





REWORD



Environmental Protection Activities

In recent years, there have been numerous cases of abnormal weather throughout the world, including floods, heat waves and hurricanes. Such extreme weather is thought to be the consequence of global warming. Furthermore, various environmental issues such as spreading atmospheric and water pollution have serious impact on our health and lifestyle. Concern for the global environment is increasing throughout the world. For corporations, taking action to protect the environment is part of social responsibility and is an urgent theme.

As a corporation which responds to the trust and expectation of all stakeholders, our company implements environmental management activities as an important theme together with thorough corporate governance and compliance. In order to realize a sustainable recycling-based society, we will put further effort into environmental protection activities such as conservation of resources and energy, reduction of waste products, increased recycling, and reduction of environmental pollution risks. At the same time, our company will place even greater focus on environmentally-friendly product development.

I look forward to your continued understanding and support in the future.





President and CEO

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Range Covered:

Domestic/ Company offices (total of 4 locations), Subsidiaries (total of 2 companies) Production Subcontracting Company(1 company), Sales agents (2 companies)

Overseas/ Subsidiaries (2 main production sites)

Coverage centered on Company activities, with some affiliates such as subsidiaries/sales agents also included.

Period:

- The year "2013" represents the period March 1, 2012 to February 28, 2013. The year "2012" represents the period March 1, 2011 to February 29, 2012.





ENVIRONMENTAL MANAGEMENT



Progress toward ISO 14001 Certification

We have acquired ISO 14001 certification for all three of our domestic factories, all two domestic subsidiaries, one production subcontracting company, two domestic sales agents and two key production sites at our overseas subsidiaries.

In conjunction with our affiliates, we will continue activities to strengthen our overall promotion of environmental activities.

[DOMESTIC]

Company Factories / Offices		
Special Products	Ihara Factory	Acquired March 2001
Precision Products	Fujimi Factory	Acquired February 2002
Machine Tools	Kikugawa Factory	Acquired March 2002
General Administration Headquarters	Head Office /	Acquired September 2001
·	Quality Technical Center	(Self-conformance declaration:
R & D Center	Quality reclinical center	September 2010)

Subsidiaries	
Star Metal Company Manufacturing Division Kikugawa Factory	Acquired April 2006
Star Metal Company Plating Division	Acquired March 2007
Micro Sapporo Company	Acquired March 2007

Production Subcontracting Company		
BLUEEL Co., Ltd.	Ihara Factory	Acquired October 2006

Sales Agents	
C.M.I. Company	Acquired January 2006
Move Company	Acquired January 2006

[OVERSEAS]

Subsidiaries (Key Production Sites)	
Star Micronics Manufacturing Dalian Co., Ltd. (Dalian, China)	Acquired May 2002
Shanghai S&E Precision Co., Ltd. (Shanghai, China)	Acquired February 2003

[Self-Conformance Declaration]

At our Head Office and Quality Technical Center, we have instilled activities performed via through Environmental Management Systems and have eliminated almost all environmental load by transferring operations. Accordingly, we issued an ISO14001 self-conformance declaration in September 2010.

Since issuing the self-conformance declaration, we have promoted environmentally-friendly business activities based on environmental policy.





Environmental Audits

[Internal Environmental Audits]

Internal environmental audits are conducted regularly each year at domestic factories and affiliates to confirm that environmental management systems are adequate and effective, and that environmental management programs are appropriate and legally compliant.

We also conduct skills enhancement seminars for internal environmental auditors to improve the expertise of people conducting internal audits.

A comprehensive environmental audit report is created listing items that fall below the expected standards, and the report is submitted to management as data for use in compiling the end-of-year environmental review. Thus audits contribute to improvements in the following year.



Training for auditors

[External Environmental Audits]

Domestic factories and affiliates that have acquired ISO14001 certification are subject to environmental audits (environmental management system inspection) by an external inspection authority. Certification maintenance inspections take place once a year, while renewal inspections are conducted every three years.

The results of these inspections are submitted to management as data for use in compiling the end-of-year environmental review, thereby contributing to improvements in the following year.



Conducting an environmental audit

Environmental Training

Star Micronics and its domestic affiliates believe that to maintain, and further improve, the level of our environmental activities, we need to change the mindset of every single employee. We therefore offer training opportunities for all employees from new hires to management. Training comprises four core categories: general, rank-based, leader-oriented, and specialist. In 2013 (domestic), we conducted events such as an introductory environmental seminar, an environmental manual seminar, an environmental impact evaluation seminar, a waste products seminar, a seminar on the cultivation of internal auditors, and an environmental law seminar.





[Environmental Training Structure]

Training Category	Personnel Eligible	Internal/External Seminars Offered
General training	Regular employees	Introductory seminar, general seminar, waste products separation
Rank-based training	Managers	Managers' seminar
Karik-based training	Top management	Top management seminar
Leader-oriented training	Environmental leaders	Environmental manual seminar (including document management)
	Environmental survey team	Environmental impact evaluation seminar
	Internal environmental auditors	Auditor development seminar (internal/external) *
	Personnel in charge of environmental law	Environmental law seminar*
Specialist training	Public-sector environmental experts	Qualification seminar/test based on laws and regulations
	Personnel in charge of procurement	Green procurement seminar
	Personnel in charge of waste products	Waste products seminar
	Harmful substance handler	OJT by personnel with public-sector environmental qualifications
	Noise measurement personnel	OJT by certified internal environmental experts

^{*}For the certified internal environmental experts

[Public, Environmental Qualified Person Related to Environment]

Name of Qualification	Number of Persons Qualified (Number of Persons Qualified in 2013)	Name of Qualification	Number of Persons Qualified (Number of Persons Qualified in 2013)
Safety manager	5 (0)	Dangerous substance handler	75 (0)
Public health manager	15 (0)	Manager in charge of handling of toxic and harmful substances	3 (0)
Pollution prevention manager	7 (0)	Manager in charge of X-ray operations	1 (0)
Manager in charge of industrial waste requiring special management	18 (0)	Manager in charge of organic solvent operations	32 (1)
Fire prevention manager 13 (0)		Manager in charge of specific chemical substance operations	7 (0)
Promoter of energy management and planning	3 (0)		

Note: For the parent company only. Excludes domestic affiliates.





Emergency Response

Every year, Star Micronics and its domestic affiliates plan and conduct emergency-related training of relevant parties and disaster prevention drills, as well as simulation-based drills for individuals and entire facilities based on manuals, which are evaluated as part of the process. These drills anticipate every conceivable accident or emergency (earthquake, typhoon, explosion, fire, blackout, chemicals leak, and airborne hazard, etc.).

[Simulation-based Drills]



Oil leakage response drill



Response drill for light-oil leakage to a public waterway

[Disaster Prevention Drills]



Evacuation drill



Evacuation drill

Status of Legal Compliance

Star Micronics and its domestic affiliates have stipulated internal regulations for the application of environment-related laws, and compliance with these laws is evaluated in accordance with a list of specific items to be monitored and measured.

Legal compliance is confirmed by checking that results measured are in line with management figures, and the data is stored as an environmental record. When installing, introducing, changing, or disposing of facilities and equipment, we conduct an assessment of the facilities and equipment to evaluate legal compliance.





ENVIRONMENTAL LOAD ASSOCIATED WITH BUSINESS ACTIVITIES

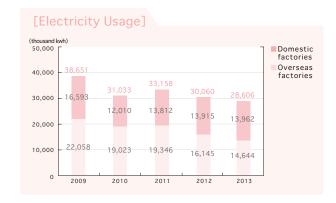


Our company uses a variety of resources and energy during the process of conducting business activities. This results in the emission of CO_2 and the generation of waste products. Our company assesses the environmental load associated with our activities and promotes activities to decrease environmental load by reducing the amount of energy consumed, reducing the amount of waste products generated and decreasing the amount of hazardous materials used.

*Scope of Analysis: domestic (Star Micronics Co., Ltd. and affiliated domestic companies), overseas (Star Micronics Manufacturing Dalian Co., Ltd.; Shanghai S&E Precision Co., Ltd.; Star Micronics Precision (Thailand) Co., Ltd.: from 2010)

Change in Input Amount (Major Items)

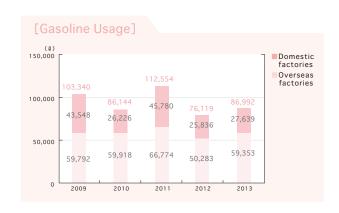
- The usage amount for LPG decreased as a result of reduced usage for the part washing boiler at Micro Sapporo Company.
- The purchase amount for photocopy paper decreased as a result of reduced usage amount of photocopy paper at Star Micronics Manufacturing Dalian, which is due to reduced work in the Components in preparation for ceasing business.





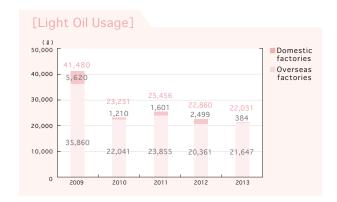




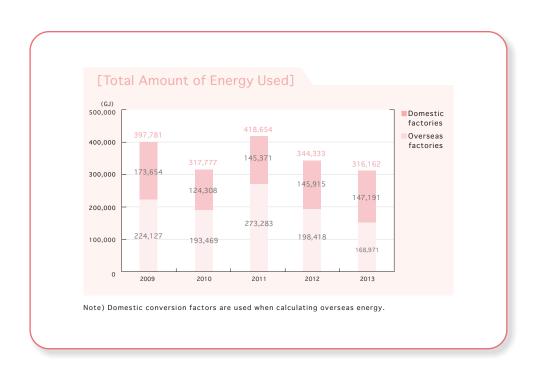




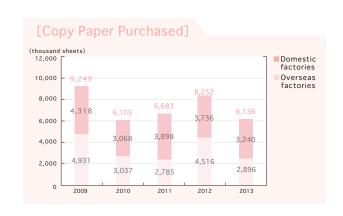








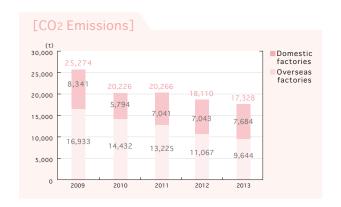








Change in Discharge Amount (Major Items)







ENVIRONMENTAL ACCOUNTING



[Environmental Protection Costs]

(thousands of yen)

Category		Initiatives	Domestic		Overseas	
		IIIIIIatives	Investment	Expenses	Investment	Expenses
Caatawithin	Pollution Prevention Cost	Prevention of air/water/ground contamination	30,142	8,966	3,093	3,413
Costs within	Environmental Preservation Cost	Energy conservation	20,230	640	0	0
Business Area	Resource Recycling Cost	Treatment/disposal of waste		11,268	0	409
Upstream/Downstream Cost		Green procurement difference	0	111	0	0
Management A	ctivity Cost	EMS operation, education, on-site planting	29,445	31,292	0	2,947
Research & Development Cost		R&D, WEEE/RoHS measures		2,027	0	0
Social Contribution Cost		Donations, financial support		415	0	0
Environmental Damage Response Cost		Repairs for ground/water contamination	0	0	0	0
	Total			54,719	3,093	6,769

Note: Excludes depreciation expense.

[Financial Impact Resulting from Environmental Protection Measures]

(thousands of yen)

	Domestic	Overseas		
Earnings	Gains from sales of marketable waste from business activities	6,284	23,826	
	Total energy expense (electricity/heavy oil/LPG/gasoline/light oil) reductions	-15,955	25,559	
Expense Reductions	Reductions in water/well water usage expense	1,291	404	
(Year on Year)	Reductions in copy paper purchase expense	8,069	9	
	Reductions in waste disposal expense	-1,453	-2,549	
	Others	0	0	
	Total			

Note: In the expense reduction figures, a minus indicates that a reduction was not achieved and the expenses increased.



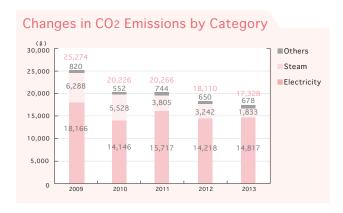


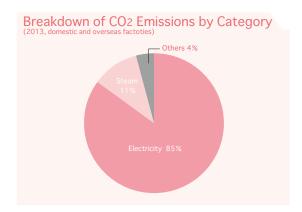
ENERGY SAVING ACTIONS ~TO PREVENT GLOBAL WARMING~



Our company is taking a variety of actions to reduce the amount of energy consumed and is working to reduce CO₂ emissions amount.

[Changes in CO₂ Emissions Amount]





[Less Air Conditioning]

In 2013, we lengthened our company's Cool Biz Campaign in accordance with lengthening of the period at the Ministry of the Environment.

Cool Biz Campaign

- 1. Period Conducted: May 7 to the end of October
- Air conditioning temperature: Set to 28°C
 (Although the campaign does not apply to manufacturing and reception areas, these are included as much as possible.)
- 3. Attire: No neckties or uniforms are worn

Warm Biz Campaign

- 1. Period Conducted: December 3 to the end of March
- 2. Heating temperature: Set to 22°C
- 3. Attire: Employees are encouraged to wear warm clothes

Information is posted at the entrances to each office and visitors are urged to cooperate.



Cool Biz information board



Warm Biz information board

At Ihara Factory, we post daily energy consumption details on the in-house website in an effort to raise awareness for energy conservation at our company.





[Heat shielding using roof shades]

We have installed roof shades on our Kikugawa South Factory and Ihara Factory. These roof shades alleviate the drastic temperature increases associated with summer and reduce the amount of energy used for air conditioning. As a result, Ihara Factory has reduced energy consumption in summer by 28%.



Roof shades(Kikugawa South Factory)



Roof shades(Ihara Factory)

[Installation of Solar LED Lighting]

We installed solar LED lighting for the nighttime lighting on the premises of Head Office. These lighting facilities use solar energy and therefore do not consume energy in any way that contributes to CO₂ emissions.



Solar LED Lighting

[Optimization of compressor operation cycle]

At Ihara Factory, we have replaced the constant-speed compressor (capacity: 37kw) with an inverter compressor (capacity: 11kw) and have optimized the operation cycle. This has resulted in a 77% decrease in energy consumption.



Inverter compressor

[Efficient and power-saving outside light]

We replaced mercury-vapor lamps in Micro Sapporo Company with metal halide lamps which feature high-brightness, power-saving and a long lifespan. Replacement with these new lamps realized a reduction in energy consumption of approximately 50%.

Also, at our Head Office we installed LED lighting which consumes one-tenth of the power of conventional mercury-vapor lamps.



Metal halide lamp(Micro Sapporo)



LED light





[Incandescent light in the showroom replaced with LED]

We replaced incandescent lighting used for spotlights in Head Office showroom with LED lighting. This has resulted in a 90% reduction in power consumed.



Incandescent light in the showroom replaced with LED

[Green curtain]

In order to conserve energy used for air conditioning in the summer, we used again goya (bitter gourd) to create a green curtain at Fujimi Factory. By drawing upon our past experience in cultivating the green curtain, it grew even larger than last year.

As result, it is said that temperatures decrease by 5° or more on wall surfaces covered by the green curtain. The curtain also leads to increased environmental awareness among employees.





[The number of company cars owned]

In order to reduce the amount of CO_2 emissions by company cars, our company has implemented the use of lightweight cars and hybrid cars. We have also reduced the number of company cars used by our company.

(Number)

T Year	ype of Car	Ordinary Cars (Leased)	Ordinary Cars (Purchased)	Mini Cars (Leased)	Hybrid Cars (Leased)	Total
2	2012	34	2	10	7	53
2	2013	31	1	10	8	50

[No-Car Campaign]

Every year, our company holds a No-Car campaign for employees who commute by car or motorcycle to offices within Shizuoka City. We implemented a 2-week No-Car campaign in both spring and autumn of this year.



Implementation Report

Enforcement period : Monday, May 14 - Friday, May 25, 2012

Monday, October 1 - Friday, October 12, 2012

Participants: 94 individuals

Eco-commute distance : 4,845km

CO2 reduced: 1,064kg (calculated based on

fuel consumption of 10 km/ ϱ)





[Lights-Down Campaign]

This year, our company once again participated in the Lights-Down Campaign held by the Ministry of the Environment. The rooftop neon logo signs at our Head Office, Ihara Factory and Fujimi Factory were turned off at 8:00 PM for the 3 days from July 6th (Friday) to July 8th (Sunday) of 2012. As a result, the amount of power used during the 3-day period decreased by 837kwh.

[Carbon Offset —Use of Emission Credit Trust—]

Considering the Kyoto Protocol's target for reducing greenhouse gases, our company has calculated that we should eliminate 5,000 tons of CO₂ emissions for the 5 years between 2007 and 2012. In August of 2008, we purchased 5,000 tons of CO₂ emissions credits as emission credit trust beneficiary rights from Mizuho Trust & Banking Co., Ltd. Our company then used this emissions credit to conduct a carbon offset from April 2010 to May 2012 that compensated for CO₂ generated from the production to use of the TSP100ECO printer. A total of 5,000 tons of CO₂ (equivalent to 147,000 printers) were offset. This is equal to approximately 357,000 cedar trees when converted to the amount of CO₂ which is absorbed annually by a single tree.





ECO printer with carbon offset

Response to the Revised Energy Conservation Act

[Energy conservation activities by the Energy Conservation Panel]

As a business which is subject to the revised Energy Conservation Act, our company must reduce our energy consumption rate every year in the mid- to long-term. In response to this law, our company has appointed an Energy Management Supervisor and an Energy Management Planner who fulfill a central role in energy conservation activities. We have also established an Energy Conservation Task Force and formulated Compliance Rules for Promoting Energy Conservation to serve as guidelines. Through such measures, we are actively working to conserve energy.





LOWERING ENVIRONMENTAL CONTAMINATION RISK



Managing Chemical Substances

Star Micronics and its domestic affiliates have created and implemented internal regulations for the management of harmful substances and dangerous materials handled by the Company in order to ensure proper and safe management of chemical substances. These internal regulations, based on the relevant laws and statutory regulations, are designed to ensure that the environment is taken into account in the purchasing, storage, use and disposal of such substances.

[Response to PRTR Law]

In accordance with the PRTR (Pollutant Release and Transfer Register) Law, we have continued to submit notification regarding the emission and transfer volume for Class I Designated Chemical Substances. The annual handing volume of such substances has decreased greatly due to the use of powder paints which do not contain organic solvents (including substance subject to PRTR) and to a change to alternative materials. As a result, since 2011 there are no longer any offices or affiliated companies for which submission is required.

However, from the perspective of appropriate handling of chemical substances, we will continue to gather data on emission and transfer volume.

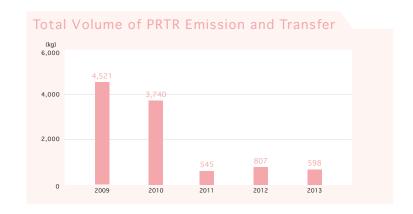
The emission/transfer amount of substances in 2013 was as follows:

[PRTR Reports for all Domestic Factories and Affiliates]

(Unit: kg/year)

	Substance No.	Chemical Substance Name		Emmissions Volume			Transfer Volume			
Year			Use	Air	Public Drainage Areas	Ground within Factory	Landfill within Factory	Washed into Sewage	Waste within Factory	Total
	309	Nickel Compound	Chroming	0	0	0	0	1	97	98
	227	Toluene	Coating	124	0	0	0	0	343	467
2012	63	Xylene	Coating	3	0	0	0	0	24	27
2013	374	Hydrogen fluoride and water-soluble salt	Polishing	0	0	0	0	0	6	6
		Total			0	0	0	1	470	598

^{*}The PRTR (Pollutant Release and Transfer Register) Law is a means of obtaining, collating and disclosing emission and transfer volume data for harmful chemical substances.







Water pollution measures

Our company (including domestic subsidiaries) performs appropriate management of our wastewater treatment facilities in accordance with the Water Quality Pollution Control Act.

[The measure in the occurrence of an accident]

In October 2012, when cleaning the zinc phosphate film-treatment tank within coating facilities at our domestic subsidiary Star Metal Company, undiluted liquid from within the tank was mistakenly sent to wastewater treatment facilities. As a result, values exceeding wastewater standards were detected. Under government supervision, we performed dilution with tap water, cleaning of the treatment tank, and disposed of sludge. We also implemented thorough countermeasures to prevent reoccurrence, including strengthening controls during cleaning and conducting stricter water quality inspections.

Air pollution measures

[Reduction of VOC Emissions Amount (Powder Coating)]

Our subsidiary company Star Metal Co., Ltd. has adopted a method of powder coating which does not use organic solvents (solvents containing substances subject to the PRTR Law). This powder coating method is used in the coating process for sheet-metal parts of the CNC automatic lathe in the Machine Tools Division. Use of the powder coating method allows our company to reduce environmental load at the manufacturing stage.

This new method has realized the environmental effect of cutting atmospheric pollutants (VOC) drastically and reducing industrial waste by one-third.





Powder coating

Response to EU Environmental Regulations

Environmental regulations in the European Union (EU) have had a significant impact not only within the EU region but also in various countries around the world, and many Japanese manufacturing industries have been forced to respond in some way.

For our products that fall under WEEE and RoHS directives, we are operating based on our internal regulations for management of substances that burden the environment and on green purchasing guidelines. In response to last year's amendment of the RoHS Directive, we revised our internal management system.

Also, for REACH Regulations, we are implementing sequential surveys in regards to whether our products include any SVHC, which are added every year.





[Use of X-ray Fluorescence Spectrometers]

We use X-ray fluorescence spectrometers to measure levels of chemical substances contained in components of our printers that fall under the WEEE and RoHS directives, as well as to conduct inspections on receipt of the components.

Our machine tools do not fall under these directives, but we have taken aggressive measures such as using X-ray fluorescence spectrometers to measure the composition of components with a view to reducing harmful substances. Components used in the actual machines in our key products are 99% RoHS compliant, excluding certain NC control equipment.



X-ray fluorescence spectrometer



PROMOTION OF REDUCTION AND RECYCLING ACTIVITY OF WASTE



Star Micronics and its domestic affiliates have created and implemented internal waste management regulations in order to properly dispose of waste produced from corporate activities in line with the requirements of the Waste Disposal Law and to promote voluntary activities.

Volume of Waste Generated and Recycling Rate



Waste products generated in 2013 decreased by 74 tons compared to the previous fiscal year. This decrease was caused by reduced production of machine tools.

The recycling rate was 99.4%. Our company shall continue to instruct group employees regarding the dismantling and separation of trash in order to improve our recycling rate.



SOCIAL CONTRIBUTION ACTIVITIES RELATED TO THE ENVIRONMENT



Environmentally Friendly Policies

Awareness of Earth Environment (from the Star Micronics Group Code of Conduct)

- (1) In our efforts to control CO₂ emissions, comply with global warming directives and streamline business efficiency, we will implement business strategies utilizing energy saving equipment to help achieve our goals.
- (2) We will guide the establishment of the sustainable economic society with ecological awareness and promotion of environmental activities.
- (3) We will guide the realization of the recycling society, trying to utilize all possible resources at all steps from designing to disposal of our products and promoting the environmental load reduction.
- (4) We will recognize environmental issues worldwide and engage in them as a global company group.
- (5) We will report our environmental protection activities widely and promote the environmental communications with the society.





Social Contribution Activities

CSR activities at Star Micronics entail an active role in contributing to society with the cooperation of our employees.

[Clean-up Activities at Ohama Beach]

On July 21st 2012 (Sat.), our company participated in volunteer clean-up activities at Ohama Beach sponsored by the Association for Environmental Safeguards of Shizuoka City. This year, a total of 19 employee volunteers and family members participated in the activities. Unfortunately, the weather did not cooperate and light rain was falling at the meeting time for the activities. Although lots of driftwood had been washed ashore by Typhoon #4, the beach was clean after about 30 minutes of work by volunteers.







Participants from Star Micronics

[Clean-up Activities at Okitsu River]

On September 8th 2012 (Sat.), our company participated in volunteer clean-up activities at Okitsu River watershed area. This event was jointly organized by the Association for Environmental Safeguards of Shizuoka City and the Okitsu River Preservation Society. A total of 12 employee volunteers and family members participated in the activities. The weather was sunny and refreshing on the day of the cleanup. Although there were remnants of stone ovens which had been built along the riverside, it seems that people are recently more aware of taking their trash home and there was less garbage along the river than before. The riverside was clean after about 40 minutes of work by volunteers.



Clean-up activities



Participants from Star Micronics





[Clean-up activities in China]

Every year, community cleanup activities are performed by volunteer employees from Star Micronics Manufacturing Dalian Co. Ltd., a major overseas production center of our company located in Dalian, China.

On July 14th 2012 (Sat.), 115 volunteers from Star Micronics Manufacturing Dalian gathered and spent approximately 1 hour cleaning green spaces and areas around the factory. Afterwards, volunteers moved to a nearby beach and worked for 3 hours to clean up the shore. Enough garbage to fill more than 70 bags was picked up during the clean-up activities.



Clean-up activities around a factory



Clean-up activities of the seashore







Publication of the Environmental Report

From the perspective of conserving the environment through such measures as reducing energy usage and saving resources,

Star Micronics does not publish its Environmental Report in paper form. Instead,

the report is published on the Star Micronics website as a PDF-format file.

Environmental activities of Star Micronics · · · http://www.star-m.jp/eng/company/co05.html

For enquiries regarding this environmental report, please contact the CSR Promotion Group within the General Affairs Office

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