

4. Environmental Policy and Management Structures

4-1 Policy and Principles

Nissha Group has established an "Environmental Policy". And together with a "Environment Principles" that outlines specific conduct and regulations, we disseminate them to all employees. We have also issued the "Nissha Group Environmental Objectives". Each business location and division sets their own goals in an effort to achieve those objectives, and acts in accordance with those activity plans. These goals are linked with the Key Performance Indicators (KPI) for each business unit and are directly connected with our business activities.

Environment Policy

Nissha Group, as a member of the global society, aim for business development and the realization of a sustainable society through environmentally conscious corporate activities.

Junya Suzuki
Chairman of the Board, President and CEO
Nissha Co., Ltd.

The Environment Principles

1. We shall honor environmental laws, agreements with local communities, and demands from our customers.
2. We shall promote the reduction of greenhouse gas emissions through working to improve energy efficiency, etc. in order to deal with climate change risks.
3. We shall aim to construct a recycling society through our business activities, from product development and production to sale, etc., reducing the environmental impact of our supply chain overall.
4. We shall construct a management system and promote continuous improvements to suit changes in the business environment.
5. We shall value biodiversity and prevent pollution while co-existing with nature.

Daisuke Inoue
Director of the Board, Senior Executive Vice President, General Affairs
Nissha Co., Ltd.

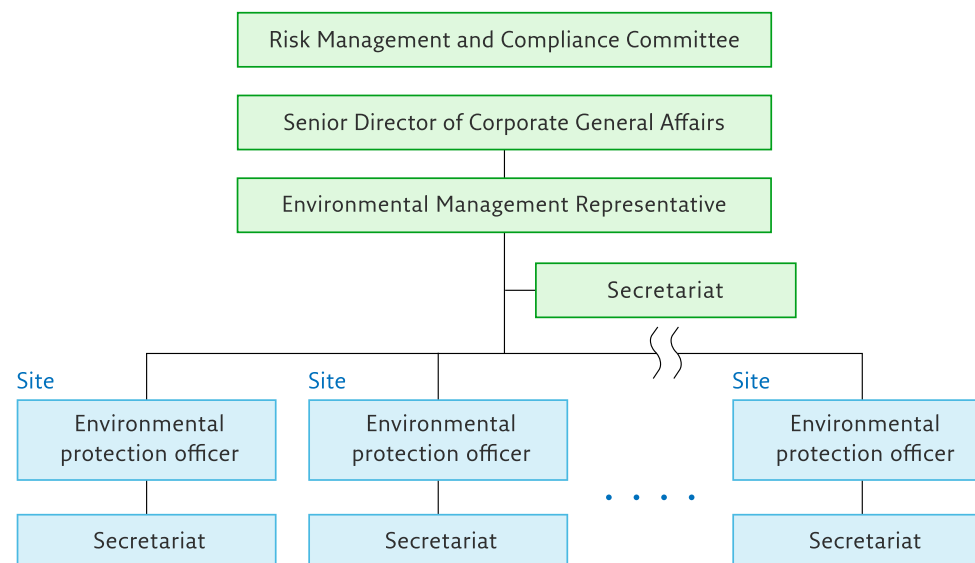
Established on April 1, 2012 / Revised on May 1, 2022

4-2 Management Structures

The Nissha Group deploys our environmental management system in all aspects of our business activities.

Under the Risk Management and Compliance Committee, at Nissha Group in Japan Environmental Management Representative take the core role in creating environmental management systems through the leadership of a senior director of Corporate General Affairs, and Corporate General Affairs of the Head Office serves as the central office for this endeavor. Furthermore, we also create, maintain, and constantly improve systems for compliance with environmental laws and regulations and the RBA (Responsible Business Alliance), which serves as a global code of conduct mainly for the electronics and automobile industries.

Environmental Management Structure



4-3

Environmental Management System (EMS)

The Nissha Group operates its own environmental, health and safety management system based on the ISO14001 environmental management system and the ISO45001 occupational health and safety management system. This system includes compliance with relevant laws and regulations as well as items requested by customers, and we strive for continuous improvement.

Core business locations that have acquired ISO14001 certification implement environmental hazard evaluations (risk assessments). We evaluate the environmental risks that have been identified, set priorities, and reflect the assessment in concrete actions. In addition to setting KPI directly related to business activity, we also strive for environmental performance improvement that interlocks with quality targets, etc. Through these activities, we assess negative risks that impose an undesirable impact on the environment and business and engage in improvement, maintenance, and management aiming to reduce those risks.

In our currently active 7th Medium-term Business Plan (FY2021.12 – FY2023.12), we set medical devices, mobility, sustainable materials, etc. as priority markets, and aim for growth via product lineups and services that contribute to solving social issues. As positive environmental initiatives, our development and product technology divisions set development themes from the perspective of solving social issues such as SDGs and life cycle assessments (LCA), at the product design and development stage. In addition to taking into consideration the reduction of environmental impact, we are promoting development and mass-production of products that contribute to reducing environmental impact, such as sustainable materials.

Moreover, the EMS for the Nissha Group covers all our bases, not only major production bases, but also small production bases and sales bases with little impact on the environment. They are classified into ISO14001-certified bases and noncertified bases and set their priority management items as appropriate. The effectiveness of our EMS has ensured a high level of performance by engaging in confirmation, correction, and improvement through initiatives including once-a-year periodic internal auditing and support for responding to law and regulation revisions. Moreover, the biannual management review report meeting includes confirmation on the response to points stipulated by the Director of the Board, Senior Executive Vice President (responsible for general affairs) and environment management representatives and the sharing of major environmental risks and action examples that may be useful as a reference. As such, it links to continued improvement.

5. Impact on the Environment out of Our Business Operations

In order to manage the impact on the environment out of our business operations, Nissha Group grasps the input of major materials, the amount of waste, the amount of energy and water used, and the amount of exhaust and emissions.

The amount of major raw materials used at the Nissha Group in the fiscal year ended December 2022 was 123,982t, a decrease of approximately 3% from the 127,430t used in the previous fiscal year. Of this amount, 19,114t was used at domestic production bases, a decrease of approximately 17% from the 22,981t used in the previous fiscal year. 104,868t was used at overseas production bases, which is roughly the same amount as the 104,449t used in the previous fiscal year. Overseas production bases account for approximately 85% of the total amount of major raw materials used. Of this amount, the paper used for Nissha Metallizing Solutions' metallized paper products accounted for approximately 73%.

The amount of energy used by the Nissha Group was 250,732MWh of electricity, a decrease of approximately 6% from the 264,973MWh used in the previous fiscal year, and 10,485,000m³ of gas, which is roughly the same as the 10,558,000m³ used in the previous year. From the fiscal year ended December 2020, CO₂ emissions are calculated using the market-based method for bases in Japan and the location-based method for overseas bases.

The overall Nissha Group waste material gross emissions were 27,207t, a decrease of approximately 11% from the 30,587t emitted in the previous fiscal year. In addition, Nissha Group in Japan waste material gross emissions were 13,606t, a decrease of approximately 22% from the 17,465t emitted in the previous fiscal year. The source of the reduction was a decrease in waste material output by Nitec Industries, Inc. (NII) and Nitec Precision and Technologies, Inc. (NPT). The overseas Nissha Group company waste material gross emissions were 13,601t, an increase of approximately 4% from the 13,122t emitted in the previous fiscal year.



INPUT



OUTPUT

Production bases in Japan		
Industrial Materials	PET/acryl film	1,057t
	Solvents	748t
	Gravure ink	705t
	Resin	160t
	Others	106t
Devices	Materials used in product manufacturing processes	11,244t
	Metallic materials	3t
	Resin materials	2t
	Half-finished goods	196t
	Printed circuit board assembly	6t
	Others	900t
Medical Technologies	Product materials	73t
	Resin materials	35t
	PET film	4t
	Aluminum	6t
	Packing materials	33t
Others* ¹	Paper	3,764t
	Ink	40t
	Others	32t
Total for production bases in Japan		19,114t

Overseas production bases		
	Resin/plastic	6,075t
	Film	52t
	Molds and molding materials	113t
	Touch sensors	0t
	Packing materials	116t
	Paper	88,318t
	Cardboards	123t
	Aluminum	1,991t
	Metal	92t
	Chemical substances	6,551t
	Others	1,438t
Total for overseas production bases		104,868t

Total for Nissha Group	123,982t
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Including production bases in Japan and overseas		
Energy	Electricity	250,732MWh
	Gas	10,485,000m ³
Water	Tap water	993,000m ³
	Underground water	49,000m ³
	Industrial water	1,549,000m ³

Production bases in Japan		
Recyclable resources (items sold for recycling)	Waste containing noble metals Metal waste Resin waste Paper waste	4,203t
	Recyclable resources (industrial waste)	9,380t
	Waste plastic Iron scrap, waste cans Waste solvents, waste ink, waste cloth Waste acid, alkali Sludge, others	
Waste for simple incineration/landfill	General business waste Others (industrial waste)	22t
Total for production bases in Japan		13,606t

Overseas production bases		
Recyclable resources (items sold for recycling)	Waste containing noble metals Metal waste Resin waste Paper waste Others	10,904t
	Recyclable resources (industrial waste)	877t
	Non-recyclable waste	1,819t
	Incineration/landfill	
Total for overseas production bases		13,601t

Total for Nissha Group	27,207t
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Including production bases in Japan and overseas		
Emissions	CO ₂	114,691t
	VOC* ²	752t
Wastewater		2,342,000m ³

*2. Detoxified by direct combustion, catalyst deodorization, etc.

*1. Posted as "Information and Communication" until Nissha Sustainability Report 2021

6. Responding to Climate Change (Addressing the TCFD Recommendations)

Nissha Group publicly endorsed the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) in January 2022.

The Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB) at the request of the G20 to examine climate-related disclosures and financial institutions' responses. The TCFD's final report, published in June 2017, recommends that companies take measures to understand and address climate change-related risks and opportunities as a management issue. The need for disclosure in line with the framework of the TCFD recommendations is clearly stated in the June 2021 revision of Japan's Corporate Governance Code and in the January 2023 revisions to the Cabinet Office Ordinance on the Disclosure of Corporate Affairs, and analysis of the financial impact of risks and opportunities related to climate change on business is becoming essential.

Using the framework of the TCFD recommendations, we have analyzed the financial impact of risks and opportunities related to climate change on our business. The details of our analysis are outlined below.



6-1 Governance

The Group has set out where it wants to be in terms of management by 2030 in the form of our Sustainability Vision (long-term vision). We are aiming to create social value by providing products and services that contribute to solving social issues, and to achieve a 30% reduction in total CO₂ emissions in 2030 (compared to 2020) with a view to carbon-neutral by 2050.

The Nissha Group manages its response to climate change by distinguishing between materiality (risks and opportunities related to the realization of our Sustainability Vision), which are material issues for the Group, and general risks (risks related to smooth business operations).

■ Materialities (Key Issues) Management

Materialities (Key Issues) for the Group are risks and opportunities related to the realization of our Sustainability Vision. Materiality is identified through deliberation and resolution by the Board of Directors meetings and managed by the Sustainability Committee which is chaired by the Chairman of the Board, President and CEO and vice-chaired by the Director of the Board, Executive Vice President (Director of ESG Promotion).

The Sustainability Committee receives and confirms quarterly progress reports on targets (KPIs and action items) related to materialities, including responses to climate change, from business organizations, divisions and the ESG Task Force which handles particularly important material issues. Targets are reviewed annually and updated as necessary, and the set targets and their progress are reported at a Board of Directors meeting once a year.

The Board of Directors oversees the activities of the Sustainability Committee, which manages the targets (key performance indicators and action items) related to materialities, discusses reports from the Sustainability Committee, and gives improvement instructions as necessary.

In addition to reporting progress to the Sustainability Committee, the ESG Task Force discusses the company's response to climate change with the Chairman of the Board, President and CEO and the Director of the Board, Executive Vice President (Director of ESG Promotion) on a quarterly basis.

Important strategic and financial decisions concerning our response to climate change are made by the Chairman of the Board, President and CEO within the scope of his authority. In order to make decisions appropriately, the Chairman of the Board, President and CEO and the Director of the Board, Executive Vice President (Director of ESG Promotion) receive information on climate change through study sessions and training by outside experts.

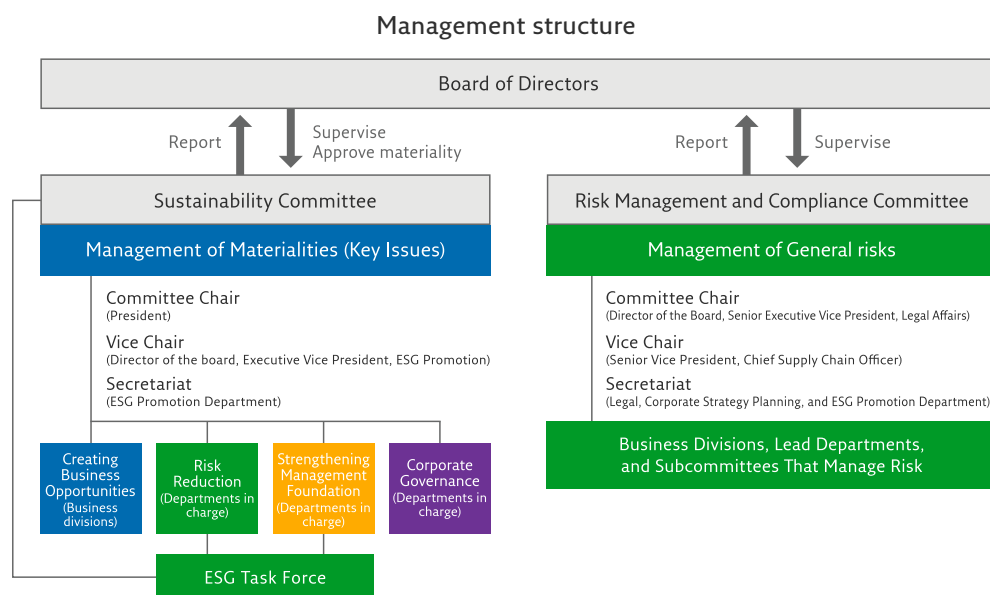
■ General Risks Management

General risks related to smooth business operations are managed by the Risk Management and Compliance Committee, which is chaired by the Director of the Board, Senior Executive Vice President (in charge of legal affairs) and whose members include the Chairman of the Board, President and CEO.

The Risk Management and Compliance Committee manages key risks that are identified, evaluated, and selected from a company-wide perspective. The Committee receives and confirms progress reports from the subcommittees and divisions that manage such risks on a quarterly basis, and reports on its activities to the Board of Directors once a year.

The Board of Directors oversees the activities of the Risk Management and Compliance Committee, discusses reports from the Risk Management and Compliance Committee, and gives improvement instructions as necessary.

The company has selected Business Continuity (natural disasters such as earthquakes, typhoons, and floods) as one of our key risks and includes climate change risk in this category. The Business Continuity Management Subcommittee, which manages such risks, formulates and updates emergency preparedness based on the most recent potential natural disasters and response plans for when a disaster occurs, and reports its activities to the Risk Management and Compliance Committee. The Chairman of the Board, President and CEO and the Director of the Board, Senior Executive Vice President in charge of legal affairs monitor the content of such reports and give instructions as necessary.



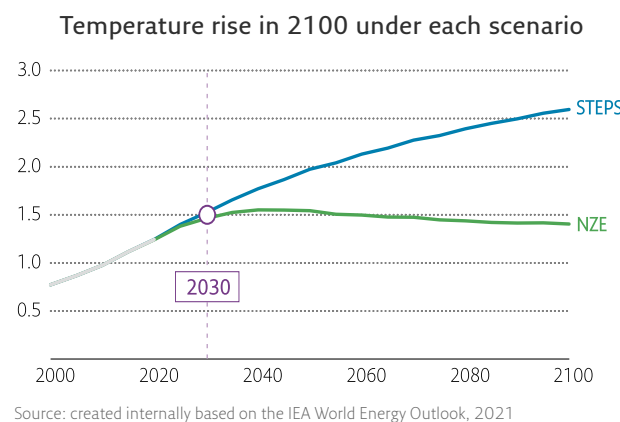
6-2 Strategy

We have conducted a scenario analysis of the impact of future climate change on our business operations, using a range of scenarios of projected environmental change, based on the framework recommended by the TCFD.

For this analysis, of the three main businesses we operate, we have added the Industrial Materials business to the Devices business, which was the target of the previous analysis. We also analyzed the impact of future climate change on our business on a time horizon of 1 to 2 years in the short term, 3 to 5 years in the medium term, and 6 to 10 years in the long term, including the Sustainability Vision, and we considered measures to respond to these impacts.

(1) Scenario analysis assumptions

- Scenario analysis target business: Industrial Materials business and Devices business
- Scenario analysis time horizon: Study transition risks and physical risks and opportunities in the short term (1-2 years), medium term (3-5 years), and long term (6-10 years)
- Assumed scenario: See IEA's Net Zero Emissions by 2050 (NZE)*¹, Stated Policies Scenario (STEPS)*², IPCC's RCP4.5*³ and RCP8.5*⁴, etc. scenarios



*1 NZE: a scenario in which the world decarbonizes and achieves virtually zero CO₂ emissions in 2050. It is called the "1.5 °C scenario" because the average temperature increase as of 2100, compared to pre-industrial times, will be between 1.3 and 1.5 °C.

*2. STEPS: a scenario in which countries implement their stated current specific policies on decarbonization and no additional decarbonization-related policies are introduced. It is called the "3 °C scenario" because the average temperature increase as of 2100, compared to pre-industrial times, will be between 2.4 and 2.8 °C.

*3. RCP4.5: a scenario in which CO₂ emissions peak in 2040 and stable economic development is achieved.

*4. RCP8.5: a scenario in which CO₂ emissions continuously increase and uneven economic development is achieved.



Under the two scenarios referenced from the IEA, we believe that we can visualize many climate change-related risks and opportunities by using the 1.5° C scenario in which regulations are tightened and zero CO₂ emissions are achieved by 2050, and the 3° C scenario in which no additional policies are introduced and climate change measures do not progress.

(2) Scenario analysis process

Scenario analysis was conducted using the following process:

- (i) Consider significant climate-related risks and opportunities for the Industrial Materials business and the Devices business
- (ii) Consider and create scenarios as preconditions for evaluation
- (iii) Assess risks and opportunities based on the scenarios
(Risks and opportunities are assessed by calculating and evaluating the "financial impact" as of 2030 using the parameters in each scenario, and the results are described below as "magnitude of risk" and "magnitude of the opportunity.")
- (iv) Consider countermeasures

(3) Results of risk analysis

Our transition and physical risks related to climate change, and the magnitude of the risks in each scenario, as well as our response to these risks are analyzed and considered as shown in the table below for the set time horizon.

Based on this analysis, we have concluded that there are no significant and difficult-to-address risks related to climate change in our Industrial Materials and Devices businesses at this time. The following climate change risks are applicable to both businesses and will have a relatively large impact on our business.

[Transition risks]

- (i) Increase in production and countermeasure costs due to carbon taxation on CO₂ emissions (1.5° C scenario)
- (ii) Increase in the cost of procuring raw materials needed to produce products due to the carbon taxes (1.5° C scenario)

As a measure to address (i), we are promoting the switch to renewable energy sources at our production bases. At our production bases in Japan, the switch to only using renewable energy for electricity

was completed in January 2022 at the Nitec Industries, Inc. Koka Factory, which is the production base for the Industrial Materials business, while Nitec Precision and Technologies, Inc. plans to switch to only using renewable energy source by the end of the fiscal year ending December 2023 for electricity at its Kaga and Himeji factories, which are the production bases for the Devices business. At overseas bases, since 2018, Nissha (Kunshan) Precision IMD Mold Co., Ltd. (China), a production base for the Industrial Materials business, has continued to generate solar power, and Nissha Metallizing Solutions (Belgium) has replaced part of its electricity with solar and wind power at its production bases. Other measures include reducing power consumption by streamlining production and saving energy in production and infrastructure facilities. We will continue to promote measures while verifying the cost and effectiveness of such measures.

As a measure to address (ii), in the Industrial Materials business, we are investigating technological trends, examining the use of biomass PET and other biomass plastics and recycled plastics, and developing products to reduce the use of virgin plastics.

[Physical risks]

No physical risks have been identified at this stage.

We have taken measures to address risks in the Industrial Materials and Devices businesses that have a relatively large impact with respect to climate change and we believe that the businesses are resilient to climate change.

We will continue to monitor trends in the business environment under the 1.5° C and 3° C scenarios and develop our business strategically.

Results of risk analysis

Type	Changes in the external environment	Target business	Time horizon	Risks to Nissha	Risk magnitude ^{*1,2}		Countermeasures
					3℃	1.5℃	
Transition risk	Policies/laws and regulations	Industrial Materials business Devices business	Medium to long-term	Increase in production and countermeasure costs due to carbon taxation on CO ₂ emissions	-	Medium	<ul style="list-style-type: none"> Switch to renewable energy sources at production sites Introduce energy-saving production equipment
				Increase in the cost of procuring raw materials needed to produce products due to the carbon taxes	-	Medium	<ul style="list-style-type: none"> Study the use of biomass plastic and recycled plastic as low-carbon materials, research technological trends and develop products
		Industrial Materials business Devices business	Medium to long-term	Increase in electricity procurement costs due to switch to renewable energy sources for electricity and soaring levies, etc.	Small	Small	<ul style="list-style-type: none"> Introduce energy-saving production equipment Reduce electricity consumption
				Cost of reducing CO ₂ emissions in logistics (procurement and shipping) increases	-	Small	<ul style="list-style-type: none"> Study trends in the logistics industry and consider shifting to transportation methods that emit less CO₂
	Industries and Markets	Industrial Materials business	Medium to long-term	Increase in the cost of procuring raw materials needed to produce products due to the progression of plastics-related regulations	-	Small	<ul style="list-style-type: none"> Study the use of biomass plastic and recycled plastic as low-carbon materials, research technological trends and develop products Further promote the development of the ecosense molding brand of sustainable molded products oriented toward the elimination and reduction of plastic, and increase the sales ratio of sustainable materials
		Devices business	Medium to long-term	Restrictions on use of specified CFCs and their substitutes used at production bases increase capital investment costs	Small	Medium	<ul style="list-style-type: none"> Research technology trends to enable compliance with CFC regulations
		Industrial Materials business	Medium to long-term	Increase in petrochemical material costs due to changes in crude oil demand	Medium	-	<ul style="list-style-type: none"> Study the use of biomass plastic and recycled plastic as low-carbon materials, research technological trends and develop products
	Technologies	Industrial Materials business	Short to long-term	Increase in raw material costs due to increased use of reprocessed plastic	-	Small	<ul style="list-style-type: none"> Further promote the development of the ecosense molding brand of sustainable molded products oriented toward the elimination and reduction of plastic, and increase the sales ratio of sustainable materials
		Industrial Materials business	Short to long-term	Decrease in sales opportunities for EV-related products due to changes in market structure	Small	-	<ul style="list-style-type: none"> Promote product development and enhance production facilities in response to market trends for next-generation vehicles other than Evs
		Devices business	Short to medium-term	Net sales decline due to lost business opportunities caused by insufficient responses to customer requests	Small	Medium	<ul style="list-style-type: none"> Conserve energy through improved productivity and reduce CO₂ emissions through switch to renewable energy
	Reputation	Devices business	Short to medium-term	ESG assessment declines due to delays in addressing climate-related issues, and we are not chosen as a supplier resulting in a decline in net sales	-	Small	<ul style="list-style-type: none"> Enhance climate change initiatives and disclose information appropriately
				Costs increase due to replacing product packaging materials	Small	-	<ul style="list-style-type: none"> Investigate alternative materials that can reduce costs while maintaining the quality of packaging materials
Physical risks	Acute	Industrial Materials business Devices business	Short to long-term	Net sales fall due to substituting our products for low-carbon products made by other companies	Medium	Medium	<ul style="list-style-type: none"> Develop low-carbon products with lower environmental impact
				Net sales decline due to lost business opportunities resulting from delays in the development of low-carbon technologies	Medium	Medium	<ul style="list-style-type: none"> Promote the development of low-carbon technologies
Physical risks	Chronic	Industrial Materials business Devices business	Short to long-term	Decline in net sales due to production delays or suspensions resulting from damage to production bases, and incidence of repair costs due to damage to company assets such as buildings, facilities, and inventory	-	Small	<ul style="list-style-type: none"> Enhance climate change initiatives and disclose information appropriately
				Decline in the company's net sales due to the impact of the suspension of the supply of raw materials and parts due to disasters at suppliers	Small	Small	<ul style="list-style-type: none"> Improve and strengthen BCP, and establish a system to support affected sites Build a supply chain for stable procurement, including multi-company purchasing and outsourced production of raw materials at multiple factories and lines

*1. Risk magnitude evaluation horizon: Annual decrease in net sales large: 20 billion yen or more, medium: 5 to 20 billion yen, small: less than 5 billion yen, annual decrease in profit: large: 3 billion yen or more, medium: 1 to 3 billion yen, small: less than 1 billion yen

*2. Scenarios in which no risks are incurred are indicated with a "-"

*3. Physical risks are evaluated by considering the degree of financial impact and frequency of occurrence

(4) Results of opportunity analysis

Based on our awareness that solving social issues related to climate change will create our business opportunities, we have analyzed and examined the magnitude of the opportunities in each scenario and our response to these opportunities in the time horizon we have set, as shown in the table below.

The following climate change opportunities are applicable to the Industrial Materials business or the Devices business and will have a relatively large impact on our business.

- (i) Increase in demand for products that contribute to reductions in GHG emissions (both 1.5° C and 3° C scenarios)
- (ii) Increase in sales opportunities for EV-related products due to changes in market structure (1.5° C scenario)

As a measure to address (i), the Industrial Materials business aims to expand sales of existing decorative films and molded products for mobility and consumer electrical appliances. The Nissha Group's decorative films and molded products contribute to the reduction and control of GHG emissions by adding patterns and functions at the same time they are molded to eliminate the need for secondary decoration processes after molding, as well as by building an optimal supply chain for customers from seven molding bases located around the world. We also aim to create products with even lower

environmental impact by undertaking recyclability studies and conducting Life Cycle Assessments (LCA) for each product to quantitatively evaluate the environmental impact.

In the Devices business, we are aiming to expand sales of gas sensor modules that can detect next-generation refrigerants produced by Nissha FIS. Although the next-generation refrigerants used in air conditioning and refrigeration units today have low ozone depletion potential, leak detection is necessary as they are mildly flammable and have an extremely high greenhouse effect. We believe that our Group's gas sensors can contribute to both safety and the prevention of global warming, and we aim to increase our net sales by expanding our sales region to include North America and other overseas markets.

As a measure to address (ii), we have identified the expansion of products targeting the mobility market as one of the priority markets for achieving our Sustainability Vision, and we are working to enhance EV-related products as a measure to address climate change.

The Industrial Materials business aims to expand sales of exterior decorative and functional products. For EVs that do not require engine cooling, there is a growing need to decorate the front as a vehicle face design to replace the front grille, as well as a need to add functions to ensure the proper operation of automatic driving radars in this area.

Results of opportunity analysis

Type	Changes into the external environment	Target business	Time horizon	Opportunities to Nissha	Opportunity magnitude ^{*1,2}		Countermeasures
					3℃	1.5℃	
Policies/laws and regulations	Carbon price Changes in national carbon emission targets and policies	Industrial Materials business Devices business	Medium to long-term	Expansion of demand for products that contribute to GHG emission reductions	Medium	Medium	- Develop and expand sales of products that contribute to GHG emission reductions (highly recyclable decorative film moldings, gas sensor modules for refrigerant detection, etc.)
		Industrial Materials business	Medium to long-term	Increase in sales opportunities for plant-derived sustainable molded products due to the progression of plastics-related regulations	-	Small	- Further promote the development of the ecosense molding brand of sustainable molded products oriented toward the elimination and reduction of plastic, and increase the sales ratio of sustainable materials
Industries and Markets	Increase in EV sales	Industrial Materials business Devices business	Short to long-term	Increase in sales opportunities for gas sensor modules for refrigerant detection ^{*3} that contribute to reducing GHG emissions	Small	Small	- Develop and expand the sale of new products for EVs (decorative film molded products and functional products for exteriors, touch sensors, etc.)
	Fluctuations in raw material prices	Industrial Materials business	Medium to long-term	Increase in sales opportunities due to increased demand for sustainable molded products as a result of the lower costs of plant-derived plastics	-	Small	- Further promote the development of the ecosense molding brand of sustainable molded products oriented toward the elimination and reduction of plastic, and increase the sales ratio of sustainable materials
	Arrival of a hydrogen-based society	Devices business	Medium-term	Demand for Fuel Cell Vehicles (FCVs) expands	Small	Small	- Develop and expand sales of products for the mobility market (such as hydrogen detectors) that contribute to reducing our environmental impact

*1. Opportunity magnitude evaluation horizon: Annual increase in net sales large: 20 billion yen or more, medium: 5 to 20 billion yen, small: less than 5 billion yen, annual increase in profit: large: 3 billion yen or more, medium: 1 to 3 billion yen, small: less than 1 billion yen

*2. Scenarios in which no opportunities are incurred are indicated with a "-"

The Devices business aims to expand sales of touch sensors for curved surfaces and large displays. Our touch sensors are made from film-based material which provides high visibility and a narrow frame while being thin, light, unbreakable, and bendable. In line with the growing demand for designs for next-generation vehicles, a variety of touch sensors that leverage these features are required for EVs.

We aim to expand net sales by developing new products that meet these EV needs to expand our product lineup.

We intend to reflect our scenario analysis results in our business strategy, such as the growing demand for products that contribute to reducing GHG emissions and the expanding EV market.







6-3 Risk Management

The Nissha Group manages its climate change risks by distinguishing between materialities (risks and opportunities related to the realization of the Group’s sustainability vision), which are key issues for the Group, and general risks (risks related to smooth business operations) and by the Sustainability Committee and the Risk Management and Compliance Committee assessing and managing each of these risks in accordance with the following process.

■ Risk Management by the Sustainability Committee

To realize our Sustainability Vision (long-term vision), we have identified items of particular importance as materialities, which we are working on by setting specific strategic items, key performance indicators, and action items backcasting from 2030 as a starting point. Materialities are evaluated from the perspectives of creating business opportunities, risk reduction, strengthening management foundations, and corporate governance using the two axes of “importance to society and stakeholders”, and “importance to Nissha”. The identified issues and their position within the Group are prioritized by the Sustainability Committee, and identified through deliberations and resolutions by the Board of Directors.

We have identified the following material issues relating to climate change from the perspectives of risk reduction and creating business opportunities.

	Materiality	Related SDGs
Risk reduction	Responding to climate change	
Creating business opportunities	Contribute to the safety and comfort of transportation and logistics, and the reduction of environmental impact	 
	Promotion of circular economy	  

The ESG Task Force is responsible for activities related to risk reduction. The ESG Task Force works based on key performance indicators and action items approved by the Sustainability Committee and reports the state of its activities to the Sustainability Committee on a quarterly basis.

Activities related to creating business opportunities are handled by the business organization. The business organization reports to the Chairman of the Board, President and CEO at monthly meetings (business reviews), at which the Chairman of the Board, President and CEO confirms the progress of business strategies based on key performance indicators and gives instructions on necessary action.

The Sustainability Committee reports its activities annually to the Board of Directors, and the Board of Directors utilizes the contents of the report to formulate the Medium-term Business Plan and Rolling Plan.

Refer to 3-3 Promotion Framework for Sustainability / 3-4 Materialities (Key Issues) and KPIs

■ Risk Management by the Risk Management and Compliance Committee

We select risks by carrying out risk assessments over the entire Group and selecting from both a business activity perspective and a company-wide perspective. From the business activity perspective, hearings were held with each business unit and subsidiary, in addition to the relevant subcommittees, and assessments were made in line with business activities. Then, assessing them from a company-wide perspective in order to work to integrate the risks selected from a business activities

perspective with management strategies, the important risks (including climate change risks) are selected at a general meeting held once a year.

Risk Assessments

(1) Target risks

- Cross-group risks including compliance risks
Refer to 28-4 Risk Assessments

(2) Selection process for key risks

The following process is used by the Risk Management and Compliance Committee to select key risks.

- For the above cross-group risks, the high-value risks calculated using the "probability of occurrence" and "impact when it occurs" horizons are considered the "inherent risks".
- In addition, the "effectiveness of control activities" is evaluated, and risks with low "effectiveness of control activities" with respect to "inherent risks" are selected as key risks.

(3) Management method

- Key risks (low "effectiveness of control activities" with respect to "inherent risks"): The lead department or subcommittee establishes key performance indicators and action items, and the Risk Management and Compliance Committee confirms progress (business risks are led by the business organization and confirmed by business reviews and other means).
- High "effectiveness of control activities" with respect to "inherent risks": Subject to monitoring and the Risk Management and Compliance Committee confirms the status of maintenance and operation by the lead department or subcommittee.
- Cross-group risks other than "inherent risks": Managed by the business organization and lead department, and reported at the Monthly Business Review (MBR).

The company has selected Business Continuity (natural disasters such as earthquakes, typhoons, and floods) as one of our key risks and includes climate change risk in this category.

As a measure to address risks, a "Business Continuity Plan" has been formulated to prepare for and respond to natural disasters and emergencies should they occur, and the plan is promoted by the Business

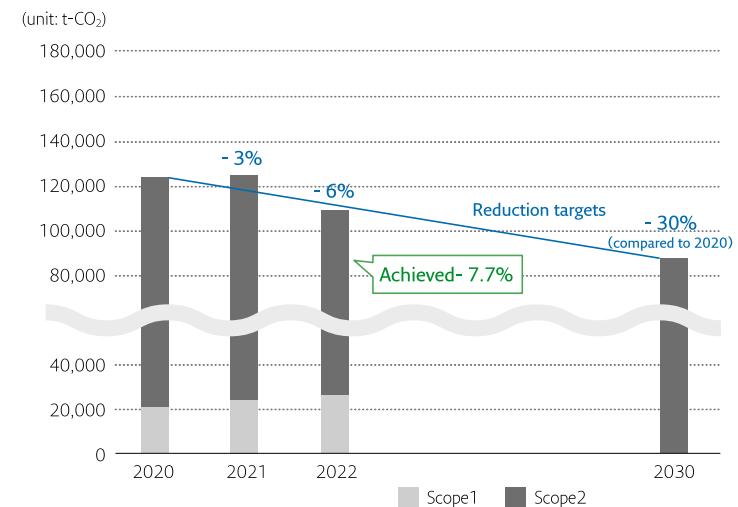
Continuity Management Subcommittee of the Risk Management and Compliance Committee. The Business Continuity Management Subcommittee, which manages such risks, works to mitigate risks based on KPIs and action items approved by the Risk Management and Compliance Committee, and reports the state of its activities to the Risk Management and Compliance Committee.

6-4 Indicators and Targets

We have defined total CO₂ emissions as an indicator for assessing and managing risks related to climate change. Our Sustainability Vision aims for a 30% reduction in CO₂ emissions in 2030 (compared to 2020), with a view to achieving carbon neutrality by 2050.

In the next fiscal year and beyond, we will consider establishing and publishing indicators and targets to assess and manage climate change-related business opportunities.

The Nissha Group's CO₂ Emissions Reduction Target and Results (Scope1 and 2)



* We are in the process of calculating Scope 3 for initiatives to set future reduction targets and reduction efforts, and have disclosed the emissions that we have been able to calculate for the fiscal year ended December 2022. We will continue to work on expanding the scope of these calculations.

The Nissha Group views sustainability as an initiative toward the achievement of sustainable growth and development for both the company and society. To achieve sustainability, we consider social issues to be business opportunities. It is important not only that we leverage our strengths to provide products and services that help resolve social issues on an ongoing basis, but also that we strengthen the management foundation underpinning our business activities, reduce risks that could hamper business continuance, and promote governance to ensure these are all carried out appropriately.

Addressing climate change is positioned as one of the most important of the many social issues, and we believe that contributing to resolving this issue through our business activities will provide enormous business opportunities for the Group. Meanwhile, although the transition and physical risks associated with climate change are important, we believe that their impact on our finances will be limited if sufficient measures are taken to address the risks we have identified through our analysis.

Our analysis based on the TCFD recommendations was conducted on the Industrial Materials business and Devices businesses. In the next fiscal year, we will continue to analyze our three core businesses, including the Medical Technologies business.

7. CO₂ Emissions and Reduction Efforts

7-1 CO₂ Emissions Reduction Target

The move around the world towards a decarbonized society in an effort to reduce global greenhouse gases is progressing in response to the Paris Agreement. At the 26th Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) which was held in Glasgow, UK, from October to November 2021, the parties agreed on a target to limit the average global temperature rise to below 1.5° C compared to pre-industrial levels (1.5° C target). In response, companies are required to set medium- to long-term GHG emission reduction targets consistent with the level required by the 1.5° C target to work towards the 2050 net-zero target, and to disclose information appropriately.

In addition, at the G7 Climate, Energy, and Environment Ministers Communiqué in April 2023, various agendas were discussed, including a commitment by the G7 to take leadership to achieve the 1.5° C target and scale-up action against the effects of climate change.

Nissha Group regards addressing climate change as one of its most important management issues. Our Sustainability Vision (long-term vision) aims for a 30% reduction in CO₂ emissions in 2030 (compared to 2020) with a view to achieving carbon neutrality by 2050.

As a specific activity to realize our Sustainability Vision, we have established and are promoting a task force under the Sustainability Committee on the theme of addressing climate change. The Sustainability Committee is chaired by the Chairman of the Board, President and CEO. The task force is working to reduce our Scope 1 and Scope 2 CO₂ emissions by 3% per year, and to identify Scope 3 categories and calculate CO₂ emissions in our supply chain.

The Group will promote these initiatives on a global basis, while monitoring global trends relating to the reduction of CO₂ emissions, with an eye to introducing even more ambitious targets.

7-2 Summary of Emission

	Energy type	Reference year (FY2020)	FY2021	FY2022		Average over the 3 years
		Emission (t-CO ₂)	Emission (t-CO ₂)	Emission (t-CO ₂)	Comparison with the reference year (%)	Emission (t-CO ₂)
Scope 1	Mains gas	20,853	24,196	28,435	36.4	24,495
Scope 2	Electricity	103,351	101,048	86,255	-16.5	96,885
Total		124,204	125,244	114,691	-7.7	121,380

The Group's CO₂ emissions are characterized by the ratio of Scope 2 emissions being significantly higher than the ratio of Scope 1 emissions.

In the fiscal year ended December 2022, CO₂ emissions decreased by 8.4% compared to the previous fiscal year due to the introduction of renewable electricity at the Nitec Industries, Inc. (NII) Koka Factory and a decrease in electricity consumption at the Nitec Precision and Technologies (NPT) Himeji Factory and Kaga Factory, as demand for tablet products entered an adjustment phase.

Refer to 8. Third Party Verification

The above total CO₂ emissions for the fiscal year ended December 2022 of 114,691 (t-CO₂) includes 4,121 (t-CO₂) of CO₂ emissions as a result of chemical reactions. CO₂ emissions as a result of chemical reactions were discovered at NII (Koka Factory), Nissha Metallizing Solutions GmbH (Germany), and Nissha Metallizing Solutions N.V. (Belgium). We will continue to monitor CO₂ emissions as a result of chemical reactions.

7-3 Trends in CO₂ Emissions and Energy Consumption, etc.

The Nissha Group's CO₂ emissions and energy consumption are shown below. The totals obtained by multiplying the individual consumption of fuels such as electricity, gas, gasoline, diesel, and heavy oil with the specified factors are Nissha's energy consumption levels. The figures obtained by multiplying energy consumption by the CO₂ emission factors are the CO₂ emissions of the Group.

Nissha Group emits almost no energy-related greenhouse gases other than CO₂, and its impact is minimal.

About the following tables

- CO₂ emission factors for electricity are calculated based on data calculated using the market-based method for Japan and the location-based method for overseas.
- The company names listed in the tables are as follows.
Nissha and others: Nissha Co., Ltd. and affiliated companies
NII: Nitec Industries, Inc.
NPT: Nitec Precision and Technologies, Inc.
NCI: Nissha Printing Communications, Inc.

CO₂ Emissions Volumes and Basic Unit

(unit: t-CO₂, excluding basic unit)

Company	FY2020	FY2021	FY2022
Nissha and others	3,721	3,925	4,249
NII	11,507	13,253	6,835
NPT	69,572	65,604	53,056
NCI	770	870	666
Overseas production bases	38,634	41,592	49,885
Total	124,204	125,244	114,691
Basic Unit*	0.69	0.66	0.59

*CO₂ emissions / Net sales (Millions of JPY)

Energy Consumption and Basic Unit

(unit: 1,000GJ, excluding basic unit)

Company	FY2020	FY2021	FY2022
Nissha and others	102	104	124
NII	271	322	134
NPT	1,603	1,590	1,327
NCI	23	25	21
Overseas production bases	967	1,084	1,055
Total	2,966	3,124	2,662
Basic Unit*	0.0165	0.0165	0.0137

*Energy consumption (1,000GJ) / Net sales (Millions of JPY)

Electricity Consumption

(unit: MWh)

Company	FY2020	FY2021	FY2022
Nissha and others	9,002	9,090	11,590
NII	17,633	19,300	18,559
NPT	154,259	151,635	126,056
NCI	2,306	2,463	2,130
Overseas production bases	74,264	82,485	92,397
Total	257,464	264,973	250,732

Gas Consumption

(unit: 1,000m³)

Company	FY2020	FY2021	FY2022
Nissha and others	220	244	195
NII	2,506	2,891	2,571
NPT	1,441	1,729	2,015
NCI	0	0	0
Overseas production bases	4,919	5,694	5,703
Total	9,085	10,558	10,485

Gasoline, Diesel, and Heavy Oil Consumption

(unit: kl)

Company	FY2020	FY2021	FY2022
Nissha and others	54	48	39
NII	6	8	10
NPT	12	11	10
NCI	0	2	2
Overseas production bases	133	151	147
Total	205	220	207

7-4 Emissions Reduction Efforts

As a measure to reduce CO₂ emissions from electricity use, the Nissha Group in Japan has switched all of the electricity used at the NII Koka Factory, a production base for the Industrial Materials business, to renewable energy sources in January 2022 and part of the electricity used at the NPT Kaga Factory, a production base for the Devices business, to renewable energy sources in September 2022. We plan to switch to 100% renewable energy sources for electricity used at the NPT Kaga and Himeji factories by the end of 2023.

At overseas bases, since 2018, Nissha (Kunshan) Precision IMD Mold Co., Ltd. (China), an Industrial Materials business unit production base, has continued to generate solar power, and Nissha Metallizing Solutions N.V. (Belgium) replaced part of its electricity with wind power at its production bases. Nissha Metallizing Solutions S.r.l. (Italy) introduced solar power generation in 2022 and a cogeneration system* in 2023, and is generating electricity through gas combustion and effectively using the waste heat generated to produce hot and cold water.

In addition, we are switching to LED lighting and upgrading aging facilities with energy-efficient equipment to contain electricity consumption.

* A power generation and supply system that produces electricity and heat simultaneously powered by just one primary energy source like gas. All the thermal energy produced by combustion is reused for water heating, air conditioning, and other purposes.

7-5 Basic Unit Management of Energy Consumed in Production

In addition to monitoring and managing energy consumption per corporate unit as required by the Act on the Rational Use of Energy, the Group's domestic production bases have been conducting basic unit management of energy consumed in production since the fiscal year ended March 2014, aiming to improve the efficiency of energy use.

The actual basic unit for each production base in the fiscal year ended December 2021 was set at 1.00, and the target for 2022 was set at 0.99 or less, based on this. The results were as follows.

NII Koka Factory switched to 100% renewable energy and substantially exceeded its target. NCI worked to improve efficiency and achieved 0.99 or less compared to the previous fiscal year's results. The Nissha Global Headquarters failed to meet its target due to an increase in electricity consumption, while the NPT Himeji Factory and NPT Kaga Factory failed to meet their targets due to a deterioration in basic unit energy consumption.

Company	Basic unit (based on production volume etc.)			FY2022 evaluation
	FY2021 results	FY2022 target	FY2022 results	
Nissha (Headquarters)	1.00	0.99 or less	1.06	×
NII Koka Factory	1.00	0.99 or less	0.60	○
NPT Himeji Factory	1.00	0.99 or less	1.20	×
NPT Kaga Factory	1.00	0.99 or less	1.69	×
NCI	1.00	0.99 or less	0.92	○

7-6 Initiative in Scope^{*1}3 Management

In the fiscal year ended December 2022, the ESG Task Force (on climate change) took the lead in reaffirming the applicability of Scope 3 for each category. As a result, as shown in the following table, we confirmed that Scope 3 applies to 9 categories, and that Scope 3 is currently*² expected to exceed 40% of the total of Scope 1, 2, and 3.

Categories 1, 4, 6, 7, and 11 were subjected to third party verification by DNV Business Assurance Japan K.K.

(unit:t-CO₂)

Scope 3 Category		Coverage	
		Domestic	Overseas
1	Purchased goods and services	50,616	Under investigation
2	Capital goods		17,126
3	Fuel and energy-related activities (not included in Scope 1, 2)		15,684
4	Upstream transportation and distribution of purchased products* ³	4,272	6,824
	Upstream transportation and distribution of shipments* ⁴	7,398	Under investigation
5	Waste generated in operations		4,462
6	Business travel	579	Under investigation
7	Employee commuting	2,261	Under investigation
11	Use of sold products		7,739
12	End of life treatment of sold products	535	Under investigation
Total			117,496

*Figures in **bold** have been certified by a third party

Refer to 8. Third Party Verification

*1. Scope: Scope of greenhouse gas (GHG) calculation. The following three are shown.

Scope 1: Direct GHG emissions from sources owned or controlled by the company.

Scope 2: Indirect GHG emissions through consumption of electricity, steam, or heat.

Scope 3: Indirect emissions other than those in Scope 2.

*2. as of June 30, 2023

*3. Distribution of upstream major domestic material suppliers' raw materials to the point of delivery

*4. Logistics of major upstream domestic suppliers' products and raw materials to the point of delivery

7-7 Coverage and Calculation Method of CO₂ Emission Calculation

■ Scope 1, 2

Coverage	<ul style="list-style-type: none"> Nissha Co., Ltd. Nitec Industries, Inc. Nitec Precision and Technologies, Inc. Nissha Printing Communications, Inc. Nissha FIS, Inc. Nissha Business Service, Inc. Zonnebodo Pharmaceutical Co., Ltd. Nissha Eimo Technologies Nissha PMX Technologies, S.A. de C.V. Nissha Medical Technologies Lead-Lok, Inc. CEA Global Dominicana, S.R.L. CEA Medical Manufacturing, Inc. Nissha Medical Technologies Ltd. 	<ul style="list-style-type: none"> Nissha Medical Technologies SAS Nissha Schuster Kunststofftechnik Nissha Back Stickers Nissha Back Stickers International Nissha Metallizing Solutions N.V. Nissha Metallizing Solutions S.r.l. Nissha Metallizing Solutions Ltd. Nissha Metallizing Solutions Produtos Metalizados Ltda Nissha Metallizing Solutions GmbH Nissha (Kunshan) Precision IMD Mold Co., Ltd. Guangzhou Nissha High Precision Plastics Co., Ltd. Nissha Precision Technologies Malaysia Sdn. Bhd. Nissha SB Poland
Calculation method	<p>Calculated based on Ministry of the Environment "Greenhouse Gas Emissions Calculation Report Manual (Ver.4.7)" (CO₂ emission factors)</p> <p>CO₂ emissions associated with the fuel use: Emission factor based on the Act on Promotion of Global Warming Countermeasures</p> <p>CO₂ emissions associated with power purchase: Emission factor based on the market-based method for domestic bases and the location-based method for overseas bases</p>	

■ Scope 3

Category1. CO₂ emissions from major domestic material suppliers

Coverage	Major domestic / overseas suppliers at Nissha Group in Japan (39 companies)
Calculation method	CO ₂ emissions per product or supplier electricity and fuel consumption x emission factor x sales ratio

The verified 50,616t-CO₂ emissions are from 39 key suppliers of Nissha Group in Japan, from whom we purchase 73% of all our purchases.

Since the Nissha Group has approximately 8,000 suppliers globally, monitoring the emissions of all suppliers is a challenge.

Category4. CO₂ emissions from distribution of upstream major domestic material suppliers

Coverage	Major domestic / overseas suppliers at Nissha Group in Japan (23 companies)
Calculation method	Total CO ₂ emissions of suppliers calculated using either the ton-kilometer method, fuel consumption method, or fuel method

The verified 4,272t-CO₂ emissions are from 23 key suppliers of Nissha Group in Japan, from whom we purchase 58% of all our purchases. The ESG Task Force plays a central role in conducting studies to achieve 100% coverage in the future.

Category 4. CO₂ emissions from logistics of major upstream domestic suppliers

Coverage	Logistics suppliers (31 companies)
Calculation method	Sum up domestic transportation: based on the Fuel Economy Law and overseas transportation: CO ₂ emissions from Global Logistics Emissions Council (GLEC) Framework for Logistics Emissions Accounting and Reporting Version 2.0

The verified 7,398t-CO₂ emissions are from 31 major upstream logistics suppliers to the Nissha Group in Japan, from whom we purchase 93% of all our purchases. The ESG Task Force plays a central role in conducting studies to achieve 100% coverage in the future.

Category 6, 7. CO₂ emissions associated with business travel and employee commuting

Coverage	<ul style="list-style-type: none"> Nissha Co., Ltd. Nitec Industries, Inc. Nitec Precision and Technologies, Inc. Nissha Printing Communications, Inc. Nissha F8, Inc. M crossing Co., Ltd. Nissha FIS, Inc. Nissha Business Service, Inc. Zonnebodo Pharmaceutical Co., Ltd. (commuting only)
Calculation method	Calculated based on; Ministry of the Environment/Ministry of Economy, Trade and Industry "Basic Guidelines for Calculating Greenhouse Gas Emissions Through the Supply Chain (Ver.2.4)" Ministry of the Environment "Calculation intensity database for calculating greenhouse gas emissions of organizations through the supply chain (Ver.3.2)"

Category 11. CO₂ emissions from use of sold products


Coverage	Gas sensors provided by Nissha FIS, Inc. (21 types)
Calculation method	Calculated by electricity consumption × product life × annual sales × emission factor

The verified 7,739 t-CO₂ emissions cover all the products produced (or products sold) by the Nissha Group. Among the Group's products, the gas sensor range, which are active devices, fall under Category 11, while other products do not fall under this category. As a result, the gas sensor range emissions are calculated and are subject to verifications.

* Calculations of CO₂ emissions are subject to inherent uncertainty due to, for example, incomplete scientific knowledge used to determine emission factors and numerical data.

8. Third Party Verification

The Nissha Group has received a verification statement from DNV Business Assurance Japan K.K. on the accuracy of the CO₂ emissions data contained in this report in order to improve the reliability of our environmental performance data.



VERIFICATION STATEMENT

Project ID: PRJN- 499957-2023-AST-JPN Page 1 of 2

Nissha Co., Ltd.

< Verification Objectives >
 DNV Business Assurance Japan K.K. (hereinafter referred to as "DNV") has been commissioned by Nissha Co., Ltd. (hereinafter referred to as "the Organization") to perform an independent verification of the greenhouse gas emissions and energy consumption (hereinafter referred to as "GHG emissions and others") reported in the "Nissha Sustainability Report 2023" (hereinafter referred to as "the Report") prepared by the Organization. The objective of this verification is to confirm that the GHG emissions and others claimed by the Organization have been calculated and reported appropriately based on the calculation standards, and to express an independent opinion.


< Verification Scope >
 The scope of this verification is Scope 1+ Scope 2 emissions and related energy consumption (locations in and outside Japan), and Category 1,4,6,7 (locations in Japan only) and 11 (all-group companies) of Scope 3 emissions for the Organization and its all-group companies, in Fiscal Year 2022.


< Calculation and Verification criteria >
 The criteria for calculating and reporting GHG emissions and others to be verified are the calculation and reporting procedures for environmental performance data established by the Organization, the Manual for Calculating and Ministry of the Environment, Japan "Reporting Greenhouse Gas Emissions (Ver.4.9)", and Ministry of the Environment, Ministry of Economy, Trade and Industry, Japan "Basic Guidelines for Calculating Greenhouse Gas Emissions through the Supply Chain (ver.2.5)." The criterion for verification is ISO 14064-3:2019.


< Verification Process and Methodology >
 The reviews of the GHG emissions and others calculation results, relevant documentation and records, and subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfillment of stated criteria.

< Verification Statement >
 It is DNV's opinion that with a limited level of assurance, nothing has come to our attention which causes us to believe that the claims of the GHG emissions were not accurately reflected in the Report, in accordance with the verification criteria identified as stated above. In addition, as an independent third party, DNV has no financial dependencies on the Organization at the group level, not limited to this verification work.


Place and date: Kobe, Japan, 06 June 2023
 DNV BUSINESS ASSURANCE JAPAN K.K.


 Koichiro Tanabe
 Lead verifier


 Tsuyoshi Katori
 Technical reviewer


 Naoki Maeda
 Managing Director

This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.
 DNV Business Assurance Japan K.K. Sannomiyas Bldg, South 11th Floor, 7-1-15, Goto-cho, Chuo-ku, Kobe 651-0087



VERIFICATION STATEMENT

Page 2 of 2

< Period Covered by Calculation >
 The period covered by GHG emissions verification is from 1 January 2022 through 31 December 2022.

< Organization Boundary of Verification >
☒ Management Control ☐ Equity Share ☐ Others

< Type of GHGs Verified >
☒ CO₂ ☐ CH₄ ☐ N₂O ☐ HFCs ☐ PFCs ☐ SF₆ ☐ NF₃

< Amount of GHG emissions and others Verified >
 DNV's opinion is that GHG emissions and others are real, transparent, and measurable. The reported values below are fully covered by the verification.

■ Total amount of Scope 1 & 2 emissions (locations in and outside Japan)	114,691 t-CO ₂ e
■ Amount of Scope 1 emissions	26,435 t-CO ₂ e
■ Amount of Scope 2 emissions (Market-based)	86,255 t-CO ₂ e
■ Scope 3 emissions ¹⁾	
■ Category 1 (Purchased Goods and Services) ²⁾	50,616 t-CO ₂ e
■ Category 4 (Upstream Transportation and Distribution) ³⁾	4,272 t-CO ₂ e
■ Category 4 (Upstream Transportation and Distribution) ³⁾	7,398 t-CO ₂ e
■ Category 6 (Business travel)	579 t-CO ₂ e
■ Category 7 (Employee commuting) ³⁾	2,261 t-CO ₂ e
■ Category 11 (Use of Sold Products)	7,739 t-CO ₂ e
■ Total energy consumption (related to Scope 1+Scope 2, locations in and outside Japan)	2,662 (10 ⁹ GJ)
■ Electric power consumption	250,732 (MWh)
■ Gas consumption	10,485 (10 ³ m ³)
■ Gasoline, diesel, and heavy consumption	207 (kL)

< Verification Opinion >
☒ Unmodified Opinion
☐ Modified Opinion
☐ Adverse Opinion

This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.
 DNV Business Assurance Japan K.K. Sannomiyas Bldg, South 11th Floor, 7-1-15, Goto-cho, Chuo-ku, Kobe 651-0087

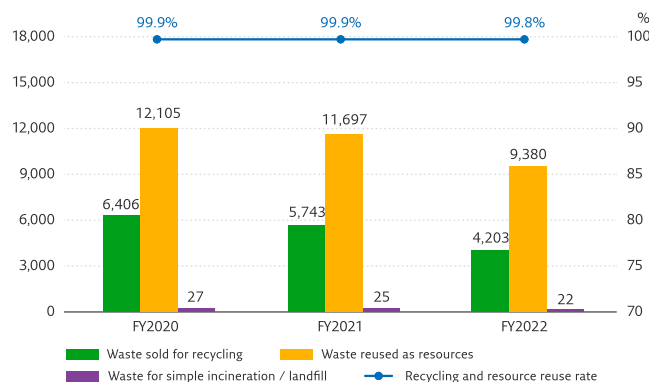
9. Waste Management

9-1 Total Amount of Waste Generated by Nissha Group

In the fiscal year ended December 2022, the Nissha Group generated a total of 27,207t of waste, including waste sold for recycling, waste reused as resources, and waste for simple incineration/landfill.

■ Total amount of waste generated and recycling and resource reuse rate (Nissha Group in Japan)

The total amount of waste generated by the Nissha Group in Japan in the fiscal year ended December 2022 was 13,606t, a decrease of approximately 22% compared to the 17,465t in the fiscal year ended December 2021. In addition, emissions from incineration and landfill waste accounted for 22t, a decrease of approximately 12% from the 25t generated in the fiscal year



ended December 2021. The source of the reduction was a decrease in waste material output by Nitec Industries, Inc. (NII), a production base for the Industrial Materials business, and Nitec Precision and Technologies, Inc. (NPT), a production base for the Devices business.

Our recycling and resource reuse rate for the Nissha Group in Japan was 99.8%, allowing us to successfully meet our target of zero emissions (a recycling and resource reuse rate of 99.5% or above).

■ Total amount of waste generated and recycling and resource reuse rate (Nissha Group overseas)

The total amount of waste generated by the Nissha Group overseas in the fiscal year ended December 2022 was 13,601t, an increase of approximately 4% over the 13,122t from the fiscal year ended December 2021. This was mainly due to an increase in waste material output at Nissha Metalizing Solutions (NMS), which produces sustainable materials (metallized paper) for the Industrial Materials business, and at Nissha Medical Technologies (NMT), which handles production for the Medical Technologies business.

The recycling and resource reuse rate for major overseas Nissha Group production bases was 86.6%, an improvement of 1.4 points from 85.2% in the fiscal year ended December 2021.

9-2 Risk Management Related to Waste and Waste Converted in Valuable Resources

At Nissha Group in Japan, we recognize that waste and waste converted into valuable resources have the following five main risks.

- Accidents and disasters caused by waste and waste converted into valuable resources (including at treatment contractors)
- Environmental pollution and violation of laws caused by inappropriate waste treatment
- Leakage of confidential information from waste and waste converted into valuable resources
- Refusal by waste disposal company to pick up waste
- Revocation of waste disposal company licenses

To alleviate these risks, we are working on safety management of waste in accordance with the Nissha Group Waste Management Regulations. In line with these regulations, each base has drawn up its own Waste Management Manual and makes efforts toward thorough waste separation and management. At the Nissha Group production bases in Japan, emergency response drills in the event of a leak are conducted once a year to prevent environmental pollution from liquid waste from the perspective of preventing accidents and disasters. Furthermore, even small quantities of chemicals and spray cans are thoroughly checked for waste properties and monitored to prevent spillages during transport and accidents at treatment facilities.

The Nissha Group Waste Management Regulations, which serve as rules to prevent waste material related accidents and environmental contamination, employ standards for selecting outside contractors to process waste material. The regulations also proscribe and implement standards for periodic processing site inspections that make use of checklists. In addition, we have in place standards for managing waste and waste converted into valuable resources that contain confidential information, and promote management in association with our information security management system (ISMS).

Furthermore, we are monitoring the progress of waste disposal by strengthening the use of electronic manifests, and in preparation for delays, we are building a structure that allows us to respond quickly, such as by strengthening communication with contractors that have suspended disposal and reviewing waste disposal contractors.

In addition, at the Kyoto Global Headquarters, there is a need to address waste risks associated with business changes, such as changes in the content of waste materials generated as research and development by the business development division progress. In particular, before handing over chemical waste, we strictly manage the discharge of chemicals by preparing waste material lists and thoroughly checking Safety Data Sheet (SDS), and we have been in even closer communication with industrial waste disposal contractors to ensure waste is disposed of safely.

10. Management of Chemical Substances and Environmental Risks

10-1 Approach to Chemical Substances Used in Products and Their Production Processes

The majority of the Nissha Group's products are incorporated into products manufactured by our customers, and since the specifications differ for each product, there is no equivalent of a general-purpose product. In addition, many of the materials used in our products are specified by customers. They correspond to "Material" of the 4M (Man, Machine, Material, Method), which are the four elements for proper quality control. As this is a customer-approved matter, the chemical substances used (contained) in materials are also the customers' confidential information. For this reason, we cannot disclose the chemical substances used in our products together with the product name on, for example, our website. Such information is generally disclosed by our customers through their own products, while we disclose information on chemical substances used in our products by providing Safety Data Sheets^{*1} (SDS) and other information to our customers.

^{*10-1 and 10-2 describe the state of management of chemical substances used in products manufactured by our Industrial Materials business (excluding Metallized paper) and Devices business mainly in Japan which are then shipped overseas, including to Europe.}

^{*1. A document containing information on the properties and handling of the chemical concerned}

10-2 Management of Chemical Substances Used in Products

10-2-1 Establishment and Operation of the Nissha Control Criteria for Chemical Substances in Purchased Products

We use our Nissha Control Criteria for Chemical Substances in Purchased Products as our standards to control chemical substances used in our products and their production processes.

These standards reflect the laws and regulations of relevant countries and regions, as well as standards for customers' use of chemical substances based on industry norms and standards such as the GADSL (Global Automotive Declarable Substance List), which is a list of environmentally hazardous substances common to the automotive industry, and provide comprehensive management of all chemical substances used in our products. Whenever new candidate substances for regulation are added, such as substances of very high concern under the REACH Regulation, or whenever the relevant laws or regulations are amended, or our customers' chemical substances criteria change, we identify the differences from our criteria in order to adapt to these changes.

The Nissha Control Criteria for Chemical Substances in Purchased Products are revised on an annual basis, taking these differences into account, and explanatory meetings are held when major revisions are made to inform the relevant departments. The details of the control criteria indicated in these standards are as follows.

1. Usage-prohibited substance: Substances for which we prohibit either deliberate or not deliberate use. Inclusion of impurities is also prohibited.
2. Deliberate usage-prohibited substance: Substances for which we prohibit deliberate use. There are restrictions on the inclusion of impurities.
3. Regulated substance: Substance which requires a content report from suppliers to Nissha.

The Nissha Group considers the entire life cycle of the products we provide to our customers. In addition, in promoting the reduction of environmental impact and consideration for human health, we intend to place importance on transactions with suppliers who work on products with low environmental impact, biodiversity, and consideration for the environment. In order to comply with laws and regulations concerning chemical substances, we have established a management promotion system and are working to investigate and control chemical substances used in our products.

10-2-2 Management System

The points required to comply with the Nissha Control Criteria for Chemical Substances in Purchased Products are listed below. We are putting measures into place at each stage of the process, building a comprehensive countermeasures system.

- Warranty system based on cooperation with material suppliers
The following documents are submitted once a year by suppliers who provide us with materials for mass production.
 - Certificates of conformity to the Nissha Control Criteria

- for Chemical Substances in Purchased Products
 - Reports on the inclusion of prohibited substances
 - Reports on the inclusion of chemical substances in products
 - Content information
 - ICP data
 - Written pledges
- Countermeasures in the production process
 - Enforcement of rules when accepting materials
 - Distinguishing between storage locations and labeling of input materials
 - Ensuring and maintaining traceability
 - Identifying and separating non-compliant substances
- Provision of information accompanying sales to customers
 - Provision of information on chemical substances used in products
 - Registration in International Material Data System (IMDS) and the customer’s management system
 - Issuance of SDS

To promote management of the chemical substances used in our products, the environmental and safety management division at head office functions as the secretariat and works with the product design and development, quality assurance, and procurement and sourcing divisions at each business unit to inspect the state of management of chemical substances, including differences with the Nissha Control Criteria for Chemical Substances in Purchased Products. In addition to new products, when selecting new materials or changing materials in the design and development stages, we conduct design reviews (DR) and assess compliance with the Nissha Control Criteria for Chemical Substances in Purchased Products while considering the impact on

human health and the environment. This system then ensures strict control of chemical substances, from the design stage to the final product, responding to changes in the needs of society and the demands of our customers for the use and management of chemical substances.

We do not use any chemical substances that fall under the age-prohibited substances category in our products. With regard to the management of chemical substances used in our products, we have shifted to maintenance management by establishing and operating a management system, and we do not currently operate a reduction plan that involves the establishment of Key Performance Indicators.

On the other hand, we are promoting compliance with the Nissha Control Criteria for Chemical Substances in Purchased Products by setting an environmental perspective at the design and development stage, which is one of our environmental targets.

In the fiscal year ended December 2022, there were no cases in which chemical substances used in our products were recalled from the market or reshipped with changing in materials.

10-2-3 Comprehensive Response to Chemical Substances of Concern

■ Efforts to comply with the RoHS Directive

Nissha complies with environmental regulations in Europe mainly through the Nissha Control Criteria for Chemical Substances in Purchased Products, our voluntary regulations on chemical substances. Our products comply with the RoHS Directive*, which regulates the use of certain substances in electrical and electronic equipment.

*This refers to the European "Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (2011/65/EU)" and its amendments. The Directive prohibits the inclusion in products of lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, bis(2-ethylhexyl) phthalate, butyl benzyl phthalate, dibutyl phthalate, and diisobutyl phthalate in excess of the maximum permissible amount, except for exempted applications.

Nissha has been working on either not using or using fewer hazardous chemical substances used in our products since the first edition of the Nissha Control Criteria for Environmentally Controlled Substances was established in 2007, leading up to the current Nissha Control Criteria for Chemical Substances in Purchased Products. Substances regulated by the RoHS Directive (formerly Directive 2002/95/EC) have been subject to control as environmentally controlled substances since the first edition by complying with customer requests in accordance with the directive. Although Annex III (exemption list) was amended by a European Commission Decision (effective January 2013), none of the relevant chemical substances are used in our products.

- Addition of specific phthalate esters to restricted substances
The European Commission Delegated Directive (EU) 2015/863 (effective July 2019) amended Annex II (List of Restricted Substances), designating specific phthalate esters* as a new restricted substance. As a result, the marketing of electrical and electronic equipment (EEE) containing specified phthalate esters in the European Economic Area (EEA) has been banned. To date, we have not used any of the relevant chemical substances in our products.

*Bis (2-ethylhexyl) phthalate [DEHP], Benzyl butyl phthalate [BBP], Dibutyl phthalate [DBP], Diisobutyl phthalate [DIBP]

■ Compliance with REACH Regulation

The REACH Regulation (EC 1907/2006) are a European law on the registration, evaluation, authorization and restriction of chemical substances. REACH came into force in 2007 with the aim of protecting human health and the environment.

We have a system in place to comply with the REACH Regulation through the management of chemical substances used in our products.

Many of the products listed on our website fall under the category of "articles" as defined by the REACH Regulation. The REACH Regulation requires the communication of information within Europe when "articles" contain a Substance of Very High Concern (SVHC) as specified by the supervisory authority (European Chemicals Agency: ECHA). The Nissha Control Criteria for Chemical Substances in Purchased Products defines SVHCs as substances prohibited for intentional use, and based on information and data obtained from our material suppliers, we have confirmed that we do not currently use SVHCs in our core products (molded products). This is also stated in the SDS and other documents that we provide in response to customer requests.

■ Compliance with other regulations

As stated above, Nissha operates in compliance with the RoHS and REACH directives, as well as a wide range of other regulations including TSCA (U.S. Toxic Substances Control Act), California Proposition 65 and GADSL. To comply with the U.S. TSCA PBT regulations, we are addressing the prohibition of the manufacture, processing, and commercial distribution of five types of PBT substances (decaBDE, PIP (3:1), 2,4,6-TTBT, PCTP, and HCBd) and parts and products containing such substances (the regulation on processing and commercial distribution of PIP (3:1) is scheduled to come into effect on October 31, 2024).

Content of the Nissha Control Criteria for Chemical Substances in Purchased Products and List of Target Substances (partial excerpt)

Contexts of standards	List of target substances
Usage-prohibited substance ^{*1}	<ul style="list-style-type: none"> Asbestos fibres Dioxins Ozone depleting substances Fluorinated greenhouse gases Bisphenol-A (with usage conditions) Substances prohibited from being manufactured (Manufacture-prohibited substance) Specific amine (with regulations on impurity content) Azo-dyes which do not form specific amine (with regulations on impurity content concentration) Arsenic and its compounds (with usage conditions)
Deliberate usage-prohibited substance ^{*2}	<ul style="list-style-type: none"> Substances subject to RoHS directive REACH SVHC (Substances of Very High Concern) Nickel and its compounds (with usage conditions) Polychlorinated biphenyls (PCBs) Specific phthalates Specific benzotriazol Dimethylfumarate (DMF) Perfluorooctane sulfonates (PFOS) Perfluorooctanoate (PFOA) Natural rubber Class 1 Specific Chemical Substances of Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances TSCA PBT substances TSCA preferred substances POPs Convention residual organic pollutants
Regulated substance ^{*3}	<ul style="list-style-type: none"> Global Automotive Declarable Substance List Conflict minerals The Proposition 65 Children's Safe Product Act (RCW 70.240.030) The Reporting List of Chemicals of High Concern to Children (CHCC)

^{*1}The above list shows examples of regulated substances that apply to purchased products (Nissha product raw materials, chemicals used in the production process for materials, etc.)

^{*1}. Use, either deliberately or not deliberately, is prohibited. Inclusion of impurities is also prohibited.

^{*2}. Deliberate use is prohibited. There are regulations on the inclusion of impurities.

^{*3}. Substance which requires a content report from suppliers to Nissha

10-3 Chemical Substances Used in Production Processes

10-3-1 Operation of the Nissha Control Criteria for Chemical Substances in Purchased Products

In addition to the chemical substances used in our products, we also regulate the chemical substances used in our production processes in accordance with the Nissha Control Criteria for Chemical Substances in Purchased Products. These include the substances prohibited for manufacturing under the Enforcement Order of the Industrial Safety and Health Law and the substances regulated by the Poisonous and Deleterious Substances Control Act, and the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act).

As an example, when Nitec Precision and Technologies, Inc. (NPT) uses chemical substances in its production processes, we examine the substances based on prescribed procedures and uses chemical substances in consideration of the environment, health and safety.

10-3-2 Reduction of Chemical Substances in Use

Our Environmental Objectives include reducing the usage rate of chemical substances at ISO14001-certified business sites. In the fiscal year ended December 2022, the Nitec Industries, Inc. (NII) Koka Factory worked to reduce the use of PRTR substances and organic solvents other than PRTR substances. However, it failed

to achieve its target of a 1% reduction year-over-year.

The Nitec Precision and Technologies, Inc. (NPT) Kaga Factory achieved results by reducing the amount of chemicals used in its wastewater treatment facilities.

Fiscal year	FY2020	FY2021	FY2022
Assessment	○	○	△

10-4 Management of Environmental Pollutants

The Nissha Group in Japan constructed a system to understand and manage how environmental pollutants are used at each business site. We use this system even for the calculation of emission and transfer amounts which the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act) requires reporting on.

In the fiscal year ended December 2022, substances which were transferred or emitted in excess of one tonne were ethylbenzene, xylene, toluene, water-soluble copper salts (excluding complex salts).

We also take great care with management when handling chemical substances, such as establishing our own voluntary standards. In addition to displaying GHS* labels on containers to warn people, we carry out measures to prevent environmental pollution such as installing spillover containers to ensure safety if the main container develops a leak, and ensure

that all related personnel are familiar with these measures. Through an internal audit, we check the status of chemical substance management.

*GHS (Globally Harmonized System of Classification and Labelling of Chemicals): Provides internationally-standardized rules to harmonize the contents of safety data sheets and standards of classification per hazard for chemical products.

10-5 Response to Environmental Risks (Preventing Environmental Accidents or Pollution)

The Nissha Group in Japan realizes that pollution from chemical substances is a serious environmental risk, and works to manage it. To prevent environmental accidents from happening during storage or transportation of chemical substances within a work site, we lay out management procedures that consider the scale and frequency of accidents. In addition, we have set emergency response procedures and carry out training on an ongoing basis to minimize the influences in event of a leak, and revise and improve our methods as required.

- **Examples of initiatives for preventing pollution**
Equipment of emergency cutoff devices
Sites for deliveries of liquid chemicals via tanker truck or waste liquid collection are equipped with emergency cutoff devices to prevent any substances from leaking outside the site if an accident occurs.
- **Leak response training**
We have established response procedures to prevent pollution from spreading in the event of a leak at a site for receiving chemicals, unloading chemicals, or collecting waste liquid.

We also carry out regular training, and review the response procedures as necessary.

In addition to its existing emergency drills, the Nitec Industries, Inc. (NII) Koka Factory has been conducting emergency drills at the factory in cooperation with suppliers in response to a chemical leak* that occurred in 2021.

*There was one leakage incident, but it did not lead to a serious environmental impact.



In the fiscal year ended December 2022, there were no serious environmental accidents or violations of environmental regulations at the Nissha Group, and no penalties or fines were incurred.

10-6 Prevention of Water Pollution

We have set our own strict standards and regularly conduct voluntary surveys of wastewater quality to prevent water pollution.

The table on the right shows the results of measurement of wastewater quality at our core production sites.

*1. Water Pollution Control Act

*2. Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea

■ Nitec Precision and Technologies, Inc. (NPT) Himeji Factory

Items measured	Regulatory value*1	Agreement value*2	Voluntary standard	Unit	FY2020		FY2021		FY2022	
					Analysis value	Evaluation	Analysis value	Evaluation	Analysis value	Evaluation
Discharged water	5,200	5,000	5,000	m ³	4,156	○	4,150	○	3,854	○
pH	5.8	5.8	6.5		6.8	○	6.9	○	6.8	○
	~ 8.6	~ 8.6	~ 8		7.5	○	7.5	○	7.4	○
BOD	120	10	9	mg/l	4.0	○	3.7	○	2.6	○
COD	120	10	9	mg/l	5.2	○	4.4	○	4.8	○
SS	150	5	4.5	mg/l	1.9	○	2.6	○	1.1	○
n-hexane derived substances	Mineral oil 5 Vegetable oil 30	1	0.9	mg/l	<0.5	○	<0.5	○	<0.5	○
Phenol	5	0.1	0.08	mg/l	<0.005	○	<0.005	○	<0.005	○
Copper	3	0.5	0.4	mg/l	0.05	○	0.02	○	0.01	○
Zinc	2	1.5	1.2	mg/l	<0.01	○	<0.01	○	<0.01	○
Soluble iron	10	0.15	0.08	mg/l	0.03	○	0.03	○	0.03	○
Soluble manganese	10	0.05	0.045	mg/l	0.04	○	0.04	○	0.02	○
Chromium	2	0.02	0.02	mg/l	<0.02	○	<0.02	○	<0.02	○
Nitrogen	60	10	9	mg/l	4.2	○	4.5	○	4.3	○
Phosphorus	8	1	0.45	mg/l	0.02	○	0.03	○	0.02	○

■ Nitec Precision and Technologies, Inc. (NPT) Kaga Factory

Items measured	Regulatory value (Prefecture)	Voluntary standard	Unit	FY2020				FY2021				FY2022			
				Final effluent (Average)		Final effluent (Maximum)		Final effluent (Average)		Final effluent (Maximum)		Final effluent (Average)		Final effluent (Maximum)	
pH	5.8 ~ 8.6	6.2 ~ 8.2		7.5	○	7.7	○	7.4	○	7.7	○	7.6	○	7.7	○
BOD	160 or less	40 or less	mg/l	23.4	○	40.0	○	23.3	○	35.0	○	17.4	○	24.0	○
COD	160 or less	80 or less	mg/l	33.5	○	47.0	○	37.7	○	44.0	○	25.8	○	36.0	○
SS	200 or less	20 or less	mg/l	6.3	○	23.0	○	6.0	○	10.0	○	7.7	○	21.0	○
n-hexane derived substances	30	15 or less	mg/l	0.6	○	0.9	○	0.5	○	0.5	○	0.5	○	0.5	○

10-7 List of PRTR-Designated Chemical Substances

In FY2022, the number of substances subject to PRTR Law notification was nine at three factories.

Nitec Industries, Inc. (NII) Koka Factory

Unit: kg

PRTR No.	Name of chemical substance	FY2020			FY2021			FY2022			Average over the 3 years	
		Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies
53	Ethylbenzene	710	286	○	2,273	928	○	1,211	494	○	1,398	569
80	Xylene	15,745	6,431	○	10,524	4,298	○	12,022	4,910	○	12,764	5,213
88	Hexavalent chromium compounds	0.1	0	○	0.1	850 *	○	0.1	0	○	0	283
296	1,2,4-Trimethylbenzend	25	10	—	59	24	—	1	0.3	—	28	11
300	Toluene	61,535	25,134	○	106,873	43,652	○	57,728	23,579	○	75,379	30,788
392	N-hexane	601	245	○	258	105	○	0	0	○	286	117

*The increase in the transfer amount of Hexavalent chromium compounds in FY2021 is due to the disposal of unnecessary materials at the renewal of factory equipment.

Nitec Precision and Technologies, Inc. (NPT) Himeji Factory

Unit: kg

PRTR No.	Name of chemical substance	FY2020			FY2021			FY2022			Average over the 3 years	
		Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies
71	Ferric chloride	0.0	0.0	—	0.0	0.0	—	0.0	0.0	—	0.0	0.0
272	Water-soluble copper salts (excluding complex salt)	0.0	1,820.2	○	0.0	2,677.4	○	0.0	2,491.4	○	0.0	2,329.7
453	Molybdenum and its compounds	0.0	0.0	○	0.0	0.0	○	0.0	0.0	○	0.0	0.0

Nitec Precision and Technologies, Inc. (NPT) Kaga Factory

Unit: kg

PRTR No.	Name of chemical substance	FY2020			FY2021			FY2022			Average over the 3 years	
		Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies	Reporting required / not required	Discharge volume into the atmosphere	Volume transferred to industrial waste processing companies
71	Ferric chloride	0.0	0.0	○	0.0	0.0	○	0.0	0.0	○	0.0	0.0
272	Water-soluble copper salts (excluding complex salt)	0.0	0.0	○	0.0	0.0	○	0.0	0.0	○	0.0	0.0
627	Diethylene glycol monobutyl ether	—	—	—	—	—	—	0.0	0.0	○	0.0	0.0

10-8 Prevention of Air Pollution

10-8-1 Soot and Dust and NOx Emissions

Several production bases of the Nissha Group in Japan own and use gas boilers, which are subject to the Air Pollution Control Act, and emit soot and dust and NOx. The measured values and compliance status for the last three years are as follows.

10-8-2 VOC Emissions

The Nitec Industries, Inc. Koka Factory, a member of our group, uses organic solvents such as toluene and xylene in its production process. Volatile Organic Compounds (VOCs) generated by the use of organic solvents are detoxified and discharged through direct combustion deodorization, catalytic deodorization, and other measures.

Kyoto Headquarters

	Unit	FY2020	FY2021	FY2022	Average over the 3years	Compliance
NOx	ppm	30	25	27	27	○
Soot and dust	g/m ³ N	Less than 0.001	0.002	Less than 0.001	— *	○
Sulfur dioxide	ppm	n/a	n/a	n/a	n/a	n/a
Carbon monoxide	ppm	n/a	n/a	n/a	n/a	n/a

*Not calculated

Nitec Industries, Inc. Koka Factory

	Unit	FY2020	FY2021	FY2022	Average over the 3years	Compliance
NOx	ppm	40	32	29	34	○
Soot and dust	g/m ³ N	Less than 0.01	Less than 0.01	Less than 0.01	Less than 0.01	○
Sulfur dioxide	ppm	n/a	n/a	n/a	n/a	n/a
Carbon monoxide	ppm	n/a	n/a	n/a	n/a	n/a

Nitec Precision and Technologies, Inc. Himeji Factory

	Unit	FY2020	FY2021	FY2022	Average over the 3years	Compliance
NOx	ppm	33	34	31	33	○
Soot and dust	g/m ³	Less than 0.001	Less than 0.001	Less than 0.001	Less than 0.001	○
Sulfur dioxide	ppm	n/a	n/a	n/a	n/a	n/a
Carbon monoxide	ppm	n/a	n/a	n/a	n/a	n/a

*The Air Pollution Control Act requires that soot and dust and NOx be measured and monitored in terms of soot concentration rather than the total amount.

*We use gas-fired boilers that do not emit SOx (sulfur oxides).

11. Water Resources

11-1 Basic Concept

The Nissha Group's Environmental Policy is to aim for business development and the realization of a sustainable society through environmentally conscious corporate activities. In addition, the Environment Principles declare that we shall aim to construct a recycling society and that we shall value biodiversity and prevent pollution while co-existing with nature, thereby indicating our stance towards the Nissha Group's business activities. We are working to reduce water consumption through appropriate use, water recycling (reuse), and more efficient water use.

Approximately 95% of both water intake and wastewater discharge within the Nissha Group comes from activities at our domestic production bases. The majority of this intake and discharge occurs at the Nitec Precision and Technologies, Inc. (NPT) Himeji and Kaga factories, which are the production bases for the Devices business.

The production process for film touch sensors, the core product of the Devices business, requires good quality water to maintain product quality. In addition, we have established and are operating the Nissha Control Criteria for Chemical Substances in Purchased Products for the management of chemical substances used in production processes, which reflect relevant laws, regulations and customer standards, and we have established strict voluntary standards and conduct regular voluntary measurements to thoroughly control wastewater quality.

11-2 Target and Progress

The Nissha Group in Japan has set the following target for water use and conduct annual evaluations.

Refer to 12. Environmental Objectives and Status of Achievement (Nissha Group in Japan)

Target	FY2020	FY2021	FY2022
Reduce use of water by improving production efficiency and saving water	○	○	○

We decreased the water usage quantity by consolidating factories at the NPT Kaga Factory and achieved over 1% of water usage reduction. Additionally, we were able to decrease the quantity of water used at the NPT Himeji Factory through water conservation efforts there. We continue to reduce water consumption and save water for miscellaneous use by improving production efficiency at our factories. At the Global Headquarters, repairs to leaking pipes reduced water consumption waste.

11-3 Understanding Water Stress Areas

We use Aqueduct®, a global tool for water risk assessment developed by the World Resources Institute (WRI), to assess water risk at our production bases.

In 2022, the "Overall Water Risk" at domestic production bases was Low (0-1) or Low - Medium (1-2).

*The "Physical Risk (Quantity)," "Physical Risk (Quality)," and "Reputation Risk" items are scored, and the risk level is evaluated on a 5-point scale: Low (0-1), Low-Medium (1-2), Medium-High (2-3), High (3-4), and Extremely-High (4-5).

The NPT Himeji and Kaga factories, both of which have relatively high levels of water consumption in the Nissha Group, fall into the Low-Medium (1-2) risk category. In terms of water intake and use, we do not have a significant impact on local water resources, but we will continue to work to reduce our impact on the environment by setting targets to reduce water use and devising an infrastructure.

11-4 Management of Water Intake and Wastewater

All of the Nissha Group production bases in Japan use water supplied by a third-party (tap water and industrial water).

■ NPT Himeji Factory

The NPT Himeji Factory uses industrial water (for use in production) and tap water (for general use) supplied by Hyogo Prefecture. Wastewater is discharged to the Seto Inland Sea via a nearby river after being treated at the factory. The area where the factory is located is subject to the Law concerning Special Measures for Conservation of the Environment of the Seto Inland Sea, which is stricter than the Water Pollution Prevention Act. To comply with the law, the factory operates a wastewater treatment facility using activated carbon adsorption. In addition, we operate and manage water quality by establishing voluntary standard values for water quality control that are stricter than those set by laws and regulations.

■ NPT Kaga Factory

The NPT Kaga Factory uses tap water supplied by Ishikawa Prefecture. Wastewater is purified to a level that meets effluent standards at the factory's wastewater treatment facility before being discharged into the Sea of Japan via a nearby river. As at the Himeji Factory, we operate and manage water quality by establishing voluntary standard values for water quality control that are stricter than those set by laws and regulations.

11-5 Initiatives for Appropriate Water Use

■ NPT Kaga Factory

1. Reduction of water usage

- During the production process, products are washed using purified water to ensure that no impurities remain on the products. While a single rinse tank requires a large amount of water, increasing the number of rinse tanks to two or three (by making tanks multi-level) can reduce the amount of purified water usage. This method is known as multi-stage countercurrent washing or cascade rinsing. The Kaga Factory uses this method to wash products with a small amount of water by removing impurities in stages which results in significant water savings.
- The filter cloth in the sludge dewatering press (filter machine) is washed periodically to prevent clogging. When washing the cloth, we reuse purified wastewater from the factory as cleaning water to reduce water consumption.

2. Replacing aging water pipes

- We are replacing aging water pipes to prevent leaks and reduce water usage. At the end of 2022, some of the water pipes were upgraded from conventional PVC pipes to pipes that can withstand earthquakes and other disasters.

■ Kyoto Headquarters

During monitoring of monthly water usage, we noticed that there were months in which usage increased more than expected. Upon investigation, we found that the water pipes were leaking due to aging, and we replaced them.

11-6 Water Data

The amount of water usage and water discharge by the Nissha Group are shown in the table below.

Items		Unit	Boundary	FY2018	FY2019	FY2020	FY2021	FY2022
Water usage	Tap water	m ³	Production bases in Japan and overseas	1,252,000	1,291,000	1,287,000	1,249,000	993,000
	Underground water	m ³	Production bases in Japan and overseas	10,000	103,000	40,000	46,000	49,000
	Industrial water	m ³	Production bases in Japan and overseas	2,158,000	1,943,000	1,725,000	1,670,000	1,549,000
Water discharge		m ³	Production bases in Japan and overseas	3,334,000	3,305,000	3,033,000	2,594,000	2,342,000

12. Environmental Objectives and Status of Achievement (Nissha Group in Japan)

The Nissha Group in Japan has set the Nissha Group Environmental Objectives for a period of six years from the fiscal year ended December 2018 for those bases that have obtained ISO14001 certification. In accordance with these Objectives, each base and division establish environmental targets, and we aggregate and assess the results each fiscal year in order to manage progress.

Environmental Objectives

Period: FY2018 - FY2023

Scope: Nissha Group in Japan ISO14001 certification sites ("certification sites")

Assessment Definitions

○ Satisfactory: Objective achieved

△ Unsatisfactory: Objective not achieved but good progress made

× Poor: Objective not achieved and poor progress made

*Company names and abbreviations

NII: Nitec Industries, Inc.

NPT: Nitec Precision and Technologies, Inc.

NCI: Nissha Printing Communications, Inc.

12-1 Initiatives and Achievements in FY2022

1. Prevention of pollution

Target	FY2020	FY2021	FY2022
(1) Maintain zero environmental accident (accidents that affect areas outside the factory)	○	×	×
(2) For environmental risks classified as significant environmental aspects on the hazard assessment list, implement measures and reduce the possibility of occurrence by one level by December 31, 2023	○	○	○

- (1) There was one leak accident in the fiscal year ended December 2022. A delivery company's truck experienced a fuel leak at Nissha FIS, but it did not have a significant environmental impact.
- (2) As one of our efforts to reduce environmental risks, we conducted a chemical leakage response drill. As a result, the factory's environmental risk "potential" (the value in the environmental risk assessment) has been reduced by more than one level.

2. Mitigation of climate change

Target	FY2020	FY2021	FY2022
(1) Reduce CO ₂ emissions rate (basic unit)*1 by 6% or more*2 by the fiscal year ending December 2023	○	○	○
(2) Reduce CO ₂ emissions rate (basic unit) by 1% or more compared to the previous year	○	×	×

*1. CO₂ emissions rate (basic unit) = CO₂ emissions / Production volume (depend on the sites)

*2. Reference value: Results in fiscal year ended December 2017

- (1) By the fiscal year ended December 2022, we have managed a drop of more than 4% of the target to be achieved by the fiscal year ending December 2023. This means we are still on the planned track. In addition to various energy-saving initiatives, we are converting to renewable energy. The NII Koka Factory and NPT Kaga Factory obtain 100% and 10% of their electricity, respectively, from renewable energy sources.
- (2) In order to reduce the CO₂ emission rate (basic unit) by at least 1% over the previous fiscal year, we set targets for each factory and reduced energy input in conjunction with quality improvements. Three out of the six locations (NII Koka Factory, and NPT Kyoto, NCI) achieved at least a 1% reduction compared to the previous fiscal year. However, three locations (Global Headquarters, NPT Himeji Factory, NPT Kaga Factory) did not achieve the target.

3. Reduction of waste

Target	FY2020	FY2021	FY2022
(1) Reduce waste generation rate (basic unit)* ¹ by 6% or more* ² by the fiscal year ending December 2023	△	×	×
(2) Reduce waste generation rate (basic unit) by 1% or more compared to the previous year	△	×	×
(3) Maintain zero emissions (recycling and resource reuse rate of 99.5% or more)	○	○	○
(4) Reduce cost of waste treatment	○	△	×

*1. Waste generation rate (basic unit) = Waste generation / Production volume (depend on the sites)

*2. Reference value: Results in fiscal year ended December 2017

- (1) Each factory is working to improve its yield rate and efficiency through quality improvement activities and reducing the amount of wasted materials by improving production efficiency. For the fiscal year ended December 2022, four out of the six locations (NPT Himeji Factory, NPT Kaga Factory, NPT Kyoto, NCI) did not achieve the target, and the company-wide evaluation was set to "×". The main reason for NPT's failure to meet its intensity target is the decrease in production volume.

- (2) Targets are set according to the characteristics of each factory. For the fiscal year ended December 2022, one out of the six locations (NII Koka Factory) achieved at least a 1% reduction compared to the previous fiscal year. However, five locations (Global Headquarters, NPT Himeji Factory, NPT Kaga Factory, NPT Kyoto, NCI) did not achieve the target.
- (3) The Nissha Group in Japan as a whole achieved a recycling rate of 99.8%, and has maintained zero emission of waste (a recycling and resource reuse rate of 99.5% or more) as in the previous fiscal year.
- (4) Although we continued to reuse waste material as usable material due to enhanced separating of packaging material at the NII Koka Factory, we were not successful in gaining major cost reductions.

4. Reduction of water usage

Target	FY2020	FY2021	FY2022
Reduce use of water by improving production efficiency and saving water	○	○	○

We decreased the water usage quantity by consolidating factories at the NPT Kaga Factory and achieved over 1% of water usage reduction. Additionally, we were able to decrease the quantity of water used at the NPT Himeji Factory through water conservation efforts there. We continue to reduce water consumption and save water for miscellaneous use by improving production efficiency at our factories. At the Global Headquarters, repairs to leaking pipes reduced water consumption waste.

5. Reduction of chemical substances usage

Target	FY2020	FY2021	FY2022
Certification sites reduce usage rate of chemical substances (Certification sites set individual targets)	○	○	△

At the NPT Kaga Factory, we achieved the reduction of chemical substances usage with the amount of drainage water treatment agent through consolidating factories.

The NII Koka Factory did not achieve the target of a 1% reduction from the previous year due to the decrease in production volume, although we continued to reduce the use of PRTR-designated substances and organic solvents which do not contain designated substances.

6. Environment-conscious design

Target	FY2020	FY2021	FY2022
(1) Introduce the viewpoint of energy saving, resource saving, durability, recycling, and so on in product design and development.	○	○	○
(2) Design environment-conscious processes and reduce the environmental impact of production.	○	○	○

- (1) As a positive risk assessment (a positive environmental aspect), the design and development divisions of the Industrial Materials and the Devices businesses set development themes from the perspective of solving social issues such as SDGs and life cycle assessments (LCA), and incorporate the reduction of environmental impact at the product design stage. In addition, they are moving ahead with the development and mass production of products that contribute to reducing environmental impact, such as the use of sustainable materials. Nissha FIS, Inc. also designs and develops parts that contribute to environmentally-friendly customer products, such as hydrogen detectors and coolant sensors used in fuel cell vehicles.
- (2) NII and NPT are complying with established company standards regarding the management of chemical products, and also designing production processes that promote reduced environmental impact.

7. Enhancement of environmental performance in supply chain

Target	FY2020	FY2021	FY2022
Enhance environmental performance based on customer requirements and the RBA code of conduct	○	○	○

In consideration of feedback we received in customer-driven supplier auditing, we are continuing our environmental improvement efforts. With the help of our suppliers, we respond to questionnaires and conduct on-site inspections which reflected our customers' demands in relation to the environment. In addition, we examine CO₂ emissions during production processes and check chemical materials used in products. Through these activities, we are grasping the environmental impacts in our supply chain in order to contribute to environmental improvement.