

NSK ESG DATABOOK

2022



Environment

Environmental Management



NSK Report 2022 P. 41 Environmental Management

Websites

Sustainability Information ▶ NSK ESG Initiatives ▶ Environment ▶ Executive Summary on the Environment

Sustainability Information ► NSK ESG Initiatives ► Environment ► Environmental Management

Sustainability Information ▶ Information Disclosure Based on TCFD Recommendations

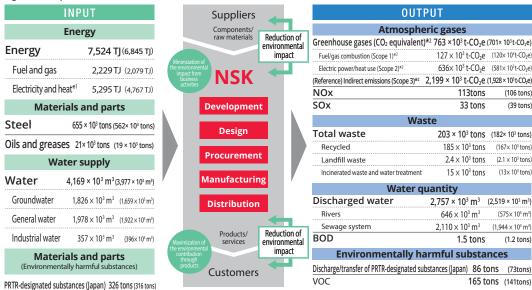
	Category		Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Environmental	Number of ISO14001 certified sit	es	NSK	Sites	67	66	68	68	68
management system	Coverage*1		Group	%	95% or more	95% or more	95% or more	95% or more	95% or more
Compliance with environmental laws	Number of serious violations of environm	nental regulations	NSK Group	Incidents	0	0	0	0	0
Environmental accidents	Number of serious incidents of environm	ental pollution	NSK Group	Incidents	0	0	0	0	0
	Number of environmental education	Number of sessions		Sessions	583	463	393	388	366
	and training sessions and number of participants (total)	Number of participants		Persons	10,236	17,776	17,444	57,173*²	27,313
	Compliance with environmental	Number of sessions	Ì	Sessions	175	125	108	97	82
Environmental	laws and regulations, reduction of environmental risks	Number of participants	1	Persons	2,402	2,398	1,653	1,270	1,507
education and training	Efforts to raise environmental	Number of sessions	Group in Japan	Sessions	315	274	226	230	241
	awareness	Number of participants	п Јарап	Persons	6,242	14,326	14,807	53,913* ²	23,805
	Acquisition of environmental	Number of sessions		Sessions	51	34	36	29	21
	qualifications	Number of participants		Persons	259	131	147	191	142
	Environmentally friendly design, green	Number of sessions		Sessions	42	30	23	32	22
	procurement	Number of participants		Persons	1,333	921	837	1,799	1,859
	Environmental conservation cost: investr	ment		Millions of yen	3,730	3,899	3,522	2,961	2,443
	Business area costs			Millions of yen	2,185	2,191	2,328	1,794	1,315
	Pollution prevention costs			Millions of yen	476	292	164	187	341
	Global environment conservation of	osts		Millions of yen	1,283	1,320	1,450	1,020	793
	Resource circulation costs			Millions of yen	426	578	714	588	181
	Upstream and downstream costs			Millions of yen	0	0	7	0	0
	Administration costs			Millions of yen	17	6	2	4	14
	Research and development costs			Millions of yen	1,528	1,696	1,180	1,157	1,098
	Social activity costs			Millions of yen	0	0	0	0	0
	Environmental remediation costs			Millions of yen	0	5	5	5	16
	Environmental conservation cost: cost			Millions of yen	15,092	15,087	13,515	12,214	12,459
Environmental	Business area costs		Group	Millions of yen	2,767	2,820	2,924	3,309	3,288
accounting*3	Pollution prevention costs		in Japan	Millions of yen	574	573	533	594	654
	Global environment conservation of	osts		Millions of yen	1,180	1,330	1,432	1,301	1,242
	Resource circulation costs			Millions of yen	1,012	917	960	1,414	1,392
	Upstream and downstream costs			Millions of yen	524	398	255	248	285
	Administration costs			Millions of yen	544	564	603	553	561
	Research and development costs			Millions of yen	11,179	11,167	9,669	8,037	8,252
	Social activity costs			Millions of yen	49	120	45	49	47
	Environmental remediation costs			Millions of yen	29	18	17	17	27
	Economic benefits associated with environm			Millions of yen	1,998	2,288	1,579	1,847	3,643
	Reductions in energy costs through energ			Millions of yen	536	549	607	899	1,156
	Reductions in waste disposal costs through	gn waste reduction activities		Millions of yen	40	25	25	21	19
	Sales of recyclable waste material			Millions of yen	1,421	1,714	948	927	2,468

^{*1} Percentage of environmental impact for ISO 14001 certified sites compared to the total environmental impact of the entire NSK Group, including greenhouse gas and waste emissions.

^{*2} The number of participants increased thanks to the provision of e-learning modules for raising employee awareness.
*3 Environmental costs and expenses are determined in accord with the Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment in Japan. Depreciation is entered as a cost using the 5-year straight-line depreciation method. Compound costs are divided in proportion to the relevant environmental objective. Costs incurred through green procurement are entered as full amounts and not as differential amounts.

Material and Energy Balance

Figures within parentheses indicate fiscal 2020 data



^{*1} Energy usage accounted for by purchased electricity is the total amount of the NSK Group's electricity usage.

Creating Environmentally Friendly Products



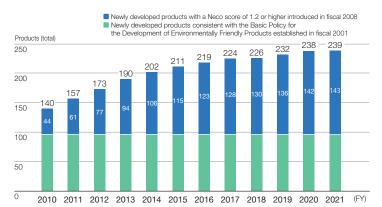
NSK Report 2022 Pp.34-35 MTP2026 ESG Management-Promote Carbon Neutrality-

Websites Sustainability Information ▶ Environmentally Friendly Products

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Environmentally friendly products*1	Number of products developed (cumulative)	NSK Group	Products	224	226	232	238	239
Products that help reduce CO ₂ emissions	CO ₂ emissions avoided (total)	NSK Group	× 10 ³ t-CO ₂	1,249	1,361	1,448	2,320	2,335
	Direct contributions*2		× 103 t-CO2	614	831	746	1,281	1,605
	Indirect contributions*3		× 10 ³ t-CO ₂	634	530	702	1,039	730

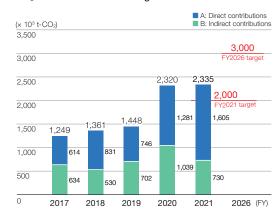
^{*1} Total of environmentally friendly products with a Neco score of 1.2 or higher. Includes 96 products developed in or before fiscal 2007 that were consistent with the Basic Policy for the Development of Environmentally Friendly Products.

Number of Environmentally Friendly Products Developed



In fiscal 2021, we developed one environmentally friendly products with a Neco score of 1.2 higher, bringing the total up to 239 products.

CO₂ Emissions Avoided through Products



As a result of increased sales of products that contribute to reducing energy loss in multi-step ATs, we were able to avoid 2.33 million tons of CO_2 emissions in fiscal 2021, surpassing our target.

^{*2} Total greenhouse gas emissions (CO₂ equivalent) are obtained by multiplying each type of gas by its global warming coefficient. Emission factors for electricity are variable market standards. These emission factors, which change every year, are published by power companies with which we have contracts, or are given in the International Energy Agency's CO₂ Emissions from Fuel Combustion. The amount of greenhouse gas emissions for Scope 1 to 3 are calculated based on GHG Protocol calculation standards.

^{*2} Direct contributions to CO₂ emission reduction through individual NSK product performance

^{*3} Indirect contributions through CO2 emissions avoided by installing NSK products into customer equipment and facilities

Fighting Global Warming and Climate Change



NSK Report 2022 Pp. 48-49 Climate Change-related Risks and Opportunities: Addressing the TCFD Recommendations

Websites

Sustainability Information ► Sustainability Highlights ► Environment

Sustainability Information ▶ NSK ESG Initiatives ▶ Environment ▶ Fighting Global Warming and Climate Change

Sustainability Information ▶ Information Disclosure Based on TCFD Recommendations

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	Total energy usage		TJ	7,864	7,965	7,330	6,845	7,524*1
	Fuel and gas		TJ	2,425	2,456	2,295	2,079	2,229*1
	Electricity and heat*2		TJ	5,439	5,509	5,035	4,767	5,295*1
Energy	(Reference) Electricity and heat primary energy conversion	NSK Group	TJ	14,747	14,815	13,577	12,860	14,334
0,7	Renewable energy use		TJ	19	65	163	456	626
	Rate of renewable energy use*3		%	0.2	0.8	2.2	6.7	8.3
	Rate of change in energy usage per unit of sales*4		%	0 (base year)	+4.2	+14.4	+18.8	+12.8
	GHG emissions (Total for Scope 1 and Scope 2)		× 10³ t-CO₂e	1,019	998	839	701	764*1
	Scope 1		× 10 ³ t-CO₂e	143	142	132	120	127* ¹
	Scope 2		× 10 ³ t-CO ₂ e	876	856	708	581	636*1
	Rate of change in emissions		%	0 (base year)	-2.0	-17.6	-31.2	-25.0
	Rate of change in emissions per unit of sales*5		%	0 (base year)	+0.8*6	+1.2*6	-6.1	-11.6
	CO ₂ emissions from distribution		× 10 ³ t-CO ₂	23.4	22.5	19.9	18.5	19.8
	Rate of change in CO_2 emissions from distribution by transport volume* *7	*8	%	0 (base year)	+1.4	+0.6	+6.1	+5.1
	(Reference) Scope 3		× 10³ t-CO₂e	2,039	2,705	2,194	1,928	2,199* ¹
	Purchased goods and services		× 10 ³ t-CO₂e	1,397	1,985	1,629	1,452	1,643*1
	2. Capital goods		× 103 t-CO2e	220	259	177	119	167* ¹
	Fuel- and energy-related activities (Not included in Scope1 and 2)		× 10³ t-CO₂e	216	215	198	179	190* ¹
Greenhouse gas	4. Upstream transportation and distribution		× 10³ t-CO₂e	101	143	118	113	133* ¹
ŭ	5. Waste generated in operations		× 10³ t-CO₂e	54	44	19	15	19* ¹
	6. Business travel		× 10³ t-CO₂e	5	5	4	4	4* ¹
	7. Employee commuting		× 10³ t-CO₂e	17	17	16	15	16* ¹
	8. Upstream leased assets	NSK Group	× 10³ t-CO₂e	0	0	0	0	0*1
	9. Downstream transportation and distribution		× 10³ t-CO₂e	-	-	-	-	_
	10. Processing of sold products		× 10³ t-CO₂e	-	_	-	-	_
	11. Use of sold products		× 10³ t-CO₂e	-	_	-	-	_
	12. End-of-life treatment of sold products		× 10³ t-CO₂e	14	12	9	9	9* ¹
	13. Downstream leased assets		× 103 t-CO2e	0	1	1	1	1* ¹
	14. Franchises		× 10³ t-CO₂e	0	0	0	0	0* ¹
	15. Investments		× 10³ t-CO₂e	15	24	23	21	17* ¹
	16. Upstream other		× 10³ t-CO₂e	-	_	-	-	_
	17. Downstream other		× 10³ t-CO₂e	-	_	_	-	_

^{*1} Verified by a third-party. See the Independent Verification Report on pp.15-16 for details.

^{*2} The previously used "amount of primary energy from electric power companies" has been changed to the "amount of energy used by NSK Group sites."

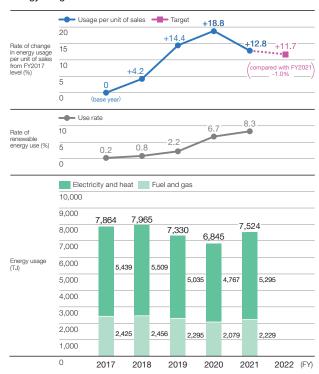
^{*3} Rate of renewable energy use = Energy use from renewable sources / energy use *4 Energy usage per unit of sales = Energy usage / net sales *5 Emissions per unit of sales = Greenhouse gas emissions / net sales

^{*6} The data has been updated retrospectively.

^{*7} CO₂ emissions from distribution by transport volume = CO₂ emissions from distribution / transport volume (tons)

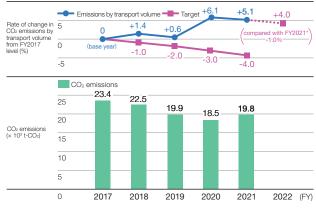
^{*8} NSK Logistics Co., Ltd., and main distribution contractors (within Scope 3, Category 4, only for transport in Japan)

Energy Usage



We are promoting the development of technologies such as high-frequency induction heat treatment of bearing components, working to switch to electricity from fuel and gas, and striving to expand our use of green electricity.

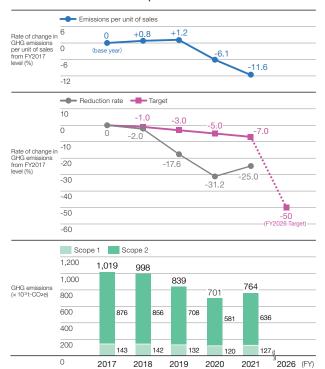
CO2 Emissions and Emissions by Transport Volume from Distribution in Japan



Note: We updated our target for emissions by transport volume to a 1% decrease compared to the previous fiscal year.

Although CO_2 emissions increased compared to fiscal 2020 due to the recovery of production volume, CO_2 emissions by transport volume improved due to increased logistic efficiency.

GHG Emissions and Emissions per Unit of Sales



Efforts such as increasing our use of renewable energy sources led to a 25.0% decrease in greenhouse gas emissions in fiscal 2021 compared to fiscal 2017. Although GHG emissions increased compared to fiscal 2020 due to the recovery of production volume, emissions per unit of sales improved.

Resource Conservation and Recycling Measures



NSK Report 2022 P.41 Foundation Supporting Sustainability Environmental Management

Websites Sustainability Information ▶ NSK ESG Initiatives ▶ Environment ▶ Resource Conservation and Recycling Measures

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	Steel consumption	NSK Group	× 10 ³ t	756	758	618	562	655
Materials and	Oils and greases	(procurement volume from main suppliers)		21	21	20	19	21
parts	Recycled plastic raw material use for distribution (plastic containers, i.e. returnable containers)	NSK Logistics Co., Ltd., and main distribution contractors	t	210	283	148	144	156
	Total water withdrawal	1	$\times 10^3 \text{m}^3$	4,713	4,700	4,308	3,977	4,169* ¹
	Groundwater	i ! !	$\times 10^3 \text{m}^3$	1,869	2,011	1,789	1,659	1,826* ¹
	General water	NSK Group	$\times 10^{3} \text{m}^{3}$	2,325	2,194	2,028	1,922	1,978*1
Water	Industrial water Rainwater and reused water		$\times 10^{3} \text{ m}^{3}$ $\times 10^{3} \text{ m}^{3}$	519	495	490	396	357* ¹ 8* ¹
consumption	Water withdrawal in water-stressed regions (breakdown)*2	i 1 1	× 10 ³ m ³	159	83	19	13	17
	Total water withdrawal	NSK Group	$\times 10^3 \text{m}^3$	4,557	4,566	4,196	3,892	4,087
	Rate of change in water withdrawal per unit of sales*3	(production sites)	%	0 (base year)	+3.1	+13.0	+16.6	+5.8
	Total waste and valuables		× 10 ³ t	225.5	230.1	201.8	181.9	203.1* ¹
	Reused/recycled (excluding heat recovery)		× 10 ³ t	192.2	195.0	171.8	156.3	174.7* ¹
Waste and	Total waste disposed (including heat recovery)	1	× 10 ³ t	33.3	35.1	30.0	25.6	28.4*1
valuables	Landfilled	NSK Group*4	× 10 ³ t	3.3	3.6	2.9	2.1	2.4
	Incinerated with heat recovery		× 10 ³ t	13.3	13.2	11.8	10.3	10.7
	Incinerated without heat recovery		× 10 ³ t	5.0	5.5	4.0	3.3	3.9
	Other disposal (water treatment, etc.)		× 10 ³ t	11.7	12.8	11.3	9.9	11.4
	Total hazardous waste	: : : :	× 10 ³ t	18.6	18.9	17.0	16.3	18.0
	Reused/recycled (excluding heat recovery)		× 10 ³ t	6.2	6.8	5.5	6.4	7.2
	Total waste disposed (including heat recovery)		× 10 ³ t	12.4	12.1	11.5	9.9	10.8
Hazardous waste	Landfilled	NSK Group	× 10 ³ t	1.2	1.5	1.1	0.5	0.8
	Incinerated with heat recovery		× 10 ³ t	4.6	4.3	3.7	3.1	3.1
	Incinerated without heat recovery	! ! !	× 10 ³ t	2.2	1.9	1.9	2.6	3.1
	Other disposal (water treatment, etc.)		× 10 ³ t	4.4	4.4	4.8	3.7	3.8
	Total waste and valuables	1	× 10 ³ t	223.5	227.8	200.2	180.6	202.0*1
	Valuables	1	× 10 ³ t	156.8	159.4	137.3	125.9	140.0*1
	Waste	NSK Group	× 10 ³ t	66.8	68.5	62.9	54.7	62.0* ¹
	Landfill disposal volume	sites)	× 10 ³ t	3.01	3.35	2.62	1.90	2.25
Waste and valuables	Rate of change in industrial waste per unit of sales*5	1 1 1 1 1	%	0 (base year)	+5.6	+15.8	+11.8	+9.5
	Recycling rate*6 for waste	1	%	98.6	98.4	98.6	98.9	98.8*1
	Amount of packaging waste (distribution)	NSK Logistics Co., Ltd.,	t	174	193	211	169	190
	Rate of change in packaging waste per production unit (distribution)*7	and main distribution contractors	%	0 (base year)	10.8	39.8	28.1	45.3

 $^{^{\}star}1$ Verified by a third-party. See the Independent Verification Report on pp.15-16 for details.

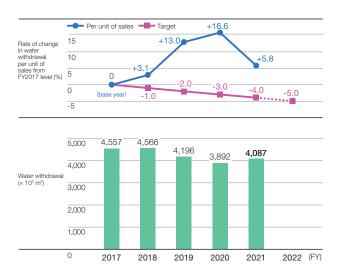
^{*2} Refers to water withdrawal at three plants in India that are determined to be located in high water-risk areas based on assessments by WWF Water Risk Filter and WRI Aqueduct. Based on local assessments, NSK has determined that current risk is low.

^{*3} Water withdrawal per unit of sales (production sites) = Water withdrawal / net sales

^{*4} Figures for fiscal 2017 are for production sales only
*5 Industrial waste per unit of sales (production sites) = Waste amount / net sales
*6 Recycling rate (production sites) = Recycled amount / (Total waste amount - reduction amount) × 100

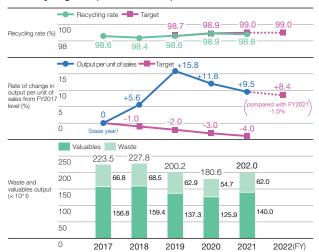
^{*7} Packaging waste per production unit (distribution) = Amount of packaging material waste / production volume

Water Withdrawal per Unit of Sales (Production Sites)



We are working to effectively use water by improving management, promoting recycling, and taking other measures. Water withdrawal in fiscal 2021 increased by 195,000 m³ compared to the previous fiscal year. Water withdrawal per unit also increased by 5.8% compared to fiscal 2017 due to the sales decrease caused by the COVID-19 pandemic.

Industrial Waste and Valuables Output, Output per Unit of Sales, and Recycling Rate (Production Sites)



Note: We updated our target for output per unit of sales to a 1% decrease compared to the previous fiscal year.

The recycling rate for fiscal 2021 was 98.8%, just below the target of 99.0%. However, the output per unit of sales has been steadily improving since fiscal 2019 as a result of our 3R initiatives.

Reducing Use of Environmentally Harmful Substances



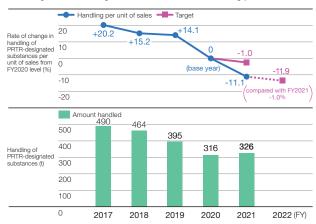
Websites

Sustainability Information ▶ NSK ESG Initiatives ▶ Environment ▶ Reducing Use of Environmentally Harmful Substances

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Green procurement	Rate of supplier consent to NSK Group Green Procurement Standards obtained		%	97.4	98.6	99.1	99.1	77.6
	Number of suppliers audited by NSK Group companies	NSK Group	Companies	183	192	124	158	200
	Number of suppliers at which the NSK Survey of Environmentally Harmful Substance Inclusion was conducted		Companies	468	473	478	467	898
	Handling of PRTR-designated substances		t	490	464	395	316	326
Reducing use of	Discharge/transfer of PRTR-designated substances	Group in Japan	t	105	72	78	73	86
environmentally harmful substances	Rate of change in handling of PRTR-designated substances per unit of sales*2	,	%	+20.2	+15.2	+14.1	0 (base year)	-11.1
	Emissions of VOCs		t	154	151	145	141	165*1
	Rate of change in emissions of VOCs per unit of sales*3	NSK Group	%	-13.5	-12.7	0 (base year)	+8.1	+9.3
Protecting air	Emissions of NOx		t	132	128	119	106	113
quality	Emissions of SOx		t	50	42	38	39	33
	Discharged (total)	NSK Group	$\times 10^3 \text{m}^3$	3,040	3,159	2,847	2,519	2,757
	Rivers	Non Group	$\times 10^3 \text{m}^3$	453	729	591	575	646
Protecting water	Sewage system		$\times 10^3 \text{m}^3$	2,587	2,430	2,256	1,944	2,110
quality	BOD (biochemical oxygen demand)		t	1.3	1.4	1.2	1.2	1.5
	Discharged (total)	NSK Group (production sites)	× 10 ³ m ³	2,925	2,982	2,692	2,441	2,680

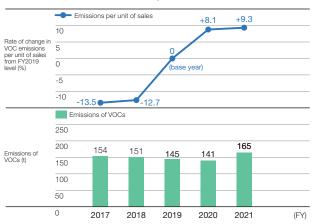
^{*1} Verified by a third-party. See the Independent Verification Report on pp.15-16 for details.

Handling of PRTR-Designated Substances and Handling per Unit of Sales



Thanks to efforts to achieve our target of reducing handling of PRTR-designated substances per unit of sales by 1% compared to fiscal 2020, we greatly surpassed our fiscal 2021 target and achieved an 11.1% reduction. In fiscal 2022, we will introduce new efforts to achieve further reductions.

Emissions of VOCs and Emissions per Unit of Sales



NSK Group's Main Initiatives to Reduce Environmentally Harmful Substances

FY	Action
1994	Completely eliminated CFCs for cleaning
1994	Completely eliminated trichloroethylene
1999	Phased out in-house incinerators (a measure against dioxins)
2003	Completely eliminated chlorinated organic solvents

FY	Action
2006	Came into full compliance with the EU RoHS Directive*1 and ELV Directive*2 Reinforced chemical management system for compliance with the EU REACH regulation
2015	Phased out machining oil with chlorine-based extreme pressure additives (a measure against dioxins)
2020	Fully responded to the 10 EU RoHS2*3 substances

^{*1} RoHS Directive: An EU directive that restricts the use of six harmful substances in electric and electronic devices

^{*2} Handling of PRTR-designated substances per unit of sales = Handling of PRTR-designated substances / net sales

^{*3} Emissions of VOCs per unit of sales = Emissions of VOCs / net sales

^{*2} EU ELV Directive: An EU directive that prohibits lead, mercury, cadmium, and hexavalent chromium in automotive parts and materials, in order to promote the recycling of end of life vehicles *3 RoHS2 Directive: The revised RoHS Directive issued in 2014, now including phthalates and other substances added in 2019, restricts the use of 10 substances.

NSK ESG Data Book 2022 Environment Social Governance

Biodiversity Conservation



Websites

Sustainability Information ► NSK ESG Initiatives ► Environment ► <u>Biodiversity Conservation</u>

Sustainability Information ► NSK ESG Initiatives ► Environment ► Biodiversity Conservation

▶ Expanding Social Contribution Activities Related to Biodiversity Conservation

Number of Initiatives (Japan)

	Category	Scope of coverage		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Biodiversity	Initiatives implemented (total)	Group	Initiatives	3	6	6	3	5
conservation	Initiatives in previous fiscal years*		Initiatives	3	4	5	3	5
initiatives	New initiatives in the fiscal year		Initiatives	0	2	1	0	0
Target: 1 new initiative/year	Donation		Millions of yen	0.4	0.7	0.7	0.9	1.5

^{*} Varies depending on the fiscal year, as some could not be implemented in the applicable fiscal year due to bad weather, etc.

Number of Biodiversity Conservation Initiatives (Japan) New initiatives in the fiscal year Initiatives in previous fiscal years (Initiatives) 6 6 6 1 1 5 5 4 3 3 3 5 2 3 4 3 3

2019

2020

2021 (FY)

2017

2018

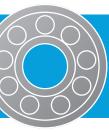
Biodiversity Conservation Initiatives: New Initiatives by Fiscal Year and Results in FY2021 (Japan)

First				FY2	021
year	Site(Pref.)	Category	Overview	Month(s) held	Participants*
2014	Shiga	Removal of specific invasive species	Removal of invasive fish species from Lake Biwa, which is a Ramsar Site	_	_
2015	Gunma	Preservation of satoyama forest areas	NSK Gunma Future Forest activities	October	27
2015		Preservation of satoyama forest areas and nature observation workshops	Leaf removal, grass cutting, nature observation, etc., under the guidance of an NPO in green zones in Fujisawa City, Kanagawa Prefecture	November	49
2016		Removal of specific invasive species and nature observation workshops	Activities to protect the native habitat of the waterwheel plant (Aldrovanda vesiculosa), a protected species, in Houzoji Marsh	July	50
2018	Fukushima	Preservation of satoyama forest areas	Forest preservation activities in Tanagura Town	June	21
2018	Shiga	Preservation of satoyama forest areas	Tree planting, grass cutting, etc., under the guidance of a local forestry cooperative based on a Shiga Prefecture Lake Biwa Forestation Partner Agreement	_	_
2019	Shizuoka	Marine conservation activities	Shoreline cleanup (reducing marine plastics) and preservation activities of sea turtles	November	37

^{*} Including participants from outside the company (personnel of NPOs, forest cooperatives, local governments, and local residents)

Biodiversity Impact Analysis and Initiatives

Making products lighter (manufactured with minimal friendly materials and			activities	
Promotion of positive impacts Developing longer-lasting products Developing products that are easy to recycle after use Reducing environment impact in parts and raw material production thr supplier selection Developing products that are easy to recycle after use Revising manufacturing processes	milk runs and ampty trucks	Conducting environmental risk assessments Protecting important species	Creating and managing habitats through employee volunter activities Reducing marine plastic (cleanups) Donating to various organizations	Promoting employee education Promoting activities in the NSK Group Promoting activities based on local characteristics Pavorable reputation in the community
Reducing resource waste Reducing environment impact in parts and raw material production by suppliers through suppresent of the production of the p	materials, water, and energy Reducing GHG emissions from production and transport Reducing the creation of landfills by reducing landfill disposal of waste Reducing modification of plant premises	Reducing deterioration of energy efficiency dependent on buildings Reducing habitat modification of air, water, soil, etc.	Reducing the lack of employee education Reducing biodiversity loss	Reducing the lack of recognition of local characteristics
Developing environmentally friendly products Revising manufacturing processes Improving yield NSK's initiatives on impacts Developing environmentally friendly products Reducing waste plastic	reducing emissions	of harmful substances Conducting environmental impact assessments before construction of new plants, before plant site modification, and before construction Improving insulation performance of buildings Protecting important species Conducting environmental risk assessments (IBAT analysis)	Preservation of satoyama forest areas Tree planting Reducing marine plastic (cleanups) Removing specified invasive species Donating to various organizations	Cooperation with NPOs, local governments, and local residents and organizations Internal and external public relations
	Employee	e education		



Social

Research and Development

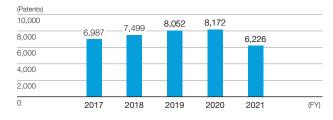


NSK Report 2022 Pp.44-45 Foundation Supporting Sustainability Technological Foundation

Websites Research & Development

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
R&D expenses	R&D expenses (on a statutory basis)	-	Billions of yen	17.1	19.0	18.3	16.8	19.2
	R&D expenses (on a managerial basis)		Billions of yen	28.2	32.4	31.4	28.6	30.8
Sales share of new/ improved products	Total sales share of new/improved products		%	21	18	18	16	14
Number of patents held	Number of patents held		Patents	6,987	7,499	8,052	8,172	6,226

Number of Patents Held



NSK strongly emphasizes research and development, maintaining technology-related expenses at 3-4% of sales in order to achieve sustainable growth. NSK continuously applies for patents on its technological achievements to achieve differentiation from competitors and increase the competitiveness of its products and services. In fiscal 2021, the number of patents held decreased, as we did not apply for renewal of patents that have little potential for future use, the number of which surpassed the number of newly registered patents.

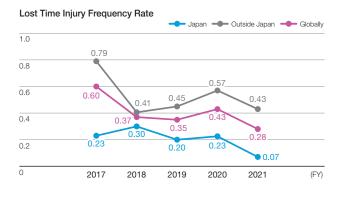
Occupational Health and Safety



NSK Report 2022 P.42 Foundation Supporting Sustainability Safety Management

Websites Sustainability Information ▶ NSK ESG Initiatives ▶ Safety Management

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021*3
	Globally	NSK Group	_	0.60	0.37	0.35	0.43	0.28*2
Lost time injury	Japan	Group in Japan	_	0.23	0.30	0.20	0.23	0.07*2
frequency rate*	Outside Japan	NSK Group (outside Japan)	-	0.79	0.41	0.45	0.57	0.43*2



We are strengthening our occupational safety initiatives throughout the entire NSK Group. The lost time injury frequency rate decreased to 0.28 in fiscal 2021 from 0.43 in fiscal 2020.

- *1 Lost time injury frequency rate = Number of work accidents resulting in one or more days of work absence / total actual working hours × 1,000,000
- *2 Verified by a third-party. See p.17 for details.
- *3 There were no serious accidents, including fatalities.

NSK ESG Data Book 2022 Environment Social Governance

Health and Wellness



NSK Report 2022 P.40 Foundation Supporting Sustainability Evolve Personnel Development

Websites Sustainability Information ▶ NSK ESG Initiatives ▶ Human Resource Management

▶ <u>Safe and Healthy Workplaces and Work-Style Reforms: Building More Engaging Workplaces</u>

	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	Percentage of employees participating in the Specific Health Guidance program		%	25.7	25.3	25.1	27.3	27.2
Health and wellness initiatives indicators	Percentage of employees receiving stress checks	Group in Japan*	%	93.8	95.9	94.9	95.9	97.9
	Percentage of employees who smoke		%	39.1	37.6	36.6	33.8	31.9
	Percentage of employees receiving regular health checkups		%	_	_	_	_	100.0
Indicators on the status of health investment measures	Participation rate in health and wellness e-learning	Group in Japan*	%	_	_	_	_	96.2
measures	Completion rate of the Specific Health Guidance program		%	_	_	_	_	40.9
Indicators on changes in employee awareness	Percentage of employees who thought "I need to change!" regarding health initiatives	Group in Japan*	%	_	_	_	_	93.4
and behavior	Percentage of employees with a high level of stress		%	_	_	_	_	10.3
Final health-related target indicators	Presenteeism (percentage of loss, based on the WHO-HPQ method)	0	%	_	_	_	_	38.9
	Absenteeism (percentage of long absences due to illness)	Group in Japan*	%	_	_	_	_	0.7

 $^{^{\}star}$ NSK Ltd. and major NSK Group companies in Japan

Human Resources

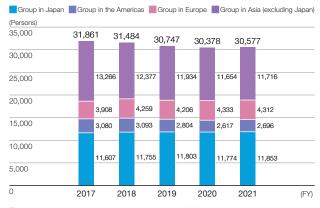


NSK Report 2022 P.40 Foundation Supporting Sustainability Evolve Personnel Development

Websites Sustainability Information ▶ NSK ESG Initiatives ▶ <u>Human Resource Management</u>

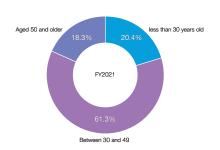
	Category	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	Total	NSK Group	Persons	31,861	31,484	30,747	30,378	30,577
	Japan	Group in Japan	Persons (%)	11,607 (36.4)	11,755 (37.3)	11,803 (38,4)	11,774 (38.8)	11,853
Number of employees	The Americas	Group in the Americas	Persons (%)	3,080	3,093	2,804	2,617	2,696
Number of employees	Europe	Group in Europe	Persons	(9.7) 3,908	(9.8) 4,259	(9.1) 4,206	(8.6) 4,333	(8.8) 4,312
		Group in Asia	(%) Persons	(12.3) 13,266	(13.5) 12,377	(13.7) 11,934	(14.3) 11,654	(14.1) 11,716
	Asia	(excluding Japan)	(%)	(41.6)	(39.3)	(38.8)	(38.4)	(38.3)
Percentage breakdown of employees by	Men	NSK Group	(%)	82.4	80.9	81.0	82.0	81.9
gender (men/women)	Women		(70)	17.6	19.1	19.0	18.0	18.1
	Total		Years (Age)	16 (41)	16 (41)	17 (42)	17 (42)	17 (43)
Average years of employment (average age)	Men	Group in Japan* ¹	Years (Age)	17 (42)	17 (42)	17 (42)	18 (43)	17 (43)
(average age)	Women		Years (Age)	10 (37)	11 (37)	12 (37)	12 (38)	13 (38)
	Total		Persons	102	115	93	107	93
Number of new graduates hired	Men	Group in Japan* ²	Persons (%)	89 (87.3)	99 (86.1)	67 (72.0)	87 (81.3)	78 (83.9)
graduates nired	Women		Persons (%)	13 (12.7)	16 (13.9)	26 (28.0)	20 (18.7)	15 (16.1)

Number of Employees



The global number of employees as of the end of March 2022 increased by 199 people compared to the previous fiscal year, bringing the total to 30,577.

Breakdown of Employees by Age Group (NSK Group)



 $^{^{\}circ}1$ NSK Ltd. and major NSK Group companies in Japan $^{\circ}2$ NSK Ltd. and major NSK Group companies in Japan (career-track positions only)

	Category		Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	N Total ·	⁄len		%	_	91	91	91	90
		Vomen		%	_	9	9	9	10
Managers		⁄len	NOK O	%	_	98	98	94	92
Percentages of men and women	Senior Managers level · · · V	Vomen	NSK Group	%	-	2	2	6	8
	Managers level ·	⁄len		%	-	98	98	90	86
		Vomen		%	-	2	2	10	14
Turnover rate	Turnover rate*2			%	1.35*4	1.64	1.40	1.10*4	1.73
	Total		Group in	Persons	624	660	625	627*4	608
Number of rehired senior employees*3	Senior employee rehiring	g system	Japan*1	Persons	570	592	555	569	560
	Other (fixed-term contra	ct, etc.)		Persons	54	68	70	58* ⁴	48
Employment rate of	Employment rate of people with disabilities	with	Group in Japan* ¹	%	2.09	2.25	2.24	2.45	2.56
people with disabilities	(Reference) Legally mandat employment rate in Japan	ed	_	%	2.00	2.20	2.20	2.30	2.30
Number of employees	Total			Persons	69	109	162*4	189*4	184
who took childcare	Men			Persons	40	73	125* ⁴	147* ⁴	149
leave	Women		Group in	Persons	29	36	37	42	35
Number of employees	Total		Japan*1	Persons	3	3	11	15	12
who took nursing care	Men			Persons	1	2	6	10	10
leave	Women			Persons	2	1	5	5	2
	Number of participants in G Management College	Global	NSK Group	Persons	14	13	12	0*5	0*5
Human resource development	Number of participants in J. Management College	apan	Group in Japan* ¹	Persons	15	10	10	10	10
	Number of participants in N of Technology	ISK Institute	NSK Group	Persons	466	451	527	518	493
Rate of labor union	Non-management employe	es		%	100	100	100	100	100
participation	All employees including ma	nagement	Group in Japan*1	%	82	83	83	83	84
Labor-management consultations	Number of labor-managem consultations*6	ent	υαραιτ	Times	7	7	7	5	7
Employee engagement survey*7	Number of participants (officemployees)	cers and	NSK Group	Persons	28,893 (Worldwide)	15,538 (Japan)	15,518 (Outside Japan)	16,985* ⁴ (Worldwide)	5,976*8 (Outside Japan)

^{*1} NSK Ltd. and major NSK Group companies in Japan

^{*2} Percentage of persons employed at the end of the previous fiscal year who left the Company in the given year *3 Number of employees aged 60 and over *4 The data has been updated retrospectively.

^{*5} Suspended due to the COVID-19 pandemic.

^{*6} Number of times Central Labor-Management Conference meetings held

*7 Conducted as a compliance awareness survey until fiscal 2017. Conducted as Employee Engagement Survey (Compliance Awareness Survey) from
fiscal 2018 onward (same data as the employee engagement survey described on p.14).

^{*8} Some survey subjects were postponed due to the COVID-19 pandemic.



Governance

Corporate Governance



NSK Report 2022 Pp. 56-61 Corporate Governance

Websites Company ► Corporate Governance

Composition of the Board of Directors and Nomination/Audit/Compensation Committees

As of June 30 of each fiscal year

	Category	Unit	June 2018*1	June 2019	June 2020	June 2021	June 2022
	Chair of the Board of Directors	_	President and CEO	President and CEO	President and CEO	Chairman and Director	Chairman and Director
	Number of directors	Persons	12	12	9	9	9
	Men (percentage)	Persons (%)	11 (91.7)	11 (91.7)	8 (88.9)	8 (88.9)	8 (88.9)
	Women (percentage)	Persons (%)	1 (8.3)	1 (8.3)	1 (11.1)	1 (11.1)	1 (11.1)
	Number of internal directors (who also serve as executive officers)	Persons	6	6	3	2	2
	Men	Persons	6	6	3	2	2
	Women	Persons	0	0	0	0	0
Board of Directors	Number of internal directors (who do not serve as executive officers)	Persons	1	1	1	2	2
	Number of independent outside directors (total)	Persons	5	5	5	5	5
	Men	Persons	4	4	4	4	4
	Women	Persons	1	1	1	1	1
	Percentage of internal directors (who also serve as executive officers)	%	50.0	50.0	33.3	22.2	22.2
	Percentage of independent outside directors	%	41.7	41.7	55.6	55.6	55.6
	Number of independent outside directors with four or more important concurrent posts	Persons	0	0	0	0	0
	Term of directors	Years	1	1	1	1	1
	Average tenure of directors*2	Years	3.3	3.3	3.5	4.3	4.4
	Committee chair	-	Independent outside director	Independent outside director	Independent outside director	Independent outside director	Independent outside director
Nomination Committee	Number of members	Persons	3	3	3	3	3
	Internal directors	Persons	1	1	1	1	1
	Independent outside directors	Persons	2	2	2	2	2
	Committee chair	-	Independent outside director	Independent outside director	Independent outside director	Independent outside director	Independent outside director
Audit Committee	Number of members	Persons	4	3	4	4	4
	Internal directors	Persons	1	1	1	1	1
	Independent outside directors	Persons	3	2	3	3	3
Compensation	Committee chair	-	Independent outside director	Independent outside director	Independent outside director	Independent outside director	Independent outside director
Committee	Number of members	Persons	3	3	3	3	3
	Internal directors	Persons	1	1	1	1	1
	Independent outside directors	Persons	2	2	2	2	2

^{*1} One independent outside director was appointed in July 2018.
*2 The average tenure of directors who were reelected following the previous year, at the time directors are elected.

Number of Times the Board of Directors and Nomination/Audit/Compensation Committees Convened and Their Attendance Rates

	Category	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
	Number of times convened	Meetings	10	10	10	10	10
Board of Directors	Attendance rate	%	100	99	99	98	100
	Attendance rate of independent outside directors	%	100	98	98	98	100
	Number of times convened	Meetings	6	7	8	5	7
Nomination Committee	Attendance rate	%	100	95	100	100	100
	Attendance rate of independent outside directors	%	100	86	100	100	100
	Number of times convened	Meetings	14	14	15	16	14
Audit Committee	Attendance rate	%	100	100	100	100	100
	Attendance rate of independent outside directors	%	100	100	100	100	100
Compensation Committee	Number of times convened	Meetings	4	8	5	4	5
	Attendance rate	%	100	100	100	100	100
	Attendance rate of independent outside directors	%	100	100	100	100	100

Executive Officers, Group Officers

As of April 1 of each fiscal year

	Category		April 2018	April 2019	April 2020	April 2021	April 2022
	Total	Persons	34	35	34	32	21
Executive officers	Men (percentage)	Persons (%)	33 (97.1)	34 (97.1)	33 (97.1)	30 (93.7)	20 (95.2)
	Women (percentage)	Persons (%)	1 (2.9)	1 (2.9)	1 (2.9)	2 (6.3)	1 (4.8)
	Total	Persons	3	3	3	4	4
Group officers	Men (percentage)	Persons (%)	3 (100)	3 (100)	3 (100)	4 (100)	4 (100)
	Women (percentage)	Persons (%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Compensation of the President and CEO

Category	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Total consolidated compensation, etc., of the President and CEO*1	Millions of yen	203	153	Less than 100	157	102
Average annual salary of employees (NSK Ltd.)*2	Millions of yen	7.62	7.76	7.47	6.85	7.12
Ratio of total consolidated compensation, etc., of the President and CEO to average annual salary of employees	-	26.6	19.7	Less than 13.4	22.9	14.3

^{*1} Disclosed in the Status of Corporate Governance section in the Annual Securities Report.

Political Donations

Category	Unit	FY2017	FY2018	FY2019	FY2020	FY2021
Political donations	Millions of yen	4.10	4.05	4.05	2.05	4.05

Compliance



NSK Report 2022 P. 51 Compliance

Websites Sustainability Information ▶ NSK ESG Initiatives ▶ Compliance

Categor	Scope of coverage	Unit	FY2017	FY2018	FY2019	FY2020	FY2021	
Employee engagement survey*1	Participants (officers/ employees)		Persons	28,893 (Worldwide)	-,	15,518 (Outside Japan)	.,	5,976* ³ (Outside Japan)
Compliance hotline: Number of consultations and reports			Incidents	88	127	175	178	168
Number of serious legal violation	s, incidents/accidents		Incidents	0	0	0	0	0
Number of penalties for corruption	on/bribery incidents	NSK Group	Incidents	0	0	0	0	0
Number of violations of competit	tion law		Incidents	0	0	0	0	0
(including compliance-related	Sessions conducted		Sessions	106*4	207	154	172	106
	Number of participants*5		Persons	1,463*4	2,960	2,867	5,481	7,588
	Average training time		Hours/person	1.5	1.0	1.0	1.0	0.6

^{*1} Conducted as Compliance Awareness Survey through fiscal 2017. Conducted as Employee Engagement Survey (includes compliance-related questions) from fiscal 2018 onward (same data as the employee engagement survey on p.12).

^{*2} Disclosed in the Overview of Company section in the Annual Securities Report.

^{*2} The data has been updated retrospectively.

^{*3} Some survey subjects were postponed due to the COVID-19 pandemic.

^{*4} Includes the results of training conducted outside Japan.

^{*5} Includes e-learning participants, since fiscal 2020.



No.1811004387

Independent Verification Report

To: NSK Ltd.

1. Objective and Scope

Japan Quality Assurance Organization (hereafter "JQA") was engaged by NSK Ltd. (hereafter "the Company") to provide an independent verification on "FY2021* NSK Group GHG emissions (Scope 1 and 2) calculation report", "FY2021* NSK Group GHG emissions (Scope 3) calculation report", "FY2021 NSK Group Water withdrawal calculation report", "FY2021 NSK Group Waste, valuable resources, and Hazardous waste calculation report" and "FY2021 NSK Group VOC emissions calculation report" (hereafter "the Reports"). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuable resources, Hazardous waste only in Japan facilities, and VOC emissions in the Reports was correctly measured and calculated, in accordance with the "NSK Group GHG emissions calculation standard (Scope 1 and 2) (Ver. 02-10)", "NSK Group GHG emissions calculation standard (Scope 3) (Ver. 01-08)", "NSK Group Water withdrawal calculation standard (Ver. 01-05)", "NSK Group Total waste of industrial waste and valuables, Recycling rate and Hazardous waste, calculation standard (Ver. 02-03)", "NSK Group PRTR emissions calculation standard (Ver.01-03)" and "NSK Group VOC emissions calculation standard (Ver.01-04)" (hereafter "the Rules"). The purpose of the verification is to evaluate the Reports objectively and to enhance the credibility of the Reports.

* The fiscal year 2021 of the Company ended on March 31, 2022.

2. Procedures Performed

JQA conducted verification in accordance with "ISO 14064-3" for GHG emissions and Energy use, and with "ISAE3000" for Water withdrawal, Industrial waste and valuable resources, Hazardous waste, and VOC emissions, respectively. The scope of this verification assignment covers Scope 1 (Energy-derived CO₂, non-energy-derived CO₂ associated with the use of acetylene, CH₄ and N₂O), Scope 2 and Scope 3 as GHG emissions, Energy Use, Water withdrawal*¹, Industrial waste and valuable resources*², Hazardous waste only in Japan facilities *³, and VOC emissions*⁴. The verification was conducted to a limited level of assurance and quantitative materiality was set at 5 percent each of the total emissions and total amount in the Reports. The organizational boundaries of this verification cover all NSK Group sites in Japan and outside Japan, including production sites, technology centers and non-production sites of NSK Ltd., NSK equity affiliates*⁵ and NSK brand producing companies.

- *1 Water withdrawal is comprised of tap water, industrial water, groundwater, recycled water and rainwater, used by business activities
- *2 Industrial waste and valuable resources are solid or liquid waste discharged by business activities.
- *3 Hazardous waste is "specially controlled industrial waste" stipulated by the "Waste Management and Public Cleaning Act" among the amount of Industrial waste and valuable resources only in Japan facilities.
- *4 VOC emissions are substances specified by the Rules, among the VOC emitted from business activities.
- *5 NSK equity affiliates which 50 percent or more of the voting stock is owned by NSK.

Our verification procedures included:

- For on-site verification except for Scope 3, visiting four sampling sites in Japan: NSK Ltd. Takasaki Plant, Osaka Nissei Bldg., NSK-Warner K.K. Fukuroi Plant, Asahi Seiki Co., Ltd., selected by the Company.
- On-site assessment to check the report boundaries; monitoring points of activity data; monitoring and calculation system; and the activity data.
- Performing validation of the Rule and verification of Scope 3. Checking calculation scenario and allocation method for Scope 3; monitoring and calculation system; and emission data.

^{*}Please refer to the next page.



No.1811004387

3. Conclusion

Based on the procedures described above, nothing has come to our attention that has caused us to believe that the statement of the information regarding the Company's FY2021 GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuable resources, Hazardous waste only in Japan facilities, and VOC emissions in the Reports is not materially correct, or has not been prepared in accordance with the Rules.

4. Consideration

The Company was responsible for preparing the Reports, and JQA's responsibility was to conduct verification of GHG emissions, Energy Use, Water withdrawal, Industrial waste and valuable resources, Hazardous waste only in Japan facilities, and VOC emissions in the Reports only. There is no conflict of interest between the Company and JQA.

Sumio Asada, Board Director

For and on behalf of Japan Quality Assurance Organization

1-25, Kandasudacho, Chiyoda-ku, Tokyo, Japan

July 22, 2022

^{*}Please refer to the previous page.



Independent Assurance Statement

December 8, 2022

Mr. Akitoshi Ichii President & CEO NSK Ltd.

1. Purpose

We, Sustainability Accounting Co., Ltd., have been engaged by NSK Ltd. ("the Company") to provide limited assurance on the Company's Lost-Worktime Injury Rates for the fiscal year ended March 2022 which were 0.07 in Japan, 0.43 outside Japan, and 0.28 globally ("the performance data"). The purpose of this process is to express our conclusion on whether the performance data were calculated in accordance with the Company's standards. The Company's management is responsible for calculating the performance data. Our responsibility is to independently carry out a limited assurance engagement and to express our assurance conclusion.

2. Procedures Performed

Our assurance engagement has been planned and performed in accordance with International Standard on Assurance Engagement 3000 (ISAE3000).

The key procedures we carried out included:

- Interviewing the Company's responsible personnel to understand the Company's standards
- · Reviewing the Company's standards
- Performing cross-checks on a sample basis and performing a recalculation to determine whether the performance data were calculated in accordance with the Company's standards.

3. Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the performance data have not been calculated, in all material respects, in accordance with the Company's standards.

We have no conflict of interest relationships with the Company.

Takashi Fukushima Representative Director

Sustainability Accounting Co., Ltd.

