Sumitomo Heavy Industries, Ltd.

ENVIRONMENTAL INITIATIVES

Environmental Activity Report

■ **CONTENTS**

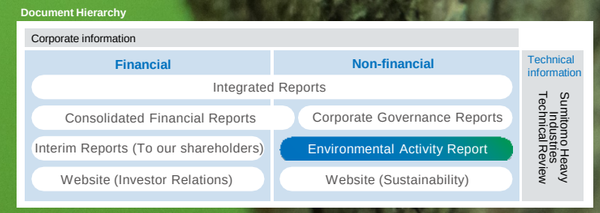
Scope: This report covers Sumitomo Heavy Industries, Ltd. as well as its consolidated subsidiaries and equity-method affiliates both in Japan and overseas. Context changes are duly noted in the report.

Timeline: April 1, 2021 to March 31, 2022

Guidelines referenced: Environmental Reporting Guidelines 2018, Ministry of the Environment
Environmental Accounting Guidelines 2005, Ministry of the Environment

Cautionary Note Concerning Forward-Looking Statements:
This report includes forward-looking statements regarding the future performance of Sumitomo Heavy Industries, Ltd. These forward-looking statements are based on information currently available to the Company and determined subjectively. All information contained herein is subject to changes in actual business performance.

Document Hierarchy



Support for TCFD Recommendations

In October 2021, the Sumitomo Heavy Industries Group (SHI Group) endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD*). Along with further improving our activities in a manner facilitating solutions to the challenge of climate change, we will endeavor to more fully communicate and disclose information in line with the TCFD framework in a manner that provides greater clarity to our stakeholders. Please see our Integrated Report for more information about how we are responding to climate change risks.

*TCFD (Task Force on Climate-related Financial Disclosures)
TCFD is a special private sector-led organization formed at the request of the G20 and composed of members from a broad range of economic sectors and financial markets around the world, including major corporations and credit rating agencies. The TCFD recommends that companies evaluate the financial impact of climate change risks and opportunities on their operations and disclose their governance, strategy, risk management, metrics and targets.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Long-Term Target of Achieving Carbon-Neutral by 2050

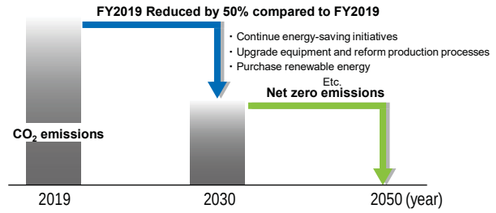
The SHI Group Board of Directors has resolved to strive to achieve carbon-neutral by 2050 as a response to intensifying climate change. The Group also set CO_2 reduction targets for 2030 that will serve as interim performance indicators.

- Aim to achieve carbon-neutral (net zero CO_2 emissions) throughout the entire SHI Group by 2050
- CO_2 emissions during product manufacturing (Scopes 1 and 2[*1]): 50% reduction by 2030 (compared to FY2019)
- CO_2 emissions during product use (Scope 3[*1], Category 11[*2]): 30% reduction by 2030 (compared to FY2019)

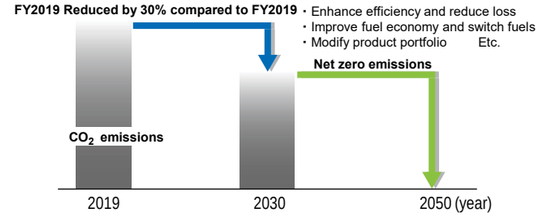
The SHI Group's business is built on providing industrial machinery that supports our customers' production activities. We believe that helping accelerate the realization of a carbon-free society through our products and services will build value for SHI Group products and, further, facilitate sustainable growth for our Group.

*1 Calculated based on the GHG Protocol.
*2 We will assess actual Scope 3 emissions that are other than Category 11 and then conduct studies toward setting targets accordingly.

▶ SHI Group CO_2 emissions reduction (Scope 1, 2)



▶ SHI Group CO_2 emissions during product use (Scope 3 Cat. 11)



6th Medium-Term Environmental Plan

The SHI Group has been committed to promoting the 6th Medium-Term Environmental Plan (FY2020 to 2023) since FY2020 as we strive to contribute toward realizing a sustainable society, endeavor to resolve social issues, and enhance corporate value across our products and services. With a focus on the following four key issues in our 6th Medium-Term Environmental Plan, we have been working to reduce total CO_2 emissions during product manufacturing processes to help mitigate climate change, as well as expanding our range of Sustainability Plus Products (to reduce CO_2 emissions during product use) as a part of our overall CO_2 emission-cutting activities.

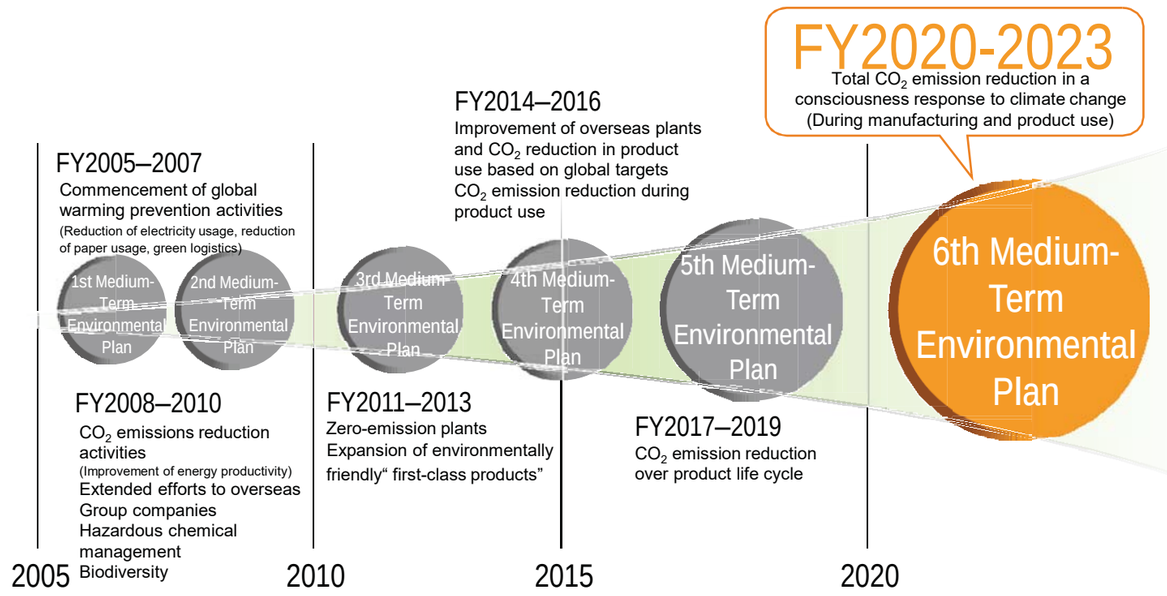
(1) Strengthen environmental risk management
We will strive to prevent environmental incidents and continuously improve and invigorate our environmental management system.

(2) Reduce CO_2 emissions in a consciousness response to climate change
Of "the burdens that the product life cycle places on the environment", we will endeavor to "reduce CO_2 emissions" during both product manufacturing and use, which comprise some of the highest environmental loads.

(3) Reduce the environmental loads of business activities
Of "the burdens that the product life cycle places on the environment", we will work to "reduce the environmental footprint" associated with business activities other than "CO_2 emissions" through such efforts as contributing to solutions for marine plastic pollution and implementing the 3R principle for waste and product packing materials.

(4) Conservation of biodiversity
We will strive to help preserve biodiversity through social contribution focusing on Sustainability Plus Products.

Transition of SHI Group's Environmental Management Activities (2005-2021)



Environmental Targets and Achievements

FY2021 Targets and Achievements

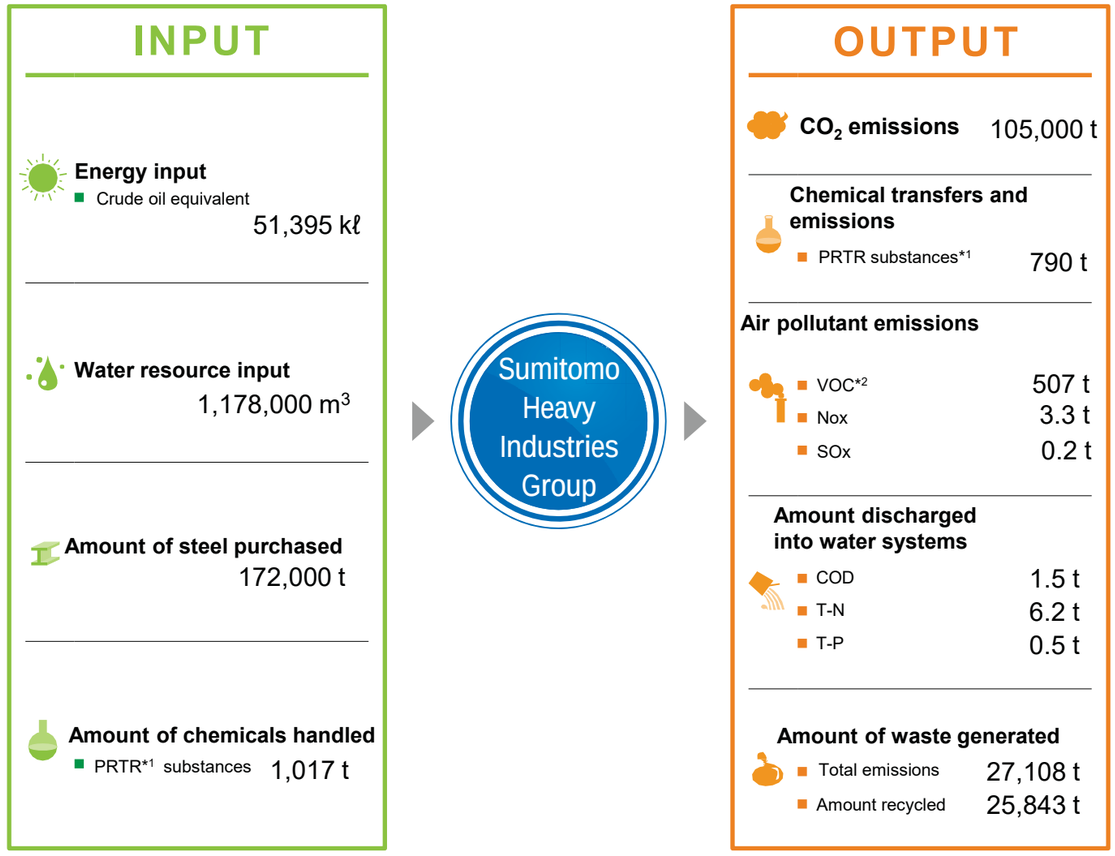
With the exception of environmental incidents, the SHI Group achieved 16 of the 17 targets in FY2021 under the 6th Medium-Term Environmental Plan.

Environmental incidents: In FY2021, no major environmental incidents occurred. However, there were five environmental incidents, so we did not achieve this medium-term goal. Following considerable paint spills and coating dust dispersal, efforts have been extended across the entire SHI Group, including sales and service sites, to prevent similar incidents from occurring. We are also striving to prevent incidents involving leakage of oil, chemicals, effluent, and similar substances from machinery by ensuring that planned repairs, component replacements, and other maintenance is performed as well as revising and strengthening environmental risk assessments.

Information about other items is given on p.6 and after.

Benchmark	Item	FY2021 Target	FY2021 Results
Environmental management	Major environmental incidents	Zero	0
	Environmental incidents	No more than 3 incidents	5 incidents
Climate change adaptation	Total CO_2 emissions (in Japan, market standard)	Reduce by 2% compared to FY2019	3.5% reduction
	During manufacturing / Energy productivity (in Japan)	Improve by 2% compared to FY2019	2.8% improvement
	During manufacturing / Energy productivity (Overseas)	Improve by 2% compared to FY2019	4.1% improvement
	During transportation / Green logistics (in Japan)	Maintain at or below FY2019 level	0.9% decrease
	Expansion of Sustainability Plus Products	Certify 23 models	25 models certified
Promotion of recycling to conserve resources	Reduction in basic waste emissions unit (in Japan) *Including hazardous waste	Maintain at or below FY2017 to 2019 average	11.8% reduction
	Reduction in basic waste emissions unit (Overseas) *Including hazardous waste	Reduced by 2% compared to FY2019	5.1% reduction
	Zero-emission landfill rate (in Japan)	Less than 0.5%	0.1%
	Reduction in product packing materials (basic unit in Japan)	Maintain at or below FY2017 to 2019 average	2.8% reduction
	Reduction of water consumption (in Japan)	Maintain at or below FY2017 to 2019 average	1.5% reduction
	Reduction in basic water consumption unit (Overseas)	Maintain at or below FY2019 level	8.6% reduction
Prevention of environmental pollution	VOC reduction (in Japan)	Maintain at or below FY2019 level	12.2% reduction
	VOC reduction (basic unit in Japan)	Maintain at or below FY2019 level	16.9% reduction

Overview of Environmental Loads in FY2021 (SHI Group companies in Japan)



*1 PRTR: Pollutant Release and Transfer Register
*2 VOC: Volatile Organic Compounds

Environmental Management

Sumitomo Heavy Industries Group Environmental Policy

Basic Concept

Recognizing that it is crucial to act globally to address environmental conservation and climate change to realize a sustainable society, the Sumitomo Heavy Industries Group is striving to reduce our environmental footprint in all business activities, including over the entire product life cycle, in line with our fundamental sustainability policy.

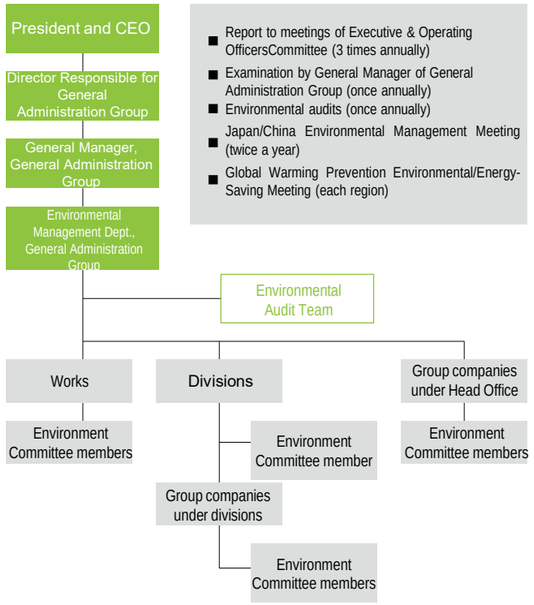
Environmental Policy

1. Strive to prevent environmental contamination while working to conserve the global environment.
2. Work on activities to reduce our environmental burden, such as reduction of CO_2 emissions and wastes, reuse and recycle of resources, and efficiently using energy with the aim of achieving a decarbonized and sound material-cycle society.
3. Consider the impact of our business operations on natural and ecosystems, and seek to preserve biodiversity.
4. Enhance our environmental management framework, and continue to operate and improve environmental management systems.
5. In addition to compliance with relevant environmental laws and regulations, establish, administer and evaluate voluntary standards as necessary.
6. Improve the environmental awareness of all personnel involved in our business activities through ongoing environmental education and awareness-raising activities.
7. Share, communicate, and make publish this Environmental Policy to all stakeholders.

Sumitomo Heavy Industries, Ltd.
December 1, 2021

Environmental Management System

Management of environmental activities across our entire Group is carried out by the Administration Division General Manager and the Environmental Management Department under the supervision of the Director responsible for General Administration Group Affairs designated by the President. The Sumitomo Heavy Industries Group's Environmental Policy is approved and determined by the President as the person with ultimate responsibility.
Environmental audits are conducted to check management status against the local situation at each manufacturing site, including affiliated companies. Reported results of activities and problems are shared at Environmental Management Meetings. The SHI Group's Environmental Policy, targets, initiatives, and other efforts have been communicated to employees during environmental education.



<Details of Activities>

・Environmental audits (once annually)

Environmental audits are conducted at manufacturing sites in Japan, China, and Southeast Asia to assess overall environmental management from the perspectives of environmental incident prevention, legal and regulatory compliance, and global warming prevention.

To improve the level of environmental management, audit results are evaluated on a five-point scale for each department based on our own criteria. The results are reported at Executive & Operating Officers Committee meetings.

・Examination by General Manager, General Administration Group (as required)

In conjunction with environmental audits, the General Manager of the General Administration Group conducts a separate examination and provides guidance to departments at the General Manager's discretion (such as departments that, in the previous fiscal year, experienced an environmental incident, those whose performance was far below targets, and other necessary circumstances).

・Environmental management meeting (biannual)

Environmental Management Meetings are held for works and affiliated companies in Japan to report activity results and share problems.

China Environmental Management Meetings are also held for affiliated companies in China, with the aim of raising the level of environmental activities engaged in at those companies.

Environment & Energy-Saving Capital Investment

In FY2021, capital investment related to the environment and energy-savings totaled 2.51 billion yen. We are systematically and actively updated dilapidated equipment and introducing new technology from the standpoint preventing environmental incidents as well as saving and enhancing energy efficiency.

(Unit: Million yen)

	FY2021 Environment-related capital investment		
	Environment-related	Energy-saving related	Total
Japan	470	1,808	2,278
Overseas	76	159	236
Total	547	1,967	2,513

Climate Change Adaptation

Among our strategies for reducing our environmental footprint across all business activities including product life cycle, the top priority for the SHI Group has been to reduce CO_2 emissions.

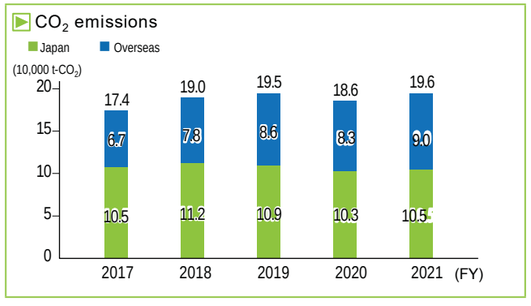
Promotion of Environmental Management

The SHI Group recognizes that responding to climate change is a key challenge in our environmental management. The Environmental Management Group conducts monthly supervision of results produced by each business division and provides feedback to those in charge. In addition, the results are reported to management three times a year at meetings of the Executive & Operating Officers Committee. SHI Group divisions promote climate change adaptation by mobilizing all personnel in their efforts, making sure their activities are visible, and implementing activities to improve various processes so as to more efficiently utilize energy.

Reduction in CO_2 Emissions

The SHI Group's CO_2 emission in FY2021 were 3.5% less than in FY2019, an achievement of our 2% target.

This accomplishment resulted from promoting energy savings, converting lighting to LED, updating antiquated equipment, and making other efforts that have improved energy productivity. In FY2022, we will continue to adopt renewable energies, upgrade to more efficient energy-saving systems, enhance energy productivity, and promote other measures that reduce CO_2 emissions.



* Used a Japan conversion factor of 0.462 g-CO_2/kWh as a fixed value.

Renewable Energy Adoption

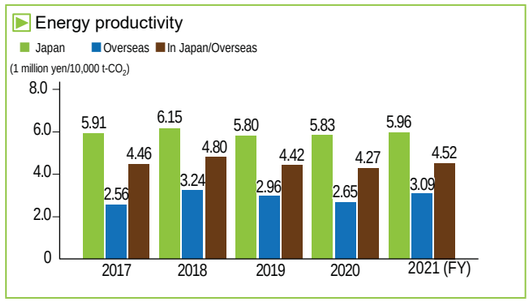
The SHI Group has endorsed the message of the Japan Climate Initiative: "Now is the time to accelerate renewable energy deployment: Calling for stronger climate change action in the midst of the fossil energy crisis." In line with this, we have promoted the adoption of renewable energies. Since 2020, the SHI Group has been installing solar power generation systems on new buildings at our group works. We are also actively promoting plans for further such installation in the future.
In addition, in 2022, we also started purchasing renewable energy.
Along with CO_2 emission reductions of 1% annually through a variety of energy-saving measures, we are endeavoring to introduce solar power generation systems chiefly for new buildings, striving to increase the scale of our renewable energy purchases, and promoting CO_2 emission reductions with the aim of realizing carbon-neutral by 2050.

Improvements in Energy Productivity

The SHI Group has set and managed indices for emissions as well as energy productivity (sales/CO_2 emissions) as part of our efforts to enhance production efficiency and carry out activities aimed at reducing CO_2 emissions. For FY2021, we raised our target to a 2% improvement over the FY2019 level for our activities, which we achieved with a 2.8% improvement in Japan and a 4.1% improvement overseas.

We will continue to promote the following measures.

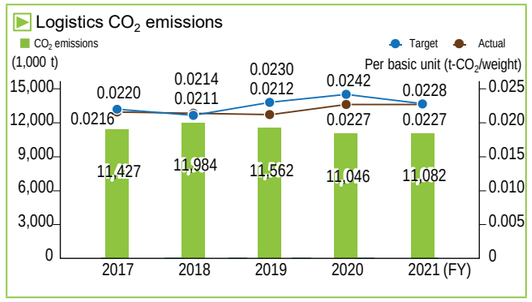
❶ Setting up and practicing of non-operating days
❷ Reducing standby power of equipment or facilities
❸ Operating equipment and facilities more efficiently
❹ Cutting energy consumption by reducing production lead time



Climate Change Adaptation

Promotion of Green Logistics

The SHI Group is endeavoring to eliminate waste and enhance efficiency in product transport in order to reduce CO_2 emissions. In Japan, we reduced the basic shipping unit (t-CO_2/weight) 0.9% in FY2021 through load factor improvements, modal shifts, effective use of consolidated shipping, and other measures, which enabled us to achieve our target of maintaining the level at or below that in FY2019. We will continue to promote modal shifts as well as load and other activities for optimizing efficiency.



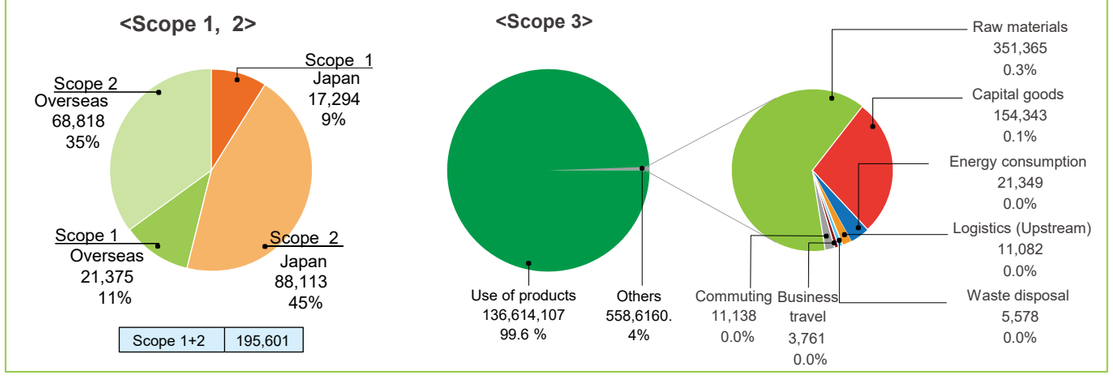
Reduction in CO_2 Emissions over Life Cycle and During Product Use

CO_2 emissions throughout the life cycle in FY2021 amounted to 137.17 million tons, of which 136.61 million tons or 99.6% were CO_2 emissions during product use.

To reduce CO_2 emissions during product use, we will certify and offer even more Sustainability Plus Products, which provide outstanding resource and energy savings.

We recognize that the pursuit of technological development and other research to expand our Sustainability Plus roduct lineup is a key business challenge for adapting to climate change, and we will promote these activities.

FY2021 Life cycle CO_2 emissions



Sustainability Plus Products

In FY2021, 25 Sustainability Plus Products were certified, of which six achieved a 90-point or higher score, making them Super Sustainability Plus Products. The number of products presented for certification as well as the number certified has continued to increase annually. Just as in the previous year, we were able to surpass our target which was to have 23 products certified in FY2021. Even so, these products constituted only 26% of total group sales, below our target of 32%.

To reduce the environmental footprint across product life cycle, we have prepared EOL manuals for Sustainability Plus Products, which are provided to our customers for reference when equipment is discarded. In addition, we have equipped our power excavators, cranes and other construction machinery with field-of-view monitors, making it safer for workers operating and handling such equipment. Our medical device development and manufacturing divisions have engaged in collaborative research on therapeutic methods and drugs with healthcare facilities, universities, and other outside organizations.

List of Registered Sustainability Plus Products

Segment	Name	Registration category	Evaluation items			
			Environment			Society
			Resource circulation	Global Warming Countermeasures	Environmental risk	Automatization / Labor-saving
Mechatronics	New IE3 high-energy motors	Sustainability Plus Products	△	◎	◎	△
Industrial Machinery	SEEV-A-HD (220-500t)	Sustainability Plus Products	△	○	◎	○
	FPS forging servo presses	Sustainability Plus Products	○	◎	◎	○
	SIP ductile of mill rolls	Sustainability Plus Products	○	◎	◎	×
	S-UHE14 ion implantation devices	Sustainability Plus Products	△	◎	◎	△
	MC3-II/GP ion implantation devices	Sustainability Plus Products	△	◎	◎	△
	SAion-300 ion implantation devices	Sustainability Plus Products	△	◎	◎	△
	Thermal series of air conditioners	Sustainability Plus Products	△	○	◎	○
	Eco Pulser™ dust collector	Sustainability Plus Products	△	◎	○	○
Logistics & Construction	LEGEST HB-7 hybrid hydraulic excavators	Super Sustainability Plus Product	△	◎	◎	○
	LEGEST 7 hydraulic excavators	Super Sustainability Plus Product	△	◎	◎	○
	Asphalt finisher model 10	Sustainability Plus Products	△	◎	◎	△
	Electric forklift truck	Super Sustainability Plus Product	△	◎	◎	×
Energy & Lifeline	CFB biomass boiler	Super Sustainability Plus Product	△	○	◎	◎
	CFB compact biomass boiler (25 t)	Sustainability Plus Products	○	○	◎	○
	Electrostatic precipitator	Super Sustainability Plus Product	△	◎	△	△
	Evaporator	Sustainability Plus Products	△	◎	◎	△
	Sumijetter II of grit jet pump	Super Sustainability Plus Product	○	◎	○	△
	Vertical screw-type screening equipment spiral cutter	Sustainability Plus Products	△	◎	△	○
	Vertically split divided-wall column (DWC)	Sustainability Plus Products	△	◎	△	△
	Agitators & mixing vessel	Sustainability Plus Products	△	◎	◎	△
	Multipurpose extractor	Sustainability Plus Products	○	◎	○	○
	Functional tanks	Sustainability Plus Products	△	◎	◎	△
	Steam turbines (optimized reaction blade rows)	Sustainability Plus Products	○	○	△	△
	Steam turbines (long-blade, high-efficiency model)	Sustainability Plus Products	○	○	△	△

*A list of the FY2021 Sustainability Plus Products is posted on our website.

90% or higher - ◎ , 70–90% - ○ , 30–70% - △ , less than 30% - X

CFB Biomass Boiler (Circulating Fluidized Bed Boiler)

Hydraulic Excavator (ex. SH250-7)

Ion implantation device (SAion)

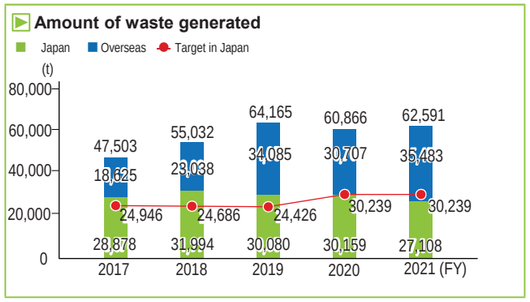
Sound Material-Cycle Society

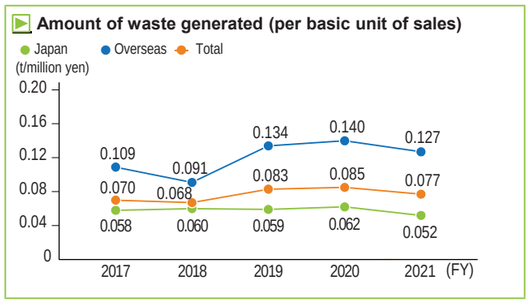
To realize a sound material-cycle society, the SHI Group is striving to curb waste and other emissions discharged in our business operations as well as to recycle and effectively utilize resources as part of our work to reduce our environmental footprint.

Curbing Waste Emissions

In striving to reach our target of keeping the amount of waste (including hazardous waste) generated per basic sales unit in FY2021 at or below the average for the FY2017-2019 period, we achieved an 11.8% reduction. Converting shot blast chip refuse, which used to be disposed of as industrial waste, into a marketable disposal, reusing filtered test-run oil, and implementing other innovations led to a reduction in emissions. In the future as well, we will promote waste reduction with a particular awareness of the 3R principle, including carefully separating waste and recyclable items.

Overseas, our activities advanced having set a 2% reduction below the FY2019 level as the basic target unit, and we achieved a 5.1% reduction in FY2021.

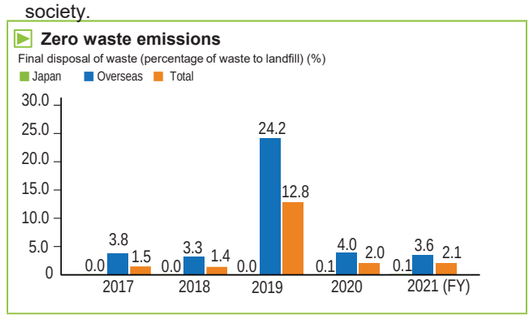




Zero-Emissions (Landfill Rate Reduction)

The SHI Group defines a zero-emission plant in Japan as one for which the ratio of landfill disposal volume (landfill rate) to waste discharge volume is less than 0.5%. Since FY2005, we have been promoting efforts to reduce the landfill rate. In FY2021, the landfill rate for all domestic works (6 works and 7 plants) and group businesses other than works (9 companies) was 0.1%. We have consistently achieved zero emissions since FY2011.

Overseas, we carry out our operations using a non-landfill rate target of 95% or higher. In FY2021, we achieved our target with a rate of 96.4%. The landfill rate for FY2021 totaling Japan and overseas represented 2.1%. Recycling by separating waste is key to achieving zero emissions. In the future as well so that we may maintain zero emissions, we will meticulously separate waste as part of our aim to have our plants contribute to a sound material-cycle society.

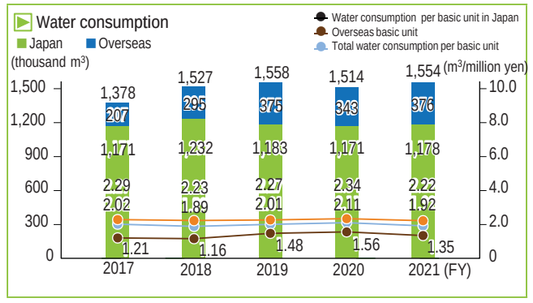


Reducing Water Consumption

The SHI Group has continued to work to reduce water consumption. These efforts have resulted in almost all unnecessary water consumption being eliminated. The 6th Medium-Term Environmental Plan has also set a target of continuing to maintain water consumption at or below the average for the previous interim plan period (2017-2019) in Japan.

To reduce water usage in FY2021, we used monitoring devices to prevent leakage and recycled water from testing apparatuses. This resulted in a decrease in water consumption of 1.5%, enabling us to achieve our target. We will continue to set our sights on achieving our target by working to eliminate waste.

We also achieved our target overseas with an 8.6% reduction in the basic sales unit as compared to our target of maintaining water consumption at or below the FY2019 level.



Chemical Substance Management

We manage chemical substances to prevent environmental contamination.

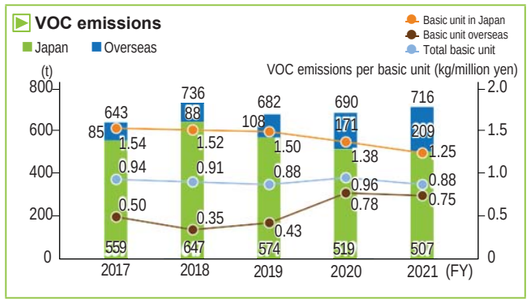
Complete Elimination of Organochlorine Chemical Use

We have continued to strive to completely phase out the use of dichloromethane, tetrachloroethylene, and trichloroethylene, organic chemicals subject to the Soil Contamination Countermeasures Act. We have completely eliminated and banned the use of ozone-depleting substances HCFC-225 and HCFC141b since FY2008 and FY2010, respectively.

We have been promoting the scheduled replacement of R-22, production of which was discontinued in FY2020.

Control of VOC Substance Emissions

Toluene, xylene, and ethyl benzene contained in paint solvents account for at least 90% of VOC substances used by the SHI Group in Japan. The 6th Medium-Term Environmental Plan has set a target for these emissions to be maintained at or below the FY2019 level. In FY2021 also, we achieved a 12.2% reduction below the FY2019 level. This was accomplished by adopting powder coatings, employing low-solvent paints and VOC-free cleaning agents, as well as improving painting efficiency to reduce paint consumption. In addition, we also achieved a 16.9% reduction in the basic sales unit. We will continue to reduce emissions by expanding the scope applicable for low-solvent paints and VOC-free cleaning agents as well as powder coating, and cutting paint consumption through further improvements in painting efficiency. Additionally, our overseas activities to control VOC substance emissions began in FY2012. Under the 6th Medium-Term Environmental Plan, a target has been set for our overseas companies of maintaining the basic emissions unit at or below the FY2019 level.



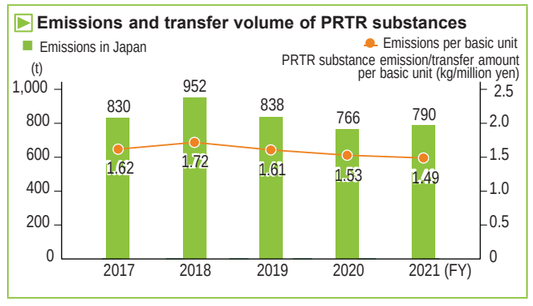
PRTR Substance Emissions and Transfer Volume

The paint solvents toluene, xylene, and ethyl benzene comprise 90% or more of all PRTR substances. The 6th Medium-Term Environmental Plan has set a target for emissions and emissions per basic unit to be maintained at or below the FY2019 level. In FY2021, we achieved a 5.7% reduction compared to FY2019. In addition, the basic sales unit was also reduced by 7.6%. While maintaining quality, we will expand the application of low-solvent paints and establish and expand solvent recovery and removal equipment as part of our efforts to reduce emissions and transfer volume.

Emissions and Transfer Volume of Class I Designated Chemical Substances under PRTR Law in FY2021
(Substances Subject to Reporting) (Unit: kg)

Substance No.	Substance designation	Emissions + transfer volume			
		FY2018	FY2019	FY2020	FY2021
53	Ethylbenzene	218,658	221,964	233,310	230,021
80	Xylene	498,744	392,357	342,269	361,802
240	Styrene	2,050	1,561	975	1,647
296	1,2,4-Trimethylbenzene	16,901	18,843	17,915	21,058
297	1,3,5-Trimethylbenzene	5,559	5,389	4,594	6,072
300	Toluene	156,262	141,755	122,357	122,457
374	Hydrogen fluoride and water-soluble salts	17,555	22,381	12,017	11,683
384	1-Bromopropane	11,122	11,474	7,934	13,714
392	n-Hexane	866	321	105	158
405	Boron and its compounds	1,618	1,155	1,778	1,439
412	Manganese and its compounds	12,366	12,011	10,743	12,020
420	Methyl methacrylate	1,366	564	232	256

*Volume of emissions + transfers is the total amount for SHI and all Group companies combined.



PCB Management and Complete Elimination of Equipment Using PCBs

All devices containing high concentrations of PCBs were registered early on with the waste-disposal company the Japan Environmental Storage & Safety Corporation. These devices have been systematically detoxified pursuant to the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Waste. Transformers containing PCBs and stabilizers for lighting equipment containing PCB have been replaced or updated sequentially. Some Works and affiliated companies have completed all such disposal. Additionally, we have completed our survey to identify equipment containing low concentrations of PCBs, and have been working to detoxify such equipment in sequence by the deadline.

Biodiversity

Endorsement of Keidanren Initiative for Biodiversity Conservation

In the aim of realizing a sustainable society, the SHI Group endorsed the Keidanren Initiative for Biodiversity Conservation, which indicates the intent and action guidelines from the standpoint of companies to address the issue of biodiversity conservation.

Our main activities have been to reduce wood in packaging, address the issue of marine plastics, and promote green spaces and tree planting around production plants.

Tanashi Hasso-no-Mori (Forest of Ideas)

Tanashi Works has preserved the Musashino Forest, which occupies approximately 30% of the site's area. A section of this forest, which is home to over 4,500 trees of some 40 species, has been named Hasso-no-Mori or the Forest of Ideas and opened to the general public. This is a place where people may come and relax. The space serves many functions, including a community disaster prevention base and the object of academic research into biodiversity.

Hasso-no-Mori (Forest of Ideas) within Tanashi Works

SHI Group Participation in the Mt. Fuji Reforestation Project

The SHI Group has joined OISCA Japan, through which we are participating in the Mt. Fuji Reforestation Project. The aim of this project is to revitalize the man-made forest of Mt. Fuji, which has sustained considerable damage from insects, and turn it into a biodiversity-rich forest. We have provided donations and SHI Group employees are also participating in the reforestation activities.

Mt. Fuji Reforestation Project

Non-financial Data List

[Scope]

The scope of non-financial data provided covers Sumitomo Heavy Industries Ltd., consolidated subsidiaries, and equity method affiliates. Context changes are duly noted in the report.

■ Response to Climate Change

Evaluation items (subcategories)			Unit	2017	2018	2019	2020	2021	Remarks
CO_2 emissions	Scope 1＋Scope 2 (Market)	Japan	10,000 t-CO_2	10.8	11.2	10.9	10.3	10.5	
		Overseas	10,000 t-CO_2	6.7	7.8	8.6	8.3	9.0	
		Total	10,000 t-CO_2	17.4	19.0	19.5	18.6	19.6	
	Scope 1	Japan	t-CO_2	19,065	18,601	18,363	17,028	17,294	
		Overseas	t-CO_2	17,188	20,103	22,691	20,734	21,375	
		Total	t-CO_2	36,252	38,704	41,054	37,762	38,670	
	Data coverage rate		%	81.2	80.1	85.9	85.9	92.6	
	Scope 2 (Market)	Japan	t-CO_2	88,778	93,110	90,832	86,163	88,113	
		Overseas	t-CO_2	49,382	58,183	62,936	61,995	68,818	
		Total	t-CO_2	138,160	151,293	153,768	148,158	156,931	
	Data coverage rate		%	81.2	80.1	85.9	85.9	92.6	
	Scope 3	Total	t-CO_2	333,504	493,773	226,075,475	123,560,109	137,172,723	
	Data coverage rate		%	68.9	91.5	97.9	96.8	96.5	Cat-11 only
	Cat-01 Raw materials		t-CO_2	313,671	312,242	313,670	356,805	351,365	
	Cat-02 Capital goods		t-CO_2	—	143,234	165,751	128,805	154,343	
	Cat-03 Energy consumption		t-CO_2	—	9,949	20,162	20,280	21,349	
	Cat-04 Logistics (Upstream)		t-CO_2	11,428	11,984	11,562	11,046	11,082	
	Cat-05 Waste disposal		t-CO_2	8,405	8,679	6,958	5,767	5,578	
	Cat-06 Business travel		t-CO_2	—	1,962	2,120	2,171	3,761	
	Cat-07 Commuting		t-CO_2	—	5,723	6,006	6,179	11,138	
	Cat-08 Lease asset (Upstream)		t-CO_2	0	0	0	0	0	
	Cat-09 Logistics (Downstream)		t-CO_2	0	0	0	0	0	Included in Cat-04
	Processing of Cat-10 Products		t-CO_2	0	0	0	0	0	
	Use of Cat-11 Products		t-CO_2	—	—	225,549,245	123,029,056	136,614,107	
	Disposal of Cat-12 Products		t-CO_2	0	0	0	0	0	
	Cat-13 Lease asset (Downstream)		t-CO_2	0	0	0	0	0	
CO_2 emissions per basic unit			Million yen/CO_2-t	4.9	7.8	4.7	4.9	5.1	
Energy productivity		Japan	Million yen/CO_2-t	5.9	6.1	5.8	5.8	6.0	
		Overseas	Million yen/CO_2-t	2.6	3.2	3.0	2.7	3.1	
Energy consumption	Fuel consumption	Japan	MWh	93,549	91,762	90,996	85,353	87,705	
		Overseas	MWh	91,889	106,655	120,824	110,345	111,781	
		Total	MWh	185,438	198,418	211,820	195,698	199,486	
	Electric power consumption	Japan	MWh	161,443	170,129	169,191	163,831	171,456	
		Overseas	MWh	106,222	124,509	131,085	129,930	141,583	
		Total	MWh	267,665	294,639	300,276	293,761	313,039	
	Cold/warm water	Japan	MWh	1,195	1,357	1,203	1,197	1,113	
		Overseas	MWh	0	9,836	5,379	8,110	9,136	
		Total	MWh	1,195	11,193	6,582	9,307	10,249	
	Total		MWh	454,299	504,249	518,677	498,766	522,774	
	Data coverage rate		%	81.2	80.1	85.9	85.9	92.6	
Renewable energy consumption		Japan	MWh	323	336	323	1,223	1,298	
		Overseas	MWh	0	0	0	0	0	
		Total	MWh	323	336	323	1,223	1,298	
	Energy recycling rate	Japan	%	0.20	0.20	0.19	0.75	0.76	
		Overseas	%	0.0	0.0	0.0	0.0	0.0	
		Overall	%	0.12	0.11	0.11	0.42	0.41	
	Data coverage rate		%	81.2	80.1	85.9	85.9	92.6	
Other major GHG	Total amount	Japan	t-CO_2	67.4	45.9	51.0	54.2	29.7	
	Methane (CH_4)	Japan	t-CO_2	54.7	34.7	41.3	46.7	25.8	
	Dinitrogen monoxide (N_2O)	Japan	t-CO_2	12.8	11.2	9.8	7.5	3.8	

Non-financial Data List

■ Waste Management

Evaluation items (subcategories)		Unit	2017	2018	2019	2020	2021	Remarks
Amount of waste generated	Japan	t	28,878	31,994	30,080	30,159	27,108	
	Overseas	t	18,625	23,038	34,085	30,707	35,483	
	Total	t	47,503	55,032	64,165	60,866	62,591	
Data coverage rate		%	81.0	83.6	85.6	85.5	84.2	
Amount recycled	Japan	t	28,806	31,905	24,860	29,686	25,843	Amount recycled, valuable resources
Final disposal amount	Japan	t	4	10	1	16	27	
	Overseas	t	701	750	8,233	1,219	1,268	
	Total	t	705	760	8,234	1,235	1,249	
Hazardous waste generated	Japan	t	287	4,079	303	818	708	Specially controlled industrial waste

■ Water Resource Conservation

Evaluation items (subcategories)		Unit	2017	2018	2019	2020	2021	Remarks
Water Consumption	Japan	thousand m³	1,171	1,232	1,183	1,171	1,178	
	Overseas	thousand m³	207	295	375	343	376	All service water
	Total	thousand m³	1,378	1,527	1,558	1,514	1,554	
Data coverage rate		%	76.4	79.9	80.6	77.1	76.5	
Service water	Japan	thousand m³	380	420	385	382	362	
Industrial water	Japan	thousand m³	622	622	622	610	618	
Underground water	Japan	thousand m³	170	191	176	179	198	
Effluent		thousand m³	425	468	454	478	460	
Data coverage rate		%	52.9	50.9	51.3	51.6	47.5	

■ Chemical Substances

Evaluation items (subcategories)		Unit	2017	2018	2019	2020	2021	Remarks
VOC	Japan	t	559	647	574	519	507	
	Overseas	t	85	88	108	171	209	
	Total	t	643	736	682	690	716	
Data coverage rate		%	85.0	87.4	87.8	88.6	86.0	
Ethylbenzene	Japan	t	125	167	155	158	149	
Xylene	Japan	t	322	351	301	262	258	
Toluene	Japan	t	112	129	122	99	100	

■ Environmental Management

Evaluation items (subcategories)		Unit	2017	2018	2019	2020	2021	Remarks
Number of major environmental incidents	Group-wide	Number of cases	0	0	0	1	0	
Number of major environmental law/regulation violations	Group-wide	Number of cases	0	0	0	0	0	
Number of penalties, fines, etc. paid	Japan	Number of cases	0	0	0	0	0	
	Overseas	Number of cases	0	0	0	1	0	Cases where US$10,000 or greater penalty charge or fine paid
Environment/ energy-saving capital investment: Environment-related	Group-wide	1,000,000 yen	—	416	826	573	547	
Energy-saving related	Group-wide	1,000,000 yen	—	2,057	3,706	1,287	1,967	
Total	Group-wide	1,000,000 yen	—	2,473	4,532	1,860	2,513	
External assessments: CDP		—	C	B–	B	B–	B–	
Buna-no-Mori (Beech forest)		—	NA	B	B	A	B	
Assessment under Act on Rationalizing Energy		—	S	S	S	S	S	
Energy saving assessment for specific tenants by Tokyo metropolitan government		—	AA	AA	AA	AA	AAA	
Acquisition of ISO 14001 certification	Japan	Number of cases	37	37	37	37	37	
	Overseas	Number of cases	18	18	19	21	21	
	Total	Number of cases	55	55	56	58	58	
Acquisition rate		%	77.9	80.0	80.1	80.6	79.4	

Environmental Accounting in FY2021

The SHI Group uses the Environmental Accounting Guidelines 2005 issued by the Ministry of Environment as the benchmark for our environmental accounting to measure investments, costs and their effects as relates to environmental conservation.

Environmental Conservation Costs and Effects (Classified According to Business Activity)

(Unit: Million yen)

Classification		Principal initiatives	Environmental conservation costs: Investment FY2019	FY2020	FY2021	Cost FY2019	FY2020	FY2021	Environmental conservation effects: Economic effect FY2019	FY2020	FY2021	Key points
(1) Costs within business segment		Maintenance/depreciation of equipment reducing environmental load	8,697	1,241	808	1,648	840	1,010	233	225	381	
Itemization	(1)-1 Pollution prevention costs	Maintenance and management of equipment to prevent air and water pollution, and measurement of equipment noise and vibration	553	689	207	246	245	253	0	0	0	
	(1)-2 Global environmental conservation costs	Investment in energy-saving measures (Power consumption monitoring, energy-saving devices, replacement of lighting, etc.)	8,162	515	593	55	540	112	57	25	93	Reduction in expenses due to energy/resource savings and 3Rs
	(1)-3 Resource recycling costs	Waste reduction, recycling investment (recycling, use of recycled resources)	2	37	8	1,347	554	645	176	a200	287	Reduction in expenses due to waste reduction Sales of valuable resources
(2) Upstream/downstream costs		Product packaging material reduction, home appliance recycling, and use of both sides of paper	1	0	1	2	0	2	0	0	0	
(3) Management activity costs		ISO 14001 standard maintenance and administration, and green space expansion	890	1,352	13	702	125	155	-	-	-	Economic effect (substantive effect) achieved with environmental conservation measures shown in an appended table.
(4) Research & development costs		R&D for reducing environmental product footprint, and environmental equipment R&D	3,465	3,057	3,306	319	102	222	-	-	-	
(5) Social activity costs		Regional environmental conservation and greening activities	0	1	2	1	1	19	0	0	0	
Environmental damage compliance costs		Imposition on air pollution load, and charges for green belts and pollution compensation	0	-	-	0	0	1	0	0	0	
Total			13,053	5,651	4,129	2,672	1,068	1,408	233	225	381	

Economic Effects Related to Environmental Conservation Measures

(Unit: Million yen)

Description of effects		FY2019	FY2020	FY2021
Revenues	Business revenues obtained by recycling waste or used products	176	200	287
Cost savings	Reduction in energy costs (electric power and fuel costs) from energy savings	57	25	93
	Reduction in waste disposal costs from resource savings or recycling	3	1	1
	Reduction in costs (labor, materials, repairs and other maintenance and operation costs)	0	0	0
Total		237	227	381

Table Showing Change in Environmental Conservation Costs During Last Three Years

(Unit: Million yen)

Details of effects	FY2019	FY2020	FY2021
Total environmental conservation costs	15,725	6,719	5,537
Total investment	13,053	5,651	4,129
Total costs	2,672	1,068	1,408
Total research & development costs	3,784	3,159	3,528

Environmental Load Data

Third-Party Certification of Environmental Load Data

The Sumitomo Heavy Industries Group (Japan) has obtained a third-party certification by Bureau Veritas Japan of our environmental load data (energy consumption in FY 2020 (crude oil equivalent) *1, energy-derived CO_2 emissions*2) associated with our business operations. *3

*1: Energy consumption (crude oil equivalent): Electric power, city gas, LPG, heavy fuel oil A, gasoline, light oil, kerosene, warm/cold water
*2: Energy-derived CO_2 emissions: CO_2 emissions derived from *1 energy for in-house use.
*3: Exclude Tanashi Works, which has obtained certification based on Tokyo metropolitan ordinances.

Environmental Load Data

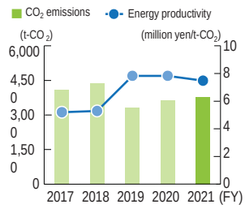
Environmental load data for Sumitomo Heavy Industries works *1, Group companies in Japan *2, and principal Group companies overseas is as follows.

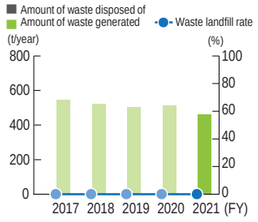
*1: Including Group companies within Works
*2: Group companies excluding Works

Environmental Load Data for Each Work

Tanashi Works

■ Established in 1938 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 40,706m²
■ Building area: 14,368m² ■ Main products: Cryogenic equipment, defense equipment



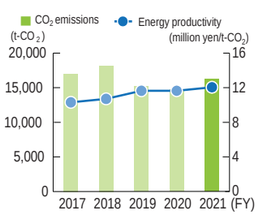


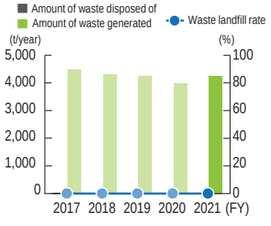
Energy consumption	
Electric power (1,000 kWh)	8,148
Gasoline (kL)	0.05
Kerosene (kL)	0.39
Light oil (kL)	1.37
Heavy fuel oil A (kL)	0.00
LPG(t)	0.00
LNG(t)	0.00
City gas (km³)	2.01
Water consumption (m³)	11,251

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

Chiba Works

■ Established in 1965 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 297,039m²
■ Building area: 127,800m² ■ Main products: Plastic processing machines, metallic molds, hydraulic excavators



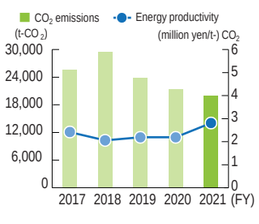


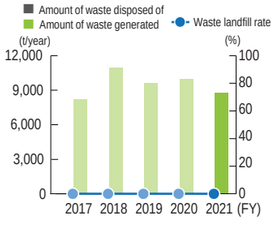
Energy consumption	
Electric power (1,000 kWh)	23,099
Gasoline (kL)	166.68
Kerosene (kL)	0.69
Light oil (kL)	613.17
Heavy fuel oil A (kL)	0.00
LPG(t)	36.31
LNG(t)	0.00
City gas (km³)	1,560.76
Water consumption (m³)	66,858

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	204

Yokosuka Works

■ Established in 1971 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 523,000m²
■ Building area: 170,635m² ■ Main products: Stage systems, system controllers, laser processing systems, semiconductor manufacturing equipment (molding machines), precision forgings, ships



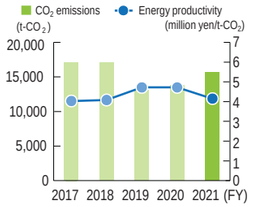


Energy consumption	
Electric power (1,000 kWh)	37,620
Gasoline (kL)	25.52
Kerosene (kL)	0.00
Light oil (kL)	144.51
Heavy fuel oil A (kL)	0.00
LPG(t)	11.17
LNG(t)	0.00
City gas (km³)	960.34
Water consumption (m³)	137,147

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	494
Discharge into water catchments	
COD (kg)	385
Nitrogen (kg)	304
Phosphorus (kg)	57

Nagoya Works

■ Established in 1961 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 293,000 m²
■ Building area: 90,000 m² ■ Main products: Power transmission and controls, gear motors, inverters, construction cranes

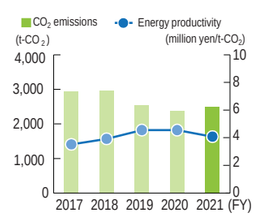


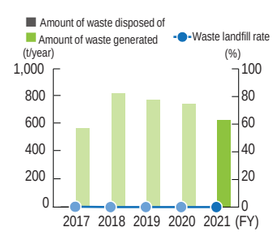
Energy consumption	
Electric power (1,000 kWh)	26,852
Gasoline (kL)	35
Kerosene (kL)	0.11
Light oil (kL)	159
Heavy fuel oil A (kL)	-
LPG(t)	5.7
LNG(t)	0.0
City gas (km³)	1,229.23
Water consumption (m³)	145,382

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	24
Discharge into water catchments	
COD (kg)	371.9
Nitrogen (kg)	49.2
Phosphorus (kg)	2.0

Okayama Works

■ Established in 1948 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 425,000 m²
■ Building area: 78,000 m² ■ Main products: Gear boxes, machine tools, coolant systems



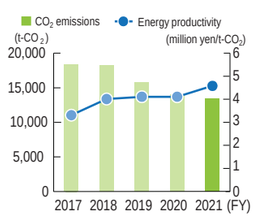


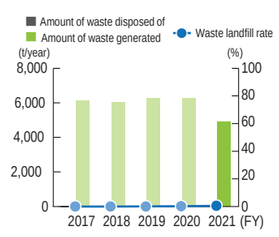
Energy consumption	
Electric power (1,000 kWh)	4,770
Gasoline (kL)	1.89
Kerosene (kL)	0.00
Light oil (kL)	4.82
Heavy fuel oil A (kL)	0.00
LPG(t)	93.15
LNG(t)	0.00
City gas (km³)	0.00
Water consumption (m³)	15,934

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	690
Discharge into water catchments	
COD (kg)	-
Nitrogen (kg)	36
Phosphorus (kg)	4

Ehime Works (Niihama plant)

■ Established in 1888 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 418,000 m²
■ Building area: 203,000 m² ■ Main products: Forging machinery, medical accelerators, transport machinery, mechanical parking systems, mill rolls



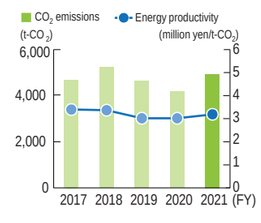


Energy consumption	
Electric power (1,000 kWh)	22,689
Gasoline (kL)	4.69
Kerosene (kL)	0.70
Light oil (kL)	84.25
Heavy fuel oil A (kL)	82.00
LPG(t)	473.91
LNG(t)	415.38
City gas (km³)	0.00
Water consumption (m³)	643,827

Atmospheric discharge	
Sox (kg)	111
Nox (kg)	1,029
Discharge into water catchments	
COD (kg)	155.0
Nitrogen (kg)	470.1
Phosphorus (kg)	14.4

Ehime Works (Saijo plant)

■ Established in 1973 ■ ISO 14001 (obtained in Aug. 1998) ■ Site area: 535,036m²
■ Building area: 82,222m² ■ Main products: Pressure vessels, mixing and blending vessels, coke oven machines, steel structures



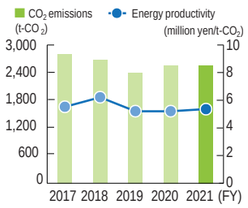
Energy consumption	
Electric power (1,000 kWh)	9,468
Gasoline (kL)	7.66
Kerosene (kL)	0.00
Light oil (kL)	39.55
Heavy fuel oil A (kL)	1.30
LPG(t)	148.36
LNG(t)	0.00
City gas (km³)	0.00
Water consumption (m³)	65,956

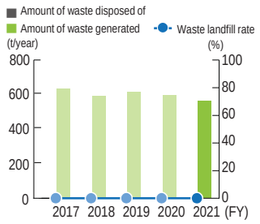
Atmospheric discharge	
Sox (kg)	50
Nox (kg)	154
Discharge into water catchments	
COD (kg)	522.0
Nitrogen (kg)	689.0
Phosphorus (kg)	77.0

Environmental Load Data for Group Companies in Japan (Other than Works)

Shin Nippon Machinery Co., Ltd.

Main products: Turbines, pumps



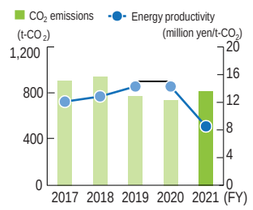


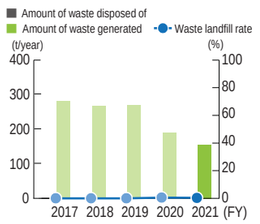
Energy consumption	
Electric power (1,000 kWh)	4,154.1
Gasoline (kL)	0.0
Kerosene (kL)	245.8
Light oil (kL)	3.3
Heavy fuel oil A (kL)	0.0
LPG(t)	5.4
City gas (km³)	0.1
Water consumption (m³)	19,877

Atmospheric discharge	
Sox (kg)	23
Nox (kg)	537
Release into water catchments	
COD (kg)	-
Nitrogen (kg)	-
Phosphorus (kg)	-

Nihon Spindle Mfg. Co., Ltd.

Main products: Industrial and environmental machinery



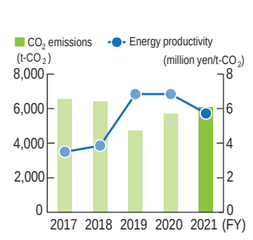


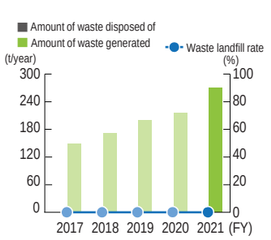
Energy consumption	
Electric power (1,000 kWh)	1,586.5
Gasoline (kL)	2.2
Kerosene (kL)	0.0
Light oil (kL)	0.0
Heavy fuel oil A (kL)	0.0
LPG(t)	0.0
City gas (km³)	29.4
Water consumption (m³)	12,424

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

Sumitomo Heavy Industries Ion Technology Co., Ltd.

Main products: Ion implantation devices



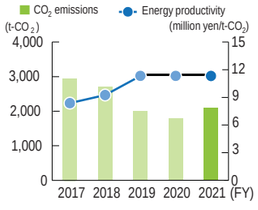


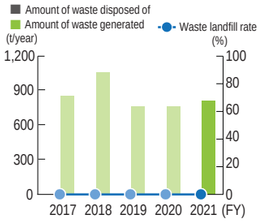
Energy consumption	
Electric power (1,000 kWh)	13,119.7
Gasoline (kL)	0.0
Kerosene (kL)	1.8
Light oil (kL)	0.0
Heavy fuel oil A (kL)	0.0
LPG(t)	0.0
City gas (km³)	0.1
Water consumption (m³)	20,660

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

Sumitomo NACCO Forklift Co., Ltd.

Main products: Forklifts



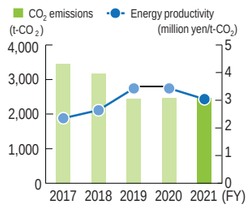


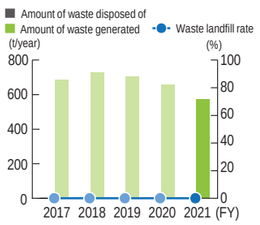
Energy consumption	
Electric power (1,000 kWh)	3,158.2
Gasoline (kL)	3.9
Kerosene (kL)	0.0
Light oil (kL)	11.0
Heavy fuel oil A (kL)	0.0
LPG(t)	5.5
City gas (km³)	265.1
Water consumption (m³)	20,219

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

Sumitomo Heavy Industries Gearbox Co., Ltd.

■ Main products: Drive units ■ ISO 14001 (obtained in Aug. 1998)



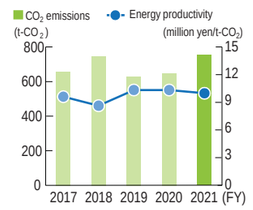


Energy consumption	
Electric power (1,000 kWh)	4,666.0
Gasoline (kL)	0.9
Kerosene (kL)	0.3
Light oil (kL)	1.6
Heavy fuel oil A (kL)	0.0
LPG(t)	7.8
City gas (km³)	128.9
Water consumption (m³)	9,751

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	184

Sumitomo Heavy Industries Modern, Ltd.

Main products: Plastic extruding and molding machines

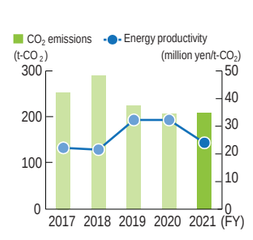


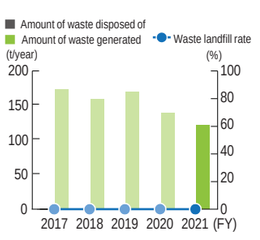
Energy consumption	
Electric power (1,000 kWh)	1,489.4
Gasoline (kL)	0.0
Kerosene (kL)	0.0
Light oil (kL)	23.8
Heavy fuel oil A (kL)	0.0
LPG(t)	1.0
City gas (km³)	0.0
Water consumption (m³)	2,256

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

Izumi Food Machinery Co., Ltd.

Main products: Food processing machinery



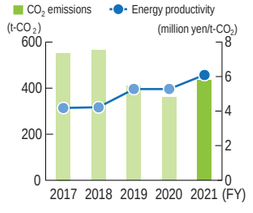


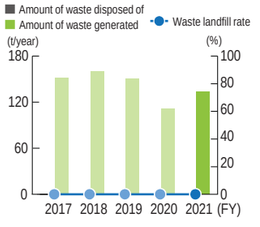
Energy consumption	
Electric power (1,000 kWh)	426.3
Gasoline (kL)	0.0
Kerosene (kL)	0.0
Light oil (kL)	0.0
Heavy fuel oil A (kL)	0.8
LPG(t)	0.0
City gas (km³)	4.5
Water consumption (m³)	3,647

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-

SFK Co., Ltd.

Main products: Bolts, nuts, precision screws





Energy consumption	
Electric power (1,000 kWh)	885.0
Gasoline (kL)	0.6
Kerosene (kL)	8.6
Light oil (kL)	0.0
Heavy fuel oil A (kL)	0.0
LPG(t)	0.7
City gas (km³)	0.0
Water consumption (m³)	638

Atmospheric discharge	
Sox (kg)	-
Nox (kg)	-
Release into water catchments	
COD (kg)	3.3
Nitrogen (kg)	-
Phosphorus (kg)	-

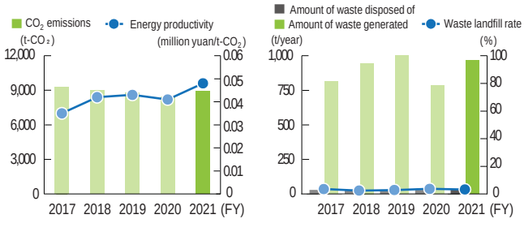
Group Companies in Japan with Independently-Acquired ISO14001 Certification

Group company	Date certification acquired	Group company	Date certification acquired
Sumitomo NACCO Forklift Co., Ltd.	March 2000	Nihon Spindle Mfg. Co., Ltd.	March 2006
Shin Nippon Machinery Co., Ltd.	February 2002	SHI-ATEX Co., Ltd.	January 2007
Izumi Food Machinery Co., Ltd.	June 2002	Sumitomo Heavy Industries Power Transmission & Controls Sales Co., Ltd.	September 2007
Sumitomo Heavy Industries Ion Technology Co., Ltd.	October 2002	SFK Co., Ltd.	August 2008
Sumitomo Heavy Industries Environment Co., Ltd.	November 2002	Sumitomo Heavy Industries Modern, Ltd.	December 2009
Lightwell Co., Ltd.	February 2005	Far East Tooling Co., Ltd.	February 2015

[Environmental Load Data for Principal Group Companies Overseas]

Sumitomo Heavy Industries (Tangshan), Ltd. / Country: China

Main products: Power transmission and controls

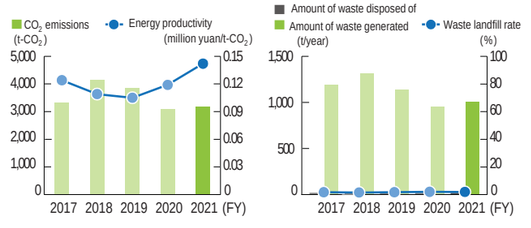


Energy consumption	
Paper (A4 1,000 sheets)	941
Electric power (1,000 kWh)	10,227
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	-
Natural gas (km³)	1,137
Water consumption (m³)	21,149

Atmospheric discharge	
VOC emissions (t/year)	0.037
SOx emissions (t/year)	1.116
NOx emissions (t/year)	2.424

Sumitomo (SHI) Cyclo Drive China, Ltd. / Country: China

Main products: Power transmission and controls

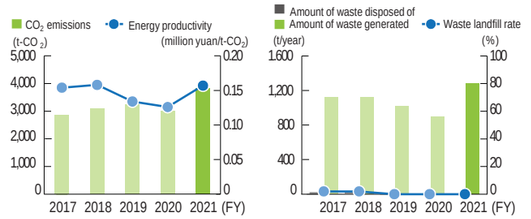


Energy consumption	
Paper (A4 1,000 sheets)	1,125
Electric power (1,000 kWh)	5,115
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	-
Natural gas (km³)	-
Water consumption (m³)	24,432

Atmospheric discharge	
VOC emissions (t/year)	1.985
SOx emissions (t/year)	-
NOx emissions (t/year)	-

Ningbo Sumiju Machinery, Ltd. / Country: China

products: Plastic molding machines and power transmission/controls

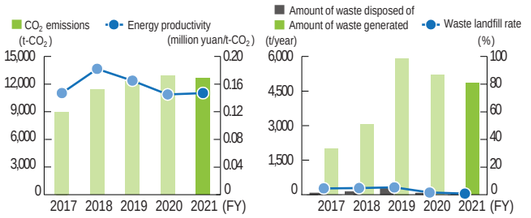


Energy consumption	
Paper (A4 1,000 sheets)	467
Electric power (1,000 kWh)	5,823
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	4
LPG(t)	-
Natural gas (km³)	-
Water consumption (m³)	21,204

Atmospheric discharge	
VOC emissions (t/year)	2.423
SOx emissions (t/year)	-
NOx emissions (t/year)	-

Sumitomo Construction Machinery (Tangshan) Co., Ltd. / Country: China

Main products: Hydraulic excavators, road machinery

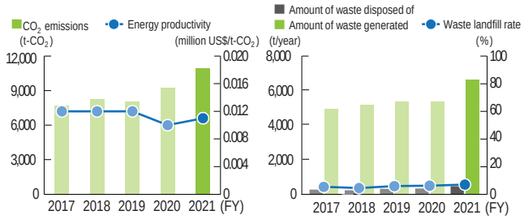


Energy consumption	
Paper (A4 1,000 sheets)	887
Electric power (1,000 kWh)	14,720
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	32
LPG(t)	28
Natural gas (km³)	1,496
Water consumption (m³)	58,592

Atmospheric discharge	
VOC emissions (t/year)	13.084
SOx emissions (t/year)	3.068
NOx emissions (t/year)	4.560

Sumitomo Heavy Industries (Vietnam) Co., Ltd. / Country: Vietnam

Main products: Power transmission/controls, motors

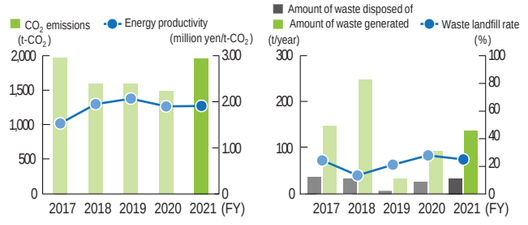


Energy consumption	
Paper (A4 1,000 sheets)	5,900
Electric power (1,000 kWh)	24,522
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	715
Natural gas (km³)	-
Water consumption (m³)	37,727

Atmospheric discharge	
VOC emissions (t/year)	1.454
SOx emissions (t/year)	-
NOx emissions (t/year)	-

SHI Manufacturing & Service (Philippines) Inc. / Country: Philippines

Main products: Precision components

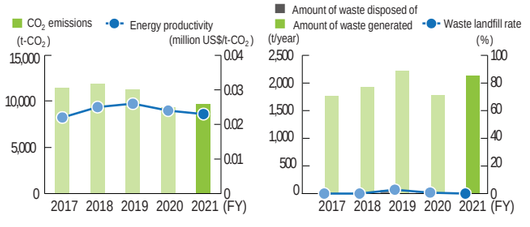


Energy consumption	
Paper (A4 1,000 sheets)	809
Electric power (1,000 kWh)	2,882
Gasoline (kL)	3
Heavy fuel oil A (kL)	10
Light oil (kL)	-
LPG(t)	1
Natural gas (km³)	-
Water consumption (m³)	17,412

Atmospheric discharge	
VOC emissions (t/year)	2.720
SOx emissions (t/year)	-
NOx emissions (t/year)	-

Link-Belt Cranes, L.P., LLLP / Country: US

Main products: Construction cranes

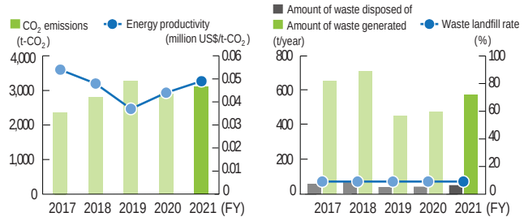


Energy consumption	
Paper (A4 1,000 sheets)	1,101
Electric power (1,000 kWh)	14,885
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	-
Natural gas (km³)	1,563
Water consumption (m³)	19,748

Atmospheric discharge	
VOC emissions (t/year)	19.203
SOx emissions (t/year)	0.026
NOx emissions (t/year)	2.826

Sumitomo Machinery Corporation of America / Country: US

Main products: Power transmission and controls

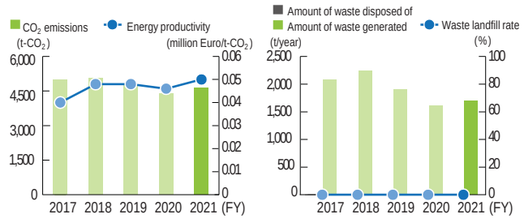


Energy consumption	
Paper (A4 1,000 sheets)	770
Electric power (1,000 kWh)	6,138
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	4
Natural gas (km³)	228
Water consumption (m³)	3,011

Atmospheric discharge	
VOC emissions (t/year)	1.360
SOx emissions (t/year)	-
NOx emissions (t/year)	-

Sumitomo (SHI) Demag Plastics Machinery GmbH / Country: Germany

Main products: Plastics molding machinery

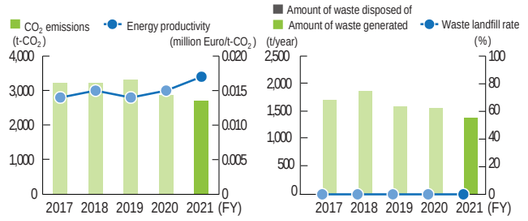


Energy consumption	
Paper (A4 1,000 sheets)	5,048
Electric power (1,000 kWh)	7,251
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	3
LPG(t)	223
Natural gas (km³)	419
Water consumption (m³)	8,608

Atmospheric discharge	
VOC emissions (t/year)	6.900
SOx emissions (t/year)	-
NOx emissions (t/year)	-

Hansen Industrial Transmissions NV / Country: Belgium

Main products: Power transmission and controls



Energy consumption	
Paper (A4 1,000 sheets)	476
Electric power (1,000 kWh)	7,108
Gasoline (kL)	-
Heavy fuel oil A (kL)	-
Light oil (kL)	-
LPG(t)	-
Natural gas (km³)	672
Water consumption (m³)	4,740

Atmospheric discharge	
VOC emissions (t/year)	4.708
SOx emissions (t/year)	-
NOx emissions (t/year)	0.960