safety: Environmental benefits	P26		
Environmental Safety: Changes from the past			
Environmental Safety: Water consumption	P30		
Environmental Safety: Volumes of city water and groundwater used			
Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48		
Environmental Performance Data: Changes in performance data (NOF Group)	P49		
Environmental Performance Data: Changes in performance data (NOF)			
303-4	Water discharge	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: BOD emissions	P32
		Environmental Safety: COD emissions	
Environmental Safety: Suspended solid emissions			
303-5	Water consumption	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: Water consumption	P30
		Environmental Safety: Volumes of city water and groundwater used	
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
Environmental Performance Data: Changes in performance data (NOF)			

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300: Environmental topics		
GRI 304: Biodiversity 2016		Relevant Section in Data Book (or Disclosure outside this report)
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	—
304-2	Significant impacts of activities, products, and services on biodiversity	—
304-3	Habitats protected or restored	Environmental Safety: Actions for biodiversity conservation
		Socially Beneficial Activities: Volunteer Participation in "Amagasaki Forest Central Green Space Forest Planting"
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—
GRI 305: Emissions 2016		
305-1	Direct (Scope 1) GHG emissions	Environmental Safety: CO ₂ emissions by energy consumption
		Environmental Safety: Scope 1, 2 CO ₂ emissions
305-2	Energy indirect (Scope 2) GHG emissions	Environmental Safety: PFC emissions
		Environmental Safety: Scope 1, 2 CO ₂ emissions
305-3	Other indirect (Scope 3) GHG emissions	Environmental Safety: Scope 3 CO ₂ emissions
305-4	GHG emissions intensity	Environmental Safety: CO ₂ emission per product by transportation
305-5	Reduction of GHG emissions	Environmental Safety: Energy consumption and CO ₂ emissions
		Environmental Safety: CO ₂ emissions other than from energy consumption
305-6	Emissions of ozone-depleting substances (ODS)	Environmental Safety: PFC emissions
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Environmental Safety: Main environmental performance factors
		Environmental Safety: Environmental benefits
		Environmental Safety: Changes from the past
		Environmental Safety: Emissions of PRTR Act-controlled substances
		Environmental Safety: Emissions of substances under JCIA-recommended autonomous control
		Environmental Safety: Substances high in volume (10t or more) discharged into the environment
		Environmental Safety: Balance of emissions of PRTR Act-controlled substances in scal 2019 (Domestic Group)
		Environmental Safety: SOx emissions
		Environmental Safety: NOx emissions
		Environmental Safety: Soot-dust emissions
	Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	
	Environmental Performance Data: Changes in performance data (NOF Group)	
	Environmental Performance Data: Changes in performance data (NOF)	

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GRI Standards table

This refers to information related to items of GRI Standard as a reference, but does not indicate that this report is in accordance with GRI Standard. "Not Applicable" indicates that the corresponding items are not relevant or have no cases relevant to any critical levels. "—" indicates no information.

300: Environmental topics			
GRI 306: Effluents and Waste 2016		Relevant Section in Data Book (or Disclosure outside this report)	
306-1	Water discharge by quality and destination	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: BOD emissions	P32
		Environmental Safety: COD emissions	
		Environmental Safety: Suspended solid emissions	
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
		Environmental Performance Data: Changes in performance data (NOF)	
306-2	Waste by type and disposal method	Environmental Safety: Main environmental performance factors	P25
		Environmental Safety: Environmental benefits	P26
		Environmental Safety: Changes from the past	
		Environmental Safety: Final disposal volume by landfill	P30
		Environmental Safety: Zero Emissions rate	
		Environmental Safety: Sum of valuables sold	
		Environmental Safety: Proper management of polychlorinated biphenyl (PCB)	P32
		Environmental Performance Data: Performance data by organizational unit (Fiscal 2019 Results)	P47-48
		Environmental Performance Data: Changes in performance data (NOF Group)	P49
Environmental Performance Data: Changes in performance data (NOF)			
306-3	Significant spills	Environmental Safety: Compliance status to Acts related to the environment	P32
306-4	Transport of hazardous waste	—	—
306-5	Water bodies affected by water discharges and/or runoff	—	—
GRI 307: Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations	Environmental Safety: Compliance status to Acts related to the environment	P32
GRI 308: Supplier Environmental Assessment 2016			
308-1	New suppliers that were screened using environmental criteria	—	—
308-2	Negative environmental impacts in the supply chain and actions taken	Promotion of CSR Procurement	P40
400: Social topics			
GRI 401: Employment 2016		Relevant Section in Data Book (or Disclosure outside this report)	
401-1	New employee hires and employee turnover	Better Performance of Human Resources:Employee-related data	P18
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—	—
401-3	Parental leave	Work-Life Balance:Employee-related data	P17
GRI 402: Labor/Management Relations 2016			
402-1	Minimum notice periods regarding operational changes	—	—

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400: Social topics			
GRI 403: Occupational Health and Safety 2018		Relevant Section in Data Book (or Disclosure outside this report)	
403-1	Occupational health and safety management system	RC management: Flowchart of RC activities	P23
		RC management: Development status of OSHMS (Occupational Safety and Health Management System)	P24
		Labor Safety: Occupational Safety and Health Policy	P33
		Labor Safety: Safety activities in fiscal 2020	P34
		Labor Safety: Investment in safety and physical prevention of accidents	P35
403-2	Hazard identification, risk assessment, and incident investigation	RC management: Flowchart of RC activities	P23
		RC management: Status of internal auditing	P24
		Labor Safety: Safety activities in fiscal 2020	P34
403-3	Occupational health services	Labor Safety: Occupational Safety and Health Policy	P33
403-4	Worker participation, consultation, and communication on occupational health and safety	RC management: RC promoting organization	P23
		RC management: Status of internal auditing	P24
		Labor Safety: Safety campaign activities report meeting	P34
		Labor Safety: Disaster prevention drill	P35
403-5	Worker training on occupational health and safety	Safety Education: RC Education of the NOF Group	P21
		Labor Safety: Safety education by try-and-sense method	P34
403-6	Promotion of worker health	—	—
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	—	—
403-8	Workers covered by an occupational health and safety management system	—	—
403-9	Work-related injuries	Labor Safety: Occurrence of labor accidents in fiscal 2019	P33
		Labor Safety: Changes in frequency rate of labor accidents (Domestic Group)	
403-10	Work-related ill health	—	—
GRI 404: Training and Education 2016			
404-1	Average hours of training per year per employee	—	—
404-2	Programs for upgrading employee skills and transition assistance programs	—	—
404-3	Percentage of employees receiving regular performance and career development reviews	—	—
GRI 405: Diversity and Equal Opportunity 2016			
405-1	Diversity of governance bodies and employees	—	—
405-2	Ratio of basic salary and remuneration of women to men	There is no difference in basic salary between men and women.	—
GRI 406: Non-discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	Not Applicable	—
GRI 407: Freedom of Association and Collective Bargaining 2016			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not Applicable	—
GRI 408: Child Labor 2016			
408-1	Operations and suppliers at significant risk for incidents of child labor	Not Applicable	—
GRI 409: Forced or Compulsory Labor 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Not Applicable	—

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400: Social topics			
GRI 410: Security Practices 2016		Relevant Section in Data Book (or Disclosure outside this report)	
410-1	Security personnel trained in human rights policies or procedures	—	—
GRI 411: Rights of Indigenous Peoples 2016			
411-1	Incidents of violations involving rights of indigenous peoples	Not Applicable	—
GRI 412: Human Rights Assessment 2016			
412-1	Operations that have been subject to human rights reviews or impact assessments	—	—
412-2	Employee training on human rights policies or procedures	—	—
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—	—
GRI 413: Local Communities 2016			
413-1	Operations with local community engagement, impact assessments, and development programs	Dialogue Activities	P41
		Socially Beneficial Activities	P42-44
413-2	Operations with significant actual and potential negative impacts on local communities	Not Applicable	—
GRI 414: Supplier Social Assessment 2016			
414-1	New suppliers that were screened using social criteria	—	—
414-2	Negative social impacts in the supply chain and actions taken	Promotion of CSR Procurement	P40
GRI 415: Public Policy 2016			
415-1	Political contributions	—	—
GRI 416: Customer Health and Safety 2016			
416-1	Assessment of the health and safety impacts of product and service categories	—	—
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Not Applicable	—
GRI 417: Marketing and Labeling 2016			
417-1	Requirements for product and service information and labeling	Our Products and Technology ECO Products	P4-6
		Product Safety: Meeting international requirements for control of chemical substances	P36
		Product Safety: Meeting domestic requirements	
		Product Safety: Compliance with REACH	
		Product Safety: Other countries and regions	
		Product Safety and Transportation Safety: Joint Article Management Promotion-consortium (JAMP)	P38
		Product Safety and Transportation Safety: SDS (Safety data sheets)	
		Product Safety and Transportation Safety: GHS	
		Product Safety and Transportation Safety: Transportation safety	
Product Safety: Yellow Card			
417-2	Incidents of non-compliance concerning product and service information and labeling	Not Applicable	—
417-3	Incidents of non-compliance concerning marketing communications	Not Applicable	—
GRI 418: Customer Privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Not Applicable	—
GRI 419: Socioeconomic Compliance 2016			
419-1	Non-compliance with laws and regulations in the social and economic area	Not Applicable	—

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Core subject and issues		Relevant Section in Data Book (or Disclosure outside this report)	
6.2	Organizational governance	Integrated Report: P3-10 Message from the President	—
		Integrated Report: P37 Basic CSR Policy	—
		CSR promotion framework	P7
		Corporate Governance	P12
		Integrated Report: P37 Compliance	P13-14
		Integrated Report: P39 Risk Management	—
6.3	Human rights	Code of Ethical Conduct Page4 (PDF Page6) ※	—
6.3.3	Due diligence	—	—
6.3.4	Human rights risk situations	Better Performance of Human Resources	P18
6.3.5	Avoidance of complicity	Promotion of CSR Procurement	P40
		Code of Ethical Conduct Page6 (PDF Page8) ※	—
6.3.6	Resolving grievances	Integrated Report: P37-38 Compliance	P14
6.3.7	Discrimination and vulnerable group	Integrated Report: P23 Approach to diversity	—
		Employment of the disabled	P18
6.3.8	Civil and political rights	Compliance	P14
		Code of Ethical Conduct Page5 (PDF Page7) ※	—
6.3.9	Economic, social, and cultural rights	Promotion of health-conscious management	P17
		Dialogue Activities	P41
6.3.10	Fundamental principles and rights at work	Promotion of work-life balance	P16
		Better Performance of Human Resources	P19
		Promotion of CSR Procurement	P40
6.4	Labour practices	RC management	P23
6.4.3	Employment and employment relationships	Compliance	P14
		Better Performance of Human Resources	P19
		Code of Ethical Conduct Page5 (PDF Page7) ※	—
6.4.4	Conditions of work and social protection	Promotion of work-life balance	P16
		Better Performance of Human Resources	P19

Core subject and issues		Relevant Section in Data Book (or Disclosure outside this report)	
6.4.5	Social dialogue	Talent Development	P20
		Rewards for employee achievements	P19
6.4.6	Health and safety at work	RC Management	P24
		Labor Safety	P33
		Plant Safety	P35
6.4.7	Human development and training in the workplaces	Talent Development	P20
		Safety Education	P21
6.5	The environment	RC Management: The Five Components of Safety	P23
6.5.3	Prevention of pollution	Environmental Loads Ensuing from Business Activities	P25
		PRTR	P31
		Eco-friendly action: Air, Water	P32
6.5.4	Sustainable resource use	Environmental Loads Ensuing from Business Activities	P25
		Recycling of Resources	P30
6.5.5	Climate change mitigation and adaptation	Environmental Loads Ensuing from Business Activities	P25
		Global Warming Prevention	P27
6.5.6	Protection of the environment, biodiversity and restoration of natural habitats	Actions for biodiversity conservation	P32
6.6	Fair operating practices	Promotion of CSR Procurement	P40
		Code of Ethical Conduct Page6 (PDF Page8) ※	—
6.6.3	Anti-corruption	Compliance	P14
		Code of Ethical Conduct Page6 (PDF Page8) ※	—
6.6.4	Responsible political involvement	Compliance	P14
6.6.5	Fair competition	Promotion of CSR Procurement	P40
		Code of Ethical Conduct Page10 (PDF Page12) ※	—
6.6.6	Promoting social responsibility in the value chain	Product Safety	P36
		Transportation Safety	P38
		Promotion of CSR Procurement	P40

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Core subject and issues		Relevant Section in Data Book (or Disclosure outside this report)	
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6.7	Consumer issues	—	—
6.7.3	Fair marketing, factual and unbiased information and fair contractual practices	Product Safety	P36
		Transportation Safety	P38
		Promotion of CSR Procurement	P40
6.7.4	Protecting consumers' health and safety	Development status of Quality Management Systems	P24
		Product Safety	P36
6.7.5	Sustainable consumption	ECO Products	P4-6
6.7.6	Consumer service, support, and complaint and dispute resolution	Development status of Quality Management Systems	P24
		Outline of NOF Group Companies	P51
6.7.7	Consumer data protection and privacy	Compliance	P14
		Information security management	P13
6.7.8	Access to essential services	Promotion of the Business Continuity Plan	P13
6.7.9	Education and awareness	Talent Development	P20
		Safety Education	P21
		Labor Safety	P34
6.8	Community involvement and development	—	—
6.8.3	Community involvement	Socially Beneficial Activities	P42
6.8.4	Education and culture	Socially Beneficial Activities	P42
6.8.5	Employment creation and skills development	—	—
6.8.6	Technology development and access	Website ※	—
6.8.7	Wealth and income creation	—	—
6.8.8	Health	Promotion of health-conscious management	P17
		RC Management	P23
		Socially Beneficial Activities	P43
6.8.9	Social investment	Socially Beneficial Activities	P44

※ The data is provided in Japanese.

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