Sumitomo Heavy Industries Group

Environmental Sustainability Report

2014

Sumitomo Heavy Industries, Ltd.

Environmental Management Division

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Sumitomo Heavy Industries, Ltd.

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Editorial Policy

This report is intended to present our stakeholders with an organized summary of the measures and conceptual approaches taken by Sumitomo Heavy Industries Group in our environmental activities and social contribution activities.

The 3rd Medium-Term Environmental Plan (FY2011-2013) has ended, and the new, 4th Medium-Term Environmental Plan (FY2014-2016) is starting.

We hope to give our readers an understanding of the accomplishments of the 3rd Medium-Term Environmental Plan as well as our critical reflections on it, together with an overview of the 4th Medium-Term Environmental Plan. To that end, we have sought to make the report accessible by using plain and concise language and by making frequent use of graphs, illustrations and photographs.

Further, when issuing this Report, we consulted the Environmental Reporting Guidelines (2012) and the Environmental Accounting Guidelines (2005) from the Ministry of the Environment.

Scope of the report

Sumitomo Heavy Industries, Ltd. and its group companies

Period covered by this report

April 1, 2013 – March 31, 2014

Previous issue: October 2013
Current issue: October 2014
Next issue: October 2015

Disclaimer

This report contains not only facts relating to the past and present of Sumitomo Heavy Industries Group but also plans, forecasts, and projections based on management plans and management policy at the time of publication. These plans, forecasts and projections are assumptions and judgments based on available information at the time of writing, and results or matters pertaining to future business activities may differ materially from the descriptions due to changing conditions.

Additionally, further examination of past data may lead to results that differ from values given in past Environmental Sustainability Reports.

With our foundation in the Sumitomo Business Spirit, we will go on providing “first-class products” and services that contribute to the realization of a sustainable society.

I would like to say thank you to all our stakeholders: Your long-standing support and understanding of our Group’s corporate activity are greatly appreciated.

This fiscal year, the Sumitomo Heavy Industries Group started the Medium-Term Management Plan 2016 (covers from FY2014 to 2016). The business strategy of the Medium-Term Management Plan 2016 declares these objectives:

- Steady growth for the purpose of creating the foundation for sustained growth
- Return to higher levels of profitability
- Persistent efforts for operational quality improvements

Our aim is to be a corporation that continues to provide “first-class products.”

One of these persistent efforts for operational quality improvements is compliance.

As I understand compliance, it is not enough just to follow legal statutes, or to follow in-house regulations or social norms. I think compliance is responding to the societal demands that are in the background of those statutes, regulations, and norms.

Societal demands, including those involving our Group, are always changing from moment to moment. However, it is a constant and important societal demand that our Group engage in environmental activities, and this also accords with the “Sumitomo Business Spirit.”

Based on the Medium-Term Management Plan 2016, the new, 4th Medium-Term Environmental Plan (FY2014-2016) started in this fiscal year. The 4th Medium-Term Environmental Plan has the following basic policies:

- Promote environmental risk management
- Contribute to achievement of a low-carbon society
- Realize a resource-recycling society
- Contribute to local communities and take measures for biodiversity

Pursuing these policies, we will take steps to further promote environmental activities at Group companies, including those in other countries.

I myself have a very keen awareness of the importance of environmental activities. The top management in each business division and every Group company as well as all Group employees will conscientiously and steadfastly engage in specific implementation of these activities.

In this implementation, we will place the greatest priority on autonomous activities undertaken by each business division and Group company to achieve the targets of the 4th Medium-Term Environmental Plan.

Also of importance, as I see it, is for all the individual employees who do the work of the various business divisions and Group companies to learn with each other and from each other as they pursue environmental activities.

The Sumitomo Heavy Industries Group will continue listening attentively to our stakeholders and taking them seriously. We will constantly pursue the effort to reform ourselves, without ever stopping, as we steadily move toward realization of the Group goals.

We appreciate your opinions and advice, and we will be very pleased to draw on them for our future initiatives.

President and CEO
Shunsuke Betsukawa

The Sumitomo Heavy Industries Group contributes to building an affluent society with “manufacturing” technology

Since its foundation as a repair shop for the Besshi Copper Mine in 1888, the Sumitomo Heavy Industries Group has moved in step with social and industrial development. With a manufacturing technology nurtured by a tradition spanning more than 100 years, we make use of proven technologies that “actuate and control” devices from the world of nanotechnology to gigantic structures to realize original ideas and dreams.

Machinery Component

Main Products

Power transmission equipment
Inverters

We handle speed reducers, which are devices for lowering the number of motor revolutions and raising torque. Taking part in a broad range of markets, speed reducers are used in conveyance lines at factories, in robotic joints and in the drive systems of a range of machines.

Precision Machinery

Main Products

Plastic injection molding machines, ion accelerators, plasma coating systems, laser processing systems, cryogenic equipment, precision positioning equipment, transfer molding press machines, precision forgings, defense equipment

We handle injection molding machines for making plastic products, and devices for manufacturing liquid crystal and semiconductors. Among injection molding machines, products that require precision machining are one of our particular specialties.

Construction Machinery

Main Products

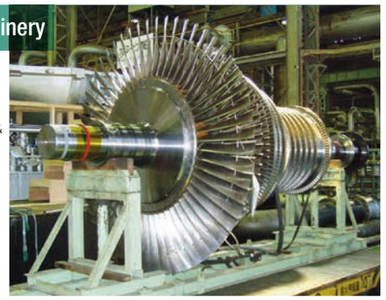
Hydraulic excavators
Mobile cranes
Road machinery

An extremely fuel-efficient product, our hydraulic excavator was the first construction machinery to win the Energy Conservation Grand Prize. Featuring outstanding maneuverability, the Good Design Award is another stellar achievement for the excavator.

Industrial Machinery

Main Products

Cyclotrons for medical use, Forging presses, Material handling systems, Logistics & handling systems, Turbines, Pumps



The products include devices for diagnosing and curing cancer, forging presses for producing components for automobile engines, large cranes for shipyards and ports, steam turbines for private power generation at factories, automated warehouse systems, etc.

Ships

Main Products

Ships

We specialize in midsized tankers with a capacity in the 100,000-ton class. By narrowing down the types of ships, we have raised development efficiency and we take pride in a low fuel consumption that is in the top class for the industry.

Environmental Facilities & Plants

Main Products

Power generation systems, industrial wastewater treatment systems, water and sewage treatment systems, landfill leachate treatment systems, air pollution control plants, process equipment for chemical plants, reactor vessels, mixing reactors, steel structures, food processing machinery

We also handle boilers that are 100% biomass fuel-compatible, and energy-saving effluent treatment facilities. Our products also include exhaust gas processing facilities that do not use water, and facilities for recovering metals from waste.

Company Outline (as of March 31, 2014)

Company name	Sumitomo Heavy Industries, Ltd.	**Capital**	30,871,650,000 yen
Founded	November 20, 1888	**Number of employees**	Consolidated: 17,936
Incorporated	November 1, 1934	**Net sales**	Consolidated: 615,271 million yen
Head Office	1-1 Osaki 2-chome, Shinagawa-ku, Tokyo		

Overseas Locations

Machinery Component / Precision Machinery / Construction Machinery / Industrial Machinery / Ships / Environmental Facilities & Plants

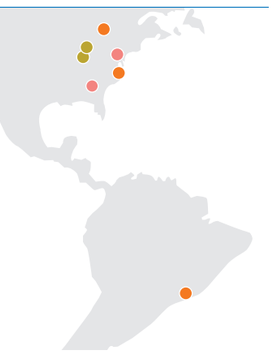
Asia

Net sales 130 billion yen
Affiliated companies 28 companies
Number of employees 4,452 people

Europe

Net sales 46.4 billion yen
Affiliated companies 17 companies
Number of employees 1,852 people

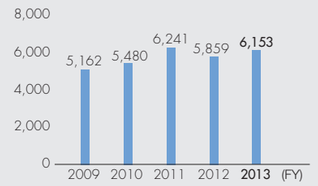
America



Net sales 126.7 billion yen
Affiliated companies 23 companies
Number of employees 1,666 people

Changes in net sales

(100 billion yen)



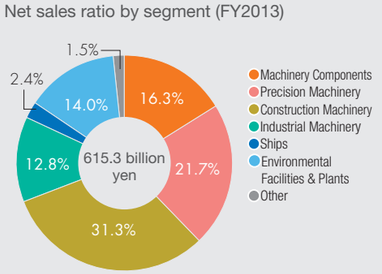
Changes in operating income

(100 million yen)

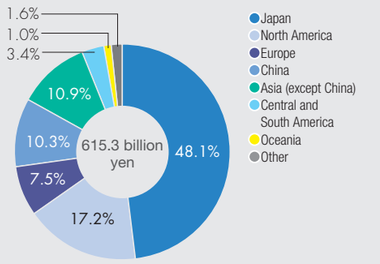
Changes in net income

(100 million yen)

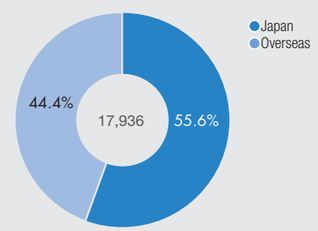
Net sales ratio by segment (FY2013)



Net sales ratio by region (FY2013)



Employee ratio by region (FY2013)



Relationship between Sumitomo Heavy Industries Group and Society

Oil refineries, shipbuilding yards, automobile factories, semiconductor industry and other industrial settings as well as the settings of daily life such as households, hospitals, elevators and escalators: the products of the Sumitomo Heavy Industries Group are involved with all these areas. Here, we introduce several products that take account of the global environment as well as the people who use them.

1 Televisions and PCs

► Semiconductor and liquid production equipment

Delivering high positioning precision on the order of nanometers

We handle the XY stages used for precision positioning of FPD and semiconductor manufacturing equipment.

3 Construction Sites

► Hydraulic excavators

We contribute to reducing the burden on the environment worldwide.

Delivering a 20% improvement in fuel consumption.
First construction machinery to receive Energy Conservation Grand Prize (FY2007).

8 Mobile Phones, DVDs and CDs

► Plastic injection molding machine

Approaching next-to-zero waste, defects or difficulty

Compatible with precision micro-molding.

9 Hospitals

► Cyclotron for PET

We continue to lead in tracer RI pharmaceutical systems for PET systems.

Discovers cancers of less than 1 cm in the early stages.

► Proton cancer therapy system

More compact than the conventional system

Capable of pinpointing and picking off cancer cells, outstanding in terms of its gentle therapy effect on the patient's body.

► Cryocooler for MRI systems

The simple structure saves labor at use.

Cooling to the ultralow temperature of –269°C, this is the core of MRI equipment.

11 Warehouse

► Forklift

Satisfies all workability, comfort, economic efficiency and safety standards.

We have an abundant lineup from 0.9 to 48 tons.

► Automated warehouse system

Numerous achievements in a wide-ranging industry

Streamlines tasks with completely automated management of 190,000 packing cases.

13 Automobile Factories

► Precision speed reducers

No wobbling at inversion

Widely used in fields where precise control is required such as welding robots, etc.

► Forging press

Largest in the world at 16,000 tons

Plays a part in a range of forging scenarios from compact machinery to the world's largest machines.

2 Oil Refineries

► Coke drums

Responds to wide-ranging customer needs with a sophisticated quality assurance system.

At oil refineries, the coke drums are capable of processing heavy oil in the most efficient manner.

5 Underground Parking Lots

► Mechanical parking garage

Maximum effective utilization of limited space

Facilitating faster removal times and higher storage capacity (about 170 vehicles per unit).

6 Power Generating Facilities

► Biomass boiler

Contributes to the global environment by utilizing diverse fuels.

Creates power and steam from a variety of fuels including biomass fuels where high-efficiency use has been difficult in the past.

► Steam turbine

Advanced technologies with confidence and results that respond to the needs of the times.

We are proud to have delivered about 6,500 turbines to approximately 80 countries worldwide.

► Dry-type desulphurization denitrification system

Contributes to processing SOx, NOx and dioxins in exhaust gas.

Treats exhaust gas without using water.

7 Semiconductor Factories

► Ion implantation system

Delivering high productivity with high precision and high quality

Compatible with 20 nm ultrafine LSI. Implants ion in wafers.

10 Sewage Treatment Plants

► Diffusion equipment

Delivering energy savings by reducing energy consumption at sewage treatment plants

Capable of reducing power usage by creating bubbles that are finer than those of conventional diffusers for efficient delivery of oxygen.

4 Elevators and Escalators
13 Automobile Factories
10 Sewage Treatment Plants

► Speed reducers

A history of trust spanning more than half a century

The compact design trims weight by 30%.

12 Harbors

► Container transfer crane

Resolves environmental issues caused by heavy fuel consumption, black smoke and other exhaust gases.

By adopting a hybrid system, we have kept maximum engine output to about 1/3, reduced fuel consumption by approximately 60%, and reduced exhaust gas.

14 Shipbuilding Yards

► Large crane

Contributes to optimization of shipbuilding.

Helps raise the efficiency of shipbuilding operation with a lifting capacity of 1,200 tons.

15 Sea

► Oil tanker

Implementing energy conservation on board ships

Our proprietary technologies deliver energy-conserving performance at the international top level.

1 Outstanding Energy Conservation Equipment Awards Awarded the Japan Machinery Federation Chairman's Prize

SH200-6 Hydraulic Excavator with Work Mode Recognition

The SH200-6 hydraulic excavator with work mode recognition developed by Sumitomo (S.H.I.) Construction Machinery Co., Ltd. was awarded the Japan Machinery Federation Chairman's Prize at the 34th Outstanding Energy Conservation Equipment Awards (FY2013) (organized by the Japan Machinery Federation).

This award is given to recognize the contributions made by corporations and organizations to the promotion of efficient energy use through the development and practical application of industrial equipment with outstanding energy conservation performance.

The SH200-6 is a successor machine to the SH200-5, a construction machine with outstanding fuel economy performance. In 2008, the SH200-5 became the first such machine to be awarded the Energy Conservation Grand Prize, an award organized by the Ministry of Economy, Trade and Industry. The SH200-6 is powered by the SPACE5+, a new-generation clean engine. The engine is equipped with a common rail fuel injection system that provides optimal fuel injection, a cooled EGR cooling device that uses a heat exchanger, and a VG turbo that supercharges efficiently even at low engine speeds. Furthermore, this engine is combined with the new SIH:S+ hydraulic system. In addition to a power-saving function and auto-idle shutdown, the features of this system include a Spool Stroke Control mechanism to limit engine load during excavation work. Together, the engine and hydraulic system have realized a 10% reduction in fuel consumption over the SH200-5.

With this award, the SH200-6 received particular commendation for the major improvement in work efficiency achieved by smoother operability and greater speed as well as the reduced fuel consumption and work mode recognition provided by the new SIH:S+ hydraulic system.

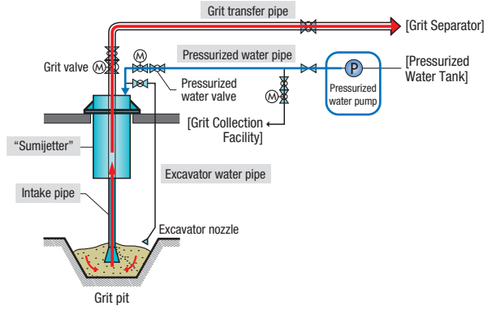
The field view monitor (FVM) that is standard equipment with this excavator provides a wide rear view that covers 270 degrees for safety confirmation that is dramatically easier to utilize. The advanced safety system brings innovations in work safety.

We will continue to contribute to environmental protection by developing construction machinery with greater fuel economy performance, work performance, and safety performance.

2 Outstanding Energy Conservation Equipment Awards Awarded the Japan Machinery Federation Chairman's Prize

Sloped-Ejection-Type Grit Jet Pump "Sumijetter II"

Equipment Configuration Diagram



The "Sumijetter II" sloped-ejection-type grit jet pump developed by Sumitomo Heavy Industries Environment Co., Ltd. was awarded the Japan Machinery Federation Chairman's Prize at the 34th Outstanding Energy Conservation Equipment Awards (FY2013) (organized by the Japan Machinery Federation).

Sewage treatment plants and pumping stations have sedimentation facilities to separate and remove refuse and sand that is in the wastewater in an upstream stage. These facilities protect the downstream equipment and work to smooth out the treatment process. Grit jet pumps are devices used in sedimentation basins utilizing pressurized water to move grit that has settled and collected there. Systems that incorporate this device rather than mechanical grit-lifting systems are being adopted more frequently in recent times because it helps to alleviate issues relating to large numbers of machines involved, mechanical problems of operation and maintenance, odor, work environment, and other such issues. However, pressurized water pumps require a great deal of power. As measures to prevent global warming and conserve energy were being promoted, there were calls for ways to reduce the amount of power used by these pumps.

With the "Sumijetter II" sloped-ejection-type grit jet pump, we took steps to optimize the structure of the spray nozzle in the jet pump as a way of reducing pressure losses. As a result, a power reduction of approximately 40% or more was achieved by comparison with conventional technology.* This makes it possible to use pressurized water pumps that are lower in capacity and have lower initial costs, including the costs of electrical equipment. It also contributes to a reduction of running costs.

Beyond even that, the product has been engineered with consideration not just for power consumption but also for the environment of use. For instance, the system is designed so that the intake pipe will not be blocked when foreign matter is ingested, the structure allows for simple replacement of consumables, and it handles high lift.

In recognition of these developments, the "Sumijetter II" was awarded this prize. Our aim is to continue serving as a corporation that contributes to environmental protection by our products and our production activities.

* Conventional technology: "Grit Pump System that Utilizes an Accumulated Grit Nozzle," technical manual published by the Japan Institute of Wastewater Engineering and Technology, March 2005

Sumitomo Heavy Industries Group

4th Medium-Term Environmental Plan

At the Sumitomo Heavy Industries Group, we aim to realize the “Excellent Eco Factory” that contributes to the realization of a sustainable society by holding fast to the “Sumitomo Business Spirit” and setting our sights on achieving a low-carbon society in 2020.

Contributing to the Prevention of Global Warming in Both Product Use and Production

— 4th Medium-Term Environmental Plan Focuses on the amount of contribution to reducing CO_2 emissions from product usage —

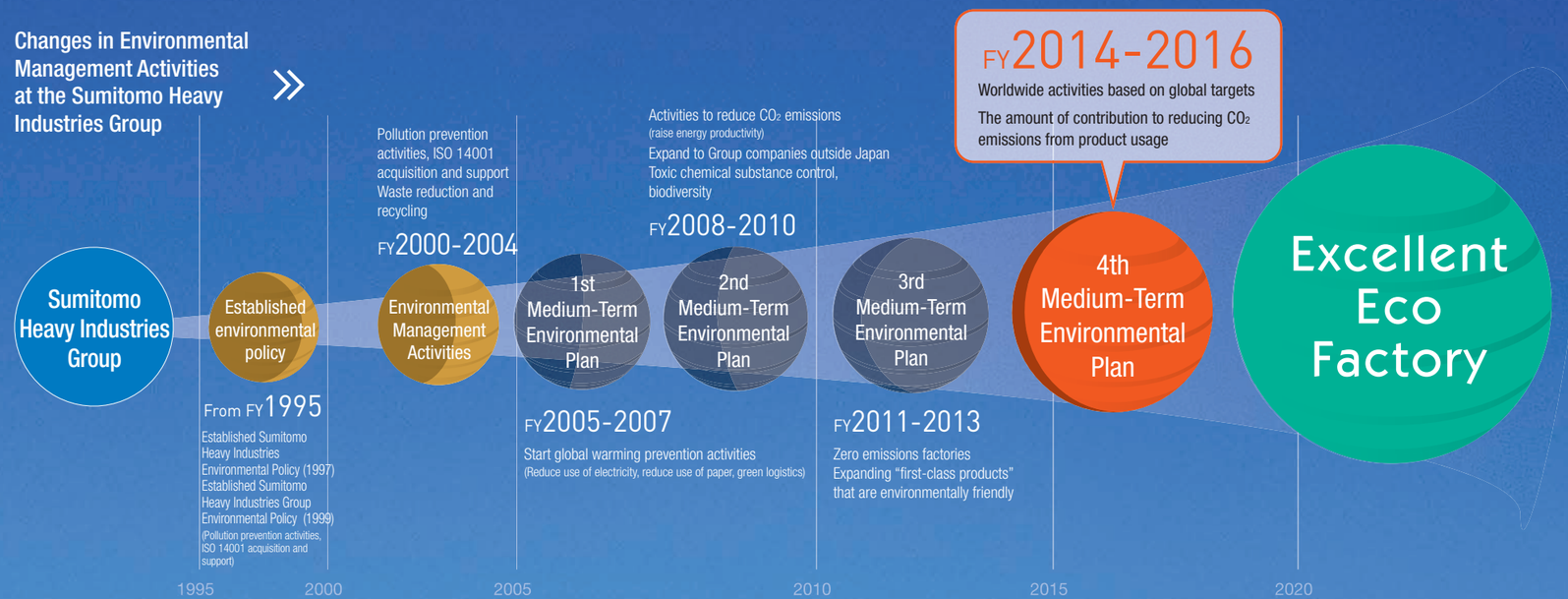
Our Group’s 4th Medium-Term Environmental Plan has the achievement of a low-carbon society as a major component. We are aiming for a 25% reduction in CO_2 emissions from global production and a 15% reduction in CO_2 emissions from product use.

We have been taking measures for some time to reduce CO_2 emissions during production, and now we are putting additional focus on the amount of contribution to reducing CO_2 emissions from product usage. This will further reinforce our CO_2 reduction activities working through both products and services.

“The amount of contribution to reducing CO_2 emissions from product usage” refers to the size of the CO_2 reduction that we anticipate from the development of new products with greater energy-conservation performance than the older products (FY2008 standard). In order to increase the amount of contribution to reducing CO_2 emissions from product usage, we are setting fiscal year targets for the increase of the number of our proprietary environmentally friendly products and the expansion of our sales of those products. An overwhelmingly large part of lifecycle CO_2 emissions for our Group’s products comes during product use, at 96%. This amount must be reduced. We will take steps to develop and popularize products with greater energy efficiency. Our aim is to contribute to the realization of a low-carbon society.

Meanwhile, our efforts to reduce CO_2 emissions during production are lowering CO_2 from our factories in Japan every year. Our actual records show a 40% reduction from 2004. At our factories in other countries, however, the increase in the number of factories means that CO_2 has increased. CO_2 emissions for factories in Japan and other countries combined show a significant rise. The 4th Medium-Term Environmental Plan sets a global reduction target of 25% in FY2020, and calls for energy conservation at our factories outside Japan.

Changes in Environmental Management Activities at the Sumitomo Heavy Industries Group



Basic Policies of the 4th Medium-Term Environmental Plan

1 Promote environmental risk management

We will take steps to reduce environmental risks and aim to achieve zero environmental accidents.
We will expand our environmental risk assessments to all our business establishments, including factories outside Japan, take steps to prevent environmental accidents, and maintain our zero accident record.

2 Contribute to the achievement of a low-carbon society

We have long been taking measures to reduce CO_2 emissions during production, and in addition we are reinforcing our activities to reduce CO_2 emissions during product use.

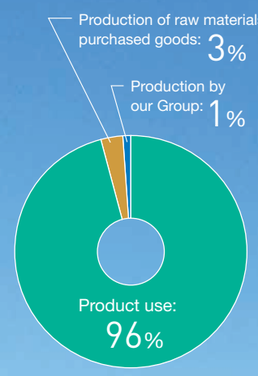
3 Realize a resource-recycling society

We will continue to reduce the amount of waste we generate and pursue zero emissions.

4 Contribute to local communities and take measures for biodiversity

We will participate in local community activities in every region, and contribute to the protection of a diversity of organisms by afforestation at our factories and other such activities.

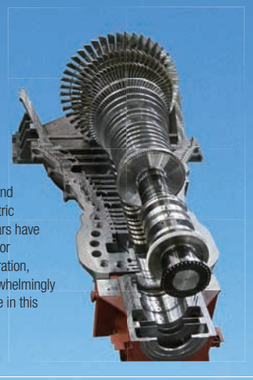
CO_2 emissions during production and during product use



Contribute to low-carbon society with environmentally friendly products and “first-class products”

All-electric injection molding machines

This is a device for producing plastic products. The group has special expertise in high-precision, high-cycle work, and has one of the top market shares domestically. We deliver products that are outstanding not just for their performance but also for their economy. That is why, for example, we have won the Minister of Economy, Trade and Industry Award at the Outstanding Energy Conservation Equipment Awards of the Japan Machinery Federation.



Steam turbine

This is a device used primarily for private power generation at factories. It receives steam from a boiler and uses it to run an electric generator. Recent years have seen increasing use for biomass power generation, and we have an overwhelmingly large worldwide share in this application.

Hybrid hydraulic excavator

The rotation is used to generate electricity, providing support for engine output that enhances the excavator’s fuel economy. The hydraulic excavator model used as the base for this system is also a prize-winner for energy conservation, and this further energy-conserving effect is contributing to the environment.

Compact CFB boiler

This circulating fluidized bed (CFB) boiler is capable of efficiently burning even flame-retardant fuels. In response to the demand from small-scale power generation facilities that use biomass as fuel, we developed a compact boiler in the 5-MW class. This is contributing to the effective utilization of global resources.

Excellent Eco Factory

Environmental Management System

At Sumitomo Heavy Industries Group, we have been promoting environmental management with awareness that business corporations have social responsibilities for protecting the global environment, for preserving the local environment, and for engaging in economic activities that are oriented toward recycling.

Sumitomo Heavy Industries Group Environmental Philosophy

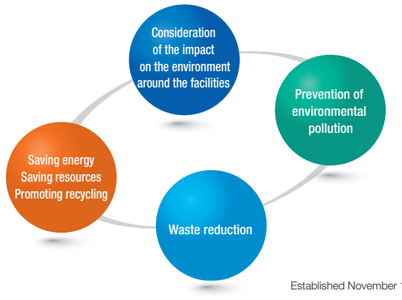
The Sumitomo Heavy Industries Group contributes to implementing sustainable development of society by holding fast to the "Sumitomo Business Spirit."
The Sumitomo Heavy Industries Group is taking action across the Group to protect the global environment.

Environmental Policy

In 1992, we established the Environmental Committee to promote environmental protection and compliance in local communities. In September 1997, we established the Sumitomo Heavy Industries Environmental Policy in order to drive home the message of environmental management.

In addition, in order to clarify the basic policy of activities across the Group, we established the Sumitomo Heavy Industries Group Environmental Policy in November 1999, expanding environmental management across the Group as a whole including overseas facilities.

Sumitomo Heavy Industries Group Environmental Policy



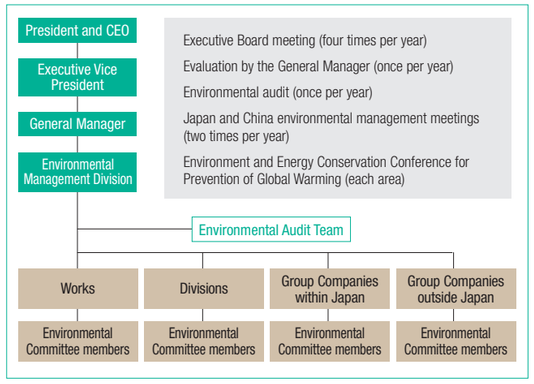
Established November 1, 1999

Environmental Management

As a corporate group that is expanding its business globally, the Sumitomo Heavy Industries Group considers environmental activities to be social responsibilities. We are therefore aiming to improve the environmental management conducted by every organization belonging to our Group, and to raise it to a high level.

The scope of management extends to our works, business divisions, branches, and Group companies inside and outside Japan. We have assigned expert Environmental Committee members to them and developed a system to manage their performance on environmental objectives.

We have established the Environmental Management Division at the head office. It is engaged in on-going environmental management that extends to drafting medium-term environmental plans, formulating environmental objectives for each fiscal year, promoting the implementation of plans and objectives, and developing human resources.



Environmental Management Audit

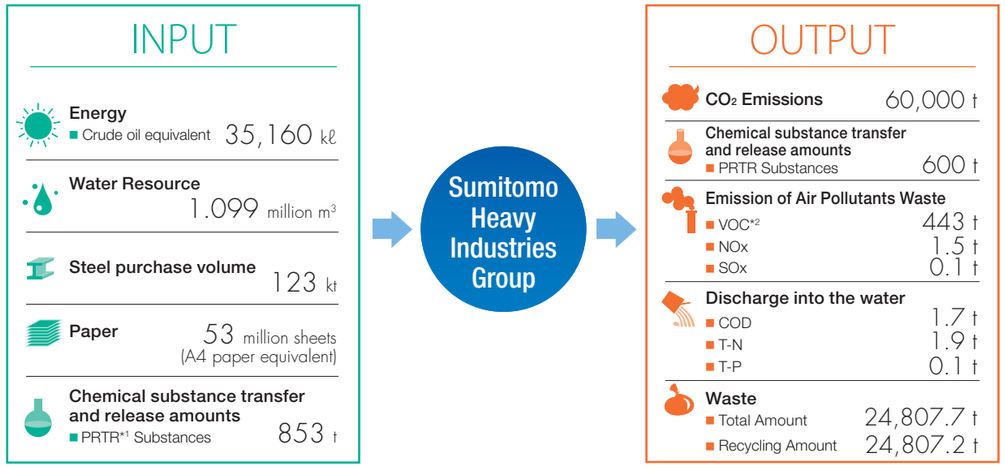
The Environmental Management Division of the head office conducts one environmental audit of every works and Group company in Japan every year. These audits cover the whole of environmental management, including environmental risk assessment and global warming prevention activities. The audit results are evaluated on a five-level scale in each department, using our company's own proprietary evaluation criteria, and then reported to the Executive Board. We take these steps with the aim of raising the levels.

The Environmental Management Division also conducts systematic audits of each of our local corporations outside Japan, taking into account the environmental impact of each company. The principal purpose is to achieve objectives for environmental risk reduction and global warming prevention activities. The audit results are evaluated on a five-level scale, just as with the audits in Japan, and reported to the Executive Board. Audits in fiscal year 2012 were conducted at four factories in China, two factories in the Philippines, and two factories in Europe, and in fiscal year 2013 at eight factories in China. In fiscal year 2014, we will conduct audits at two factories in Vietnam, five in China, one in Indonesia, and one in the United States.

Environmental Objectives (Medium-Term Plan) and Results

We formulated the third medium-term environmental plan, for which FY2013 was the final year, and worked to reduce environmental impact.

Overall view of the FY2013 environmental impact (Sumitomo Heavy Industries Group, domestic)



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

Environmental Accounting for FY2013

As a yardstick for measuring the investment, expenditure and effect of environmental protection, we have conducted environmental accounting in accordance with the Environmental Accounting Guidelines, 2005, issued by the Ministry of the Environment.

Unit: million yen

Costs for environment protection								Effectiveness of environmental protection		
Category		Details of the main activities and the effects	Investment amount		Costs		Economic effect		Main content
			2012	2013	2012	2013	2012	2013	
(1) Costs within Business Areas (Sites)		Maintenance and amortization of environmental impact reduction equipment and facilities	533	280	615	590	359	467	
Breakdown	(1) - 1 Costs for Preventing Pollution	Maintenance management of facilities for prevention of air pollution and water pollution and measurement of noise and vibration of facilities	58	83	214	178	0	0	
	(1) - 2 Costs for Global Environment Protection	Investment in energy-saving measures (electric power monitoring, energy-saving equipment, lighting upgrades, etc.)	463	195	42	29	20	208	Cost reduction with introduction of energy conservation, natural energy
	(1) - 3 Resource Recycling Costs	Investment in waste material reduction and recycling (recycling, reuse)	12	2	359	383	121	0	Reducing landfill by separating rubbish, cost reduction by cutting back on waste
							218	259	Proceeds from sale of valuables, etc.
(2) Upstream and Downstream Costs		Reduction of product packaging material, recycling of appliances, use of reverse side of paper	0	1	58	7			
(3) Management Activity Costs		Administration and maintenance of ISO 14001 standards, expansion of green areas	22	17	184	192			
(4) Research and Development Costs		Research and development to reduce the environmental impact of products, research and development of environmental equipment	965	717	1,313	557			
(5) Social Activity Costs		Local environmental protection and greening activities	0	0	2	0			
(6) Cost of dealing with environmental damage		Levies on air pollution loads; share of green belts and pollution compensation	0	0	0	0			
		Total	1,520	1,014	2,171	1,347	359	467	

General Overview of Fiscal Year 2013 Activities and the 4th Medium-Term Environmental Plan (2014-2016)

Based on lessons learned with the 2nd Medium-Term Environmental Plan, we promoted our 3rd Medium-Term Environmental Plan (FY2011-2013), for which fiscal year 2013 was the final target year. The status of achievement of fiscal year 2013 activities and the 4th Medium-Term Environmental Plan (FY2014-2016) are as shown below.

Evaluation: ○ Achieved △ Achieved by 90% or more × Achieved by less than 90%

Index	Item	Third Medium-Term Plan (2011-2013)	Achievements in FY2013	Evaluation	4th Medium-Term Environmental Plan (2014-2016)
Environmental Management	① Zero environmental accidents (legal violations)	• Zero environmental accidents (legal violations)	• Continue zero environmental accidents (legal violations)	○	• Continue zero environmental accidents (legal violations) • Expand environmental risk assessments in Japan and to other countries
	② Increase in the number of ISO 14001 certifications	• Planning and implementing certification acquisition in Group companies outside Japan (increase from seven overseas companies that are certified)	• Total of 14 Group companies outside Japan have acquired certification	○	• Total number of factories outside Japan that have acquired certification rises to 17 or more
	③ Expansion of the scope of the Consolidated Environmental Management	• Expand to 17 principal overseas manufacturing bases	• Expand to 22 principal overseas manufacturing bases • Full-time staff assigned to Shanghai, network building • Environmental managers at factories in China provided education and competency enhancement	○	• Expand to marketing and service centers outside Japan • Expand local guidance by head office and periodic environmental audits to all principal manufacturing bases outside Japan
Prevention of Global Warming	① Reduction in CO_2 emissions at works and offices	• Reduction by 19% from the FY2004 level by FY2013 (28% reduction over FY1990 levels)	• In Japan: Reduce CO_2 emissions by 37% from FY2004 level (44% reduction compared to FY1990 level) • Outside Japan: 7% reduction from FY2013 target	○	• In Japan: In FY2016, 32% reduction compared to FY2004 • Global (Japan + overseas): 22% reduction compared to FY1990
	② Improved energy productivity Energy productivity = Net sales/CO_2 emissions	• By FY2013, a 7% improvement in the energy productivity indicator compared to FY2008	• In Japan: Improvement by 14% compared to FY2008 • Outside Japan: Improvement by 31% compared to FY2013 target	○	• In Japan: In FY2016, 10% improvement compared to FY2008 • Outside Japan: In FY2016, 3% improvement compared to FY2013
	③ Promotion of green logistics (Reduction in CO_2 emissions during transportation)	• By FY2013, 14% reduction per basic unit of transportation against FY2006 benchmark	• 1% increase per basic unit of transportation against FY2006 benchmark	×	• By FY2016, 10% reduction per basic unit of transportation against FY2006 benchmark
Expansion of Line-up of Environmentally Friendly Products	① Expansion in environmentally friendly products	• Expansion in environmentally friendly products: 17 or more certified products (products considerate of environment by energy saving, lighter weight, low noise, chemical substances, etc.)	• Actual number of products certified as environmentally friendly: 17 products	○	• Number of products certified as environmentally friendly: 23 • Annual CO_2 emissions from product use reduced 15% (Contribution to reduction is equivalent to 270,000 tons annually)
	② Promotion of measures for green procurement (purchase of raw materials and components)	• Review Green Procurement Guidelines, eliminate prohibited substances	• Conduct review of Green Procurement Guidelines	○	• Promote green procurement (purchase of raw materials and components)
	③ Responding to chemical substance regulations that apply to our products	• Comply with the REACH Regulation and RoHS Directive Manage chemical substances	• Eliminate prohibited substances in compliance with the REACH Regulation and RoHS Directive and in accordance with customer requests • Start operation of system for managing chemical substances	○	• Expand operation of system for managing chemical substances
	④ Reduction of product packaging material	• 10% reduction compared to FY2010 by basic sales unit	• Increase by 2% compared to FY2010 (increase in packing materials for shipment outside Japan)	×	• 10% reduction compared to FY2010 by basic sales unit
Promotion of Resource Conservation and Recycling	① Reduction of waste emissions	• Emissions reduced by 13% compared to FY2007	• Emissions reduced by 27% compared to FY2007	○	• In Japan: Generated volume reduced 13% compared to FY2007 • 3% reduction in both Japan and other countries compared to FY2013 basic unit
	② Achievement of zero emissions	• Achieve zero emissions at all factories (amount of waste disposed of as landfill less than 0.5% of amount generated)	• Achieve zero emissions at all factories	○	• In Japan: Continued by all sites • Outside Japan: 95% or higher rate of non-landfill treatment
	③ Reduction in paper usage	• Reduction by 45% from FY2005 level by FY2013	• 50% reduction compared to FY2005	○	• In Japan: Maintenance management (autonomously assigned issues) • Outside Japan: 6% reduction compared to FY2013 by basic sales unit
	④ Reducing Water Consumption	• Reduction by 25% or more from the FY2005 level	• 42% reduction compared to FY2005	○	• In Japan: 40% reduction compared to FY2005, continuing achievement at all sites • Outside Japan: 3% reduction compared to FY2013 by basic sales unit
Promotion of Prevention of Environmental Pollution	① Emission control of organochlorine chemicals (Soil Contamination Countermeasures Law, Montreal Protocol)	• Continue complete abolition of dichloromethane, trichloroethylene and tetrachloroethylene • Continue complete abolition of ozone-depleting substances HCFC-141b, HCFC-225	• Continue complete abolition of dichloromethane, trichloroethylene and tetrachloroethylene • Continue complete abolition of ozone-depleting substances HCFC-141b, HCFC-225	○	• Continuing complete abolition of dichloromethane • Continuing complete abolition of trichloroethylene • Continuing complete abolition of tetrachloroethylene • Continuing complete abolition of HCFC-141b and HCFC-225
	② Emission control of substances designated as VOC (Air Pollution Control Law)	• Reduction by 33% from the FY2006 level	• 55% reduction compared to FY2006	○	• In Japan: 34% reduction compared to FY2006 • Outside Japan: 3% reduction compared to FY2013 by basic sales unit
	③ Total abolition of equipment that uses PCB	• Total prohibition of use and appropriate disposal	• Make appropriate disposal of equipment with high concentration of PCB after receipt of disposal notice • For low concentrations, remove and store in accordance with plans	○	• Make appropriate disposal of equipment with high concentration of PCB after receipt of disposal notice • For low concentrations, continue removing and storing in accordance with plans
Community Contribution	① Contribute to biodiversity	• Expand tree-planting and growing programs at factory premises	• Acorn Plan for expanded tree planting and greening on factory grounds • Make quantitative determination of impact from business activities on biodiversity	○	• Systematic tree planting, greening, and other such activities at each factory • Continue making quantitative determination of impact from business activities on biodiversity

Global Warming Prevention Activities

In its business activities, including procurement, manufacturing and logistics, Sumitomo Heavy Industries Group has been taking measures to reduce CO_2 emissions by positioning it as the most important issue.

Promoting Environmental Management

In the Sumitomo Heavy Industries Group, activities to prevent global warming are positioned as a part of environmental management. The results from each business division are managed on a monthly basis by the Environmental Management Division and feedback is provided. The results are also reported to the Executive Board at its quarterly meetings.

Each division in the Group promotes activities to prevent global warming and is engaged in activities to improve a range of processes in order to further enhance the efficient use of energy and to "visualize" activities and initiatives through "the participation of all employees."

Reducing CO_2 Emissions

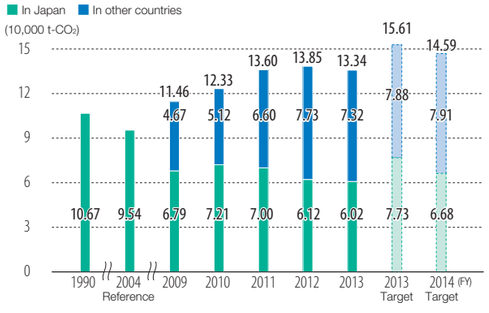
Our Group started activities to reduce CO_2 emissions in Japan in fiscal year 2005, taking 2004 as a baseline fiscal year. Fiscal year 2011 was the start of the 3rd Medium-Term Environmental Plan, with the target of reducing CO_2 emissions relative to fiscal year 2004 by 19% by fiscal year 2013, and fiscal year 2013 was the final year of this plan. This target value is equivalent to a target of 28% reduction relative to fiscal year 1990, which is the baseline year in the Kyoto Protocol.

In fiscal year 2013, we achieved a reduction of 37% (22% by basic unit) from the Company's baseline of fiscal year 2004. This is a reduction of 44% by comparison with fiscal year 1990. We successfully limited CO_2 emissions to an extent significantly exceeding the target for fiscal year 2013.

For other countries, we took production increases into account and set the reduction target of 1% year on year in terms of basic units. The emissions volume is trending upward because of the new establishment and expansion of factories in countries like China, where the CO_2 emissions coefficient is higher. For fiscal year 2013, we achieved the target value for the year with a 7% reduction in emissions.

The combined target value for Japan and other countries is total emissions of 156,000 tons, which represents a 19% reduction from the fiscal 2004 reference value in Japan and an annual 1% reduction in other countries. The target was achieved with an actual figure of 133,000 tons, which represents a 15% reduction from the target value.

CO_2 Emissions



* For Japan, the FY2000 figure of 3.78 (t-CO_2/10,000 kWh) from the Federation of Electric Power Companies of Japan was used as a fixed emissions coefficient. For other countries, the FY2005 figures from the GHG Protocol were used as fixed coefficients.

Improvement of energy productivity

Starting in fiscal year 2009, Sumitomo Heavy Industries Group has been taking the characteristics of Group businesses into account and using the new unified index of energy productivity (net sales/CO_2 emissions: the reciprocal of the basic unit) in Japan. We are pursuing management and operation on a monthly basis at each business unit (BU).

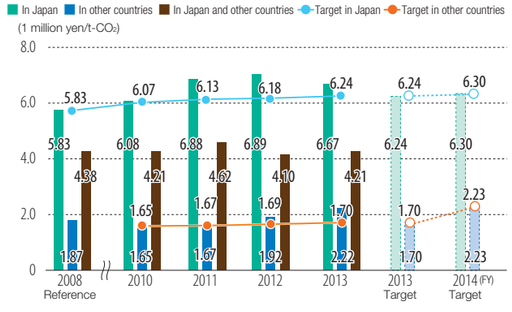
For fiscal year 2013, we declared a 7% increase over fiscal year 2008 as the target for our program. We achieved this target with a 14% increase at our principal production bases in Japan.

The target for our programs in other countries was set at 1% increase year on year. We achieved this target in fiscal year 2013 with an increase of 31%.

Going forward, we will continue to promote the following measures.

❶ Concentrate working hours (eliminate waste by mass holidays)
❷ Minimize standby power (reduce the amount of power used by machine tools on standby)
❸ Minimize working hours (strengthen production technology capabilities)
❹ Make effective use of equipment and facilities

Energy productivity



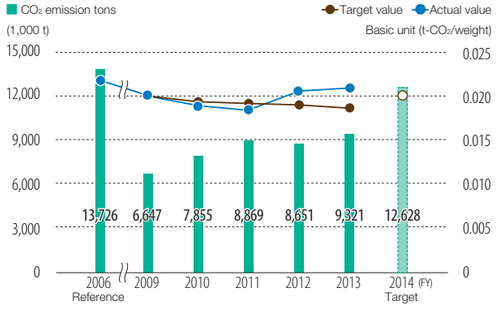
Promoting Green Logistics

In transportation, we have been making efforts to reduce CO_2 emissions by eliminating waste and by improving efficiency. With FY2006 as the benchmark year, we aimed to achieve a 14% reduction in the basic unit of transportation (t-CO_2/weight) in FY2013. In fiscal year 2013, we improved our loading ratio and practiced modal shift, among other measures. However, due to the decline in sales in other countries relative to the reference year and the increase in long-distance truck transport to the Tohoku Region to meet earthquake recovery demand, the indicator rose 1%. In terms of total CO_2 volume, however, the reduction was 32%.

In fiscal year 2014, we will pursue thoroughgoing management of modal shift and other measures.

Modal shift using a barge

CO_2 emissions through logistics

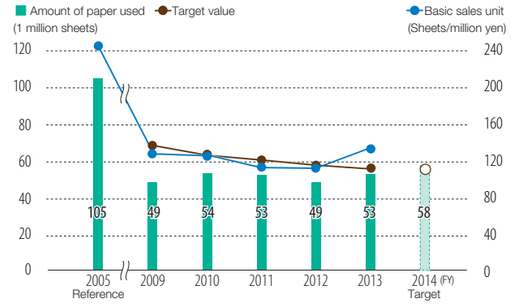


Activities to Reduce Paper Usage

Reducing paper use is part of activities to save resources and, at the same time, it is linked to activities to prevent global warming such as reducing CO_2 emissions in the papermaking process. In FY2013, the Sumitomo Heavy Industries Group aims for a 45% reduction compared to FY2005 levels.

The amount was reduced by 50% in fiscal year 2013, achieving the target. Activity from fiscal year 2014 on will be for maintenance management.

Paper usage (A4 paper equivalent)



Environmentally Friendly “First-Class Products”

The Sumitomo Heavy Industries Group has created systematic and voluntary standards across the Group such as carrying out Lifecycle Assessments,* improving recycling rates at the time of disposal, reducing the volume of packaging, curtailing harmful substances contained in products, and developing products that consume less energy, weigh less, are more compact and last longer. We have launched initiatives for continuous improvements and evaluation based on these standards.

As a result, we added the following 17 products to “environmentally friendly first-class products” by fiscal year 2013.

Plastic injection molding machines (Plastics Machinery Division); warm forging servopresses (Industrial Equipment Division); hot forging servo presses (Industrial Equipment Division); biomass boiler (Energy & Environment Group); compact 25-ton biomass boiler (Energy & Environment Group); dry-type desulphurization equipment (Energy & Environment Group); kiln equipment (Energy & Environment Group); hydraulic excavator (Sumitomo (S.H.I.) Construction Machinery Co., Ltd.); asphalt finisher (Sumitomo (S.H.I.) Construction Machinery Co., Ltd.); hybrid electric power source for transfer cranes (Sumitomo Heavy Industries Material Handling Systems Co., Ltd.); New pulse-type bag filter “Eco Pulser” (Nihon Spindle Mfg. Co., Ltd.); the Cle-Eco III clean room air-conditioning control system (Nihon Spindle Mfg. Co., Ltd.); electric-powered reach forklifts (Sumitomo NACCO Materials Handling Co., Ltd.); turbines with longer blades (Shin Nippon Machinery Co., Ltd.); dividing-wall distillation columns (Sumitomo Heavy Industries Process Equipment Co., Ltd.); SHX-III/S ion implantation system (SEN Corporation); Sumijetter grit jet pump (Sumitomo Heavy Industries Environment Co., Ltd.)

* Lifecycle Assessment: A method of objective and quantitative evaluation of environmental impact throughout the lifecycle (all stages from extracting the resources to manufacturing, use, disposal and transportation) of products and services

Reduction of CO_2 Emissions During Product Use

Under the 4th Medium-Term Environmental Plan, our objective is a 15% reduction in CO_2 emissions during product use compared to fiscal year 2008. We will take measures accordingly for technical innovation and sales expansion in energy-saving products. The reduction in CO_2 emissions during product use will amount to the equivalent of 270 thousand tons annually.

Activities Directed Toward Creating a Society Based on Recycling

We are working to limit the discharge of waste material from business activities, as well as to recycle and make effective use of that material.

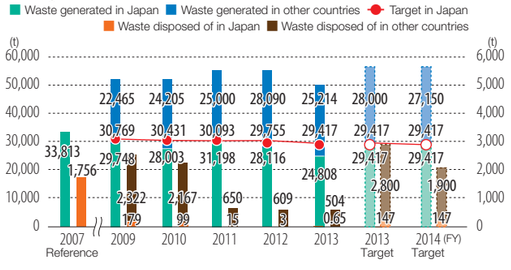
Measures to reduce environmental impact

In order to build a recycling-oriented society, we at the Sumitomo Heavy Industries Group are controlling the discharge of waste from our business activities, recycling waste, and making efficient use of resources as well as working on initiatives to reduce the burden on the environment through our business activities.

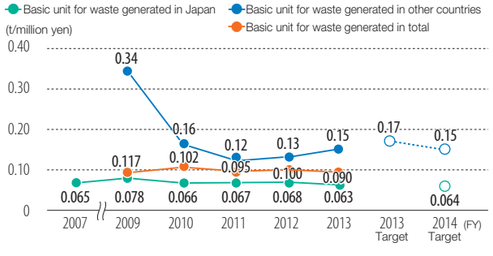
Limiting the generation of waste and reducing the amount of waste discarded

In Japan, our target for the amount of waste discharged in fiscal year 2013 is a 13% reduction relative to fiscal year 2007. In fiscal year 2013, we worked to increase the efficiency in production activities, do away with waste, and limit the amount of metal scrap and other such waste generated. As a result, emissions amounted to 24,808 tons, which was a 27% reduction from fiscal year 2007, and which achieved the target for fiscal year 2013. The target for the amount of waste discarded was under 0.5% of emissions, and the 0.65 tons of waste discarded in fiscal year 2013 was only 0.003% of emissions, which exceeds the target by a significant margin. The combined figure for Japan and other countries also shows that the target was achieved, with figures lower than in the previous fiscal year. Furthermore, the trend is toward annual reductions even in terms of basic units.

Waste generated



Waste generated (basic sales unit)



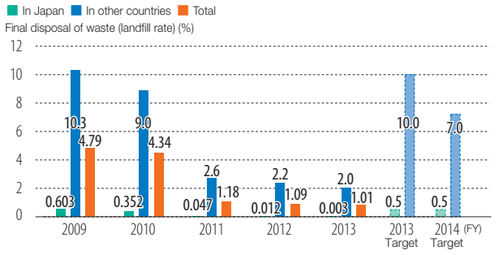
Zero Emissions in FY2013 Achieved by Entire SHI Group

The SHI Group has defined factories at which the amount of waste disposed of as landfill as a percentage of total waste (the landfill rate) is less than 0.5% as zero emissions factories. We have been promoting this program since FY2005, and as a result in FY2013 we achieved zero emissions at all seven works and all eight Group companies. We were also able to achieve a zero emissions rate of 0.003% for the SHI Group as a whole, greatly exceeding the target. We have been continuously achieving zero emissions since fiscal year 2011.

We are operating in other countries with the target of making less than 10% of total waste go to landfill. In fiscal year 2013, the figure was 2.0%, easily achieving the target.

The combined figure for Japan and other countries shows steady progress in recycling. In fiscal year 2013, the percentage of waste going to landfill was 1.0%. In order to achieve zero emissions, separation of waste materials by category for recycling is crucial. We intend to continue with thoroughgoing separation of waste so as to maintain zero emissions, and we will keep our aim on making our factories kind to the global environment.

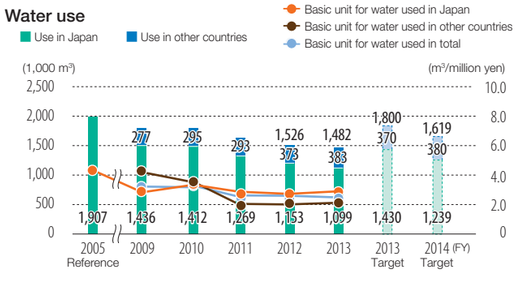
Zero emissions of waste



Reducing Water Consumption

There are limits to the volume of usable water resources. Reducing water consumption is linked to the protection of resources and reduction of discharge into public water systems, and at the same time is also connected with the protection of biodiversity. The Sumitomo Heavy Industries Group has set the reduction target for fiscal year 2013 in Japan at 25% relative to fiscal year 2005, and we are pursuing this target. In fiscal year 2013, we have continued to install visible water pipes (aboveground installation) in order to identify water leaks and eliminate waste. As a result, we achieved our target with a 42.3% reduction relative to fiscal year 2005, and this also contributed to cost cutting. We will aim for further reductions in fiscal year 2014. We have also been engaging in reduction activities in other countries since fiscal year 2010. The combined figure for Japan and other countries also shows a trend toward reduction.

Water use



Activities for Managing Chemical Substances

We manage chemical substances with the aim of preventing of environmental pollution.

Complete Abolition of Organochlorine Chemicals

◈ Complete abolition of substances subject to the Soil Contamination Countermeasures Law

In FY2011, we completed eliminating any use of dichloromethane, tetrachloroethylene and trichloroethylene, which are organochemical substances subject to the Soil Contamination Countermeasures Law. We have maintained this total elimination of use.

◈ Total abolition of ozone-depleting substances

We totally eliminated use of the ozone-depleting substance HCFC-225 in fiscal year 2008, and that of HCFC-141b in fiscal year 2010. We have maintained the total elimination of such use.

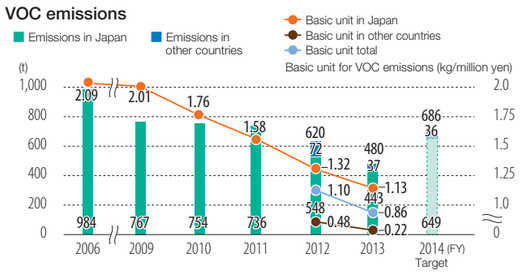
Emission Control of VOC (Volatile Organic Compounds)

Toluene, xylene and ethylbenzene in paint solvents account for over 90% of the VOC we use. Our goal is to reduce emissions of these chemicals by at least 34% by FY2016 compared with the level in FY2006.

The amount of coating we used in shipbuilding during fiscal year 2013 diminished, and further reductions were achieved by the operation of solvent collection and removal equipment at our large-scale paint facilities that are subject to legal controls. Promotion of these and other reduction measures yielded a 55% reduction relative to fiscal year 2006. This was also a 46% reduction in terms of the basic sales unit. Measures to control VOC emissions in FY2014 will continue from FY2013 through such steps as the operation of solvent collection and removal equipment, the expanded use of powder paint, and the adoption of low-solvent paints to control emissions.

We have also begun activities in other countries, starting in fiscal year 2012, and achieved a 54% reduction in terms of basic units in fiscal year 2013.

VOC emissions



Emissions and Transfer of PRTR Substances

More than 90% of PRTR substances are paint solvents (toluene, xylene, ethylbenzene). In FY2013, we reduced these substances by 54% of the level in FY2006. This also represents a 45% reduction in terms of the basic sales unit. We will continue to expand the use of low-solvent paint while ensuring that we maintain the quality of our products. We will also install and expand solvent collection and removal equipment to reduce the emission and transfer of PRTR substances.

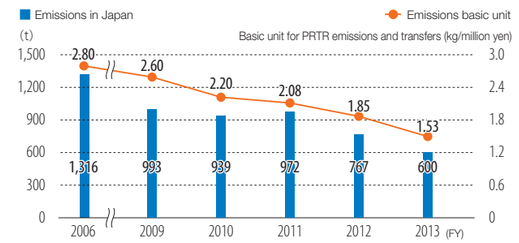
Emissions and transfer volume of Class I Designated Chemicals Substances under the PRTR Law in FY2013 (Substances subject to reporting)

Unit: kg

Substance number	Substance designation	Emissions + transferred amount*	
		2012	2013
53	Ethylbenzene	153,167	108,843
80	Xylene	396,825	309,344
240	Styrene	1,394	969
296	1, 2, 4-trimethylbenzene	2,319	4,889
297	1, 3, 5-trimethylbenzene	6,947	5,495
300	Toluene	155,622	133,016
349	Phenol	791	373
374	Hydrogen fluoride and its water-soluble salts	24,284	24,734
384	1-bromopropane	7,292	12,432
392	Normal hexane	1,128	677
405	Boron and its compounds	1,900	2,362
412	Manganese and its compounds	8,816	4,345

* Emissions + transferred amount is the total amount for Sumitomo Heavy Industries and all Group companies.

Emissions and transfers of PRTR substances



Management of PCB (Polychlorinated Biphenyl) and Total Abolition of Equipment Containing PCB

We have completed early registration of all equipment containing high concentrations of PCB with the processing company, Japan Environmental Safety Corporation, and we are undertaking systematic detoxification based on the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes. We are gradually upgrading our transformers that contain PCBs and lighting equipment with stabilizers that contain PCBs.

Our survey of equipment with low concentrations of PCBs has been completed, as well.

Environmental Management Activities at Factories Outside Japan

Sumitomo Heavy Industries Group is strengthening environmental risk management and expanding the acquisition of ISO 14001 certification at factories outside Japan.

Stronger Environmental Risk Management

◈ Environmental Risk Assessment

Local environmental regulations and other such requirements have been made more stringent at our factories outside Japan. In order to comply with legal requirements, we are receiving guidance from the authorities, and we are working to reinforce our environmental management systems while adapting them to local characteristics.

In FY2013, we introduced environmental risk assessment to our factories in China and Southeast Asia, where environmental risks are relatively high. We are gradually expanding environmental risk assessment of the higher risk facilities at each of our factories and working to reduce the risks. This includes, for example, quality management of waste water, standards-based management of emissions from paint facilities, and control of oil leaks in machine tools.

◈ Management Systems in China

By region, the largest number of Sumitomo Heavy Industries Group factories in operation outside Japan is found in China, which has eight. Special environmental management systems have been instituted there. In order to provide centralized environmental management operations for our Chinese factories, we have established a department to provide overall environmental management supervision at Sumitomo Heavy Industries (Shanghai) Management, Ltd. as the base for our Group in China. A full-time manager has been assigned to the department, which provides every factory with guidance on environmental management operations in light of local circumstances, including guidance on changes in local environmental laws and regulations.

It is also the case in the China area, as in Japan, that we hold environmental management meetings twice every year. These meetings bring together the environmental managers from each of our factories in China to hear explanations of environmental policy from the Environmental Management Division of the head office as well as to present reports on the environmental management situation at each factory. We are taking these measures to raise the level of environmental management in the China area as a whole.

Environmental management meeting in Shanghai

From FY2013, we began to rotate the meeting venue from factory to factory. The meetings are used not just for coordination but to promote activities to strengthen environmental management in more practical ways, such as by carrying out on-site patrols of the factories that also look into energy conservation concerns.

◈ Measures for Environmental Pollution Prevention

Environmental standards are being strengthened every year in China and Southeast Asia. Every factory is strengthening its environmental management activities to achieve the environmental standards in its location.

Sumitomo Heavy Industries (Vietnam) Co., Ltd. in Vietnam installed a new wastewater treatment facility to achieve stronger environmental standards instituted by the industrial park where the factory is located. The facility went into full operation in fiscal year 2013.

We also take action to reduce the environmental impact when expanding production facilities or taking other such steps to raise the production capacity of a factory.

When Ningbo Sumiju Machinery, Ltd. in China expanded its paint exhaust treatment facility, it built a new soundproof wall enclosing the facility in order to reduce the noise generated by the facility out of concern for the impact on surrounding areas.

Wastewater treatment facility

Soundproof wall at paint exhaust treatment facility

◇ Promoting Environmental Audits at Factories Outside Japan

The head office Environmental Management Division periodically conducts environmental audits of factories outside Japan.

Since fiscal year 2012, these environmental audits at factories outside Japan have been applying the same audit standards as at factories in Japan. We are checking the environmental management activities at each factory in order to reduce the environmental risk to the same level as at factories in Japan.

The audits are carried out at a frequency determined according to the environmental risk of the particular factory taking local environmental requirements into consideration. In fiscal year 2013, we carried out environmental audits at seven of our factories in China and the Southeast Asia area.

When environmental audits are conducted, at the same time we also give environmental managers and officers training in activities for environmental accident prevention and energy conservation.

On-site check for environmental audit

On-site check for environmental audit

Inspecting the environmental bulletin board

◇ Improving Hazardous Material Storage

Sumitomo Heavy Industries (Vietnam) Co., Ltd. in Vietnam has enlarged the hazardous material storehouse at its factory to keep pace with the expansion of factory operations. In order to reduce the environmental risk, administration of the warehouse not only complies with local laws and regulations, but also follows the procedures for small-quantity hazardous material warehouses used at our factories in Japan. For instance, there is a limit to the height of stacked oil containers, the storage locations of hazardous materials are assigned by classification of the material, and so on.

Exterior of hazardous material storehouse

Interior of hazardous material storehouse

◇ Consciousness-Raising Activities at Factories Outside Japan

Environmental management activities are being pursued at our factories outside Japan by environmental policies and environmental objectives that are defined for each factory.

These activities are promoting consciousness-raising among employees, just as at our factories in Japan, in order to encourage participation by all employees.

Environmental policies are posted on the shop floor at every factory. Bulletin boards for environmental management matters have also been placed near on-site break areas, entryways, and other such locations. These boards also display environmental policy and data indicating the status of environmental management, such as energy utilization trends. The environmental managers for each factory arrange these displays and exercise their ingenuity to make the content interesting to employees.

Environmental bulletin board in a factory

We are also promoting various unique initiatives based on ideas from the environmental staff at local factories for making all factory employees better aware of environmental management.

At Sumitomo Heavy Industries (Tangshan), Ltd. in China, employees are attaching stickers of our Group's energy-saving mascot figure to their hard hats as a way of heightening awareness of energy conservation. At Sumiju Magnet (Kunshan) Co., Ltd. in China, the factory's environmental policy and environmental objectives are displayed on the reverse side of the name tags that all employees carry with them at all times.

Hard hat

Name tag with environmental policy and objectives on the reverse side

Expanding Number of ISO 14001 Certifications

The Group is working to further the acquisition of ISO 14001 external certification by our factories outside Japan. In fiscal year 2013, ISO 14001 certification was newly acquired by Sumitomo Heavy Industries (Vietnam) Co., Ltd. and Sumitomo NACCO Materials Handling (Vietnam) Co., Ltd. in Vietnam, and Sumiju Magnet (Kunshan) Co., Ltd. in China.

We now have a total of 15 factories of 14 companies that have acquired certification. Under the 4th Medium-Term Environmental Plan, we will expand this to 17 or more companies.

ISO 50001 Certification Acquired

Sumitomo (SHI) Cyclo Drive Germany GmbH in Germany acquired ISO 50001 certification in energy management systems in December 2013. This was the very first member of our Group inside or outside Japan to acquire this certification.

Group companies outside Japan that have received the ISO14001 certification

Company name	Date of Certification
Sumitomo (SHI) Demag Plastics Machinery GmbH (Wiehe factory)	April 1998
Sumitomo (SHI) Cyclo Drive Germany GmbH	March 2006
Sumitomo (SHI) Cryogenics of Europe, Ltd.	June 2008
Ningbo Sumiju Machinery, Ltd.	September 2008
Dalian Spindle Cooling Towers Co., Ltd.	December 2008
SHI Manufacturing & Services (Philippines) Inc.	January 2011
Sumitomo (SHI) Cyclo Drive China Ltd.	May 2011
Sumitomo (SHI) Demag Plastics Machinery GmbH (Schwaig factory)	July 2011
Link-Belt Construction Equipment Company, L.P., LLLP	August 2011
Suminac Philippines Inc.	September 2011
Sumitomo Heavy Industries (Tangshan), Ltd.	March 2012
Demag Plastics Machinery (Ningbo) Co., Ltd.	December 2012
Sumitomo Heavy Industries (Vietnam) Co., Ltd.	May 2013
Sumitomo NACCO Materials Handling (Vietnam) Co., Ltd.	June 2013
Sumiju Magnet (Kunshan) Co., Ltd.	November 2013

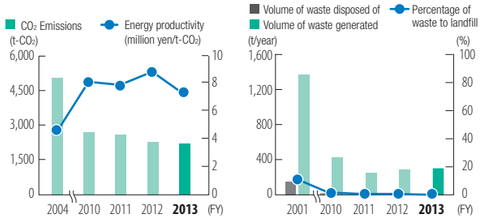
Environmental impact data for SHI works[*1], Group companies in Japan[*2] as well as the main overseas Group companies

*1 Including Group companies within the works *2 Group companies other than works

[Environmental impact data for each works]

Tanashi Works

- Established in 1939
- ISO14001 (obtained in August 1998)
- Site Area: 40,712 m²
- Building Area: 14,368 m²
- Main Products: Defense Equipment, Cryogenic Equipment

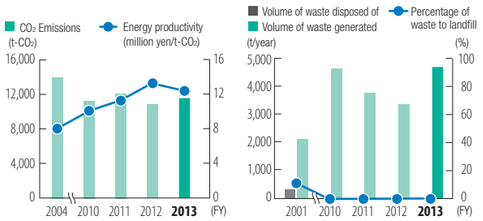


Energy used	
Electric power (1,000 kWh)	5,623.7
Gasoline (kL)	0.1
Kerosene (kL)	0.9
Heavy fuel oil A (kL)	–
Light oil (kL)	0.7
LPG (t)	–
City gas (1,000 m³)	1.6
Water used (m³)	14,361
Discharge into the atmosphere	
SOx (kg)	–
NOx (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Antimony and its compounds	1	–	–
Ethylbenzene	24	–	–
Ethylene glycol monoethyl ether (2-ethoxyethanol)	1	–	–
Ethylene glycol monomethyl ether (2-methoxyethanol)	1	–	–
Ethylene glycol monomethyl ether (2-methoxyethanol)	5	–	–
Xylene	48	–	–
Hexavalent chromium compounds (including lead chromate)	4	–	–
Ethylene glycol monoethyl ether acetate	6	–	–
1, 3, 5-trimethylbenzene	12	–	–
Toluene	295	–	–
Lead	3	–	–
Lead compounds	9	–	–
Hydrogen fluoride and its water-soluble salts	3	–	–
1-bromopropane	7,477	–	–
Boron and its compounds	1	–	–
Manganese and its compounds	9	–	–
Molybdenum and its compounds	2	–	–

Chiba Works

- Established in 1965
- ISO14001 (obtained in April 1999)
- Site Area: 294,600 m²
- Building Area: 110,692m²
- Main Products: Plastic Injection Molding Machines, Metallic Molds, Hydraulic Excavators

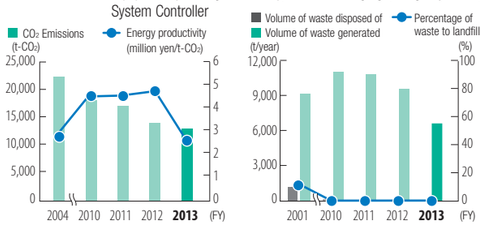


Energy used	
Electric power (1,000 kWh)	20,000.4
Gasoline (kL)	108
Kerosene (kL)	7
Heavy fuel oil A (kL)	–
Light oil (kL)	516.9
LPG (t)	161.2
City gas (1,000 m³)	984.5
Water used (m³)	47,522
Discharge into the atmosphere	
SOx (kg)	–
NOx (kg)	272

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Water-soluble zinc compounds	167	–	–
2-aminoethanol	6	–	–
Ethylbenzene	8,038	–	11,476
Xylene	32,089	–	53,631
Styrene	236	–	155
1, 2, 4-trimethylbenzene	1,186	–	–
1, 3, 5-trimethylbenzene	1,183	–	449
Toluene	23,407	–	11,624
Lead	2	–	–
Hexamethylene diisocyanate	24	–	–

Yokosuka Works

- Established in 1971
- ISO14001 (obtained in February 1999)
- Site Area: 523,000 m²
- Building Area: 170,635 m²
- Main Products: Ships, Laser Processing Systems, Semiconductor Manufacturing Equipment (Molding Machines), Precision Forgings, Stage Systems, System Controller

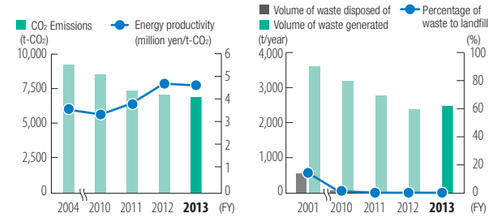


Energy used	
Electric power (1,000 kWh)	28,565.9
Gasoline (kL)	25.3
Kerosene (kL)	–
Heavy fuel oil A (kL)	–
Light oil (kL)	142.4
LPG (t)	11.3
City gas (1,000 m³)	810.4
Water used (m³)	123,793
Discharge into the atmosphere	
SOx (kg)	–
NOx (kg)	591
Discharge into the water	
COD (kg)	374
Nitrogen (kg)	305
Phosphorus (kg)	43

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	32,595	–	–
Ferric chloride	–	1	24
Cadmium and its compounds	–	–	24
Xylene	53,180	–	–
1, 2, 4-trimethylbenzene	6	–	–
1, 3, 5-trimethylbenzene	9	–	–
Toluene	14,623	–	136
Phenol	372	–	–
Hydrogen fluoride and its water-soluble salts	–	25	24,673
1-bromopropane	2,396	–	2,559
Boron and its compounds	–	8	71
Manganese and its compounds	372	–	3,474
Tritolyl phosphate	–	–	515

Nagoya Works

- Established in 1961
- ISO14001 (obtained in January 1999)
- Site Area: 293,000 m²
- Building Area: 90,000 m²
- Main Products: Power Transmission and Controls, Gear Motors, Inverters, Construction Cranes

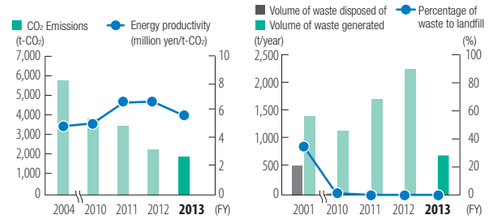


Energy used	
Electric power (1,000 kWh)	14,786.2
Gasoline (kL)	15.6
Kerosene (kL)	0.5
Heavy fuel oil A (kL)	–
Light oil (kL)	–
LPG (t)	–
City gas (1,000 m³)	653.7
Water used (m³)	130,459
Discharge into the atmosphere	
SOx (kg)	–
NOx (kg)	–
Discharge into the water	
COD (kg)	817
Nitrogen (kg)	76
Phosphorus (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Acrylic acid and its solutions	1	–	–
Ethylbenzene	11,021	–	1,589
Xylene	73,561	–	8,816
Hexavalent chromium compounds (including lead chromate)	82	–	–
Styrene	458	–	–
1, 2, 4-trimethylbenzene	35	–	–
1, 3, 5-trimethylbenzene	1,035	–	1,021
Toluene	25,401	–	–
Naphthalene	482	–	–
Lead	82	–	–
N-butyl phthalate	2	–	–
Benzene	1	–	–
Boron and its compounds	77	–	–
Manganese and its compounds	50	–	2
Polyoxyethylene nonyl phenyl ether	3	–	–
1-methyl-1-phenylethyl hydroperoxide	1	–	–

Okayama Works

- Established in 1948
- ISO14001 (obtained in March 2000)
- Site Area: 425,000 m²
- Building Area: 94,000 m²
- Main Products: Gearboxes, Stage Systems, Machine Tools

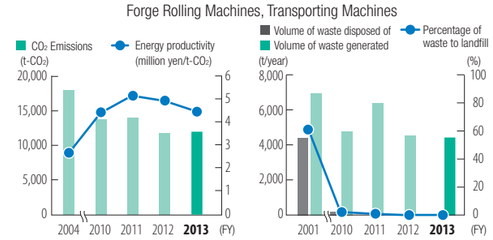


Energy used	
Electric power (1,000 kWh)	4,219.8
Gasoline (kL)	0.5
Kerosene (kL)	–
Heavy fuel oil A (kL)	–
Light oil (kL)	6.5
LPG (t)	78.5
City gas (1,000 m³)	–
Water used (m³)	14,461
Discharge into the atmosphere	
SOx (kg)	–
NOx (kg)	140
Discharge into the water	
COD (kg)	98
Nitrogen (kg)	536
Phosphorus (kg)	2

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	986	–	–
Xylene	2,418	–	–
1, 3, 5-trimethylbenzene	353	–	–
Toluene	4,066	–	–

Ehime Works (Niihama Factory)

- Established in 1888
- ISO14001 (obtained in November 1999)
- Site Area: 418,000 m²
- Building Area: 204,000 m²
- Main Products: Ion Accelerators, Coating Equipment, Parking System, Forge Rolling Machines, Transporting Machines

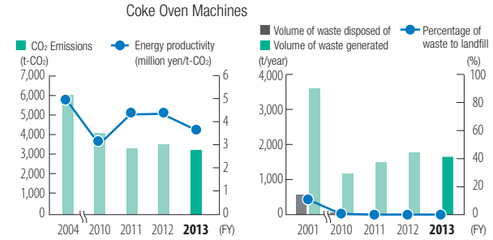


Energy used	
Electric power (1,000 kWh)	20,852.7
Gasoline (kL)	10.8
Kerosene (kL)	40.9
Heavy fuel oil A (kL)	723
Light oil (kL)	78.4
LPG (t)	565.3
City gas (1,000 m³)	–
Water used (m³)	647,981
Discharge into the atmosphere	
SOx (kg)	85
NOx (kg)	114
Discharge into the water	
COD (kg)	123
Nitrogen (kg)	635
Phosphorus (kg)	21

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Water-soluble zinc compounds	20	–	–
Ethylbenzene	18,202	–	1,410
Xylene	30,813	–	2,800
Toluene	20,285	–	2,370
Lead compounds	23	–	74
Hydrogen fluoride and its water-soluble salts	16	–	–
Molybdenum and its compounds	4	–	22

Ehime Works (Saijo Factory)

- Established in 1973
- ISO14001 (obtained in February 1999)
- Site Area: 535,000 m²
- Building Area: 91,500 m²
- Main Products: Steel Structures, Pressure Vessels, Stirring and Mixing Equipment, Coke Oven Machines



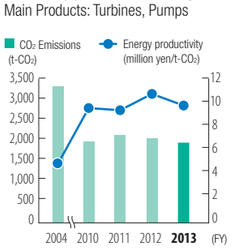
Energy used	
Electric power (1,000 kWh)	5,708
Gasoline (kL)	14.3
Kerosene (kL)	–
Heavy fuel oil A (kL)	1.9
Light oil (kL)	38.5
LPG (t)	282.8
City gas (1,000 m³)	–
Water used (m³)	56,122
Discharge into the atmosphere	
SOx (kg)	31
NOx (kg)	168
Discharge into the water	
COD (kg)	312
Nitrogen (kg)	342
Phosphorus (kg)	28

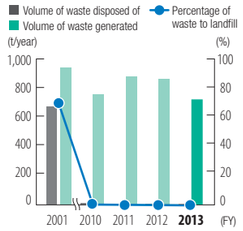
PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	1,042	–	718
Xylene	4,945	–	3,693
Styrene	33	–	20
1, 2, 4-trimethylbenzene	15	–	13
1, 3, 5-trimethylbenzene	40	–	49
Toluene	1,401	–	652
Butyl methacrylate	7	–	5

[Environmental impact data for Group companies in Japan (away from the works)]

Shin Nippon Machinery. Co., Ltd.

Main Products: Turbines, Pumps



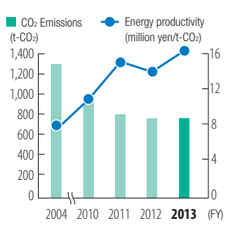


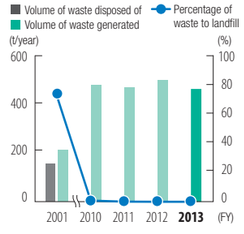
Energy used		
	Electric power (1,000 kWh)	3,319.5
	Gasoline (kL)	0.2
	Kerosene (kL)	247.1
	Heavy fuel oil A (kL)	–
	Light oil (kL)	5.8
	LPG (t)	5.9
	City gas (1,000 m³)	0.1
Water used (m³)		18,636
Discharge into the atmosphere		
	SOx (kg)	18
	NOx (kg)	43
Discharge into the water		
	COD (kg)	17

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	1,209	–	133
Xylene	3,020	–	323
Chromium and trivalent chromium compounds	202	–	20
Cobalt and its compounds	87	–	10
Vinyl acetate	1	–	–
Styrene	1	–	–
1, 2, 4-trimethylbenzene	785	–	86
1, 3, 5-trimethylbenzene	514	–	57
Toluene	910	–	57
Naphthalene	80	–	9
Vanadium compounds	11	–	1
N-butyl phthalate	1	–	–
Hexamethylene diisocyanate	1	–	–
Boron and its compounds	1	–	–
Manganese and its compounds	56	–	6

Nihon Spindle Mfg. Co., Ltd.

Main Products: Industrial Instruments, Environmental Equipment, Building Materials



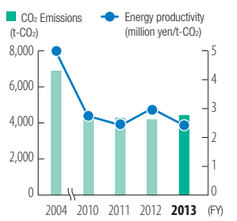


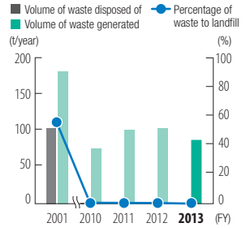
Energy used		
	Electric power (1,000 kWh)	1,833.3
	Gasoline (kL)	4.6
	Kerosene (kL)	–
	Heavy fuel oil A (kL)	–
	Light oil (kL)	–
	LPG (t)	8.5
	City gas (1,000 m³)	22.5
Water used (m³)		9,361
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	680	–	347
Xylene	1,369	–	601
Hexavalent chromium compounds (including lead chromate)	2	–	–
Styrene	1	–	–
1, 2, 4-trimethylbenzene	27	–	10
1, 3, 5-trimethylbenzene	7	–	3
Toluene	2,299	–	521
Lead compounds	24	–	15
N-butyl phthalate	1	–	–
Benzene	9	–	–
Formaldehyde	1	–	–

SEN Corporation

Main Products: Ion implantation system



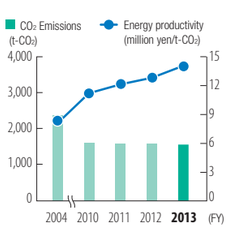


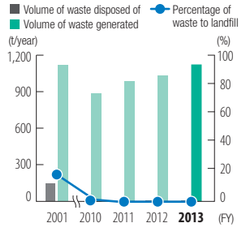
Energy used		
	Electric power (1,000 kWh)	11,800.6
	Gasoline (kL)	–
	Kerosene (kL)	–
	Heavy fuel oil A (kL)	–
	Light oil (kL)	–
	LPG (t)	–
	City gas (1,000 m³)	–
Water used (m³)		14,057
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–
Discharge into the water		
	COD (kg)	2
	Nitrogen (kg)	2

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylene glycol monomethyl ether (2-methoxyethanol)	11	–	–
Toluene	14	–	–
Arsenic and its inorganic compounds	2	–	–
Hydrogen fluoride and its water-soluble salts	7	–	–
Boron and its compounds	4	–	–

Sumitomo NACCO Materials Handling Co., Ltd.

Main Products: Forklift



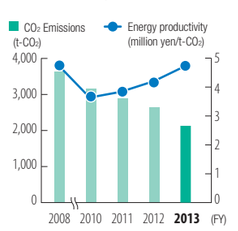


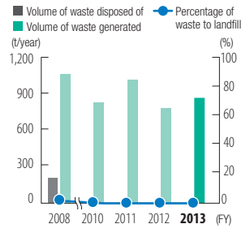
Energy used		
	Electric power (1,000 kWh)	2,897.8
	Gasoline (kL)	14.9
	Kerosene (kL)	–
	Heavy fuel oil A (kL)	–
	Light oil (kL)	31.6
	LPG (t)	96.7
	City gas (1,000 m³)	–
Water used (m³)		17,202
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	17,170	–	1,691
Ethylene glycol monoethyl ether (2-ethoxyethanol)	69	–	6
Xylene	33,651	–	3,382
Ethylene glycol monoethyl ether acetate	166	–	15
Carbon tetrachloride	4	–	–
Styrene	27	–	3
1, 2, 4-trimethylbenzene	2,481	–	245
1, 3, 5-trimethylbenzene	493	–	50
Toluene	7,396	–	736
Naphthalene	352	–	26
N-butyl phthalate	91	–	9
Hexamethylene diisocyanate	14	–	1
Normal hexane	366	–	34
Benzene	64	–	6
Boron and its compounds	1,964	–	191
Formaldehyde	8	–	1
Methyl methacrylate	21	–	2
Cumene	67	–	7
Alpha-methylstyrene	21	–	2

Seisa Gear, Ltd.

Main Products: Speed reducers



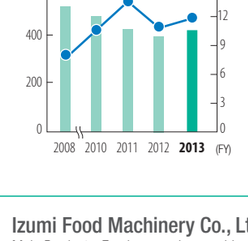


Energy used		
	Electric power (1,000 kWh)	4,996.4
	Gasoline (kL)	5.4
	Kerosene (kL)	5.2
	Heavy fuel oil A (kL)	–
	Light oil (kL)	0.7
	LPG (t)	15.7
	City gas (1,000 m³)	97.2
Water used (m³)		25,370
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	132

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	258	–	74
Ethylene glycol monoethyl ether (2-ethoxyethanol)	67	–	16
Xylene	579	–	146
Styrene	4	–	1
1, 3, 5-trimethylbenzene	26	–	9
Toluene	9,610	–	1,102
Lead	85	–	20
Hexamethylene diisocyanate	4	–	3
Methyl methacrylate	4	–	2

Sumitomo Heavy Industries Modern, Ltd.

Main Products: Plastic extrusion molding machines

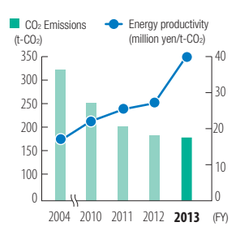


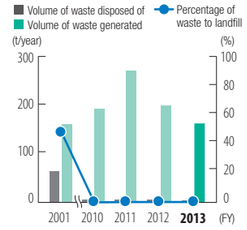
Energy used		
	Electric power (1,000 kWh)	971
	Gasoline (kL)	22.9
	Kerosene (kL)	–
	Heavy fuel oil A (kL)	–
	Light oil (kL)	1.7
	LPG (t)	0.9
	City gas (1,000 m³)	–
Water used (m³)		2,675
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	151	–	–
Xylene	233	–	–
1, 2, 4-trimethylbenzene	2	–	–
1, 3, 5-trimethylbenzene	5	–	–
Toluene	6	–	–
N-butyl phthalate	216	–	–

Izumi Food Machinery Co., Ltd.

Main Products: Food processing machinery



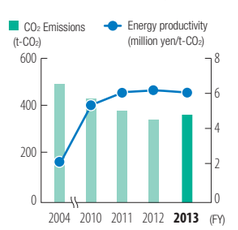


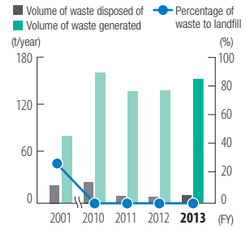
Energy used		
	Electric power (1,000 kWh)	463
	Gasoline (kL)	0.7
	Kerosene (kL)	–
	Heavy fuel oil A (kL)	0.2
	Light oil (kL)	0.1
	LPG (t)	–
	City gas (1,000 m³)	–
Water used (m³)		4,496
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–

PRTR (kg/year)	Emissions volume		Transfer volume
	Atmosphere	Water	
Ethylbenzene	17	–	–
Xylene	20	–	–
1, 2, 4-trimethylbenzene	1	–	–
Toluene	59	–	–
N-butyl phthalate	1	–	–
Hydrogen fluoride and its water-soluble salts	10	–	–

SFK Co., Ltd.

Main Products: Bolts, nuts, precision screws





Energy used		
	Electric power (1,000 kWh)	893.4
	Gasoline (kL)	2.7
	Kerosene (kL)	7.1
	Heavy fuel oil A (kL)	–
	Light oil (kL)	–
	LPG (t)	–
	City gas (1,000 m³)	0.4
Water used (m³)		828
Discharge into the atmosphere		
	SOx (kg)	–
	NOx (kg)	–
Discharge into the water		
	COD (kg)	4

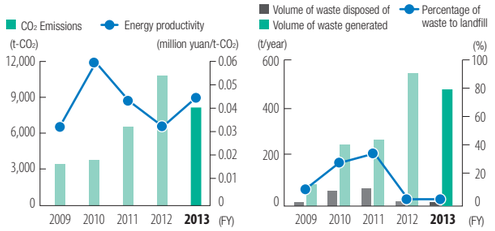
Total Elimination of PRTR Substances

Group companies in Japan that have independently received the ISO14001 certification

Group Company	Date of Certification	Group Company	Date of Certification
Sumitomo NACCO Materials Handling Co., Ltd.	March 2000	Nihon Spindle Mfg. Co., Ltd.	March 2006
Shin Nippon Machinery. Co., Ltd.	February 2002	Japan Electron Beam Irradiation Service Co., Ltd.	January 2007
Izumi Food Machinery Co., Ltd.	June 2002	Sumitomo Heavy Industries PTC Sales Company	September 2007
SEN Corporation	October 2002	SFK Co., Ltd.	August 2008
Sumiju Environmental Engineering Inc.	October 2002	Seisa Gear, Ltd.	August 2009
Sumitomo Heavy Industries Environment Co., Ltd.	November 2002	Sumitomo Heavy Industries Modern, Ltd.	December 2009
Lightwell Co., Ltd.	February 2005		

[Environmental impact data for main overseas Group companies]

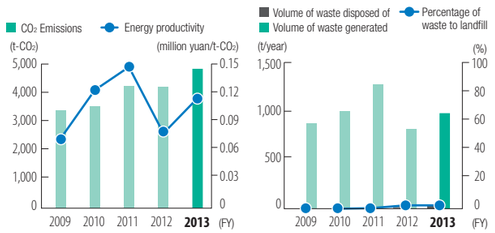
Sumitomo Heavy Industries (Tangshan), Ltd. Country: China Main Products: Power transmission equipment



Energy used	
Paper (1,000 sheets of A4-size paper)	1,135
Electric power (1,000 kWh)	6,160
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	–
LPG (t)	–
Natural gas (1,000 m³)	1,394
Water used (m³)	37,938

Discharge into the atmosphere	
VOC emissions (t/year)	Under 1 t
SOx emissions (t/year)	3.5
NOx emissions (t/year)	16.1

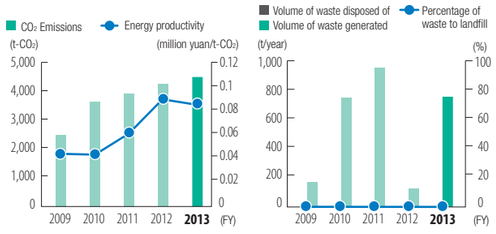
Sumitomo (SHI) Cyclo Drive China Ltd. Country: China Main Products: Power transmission equipment



Energy used	
Paper (1,000 sheets of A4-size paper)	995
Electric power (1,000 kWh)	4,510
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	245
LPG (t)	–
Natural gas (1,000 m³)	–
Water used (m³)	35,234

Discharge into the atmosphere	
VOC emissions (t/year)	7.5
SOx emissions (t/year)	–
NOx emissions (t/year)	–

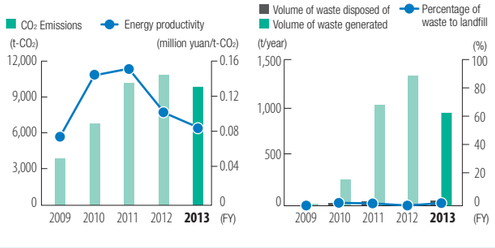
Ningbo Sumiju Machinery, Ltd. Country: China Main Products: Plastic molding machines, components for power transmission equipment



Energy used	
Paper (1,000 sheets of A4-size paper)	743
Electric power (1,000 kWh)	5,402
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	34
LPG (t)	–
Natural gas (1,000 m³)	–
Water used (m³)	21,387

Discharge into the atmosphere	
VOC emissions (t/year)	3
SOx emissions (t/year)	–
NOx emissions (t/year)	–

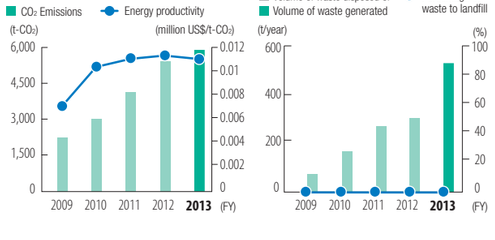
Sumitomo (S.H.I.) Construction Machinery (Tangshan) Co., Ltd. Country: China Main Products: Hydraulic excavators



Energy used	
Paper (1,000 sheets of A4-size paper)	866
Electric power (1,000 kWh)	7,987
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	14
LPG (t)	11
Natural gas (1,000 m³)	1,668
Water used (m³)	75,763

Discharge into the atmosphere	
VOC emissions (t/year)	Under 1 t
SOx emissions (t/year)	0.1
NOx emissions (t/year)	1.6

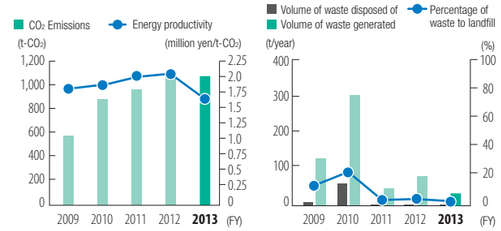
Sumitomo Heavy Industries (Vietnam) Co., Ltd. Country: Vietnam Main Products: Power transmission equipment and motors



Energy used	
Paper (1,000 sheets of A4-size paper)	5,671
Electric power (1,000 kWh)	12,352
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	–
LPG (t)	308
Natural gas (1,000 m³)	–
Water used (m³)	29,610

Discharge into the atmosphere	
VOC emissions (t/year)	1.8
SOx emissions (t/year)	–
NOx emissions (t/year)	–

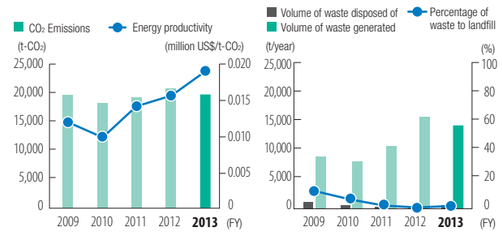
SHI Manufacturing & Services (Philippines) Inc. Country: The Philippines Main Products: Precision parts and components



Energy used	
Paper (1,000 sheets of A4-size paper)	478
Electric power (1,000 kWh)	2,320
Gasoline (kL)	1
Heavy fuel oil (kL)	3
Light oil (kL)	–
LPG (t)	2
Natural gas (1,000 m³)	–
Water used (m³)	20,399

Discharge into the atmosphere	
VOC emissions (t/year)	Under 1 t
SOx emissions (t/year)	–
NOx emissions (t/year)	–

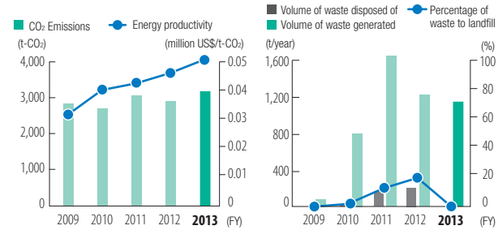
Link-Belt Construction Equipment Company Country: United States Main Products: Construction cranes



Energy used	
Paper (1,000 sheets of A4-size paper)	2,655
Electric power (1,000 kWh)	25,421
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	–
LPG (t)	–
Natural gas (1,000 m³)	2,610
Water used (m³)	52,274

Discharge into the atmosphere	
VOC emissions (t/year)	Under 1 t
SOx emissions (t/year)	0.02
NOx emissions (t/year)	3.7

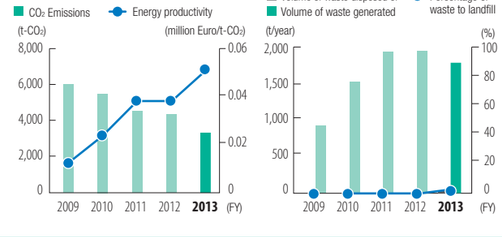
Sumitomo Machinery Corporation of America Country: United States Main Products: Power transmission equipment



Energy used	
Paper (1,000 sheets of A4-size paper)	571
Electric power (1,000 kWh)	5,312
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	–
LPG (t)	8
Natural gas (1,000 m³)	0
Water used (m³)	1,985

Discharge into the atmosphere	
VOC emissions (t/year)	3
SOx emissions (t/year)	–
NOx emissions (t/year)	–

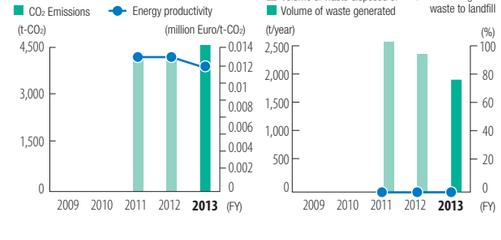
Sumitomo (SHI) Demag Plastics Machinery GmbH Country: Germany Main Products: Plastic molding machines



Energy used	
Paper (1,000 sheets of A4-size paper)	5,385
Electric power (1,000 kWh)	7,876
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	3
LPG (t)	169
Natural gas (1,000 m³)	124
Water used (m³)	10,259

Discharge into the atmosphere	
VOC emissions (t/year)	9
SOx emissions (t/year)	–
NOx emissions (t/year)	–

Hansen Industrial Transmissions NV Country: Belgium Main Products: Power transmission equipment



Energy used	
Paper (1,000 sheets of A4-size paper)	1,790
Electric power (1,000 kWh)	9,779
Gasoline (kL)	–
Heavy fuel oil (kL)	–
Light oil (kL)	–
LPG (t)	–
Natural gas (1,000 m³)	935
Water used (m³)	5,886

Discharge into the atmosphere	
VOC emissions (t/year)	5
SOx emissions (t/year)	–
NOx emissions (t/year)	1.3

Social Contribution Activities

With our employees taking the initiative, we are planning and implementing activities that contribute to society in each region and local community.

Biodiversity Measures

Main building at the Tanashi Works

The Sumitomo Heavy Industries Group is engaging in initiatives to protect biodiversity.

The Group has to date endorsed the biodiversity declaration of the Nippon Keidanren (Japan Business Federation) and we have joined the “Declaration Promotion Partners.” In order to contribute to the protection of biodiversity, we have been engaging in afforestation and greenery planting activities.

Our Tanashi Works is preserving the Musashino Forest, which occupies approximately 30% of the area of the 43,000m^2 campus. This forest contains over 4,500 trees of 40 or more species, and 170 of the trees have been designated protected trees by Nishi-Tokyo City. We have named a portion of these woods the Forest of Inspiration and opened it to the public.

Past wildlife habitat surveys confirmed the presence of considerable wildlife in the forest, which is a stronghold for the local ecosystem as well as a precious natural asset for scientific research.

In addition to the kind of forest maintenance activity seen at the Tanashi Works, we are also carrying on afforestation by means of the Acorn Plan as well as by expansion and addition of green areas when redevelopment work is done on the grounds of our factories in other areas.

The Sumitomo Heavy Industries Group has also been contributing to the further protection of biodiversity by means of the LIME2 lifecycle impact assessment method based on endpoint modeling, developed by the National Institute of Advanced Industrial Science and Technology. Using this method, we have performed quantitative assessments of the impact that Group businesses have on biodiversity.

Kindergarten children enthusiastically gathering acorns in the Forest of Inspiration

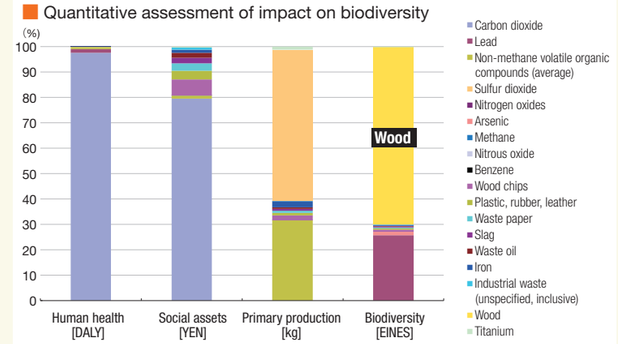
TOPICS

Biodiversity Outside Japan

Link-Belt Construction Equipment Company, located in the U.S.A.’s state of Kentucky, is voluntarily arranging transportation of tree saplings for re-forestation. This improves soil conservation and biodiversity in the region.

The photograph shows some of the 4,300 saplings which came from eight different types of trees.

■ Quantitative assessment of impact on biodiversity



As a result, we found that reducing the amount of wood materials used would be particularly effective for our Group, and we have been pursuing reductions in the amount of product packaging material we use.

Specifically, we have been taking measures to simplify packaging and to adopt returnable shipping cartons to enable repeated reuse.

Reduction of packaging material is not the only measure we are taking. We are also evaluating our former activities to determine whether they have been activated and are in effect at our head office, branches, works, and Group companies.

The evaluation items include afforestation, greenery planting, and green curtain implementation, water-use reduction, VOC reduction, landfill disposal reduction, and utilization of renewable energy (electric power). We are taking steps toward participation of all personnel in these and other such activities to protect biodiversity.

■ Example of packaging material reduction
Seisa Gear, Ltd.

Green curtain at Okayama Works

Participating Actively in Local Community Events

The Sumitomo Heavy Industries Group takes active part in events held in local communities.

The Niihama Factory took part in the Saijo City Ofuki Area Friendship Sports Day as part of the Ehime Prefecture Support Group Matching Project for Healthy Village Development, with the aim of regional revitalization. Many people here in the Ofuki area are elderly, and the sports days were suffering from a shortage of participants. Since the community also requested it, we began taking part in the event from fiscal year 2011. Since the appointed day for the event in 2013 was rainy, the event was held indoors in a gymnasium, and was a very enjoyable and meaningful day of exchange with members of the local community as well as with many other volunteers.

Competing in a ball-passing game on Sports Day

Cleanup Activities

In the Sumitomo Heavy Industries Group, we carry on regular cleanup activities in the areas around our works. We also participate in cleanup activities organized by local government bodies and volunteer groups.

In addition to cleanup activities in the neighborhood of our works, during fiscal year 2013 the Nagoya Works and Sumitomo NACCO Materials Handling Co., Ltd. also participated in the Adopt Program* organized by Obu City in Aichi Prefecture, while the Niihama Factory took part in the Adopt Program of Niihama City. All these activities involve continuing engagement in cleanup of neighboring areas.

In addition, our Saijo Factory and SEN Corporation took part in the “Refresh Setouchi” cleanup activities at Takasu Beach in Saijo City, Ehime Prefecture. This Takasu Beach is the only natural sand beach still remaining in Saijo City, and the community hopes to protect the environment there.

This year marked the 22nd anniversary of the activity, which started in 1993. It is a major event for volunteer activity in the city because it promotes the protection of the beautiful Seto Inland Sea by means of seashore cleanup that is open to participation by all. The Sumitomo Heavy Industries Group had 130 members, including family members, taking part.

The Sumitomo Heavy Industries Group will continue with this commitment to beautification of the local environment.

* Adopt Program: A volunteer campaign in which people designate a public facility, such as a park or a footpath, and register it with the city. They then pick up trash, water the plants, and weed the designated facility so that people will be able to enjoy using it.

Cleanup activity (Niihama Factory)

Children also pitched in and picked up trash for the “Refresh Setouchi” cleanup

Support for Integrated Emergency Response Drills

The Yokosuka Works supported the Yokosuka City Integrated Emergency Response Drill by providing the Uraga Factory as a venue and employees as staff for the drill. There were 350 people taking part, including people from Yokosuka City, the Ground Self Defense Force, the Japan Coast Guard, the Kanagawa Prefectural Police, and volunteer groups.

Rescue drills were conducted simulating conditions four hours after an earthquake and involving efforts to rescue people needing to be extricated from collapsed houses. The drill involved all the emergency agencies concerned.

A long-distance water supply drill was also held. Simulating conditions 12 hours after an earthquake, this drill involved coordination between the Japan Coast Guard and the city fire department to supply water to inland areas where there was a shortage of water for fire-fighting.

Emergency Gas Station Refueling Drill

The Kanagawa Prefectural Police and the Yokosuka Works concluded an Agreement Regarding the Supply of Fuel in Times of Disaster. Under this agreement, we will make gasoline and diesel oil we have at the Yokosuka Works available for the support of police vehicles when requested by the Kanagawa Prefectural Police in times of disaster.

The refueling drill was held at the gas station we have at the works. Many members of the Kanagawa Prefectural Police took part in the drill.

Scenes at the refueling drill

Long-distance water supply drill

Rescue drill

Cooperation with Blood Donation Drives

Group collaboration with blood donation drives has continued over many years, and for our employees, this is the social contribution activity they feel most familiar with. In fiscal year 2013, a total of 1,138 Group members donated blood.

Scene at a blood drive

Donating Binders

Link-Belt Construction Equipment Company, located in the U.S.A.’s state of Kentucky, is donating unused loose-leaf binders to schools. This reduces landfill waste and supports disadvantaged students as well.

The photograph shows some of the many binders collected by employees.

Binders collected at the company