

Outshining Light

# 2015 Environmental Report



STANLEY ELECTRIC CO., LTD.



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## Editorial Policy

Embracing the bold Stanley Spirit of "outshining light," the Stanley Group strives to contribute to society and achieve both environmental protection and economic development through the boundless pursuit of the value of light. This report provides information on our basic stance on environmental management and the status of our environmental protection activities in an easy to understand manner. It was issued in the aim of further increasing communication with our shareholders, suppliers and investors, residents of local communities, the people who use our products, and employees, as well as to reassure them and gain their confidence.

### ● Applicable Scope of the Report

This report covers Stanley Electric Co., Ltd., 8 affiliate companies in Japan, and 15 major overseas production affiliate companies. The data for our major overseas production affiliate companies is on the amounts of various kinds of energy and water they consume, their CO<sub>2</sub> emissions, and their waste output.

### ● Applicable Period of the Report

FY 2014 (April 1, 2014 to March 31, 2015)  
Some parts of the report include environmental activities from FY 2015.

### ● Business Changes related to the Environment during the Report Period

- [Domestic]
  - Tsukuba Research Laboratory integrated with Research and Development Laboratory
- [Overseas]
  - Establishment of Stanley Electric Manufacturing Mexico S.A. de C.V.
  - Data added on Wuhan Stanley Electric Co., Ltd.
  - Data added on Suzhou Stanley LED Lighting Technology Co., Ltd.

### ● Guidelines Consulted

The Environmental Reporting Guidelines 2012

### ● Month Issued / Next Scheduled Issuance

Month Issued: July 2015  
Next Scheduled Issuance: July 2016  
(Issued every year since 2002)

### For more information, please contact

#### Stanley Electric Co., Ltd., Environmental Planning & Management Department

Address: 400 Soya, Hadano-shi, Kanagawa, 257-8555, Japan

TEL: 81-463-80-3956 FAX: 81-463-80-1926 URL: <http://www.stanley.co.jp/>



## Top Message

# Aiming for the Sustainable Development of Society and Business



President  
**Takanori Kitano**

In recent years, there have been frequent outbreaks of abnormal weather phenomena such as torrential downpours, water shortages, massive typhoons, tornados, heat waves, cold waves, and tremendous snowfalls. By its very nature, the term "abnormal weather" is not supposed to be one that is used for frequent occurrences, but since such abnormal weather is actually occurring quite frequently, recently the term has come to strike us as commonplace. This is thought to lend proof to the fact that our current weather conditions are abnormal. It is claimed that global warming plays a role in fostering this abnormal weather. Therefore, the issue of global warming, which is caused by increased emissions of CO<sub>2</sub>, will lead to resource depletion, as well as problems with our water, air, soil contamination, waste and more, while also posing an enormous challenge that must be promptly addressed by organizations that go beyond those at the local or national level.

The role that companies must play as part of this in resolving environment issues is growing larger and larger, and it is crucial that they respond to the various demands and requests of society with regard to the environment.

For the Stanley Group, for whom "manufacturing" lies at the core of our corporate activities, striving to improve the efficiency of the energy we use through our business activities and manufacturing environmentally friendly products are indispensable themes of great importance.

At present, electricity accounts for approximately 95% of the energy we use at the Stanley Group. Therefore, we view reducing the amount of electricity we use and proactively adopting renewable energies as important for reducing CO<sub>2</sub> emissions with a view towards preventing global warming, and have carried out a variety of activities to achieve this.

To be specific, we are proactively promoting the installation and updating of production equipment with outstanding energy efficiency, and have installed power meters at our various sites that we use to monitor and

analyze electricity use. Through this, we have meticulously reduced wasted power by visualizing the power it takes to produce one product.

Moreover, continuing on from solar power generators on the roof of our main office, such equipment was also installed at our Hatano Factory in August 2014, and has begun generating electricity equivalent to the amount that it would take to power about 110 ordinary households for one day. As this demonstrates, we have actively made strides in adopting renewable energies. Such activities have allowed us to cut our net CO<sub>2</sub> emissions from FY 2014 by 53,050t-CO<sub>2</sub> for a year-on-year reduction of 3.4%.

Moreover, we are also promoting initiatives to reduce CO<sub>2</sub> emissions throughout our entire supply chain. Starting in FY 2015, we initiated a commendation system for suppliers with outstanding reduction activities, and have strengthened our cooperative structures for reducing CO<sub>2</sub> emissions with our suppliers in the aim of further reducing the environmental impact of our company as a whole.

We in the Stanley Group think about what must be done now as we continue on with our activities that aim for the sustainable development of society and our company. We do this in order to pass on the immeasurably rich blessings of our Earth and its ecosystems to the next generation in a healthy state.

Here, we have compiled the environmental protection activities of the Stanley Group over the previous fiscal year in the form of our 2015 Environmental Report.

This report is designed to raise understanding of our company's initiatives, attitudes, and specific activities for environmental conservation. We welcome your candid opinions with a view toward strengthening our future activities.



## Introduction to the Stanley Group's Business

# Business Overview

### Company Profile (as of March 31, 2015)

Corporate name: Stanley Electric Co., Ltd.  
Address: 2-9-13, Nakameguro, Meguro-ku, Tokyo 153-8636, Japan  
Phone : 81-3-6866-2222  
Founding : December 29, 1920  
Establishment : May 5, 1933  
President : Takanori Kitano  
Capital stock : ¥30,514 million

### Major Lines of Business

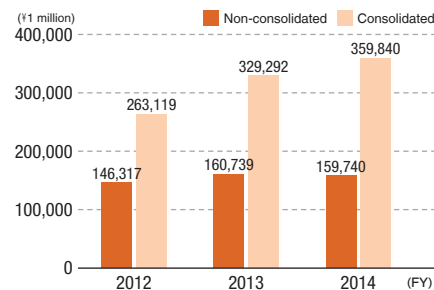
- ① Manufacture, sales, and export/import of automotive and other lamps
- ② Manufacture, sales, and export/import of semiconductors, electronic parts, and other electric devices
- ③ Manufacture, sales, and export/import of automotive electric parts and other automotive accessories
- ④ Manufacture, sales, and export/import of measuring, medical, and other instruments and equipment
- ⑤ Development and sales of software programs
- ⑥ Investment in various business projects
- ⑦ Business operations relating to the above items 1 through 6

### Domestic Branches

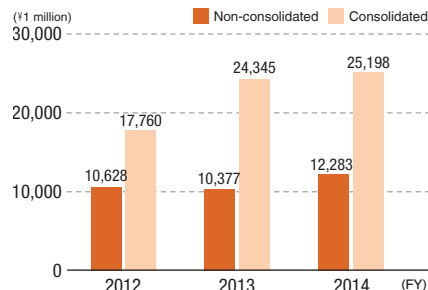
**Head Office** : (Meguro-ku, Tokyo)  
**Laboratories** : Research and Development Laboratory (Yokohama), Utsunomiya Technical Center, Yokohama Technical Center, Opto Technical Center (Yokohama)  
**Branch offices** : Osaka, Nagoya  
**Marketing offices** : Omiya, Sayama, Suzuka, Sendai, Mizushima  
**Factories, etc.** : Hatano, Okazaki, Hamamatsu, Hiroshima, Yamagata, Asaka, Iwaki, Tsuruoka

## Summary of the Stanley Group

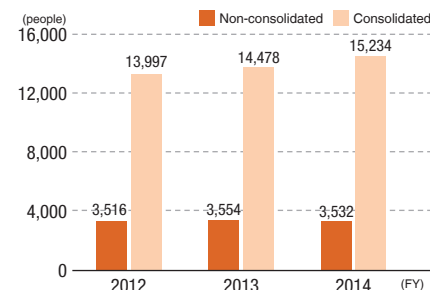
### Changes in Sales



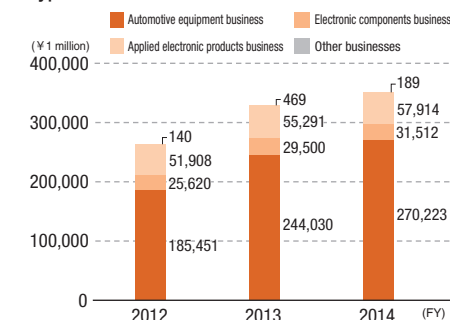
### Changes in Net Profit

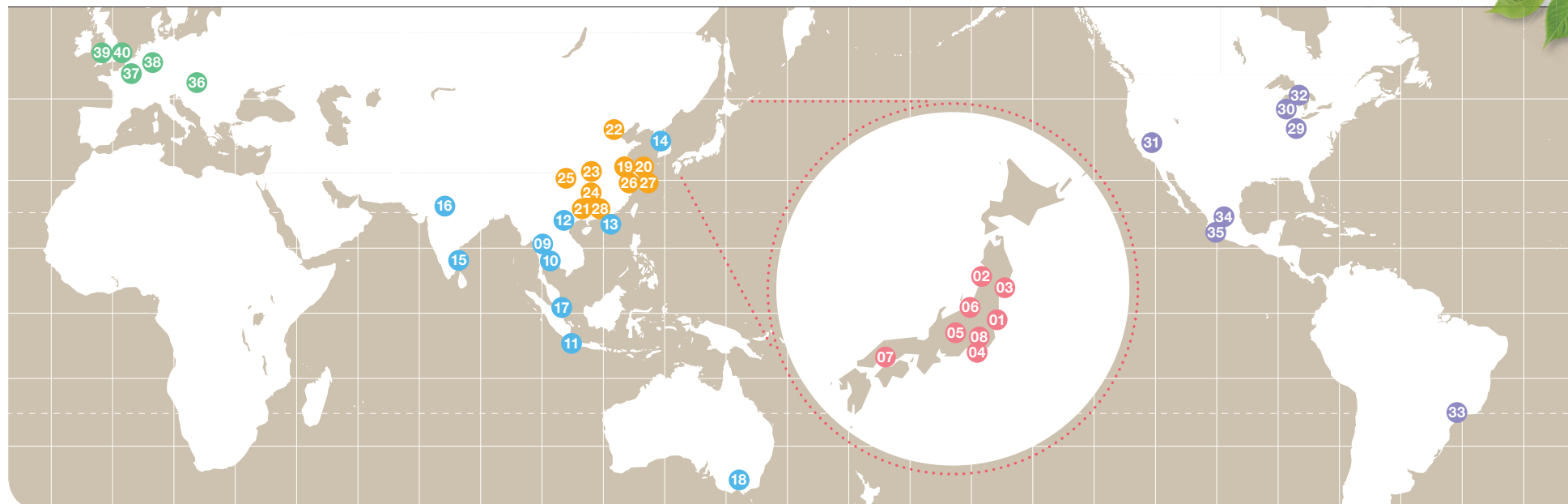


### Changes in the Workforce



### Changes in Consolidated Segment Sales by Type of Business





## Introduction to the Stanley Group's Business

### Major Affiliate Companies

#### Japan

- 01 Stanley Iwaki Works Co., Ltd.
- 02 Stanley Tsuruoka Works Co., Ltd.
- 03 Stanley Miyagi Works Co., Ltd.
- 04 Stanley Well Corp.
- 05 Stanley Ina Works Co., Ltd.
- 06 Stanley Niigata Works Co., Ltd.
- 07 Matsuo Electric Co., Ltd.
- 08 Stanley Pal Co., Ltd.

#### Asia and Oceania

- Thailand 09 Asian Stanley International Co., Ltd. (ASI)
- 10 Thai Stanley Electric Public Co., Ltd. (THS)
- Indonesia 11 PT. Indonesia Stanley Electric (ISE)
- Vietnam 12 Vietnam Stanley Electric Co., Ltd. (VNS)
- Hong Kong 13 Stanley Electric (Asia Pacific) Ltd. (SAP)
- Korea 14 Stanley Electric Korea Co., Ltd. (SEK)
- India 15 Stanley Electric Sales of India Pvt. Ltd. (SSI)
- 16 Lumax Industries Ltd. (LMX)
- Singapore 17 Stanley Electric Holding Asia-Pacific Pte. Ltd. (SEAP)
- Australia 18 Hella-Stanley Holding Pty Ltd. (HESA)

#### China

- 19 Suzhou Stanley Electric Co., Ltd. (SEZ)
- 20 Suzhou Stanley LED Lighting Technology Co., Ltd. (SLT)
- 21 Shenzhen Stanley Electric Co., Ltd. (SSZ)
- 22 Tianjin Stanley Electric Co., Ltd. (TSE)
- 23 Wuhan Stanley Electric Co., Ltd. (WSE)
- 24 Guangzhou Stanley Electric Co., Ltd. (GSE)
- 25 Chongqing Hua-yu Stanley Electric Co., Ltd. (CHS)
- 26 Shanghai Stanley Electric Co., Ltd. (SSE)
- 27 Stanley Electric (China) Investment Co., Ltd. (SECN)
- 28 Stanley Electric Trading (Shenzhen) Co., Ltd. (SST)

#### Americas

- U.S. 29 Stanley Electric U.S. Co., Inc. (SUS)
- 30 I I Stanley Co., Inc. (IIS)
- 31 Stanley Electric Sales of America, Inc. (SSA)
- 32 Stanley Electric Holding of America, Inc. (SEAM)
- Brazil 33 Stanley Electric do Brasil Ltda. (SEB)
- Mexico 34 Stanley Electric Mexico S.A. de C.V. (SEM)
- 35 Stanley Electric Manufacturing Mexico S.A. de C.V. (SMX)

#### Europe

- Hungary 36 Stanley Electric Hungary Kft. (SEH)
- France 37 STANLEY-IDESS S. A. S. (SID)
- Germany 38 Stanley Electric GmbH (SED)
- England 39 Stanley Electric (U.K.) Co., Ltd. (SEU)
- 40 Stanley Electric Holding Europe Co., Ltd. (SEEU)





## Introduction to the Stanley Group's Business: Main Products

# Stanley's Lights Create New Possibilities

### A Automotive equipment business

- LED Headlamps
- HID Headlamps
- Halogen Headlamps
- Rear Combination Lamps
- Motorcycle LED Headlamps
- Motorcycle Halogen Headlamps
- Motorcycle Taillamps
- High-mount Stoplamps
- Fog Lamps
- LED Bulbs
- Automotive Bulbs

### B Electronic components business

- Light Emitting Diodes (LED)
- Infrared LED
- Photodetector
- Optical Sensors
- Liquid Crystal Display (LCD) Elements
- Sub-miniature Lamps

### C Applied electronic products business

- Center Panel Modules for Automobiles
- Electrical Sensors for Automobiles
- Operating Panels
- Backlighting Units for LCD
- Flash Units for Camera
- Plant Grow Lights
- LED Lights for Scenery / Production
- LED Lights for Facilities
- LED Lights for Roadways





– Highlights of Our Environmental Activities in FY 2014 –

# Creating Value from Light and Illuminating a Bright Future

Here we will report on the new environmental activities that the Stanley Group has been working on, as well as activities that are worth taking note of.



Stylish design that represents the “soul of motion”

Realizing Energy Savings and Safety with our LEDs

Our LED headlamps and LED rear combination lamps come equipped on the CX-5 (Mazda Motor Corporation). Adopting LED specifications made it possible to achieve energy savings, while the LED signature lighting represents the “soul of motion” design theme for the CX-5.

Moreover, ADB specifications were also built into the LED headlamps via LED segment controls, which were the first for a Japanese car, thereby improving safety when driving at night.

► See Page 22 for details



## Remolding waste resin internally! Cutting Waste through Closed-loop Recycling

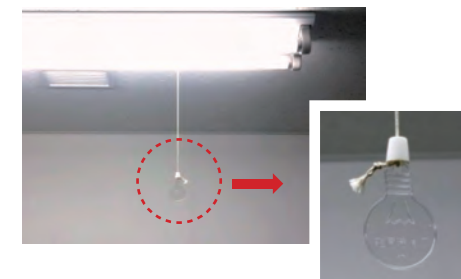
As part of our waste reduction efforts, the Stanley Group took up the challenge of achieving closed-loop recycling<sup>\*1</sup> in FY 2014. With this, the waste that is emitted internally is pulverized, repelleted, and then remolded so that it can be used internally.

For FY 2014, we remolded waste polycarbonate resin as power-saving tags to be installed on lighting canopy switches<sup>\*2</sup>. This only offers a slight reduction in the amount of waste, but it is effective for raising awareness of recycling activities and activities to turn off lights when they are not needed.

<sup>\*1</sup>: A recycling system in which waste plastic generated internally is remolded to be used by the company for a different purpose

<sup>\*2</sup>: Switch with a string attached installed on lighting fixtures

► See Page 21 for details







—Highlights of Our Environmental Activities in FY 2014—

## Creating Value from Light and Illuminating a Bright Future



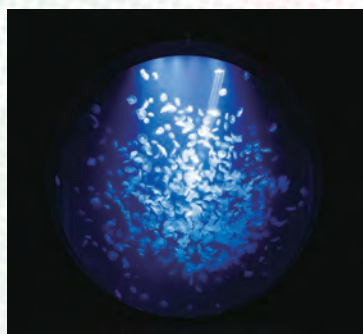
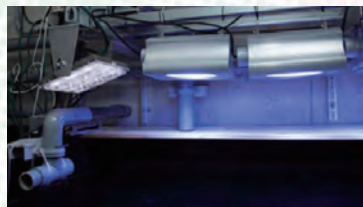
### Balancing brightness with energy savings

Our Ultra-narrow Angle LED Floodlight and LED Lighting Unit for High Ceilings Enable Fantastical Scenes

The Tsuruoka City Kamo Aquarium of Yamagata Prefecture, which boasts the largest display of jellyfish in the world, has adopted our ultra-narrow angle LED floodlight and LED lighting unit for high ceilings.

Our LED floodlight, which employs our proprietary optical lens, achieves a sharp illumination that makes it appear as if the light is shining in the water, while consuming an extremely low amount of electricity at 21W in order to produce light efficiently. With the LED lighting unit for high ceilings, our aim was to make it thinner and reduce its weight by going with a simple structure. These contribute to producing beautiful, fantastical scenes of jellyfish and freshwater fish swimming.

The LEDs adopted here are manufactured at Stanley Tsuruoka Works, and therefore this is also conducive to revitalizing the local region.



#### Views

**Achieving a light that you never grow tired of no matter how many times you see it**

**Masayuki Sanada**  
Administrative Department,  
Stanley Tsuruoka Works



It all began when we received a phone call from the contractor that was renovating and installing the electrical equipment in the Kamo Aquarium saying that they would like us to introduce them to Stanley-made LED lights. Thereafter, the managers of the relevant divisions and of the General Affairs Division, and I went to visit them onsite time and again. But our hard work paid off when they adopted our light fixtures in places like their large jellyfish tank and freshwater fish corner. The scene produced in the water tanks by our LED lights is outstanding, and one that you never grow tired of no matter how many times you see it. I strongly urge you all to have a look. Moving forward, we will continue to conduct PR aimed at local companies so that they will adopt our products.



**Aiming to conserve energy in the Southeast Asian region**  
Demonstration Test for Street Lights with Solar Cells in Indonesia

Stanley takes part in a working group for a demonstration test for LED street lights with solar cells as part of the FY2015 Development of International Standards for Energy Conservation, a project consigned by the national government that was entrusted to the Japan Lighting Manufacturers Association.

We have installed street lights with solar cells that were made by Stanley in our local factories for Stanley Indonesia and those of the participating manufacturers, from which we are gathering data. Based on the collected data, we are working towards the adoption and dissemination of these street lights in the aim of contributing to energy conservation in the Southeast Asian region.







—Highlights of Our Environmental Activities in FY 2014—

## Creating Value from Light and Illuminating a Bright Future



### Part of our efforts to combat global warming

#### Adopting Solar Power Generators

We installed a 340kW solar power generator on the rooftop of the No. 6 building at our Hatano Factory, which went into operation in August 2014. The total 1,512 solar panels from this have allowed us to add 2,200m<sup>2</sup> as area for environmental facilities called for in the Factory Location Act.

We have also installed a monitor at the factory's reception area where people can check on its power generation status in order to spread the word on the results of installing solar power generation.

The installation of this solar power generator follows after similar moves at our head office and Guangzhou Stanley Electric Co., Ltd. in China, and in the future we will continue to adopt these as part of our efforts to combat global warming.

► See Page 20 for details



#### Views

#### Reducing the load borne by the building and achieving high output via light-weight, highly efficient solar panels

Koki Takata (left), Yasunori Eguchi (right)  
Administrative Department, Hatano Factory



The load borne by the building is a significant challenge when it comes to installing solar panels. So, in-depth study was conducted on the structures of all the buildings of the Hatano factory and features of different types of solar panels were compared by the concerned parties. It was thus concluded that the rooftop of the No. 6 building would be the ideal location. Please do take a look at the power generation monitor installed at the reception area when you visit our factory.



### An environmentally friendly factory

#### The New No. 1 Building at ASI Was Completed

A new factory (new No. 1 building) was completed in April 2014 at Asian Stanley International (ASI) in Thailand. The new No. 1 building will serve as a base for supplying LCDs worldwide as a factory that practices integrated production for LCDs.

What is more, in the aim of making the new No. 1 building an environmentally friendly factory, we have adopted Stanley LED lights for all of the lighting. We are also making proactive efforts to conserve energy there, such as by incorporating mechanisms for automatically turning lights on when people move around through motion sensors.





# Environmental Management

## Stanley Group Vision

In April 2000 the Stanley Group enacted the Stanley Group Vision, which establishes our basic values, the significance of our role in society, and our lasting mission in aiming for a sustainable society. In realizing the vision, it is essential to collaborate and cooperate with many stakeholders while sharing values, and by sharing the vision with the entire group we fully exploit the total power of the group, thereby addressing the challenge of creating a sustainable society through business activities.

## Environmental Management

With our business base in manufacturing with a mastery of the boundless possibilities of light under the Stanley Group Vision, the Stanley Group provides products considered necessary by society while promoting environmental management designed to pass on the immeasurably rich and momentous blessings of our Earth to the next generation in a healthy state.

## Stanley Group Vision





## Basic Stance on Environmental Management

Under the Stanley Group Vision we have enacted our Basic Environmental Philosophy, Environmental Proclamation, and Environmental Policies, through which we are proactively working to address environmental conservation.

The Stanley Group seeks to reduce its environmental impact and aspires to achieve both environmental protection and economic development.

### Environmental Activities of the Stanley Group



### Underlying Concepts of Ecological Activities

Under our Basic Environmental Philosophy, the Stanley Group aims for the sustainable development of society and business as it works towards the conservation of the Earth's environment. Curbing emissions of greenhouse gases to prevent global warming, resource conservation activities that aim for a recycling-oriented society, curbing emissions of harmful chemical substances, and the development of environmentally friendly products are among the activities that we promote.

Fourteen years have gone by since our Basic Environmental Philosophy and Environmental Policies were formulated, and so we revised these in May 2013 in order to respond to the changing environments both within and outside of the company. We are working to address environmental protection in an ongoing manner by getting everyone who is involved with the Stanley Group to soundly understand our new Basic Environmental Philosophy and put our Environmental Policies into practice.

#### Basic Environmental Philosophy

Stanley Group, will strive to "create new values in harmony with the environment" through all our corporate activities by reducing the environmental impact to a bare minimum, so that we can pass on the immeasurably rich blessings of our earth and its ecosystem to the next generation in a healthy state.

#### Environmental Proclamation

We, Stanley, strive to become an Earth friendly corporation by practicing the "non-use, non-emission and non-disposing" of environmentally harmful substances.

#### Environmental Policies

In all our corporate activities, Stanley Group will follow our Basic Environmental Philosophy, with each member of our company aware of his or her roles and responsibilities regarding environmental conservation.

- Throughout the lifecycle of our business operations, products and services, we promote activities such as the conservation of natural resources and energy, pollution prevention thereby reducing the environmental impact globally.
- In addition to essentially observing the environmental laws and regulations of each country and region as well as other environmental agreements we conclude with other parties, when necessary, we apply voluntary environmental standards of our own on the basis of those regulations and agreements.
- To implement our Environmental Policies, we specify environmental objectives, set up environmental targets, and regularly or extraordinarily reexamine the objectives and targets in view of current progress, thus ensuring continuous and proactive improvement.
- We communicate our Basic Environmental Philosophy and Environmental Policies to all the persons working for Stanley Group, and we also gain the understanding and cooperation of our suppliers through informational efforts.
- We make our Basic Environmental Philosophy and Environmental Policies accessible to the general public, and we report the progress of our environmental activities in order to increase communication with the local community, when requested.
- We actively participate in the environmental conservation activities of the local communities in collaboration with governmental agencies or other local or affiliated organizations.





## Environmental Long-Term Management Plan

In order to achieve the sustainable development of society and business, we have formulated an Environmental Long-Term Management Plan (April 2010 to March 2020) in order to promote environmental management, and are working to address environmental challenges such as the prevention of global warming.

### Environmental Activities of the Stanley Group

#### Basic Environmental Philosophy



Environmental  
Proclamation

#### Environmental Policies



#### Environmental Long-Term Management Plan



#### Activities that Aim for the Sustainable Development of Society and Business

##### Strengthening management systems

##### Prevention of global warming

##### Resource recycling / waste reduction

##### Prevention of pollution

Phase IV Environmental  
Mid-Term management Plan  
(April 2010 to March 2014)

Phase V Environmental  
Mid-Term management Plan  
(April 2014 to March 2017)

Phase VI Environmental  
Mid-Term management Plan  
(April 2017 to March 2020)

### The Stanley Group's Second Environmental Long-Term Management Plan

	Phase IV Environmental Mid-Term Management Plan (April 2010 to March 2014)	Phase V Environmental Mid-Term Management Plan (April 2014 to March 2017)	Phase VI Environmental Mid-Term Management Plan (April 2017 to March 2020)
Second Environmental Long-Term Management Plan	Achieve sustainable development for society and business/carry out manufacturing that contributes to the Earth's environment to achieve both social contribution and profit creation.		
	Create a foundation for environmental management	Promote environmental management and start expanding it globally	Promote the global expansion of environmental management
Strengthening initiatives for our Environmental Management System (EMS)	Regulate a global Environmental Management System		
	<b>Domestic</b> Improve the efficiency of operation through EMS integration	Strengthen the regulated EMS activities	Promote self-sufficient EMS activities at each base
	<b>Overseas</b> Prepare for global EMS integration	Promote global EMS	Promote self-sufficient EMS activities globally
Initiatives for environmental regulations	Continue complying with regulations related to business activities		
Design for Environment	Offer products designed for the environment that will contribute to the Earth's environment (continuously)		
Prevention of global warming	Promote the prevention of global warming / reduce greenhouse gas emissions through business processes		
	<b>Domestic</b> Reductions of 1% a year or more relative to FY 2009 in basic added value units		
		<b>Overseas</b> Reductions of 1% a year or more relative to FY 2013 in basic added value units	
	<Distribution region> Reductions of 1% a year or more relative to FY 2009 in sales cost units	<Distribution region> Reductions of 1% a year or more relative to FY 2012 in sales cost units	
Resource recycling / waste reduction	Deploy and strive for activities that do not generate waste globally Continue with zero emissions		
	Reduce waste - Reductions of 1% a year or more relative to FY 2009 in basic added value units	Reduce waste - Reductions of 1% a year or more relative to FY 2012 in basic added value units	
Prevention of pollution / product environment	Completely eliminate environmental accidents by thoroughly ensuring that no substances of environmental concern are used		
	Strengthen management foundations to accommodate global expansion	Continue with zero environmental defects	
Initiatives for biodiversity	Actively contribute to regional ecosystem protection activities		

\* In 2013 we revised our Environmental Long-Term Management Plan so that Phase V started from April 2014.



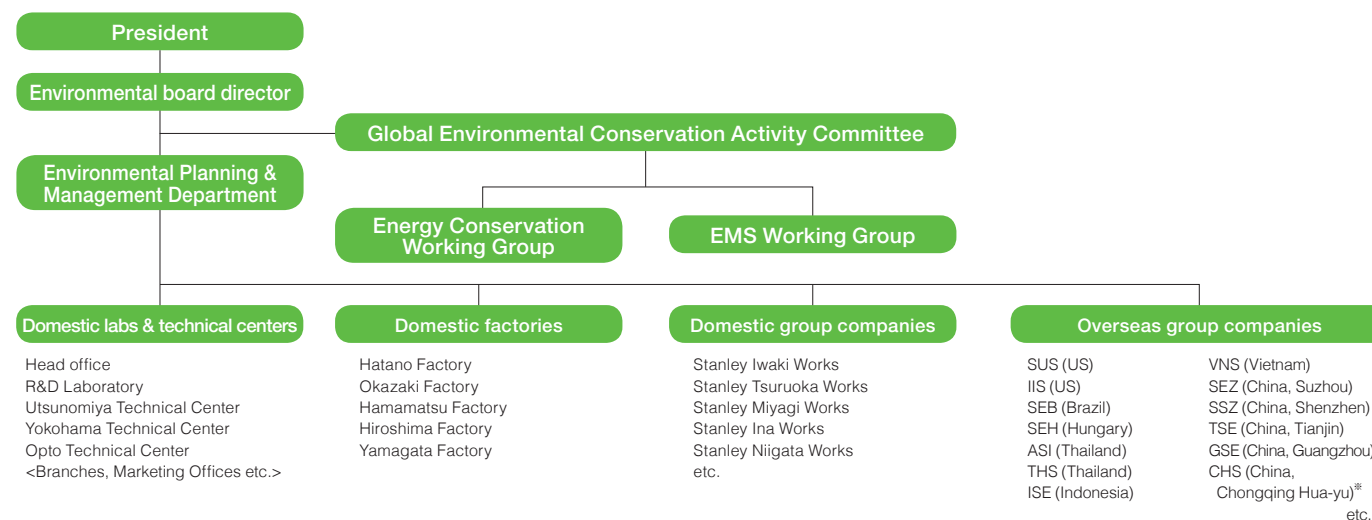
## Environmental Management System

The Stanley Group has erected an environmental management system (EMS) based upon ISO 14001 international standards and promotes environmental improvement activities across the group as a whole. Furthermore, we have erected an environmental management structure in order to implement our Environmental Long-Term Management Plan, which is grounded in our environmental policies.



## Environmental Management Structure

We have created an environmental management structure with an environmental board director as its highest officer under the president. What is more, we have set up the Environmental Planning & Management Department as a department to promote environmental management, and we work to ensure administrative control. We also established the Global Environmental Conservation Activity Committee in order to oversee the Stanley Group as a whole to promote environmental activities through the combined efforts of group companies in Japan and overseas.



※Branches that have yet to acquire ISO14001 certification.  
These are the informal names of our overseas group companies. See P04 for their official names.

<b>Global Environmental Conservation Activity Committee</b>	Discusses environmental strategies and regulatory affairs from a global standpoint; optimizes and maintains the environmental management system to realize the Basic Environmental Philosophy and the Environmental Policies.
<b>Energy Conservation Working Group</b>	Facilitates energy conservation by drafting and promoting policies related to the Stanley Group's energy management.
<b>EMS Working Group</b>	Optimizes and makes continuous improvements to environmental management systems with a view towards galvanizing and increasing the efficiency of environmental activities and strengthening monitoring functions.
<b>Environmental Planning &amp; Management Department</b>	Advances the environmental management system of the whole Stanley Group, including domestic and overseas subsidiaries, and works to plan and undertake administrative control for the full spectrum of our environmental activities.



## Environmental Education

We provide environmental education divided into the categories of training according to personnel position and job type, training according to occupational abilities (strategic education) such as certification education for internal environmental auditors, and training according to occupational abilities (function segmented education) which is aimed at employees engaged in operations related to the environment.

### Trainings by personnel position, job type

#### New manager training

Management of environment related laws and regulations and our environmental challenges

#### New supervisors training

General environmental knowledge and awareness, and environment al knowledge pertaining to environment-related laws and regulations and duties as a supervisor

#### Mid-career recruits trainings

General environmental knowledge and awareness, and environmental knowledge pertaining to duties

#### New recruits training

General environmental knowledge and awareness required of employees as members of society

### Trainings by work skill (strategic education)

#### Qualification training for in-house environmental auditors

Understanding of ISO 14001 requirements and learning auditing techniques

#### Skill-up training for in-house environmental auditors

Auditing expertise training for sustained environmental improvements and improving auditing techniques

#### Train environmental regulations

Understanding of environmental regulations

#### Train substances of environmental concern investigation instructors

Gaining of skills to analyze and detect substances of environmental concern in products

### Trainings by work skill (functional education)

#### EMS education & training

- Education based on the divisional education plan
- Seminars outside the company
- Jobs relating to education/training
  - Jobs with the potential to cause a considerable environmental impact
- Education relating to awareness (policies, objectives, emergency actions, etc.)
  - Subject to all employees, outside personnel working at Stanley, personnel of commissioned agents
- Education & training for qualification
  - Jobs that have a considerable environmental impact (i.e. designated environmental jobs)

## Environmental Management Auditing

We consider Environmental Management System (EMS) auditing to be essential for the sake of continuously improving the EMS. Stanley Electric and Stanley Group companies in Japan conduct auditing through internal environmental auditors, as well as external audits through third party certifying agencies.

### Internal Environmental Audits

#### Striving to maintain and improve our level of environmental management

We carry out internal environmental audits by forming independent in-house auditor teams comprised of internal environmental auditors who have been certified internally.

In addition, audits by the environmental management supervisors at each base are implemented on a reciprocal basis to promote the maintenance and improvement of the EMS level at each base.

### External Audits

#### Checking to confirm whether corrections are needed through annual external audits

Stanley Electric Co., Ltd., which includes group companies in Japan, undergoes external audits regularly once per year, as well as renewal inspections once every three years, through third party certifying agencies.

Upon undergoing a regular inspection in FY2014, there were no items that required corrections. We will continue making efforts to conserve the earth's environment, and will strive to make sustained environmental improvements.





## Environmental Risk Management

### Initiatives for Environmental Risk Management

#### Observing domestic and foreign regulations and promoting the reduction and elimination of harmful chemical substances

We observe all domestic and foreign environmental regulations, and work to reduce and eliminate harmful chemical substances (substances which are contained in products and those which are used during their manufacture). One such initiative is to carry out development, design, and purchasing management for products that do not contain harmful chemical substances on the basis of management criteria for substances of environmental concern.

With regard to regulations and controls, we are promoting compliance with the PRTR Law and the revised Law concerning the Rational Use of Energy, as well as the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and others. To prevent environmental accidents in advance, we have instituted environmental patrols and checks during internal environmental audits.

### Management of Substances of Environmental Concern

#### Gathering information on related regulations and customer demands, and promoting sound regulatory compliance

In recent years, laws and regulations on chemical substance management have been growing stricter and stricter around the world as the globalization of regulations advances.

The Stanley Group gathers and complies with information on related regulations and customer demands, and promotes the initiatives listed on the right for the sake of sound regulatory compliance.

#### Internal Structure for Managing Information on Substances of Environmental Concern

##### ● Promoting the Development of Design for the Environment through the Use of a Database of Substances of Environmental Concern

We meticulously collect and confirm the suitability of information on the substances of environmental concern contained in the parts and raw materials that make up our products with the understanding and cooperation of our suppliers. Moreover, by recording this information on the substances of environmental concern to an internal database and sharing this we make efforts to select components that do not contain such harmful chemical substances, while also working to design and develop environmentally conscious products.

##### ● Establish and Strengthen a Structure for Managing Substances of Environmental Concern

We periodically carry out audits on our structure for managing substances of environmental concern at our production bases in Japan and overseas and promote initiatives to strengthen this.

### Initiatives through Our Supply Chain

#### Revision of our Green Procurement Guidelines

For our environmental conservation activities, we must reduce the environmental impact over the entire lifecycle of our products, from the procurement of materials through to their production, sale, use, disposal, and recycling. As it is not enough to work towards this through the initiatives of individual companies alone, the Stanley Group actively engages in the procurement of environmentally friendly products and promotes the reduction of our environmental impact through mutual cooperation with our suppliers.

We have established Green Procurement Guidelines for the Stanley Group to allow us to continue promoting initiatives through our supply chain, and work to reduce our environmental impact through coordination with our suppliers.

In FY2014, we revised our management criteria for substances of environmental concern, modified our tools for surveying information on the chemical substances contained within our products, and clarified the procedures for managing information on these changes. Through these and other efforts we promoted improvements geared towards strengthening management, and revised our guidelines.

In our Green Procurement Guidelines, we primarily ask the following five requests of our suppliers.

1. Understand and cooperate with our environmental goals, targets, and requirements
2. Establish an environmental management system (EMS)
3. Thoroughly manage substances of environmental concern
4. Promote initiatives to determine and reduce emissions of greenhouse gases (GHG)
5. Promote the recycling of resources



## Environmental Risk Management



### Major Initiatives for FY2014

#### ● Revision of Our Green Procurement Guidelines

In March 2015 we revised the Stanley Group's Green Procurement Guidelines in an effort to reassess our management criteria for substances of environmental concern. What is more, to date we have used our own unique tools for surveying the chemical substances contained in our products, by we switched over to industry-standard tools (JAMA sheets, JAMP AIS sheets, etc.) in an effort to standardize and improve the efficiency of our management.

#### ● Holding Training Sessions with Overseas Group Companies

In November 2014, we held training sessions on the latest information on regulations and industry trends, as well as on managing the chemical substances contained in our products that were aimed at the workers who carry out the actual management of chemical substances at our overseas group companies. This was held in Japan, and was geared towards achieving a uniform level of management globally. Opinions were also exchanged on the challenges at and countermeasures of each company.



#### ● Holding JAMA Sheet Preparation Briefing Sessions for Our Suppliers

We held JAMA sheet preparation briefing sessions for our suppliers at our Hatano and Hamamatsu Factories to enable them to gather information on the chemical substances contained within products and manage this efficiently, with many of our suppliers taking part in these. We will continue to hold briefing sessions in the future in the aim of strengthening management in cooperation with our suppliers when it comes to surveys of chemical substance information for purchased products.



## Green Procurement Policies

### Holding yearly meetings to explain our purchasing policies

Stanley Electric holds yearly meetings to explain our purchasing policies based on our green procurement policies. In order to continue to further strengthen and promote environmental initiatives and green procurement, we ask for the cooperation of our major suppliers mainly with regard to the following points.

- Acquisition of accreditation as our eco-partners
- Assurance that purchased items do not contain substances banned by laws or regulations
- Promotion of activities to reduce greenhouse gas emissions

Beginning in FY 2015, we will be giving commendations to suppliers with outstanding activities for reducing greenhouse gas emissions, and will work to enhance such reductions along our entire supply chain.





## Environmental Risk Management



### PRTR Substances

#### Emissions of PRTR Substances and the amount transferred both increased YOY

Pursuant to the PRTR Law, we determine the emissions and transfer of chemical substances which are subject to said law.

In FY 2014 our emissions and amount transferred came to 57.8t (an increase of 23.8% YOY) and 17.1t (a decrease of 15.5% YOY), respectively.

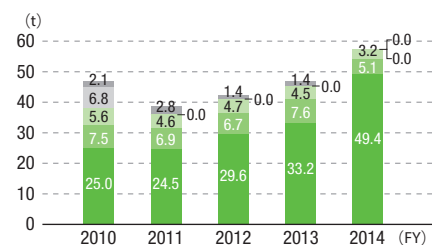
Starting in FY 2015, we have adopted basic unit management for chemical substances, including substances subject to PRTR. We are also considering new approaches to reduce chemical substances and working to strengthen our initiatives for this.

#### Records of PRTR-designated Class 1 Chemicals (Data from Notifying Factories)

	Objective	FY2010	FY2011	FY2012	FY2013	FY2014
Emissions	Atmospheric emissions	47.0t	38.8t	42.4t	46.7t	57.8t
	Emissions into public water systems	0.0t	0.0t	0.0t	0.0t	0.0t
	Emissions into the soil on premises	0.0t	0.0t	0.0t	0.0t	0.0t
	Landfill disposal on premises	0.0t	0.0t	0.0t	0.0t	0.0t
	Total emissions	47.0t	38.8t	42.4t	46.7t	57.8t
Amount transferred	Transfer to sewage	0.0t	0.0t	0.0t	0.0t	0.0t
	Transfer to outside	21.0t	17.7t	16.8t	14.8t	17.1t
	Total amount transferred	21.0t	17.7t	16.8t	14.8t	17.1t

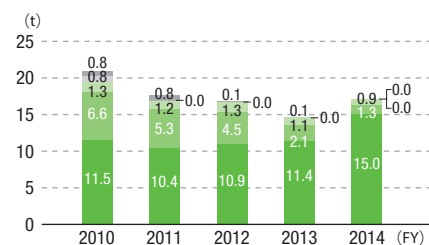
#### Changes in Emissions by Type of Substance Requiring Notification under PRTR

■ Toluene ■ Ethyl benzene ■ Other  
■ Xylene ■ Dichloromethane (methylene chloride)



#### Changes in the Amount Transferred by Type of Substance Requiring Notification under PRTR

■ Toluene ■ Ethyl benzene ■ Other  
■ Xylene ■ Dichloromethane (methylene chloride)



### Management of Polychlorinated Biphenyl (PCB)

#### In FY 2014 we finished treating one piece of equipment

We promote rigorous storage, control, and treatment of PCB pursuant to the Special Measures Law for the Proper Treatment of Polychlorinated Biphenyl Wastes.

In FY 2014 we finished treating one high-voltage phase advance capacitor, with the equipment stored as a result of this listed on the right. We have already finished registering the treatment of PCB wastes for other equipment with a waste treatment contractor, and will treat them in sequence.

#### PCB storage equipment

Equipment	No. of units
High-voltage transformer	4
High-voltage capacitor	5
High-voltage phase advance capacitor	4
Low-voltage capacitor	1,145
Lighting capacitor	19
Mercury lamp stabilizer	29
Phosphorescent lamp stabilizer	874
<b>Total</b>	<b>2,080</b>

### Soil Contamination Surveys

#### Voluntary surveys were carried out at two locations

The survey results for FY 2014 are listed below.

For the future, we will continue to carry out voluntary surveys and confirm the soil contamination conditions, which we will cope with based on laws and ordinances.

Branch	Survey results
Okazaki Factory	Voluntary surveys on soil vapor were carried out on two occasions on the area following the removal of coating equipment, with trichloroethane detected as a result of this. The detailed survey showed that this exceeded the required Soil Vapor Concentration Standards, but it has been 18 years since this was used and there is a layer of bedrock underground, so it was confirmed that there is no chance of this spreading outside the area. We will continue to perform monitoring in an ongoing manner.
Former Hatano employee dormitory	We performed a voluntary survey and confirmed that there was no soil contamination





## Environmental Risk Management

### Responding to Complaints

#### Striving to coexist with local communities

The complaints we received from neighboring areas in FY 2014 are listed below, which we promptly took countermeasures against.

Branch	Period complaint arose (period countermeasures were taken)	Details of the complaint	Details of the countermeasures
Hatano Factory	April 2014 (April 2014) September 2014 (September 2014)	Noise in the company parking lot	<ul style="list-style-type: none"> <li>The offending vehicle (which belonged to a contract employee) was identified, and instructions were given</li> </ul>
	September 2014 (October 2014)	Strange noises coming from the No. 1 building	<ul style="list-style-type: none"> <li>There were strange noises coming from the chilled tower, so the fan belt was replaced</li> <li>Inspections were enhanced</li> </ul>
	February 2015 (February 2015)	Strange noises coming from the No. 1 building	<ul style="list-style-type: none"> <li>There were strange noises coming from the air conditioning cooling tower, so checks for strange noises were performed during the weekly inspections</li> <li>The V-belts will be adjusted every six months</li> </ul>
Okazaki Factory	August 2014 (September 2014)	One of our supplier's vehicles (a truck) was parked on the street	<ul style="list-style-type: none"> <li>Instructions were given to the drivers at two of our suppliers</li> <li>Thorough written instructions were provided to all of our suppliers</li> </ul>

### Compliance Status with Laws and Ordinances

#### The compliance status will be monitored periodically and appropriate measures will be taken

The Stanley Group periodically verifies our compliance status established for environment-related laws and ordinances, and promotes improvements.

In FY 2014, some of our branches were deficient in their notifications as per the Fire Service Act, so we confirmed their current conditions and responded appropriately. We will continue to verify our compliance status through regular management, internal audits, and so forth.

Branch	Deficiency	Response status
Hiroshima Factory	Deficient management of the stored volumes of small-quantity hazardous substances	Thorough volume management
Stanley Miyagi Works	Failure to report changes to the lot area regarding the Factory Location Act	Notification made
Stanley Niigata Works	Failure to report storage and handling of small-quantity hazardous substances	Notification made

### Environment-related Awards

#### Our head office building won a design award

At the Stanley Group, for the sake of environmental risk management we undertake various initiatives to prevent environmental accidents at each of our offices and to reduce our impact on the environment.

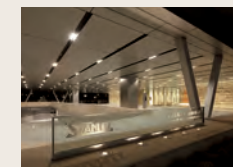
In FY 2014 our day-to-day activities were commended by relevant agencies as described below.

#### Commendations for Our Activities in FY 2014

##### ● Head office

Motoko Ishii Lighting Design won the Award of Merit in the Illumination Awards from the Illuminating Engineering Society of North America (IESNA) for our head office building. The IESNA is a prestigious organization that was established in New York in 1906. This award was conferred for our facility lighting, which factors in both particularly outstanding design and energy conservation. Our head office building exclusively uses LED lighting made by Stanley, which was produced from a combination of our light distribution technology cultivated in the automobile lighting sector and LED technology, for all of its lighting. Reducing the power consumed boosted the energy conservation effects, while also achieving an abundance of light suited to the areas where they are installed.

Our head office incorporates a variety of different environmental facilities, such as adopting solar power and natural lighting and ventilation, as well as using rainwater. It has acquired a Class S rating, which is the highest class, from the Comprehensive Assessment System for Built Environment Efficiency (CASBEE).





# Environmental Performance

The Stanley Group promotes a variety of different initiatives for the prevention of global warming and the like.

In order to continue to effectively advance our environmental activities, we quantitatively determine the impact on the environment from our business activities and the results of our countermeasures to this. We address this in an ongoing manner with the understanding that it is important to continue evaluating our environmental performance.

## The Environmental Impact of our Business Activities

The major INPUT items for the environmental impact accompanying our business activities are the use of raw materials, energy, water, chemical substances, and vehicle fuel. Conversely, the OUTPUT items include CO<sub>2</sub> gas, NO<sub>x</sub>, and SO<sub>x</sub> for the atmosphere, while the impacts in water environments include biochemical oxygen demand (BOD) and chemical oxygen demand (COD). This also includes factors like emissions of waste and chemical substances.

Our environmental impact for FY 2014 is listed on the right. We quantitatively determine the environmental impacts from these and carry out environmental activities such as the conservation of resources and energy, as well as measures to reduce emissions of waste and chemical substances, in an ongoing manner.

### Environmental Impact of Our Business Activities in FY 2014 (Data for Domestic Branches)

INPUT			
Raw Materials	Resin materials	23,247t	(-9.8%)
	Coating materials	364t	(-14.4%)
	Glass	165t	(9.0%)
Energy	Electricity	138,745,000kWh	(-3.1%)
	Kerosene	192kℓ	(-23.2%)
	Light oil	6kℓ	(20.0%)
	Heavy oil	719kℓ	(-4.1%)
	LPG	166t	(-6.2%)
	City gas	365,000Nm <sup>3</sup>	(-0.3%)
Water	Water supply	90,000m <sup>3</sup>	(-34.3%)
	Groundwater	274,000m <sup>3</sup>	(48.1%)
	Other cistern water	55,000m <sup>3</sup>	(-16.7%)
Chemical Substances	* Targets chemicals subject to notification under the PRTR Law		
	Amount handled	225t	(-7.0%)
Vehicle fuel	Gasoline	340kℓ	(-1.7%)



The figures in parentheses are the percentage change YOY

OUTPUT			
Greenhouse gases	CO <sub>2</sub>	53,050t-CO <sub>2</sub>	(-3.4%)
Impact on the atmospheric environment	NO <sub>x</sub>	5.7t	(-5.0%)
	SO <sub>x</sub>	21.8t	(20.4%)
Impact on water environments	BOD	3.2t	(0.0%)
	COD	1.0t	(25.0%)
* The total amount generated is the total amount of waste and valuable materials			
Waste	Total amount generated	4,038t	(3.5%)
	Amount recycled	3,880t	(0.1%)
	Amount of landfill	5t	(-37.5%)
* Targets chemicals subject to notification under the PRTR Law			
Chemical Substances	Amount emitted	57.8t	(23.8%)
	Amount transferred	17.1t	(15.5%)





## Results of Activities from FY 2014

The Stanley Group's major targets for FY 2014 and their achievement status are listed below.

For items on preventing global warming and waste reduction that didn't reach the target, we will continue to soundly institute initiatives and countermeasures at each branch to serve as activities for reducing our environmental impact.

We also take opportunities such as Environment Month and including environmental information in our internal newsletter and providing environmental e-learning, to proactively provide education designed to encourage a raised awareness of the environment among our employees.

In FY 2015 we established the Environmental Award System, which awards employees who have made significant contributions to environment-related activities in the aim of invigorating and strengthening our environmental activities.

Item	Status		
Initiatives for environmental regulations	Target	Continue complying with regulations related to business activities	○
	Actual performance	Continue complying with regulations related to the environment	
Design for Environment	Target	Offer products designed for the environment that will contribute to the Earth's environment (continuously)	○
	Actual performance	100% implementation of designs for the environment checklists Provide training for design-related departments	
Prevention of global warming	Target	Basic added value units of CO <sub>2</sub> : 79.7t-CO <sub>2</sub> /1 billion yen or less (reduction of 5% or greater relative to FY 2009)	×
	Actual performance	Basic added value units of CO <sub>2</sub> : 82.2t-CO <sub>2</sub> /1 billion yen (reduction of 2.0% relative to FY 2009)	
	Target	Distribution region Sales cost units: 2.28t-CO <sub>2</sub> /1 billion yen or less (reduction of 2% or greater relative to FY 2012)	○
	Actual performance	Sales cost units: 2.23t-CO <sub>2</sub> /1 billion yen (reduction of 4.3% relative to FY 2012)	
Resource recycling / waste reduction	Target	Basic added value units: 5.63t/1 billion yen or less (reduction of 2% or greater relative to FY 2012)	×
	Actual performance	Basic added value units: 6.00t/1 billion yen (increase of 4.5% relative to FY 2012)	
	Target	Continue with zero emissions (landfill disposal rate of 1% or less)	○
	Actual performance	Continue with zero emissions (landfill disposal rate of 0.12%)	
Prevention of pollution / product environment	Target	Continue with zero environmental defects Reduce the amount of chemical substances used	○
	Actual performance	We verify the content of substances of environmental concern through x-ray fluorescence inspections and other means to continue with zero environmental accidents We reduced IPAs by improving our production processes (washing methods)	
Initiatives for biodiversity	Target	Contribute to regional ecosystem protection activities	○
	Actual performance	Institute social contribution activities and volunteer activities	

## Initiatives for the Prevention of Global Warming

Eliminating waste and minimizing energy use serves as the foundation for preventing global warming.

Electricity accounts for approximately 95% of the energy used by the Stanley Group, and so in order to prevent global warming we consider it of the utmost importance to reduce our power consumption and curb peak power usage, while also promoting reduction initiatives.

### Reduction Status for Emissions of CO<sub>2</sub>

**While net CO<sub>2</sub> emissions fell, we did not achieve our target for basic added value units**

In FY 2014 our net emissions of CO<sub>2</sub> decreased by 1,842t-CO<sub>2</sub> compared to the previous fiscal year to come in at 53,050t-CO<sub>2</sub> (a decrease of 3.4% YOY). In terms of basic added value units, we made efforts to achieve our target of 79.7t-CO<sub>2</sub>/1 billion yen or less (a decrease of 5% or more relative to FY 2009), but failed to achieve our target when this came in at 82.2t-CO<sub>2</sub>/1 billion yen (a decrease of 2.0% relative to FY 2009).

We aim to strengthen our initiatives for reducing net emissions of CO<sub>2</sub> in order to achieve our basic unit targets.

#### FY 2014 Performance

Basic added value units of CO<sub>2</sub>

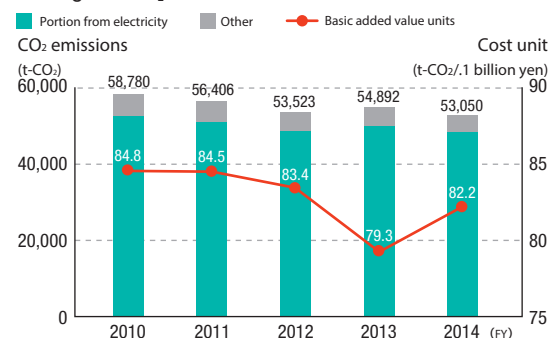
**82.2t-CO<sub>2</sub>/1 billion yen**

Net domestic emissions of CO<sub>2</sub>

**53,050t-CO<sub>2</sub>**

(1,842t-CO<sub>2</sub> decrease YOY)

#### Changes in CO<sub>2</sub> Emissions and Cost Units



\* The CO<sub>2</sub> emission cost unit for the electricity-using side announced by the Federation of Electric Power Companies of Japan was applied for the calculations of the amount of CO<sub>2</sub> pertaining to electricity.





## Initiatives for the Prevention of Global Warming



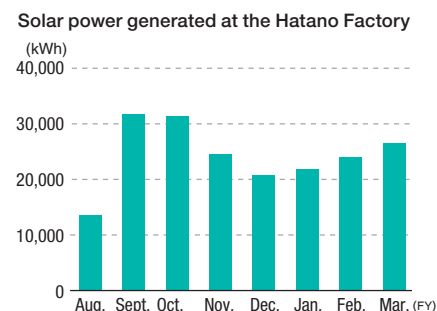
### Initiatives to Optimize Energy Use

Contributing to preventing global warming by optimizing energy

#### ● Utilizing Renewable Energy

##### Adoption of a solar power generator

We adopted a solar power generator at our Hatano Factory, which began producing power in August 2014. The net power generated in FY 2014 came to 190,781kWh, with the average amount of power generated each day over the summer coming to 1,030kWh. This is equivalent to the amount of power consumed by about 110 ordinary households.

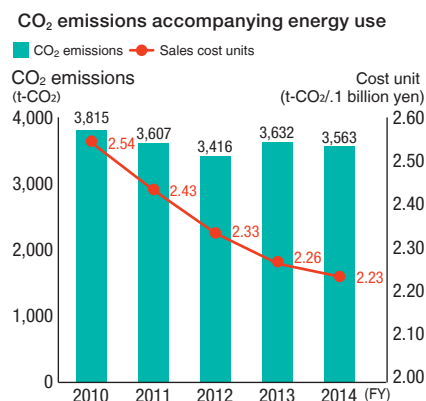


#### ● Improving Transport Efficiency

##### We achieved our target for sales cost units

We select automobile ranks suited for their loads and reduce the number of shipments through consolidation, while also achieving reductions through the expansion of distribution via customer pickup. Through these and other initiatives we work to improve transport efficiency across our entire supply chain and continue with environmentally conscious distribution.

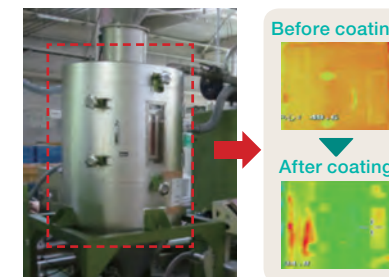
Our actual performance for CO<sub>2</sub> emissions accompanying energy use in FY 2014 came to 3,563t-CO<sub>2</sub>, for a decrease of 69t-CO<sub>2</sub> (1.9% decrease). Our actual performance in terms of cost units came to 2.23t-CO<sub>2</sub>/1 billion yen versus our goal of 2.28t-CO<sub>2</sub>/1 billion yen, and therefore we achieved this goal.



#### ● Reducing Electricity

##### Thermal coating for heat generating equipment

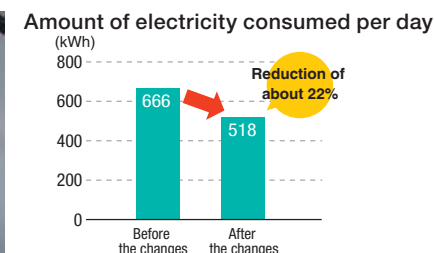
Our Okazaki Factory applied a thermal barrier coating to the drying hoppers of their resin dryers. As indicated in the figure on the right, reducing the surface temperature of the drying hoppers kept down increases in the temperature within the factory and contributed to reducing their air conditioning burden, thus allowing them to cut electricity by 110,280kWh per year.



##### Scrapping low-pressure blowers

Stanley Iwaki Works operates the low-pressure blowers used in its production equipment at the lower limit of their inverter control. Only a part of the air was used and the rest was released out.

In FY 2014 they installed filters and regulators on said production equipment, allowing them to use them to provide decompressed high-pressure air. As a result, they were able to stop using their low-pressure blowers, thus cutting electricity by 50,024kWh a year.



##### Equalizing the molding process through the *kanban* scheduling system

Stanley Niigata Works instituted equalized production via the *kanban* scheduling system for its molding machines. By performing *kanban* production using 30-minute intervals, the factory was able to stabilize production, cut down on unnecessary inventory, and substantially shorten the time that its molding machines operate for. Through this, it cut its electricity use by 241,560kWh a year.



## Initiatives for Resource Recycling (Waste / Water)

By way of resource recycling and waste reduction activities, at the development and design stages we curb the generation of waste by reducing the size and weight of our products, while at the manufacturing and disposal stages we implement measures like recycling activities through activities to improve yields and for sorting waste, while also working on zero emission activities to reduce landfill waste to close to zero.

Furthermore, when it comes to water we work to curb the amount of water we use and reuse it by means of water conservation through awareness-raising activities and reassessing our manufacturing processes.

### Status for Reducing the Total Waste Generated

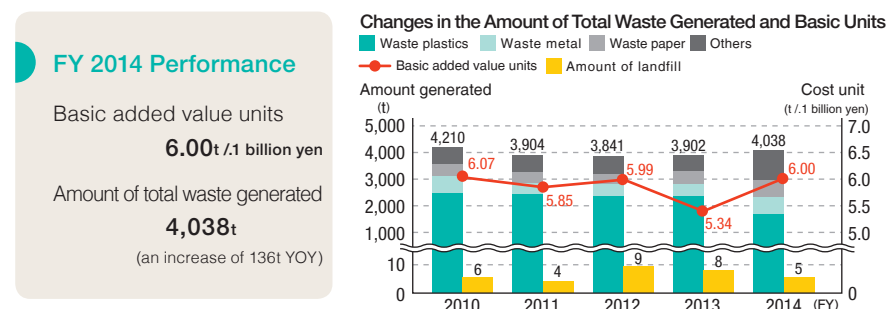
Due to an increase in the amount of waste generated, we did not achieve our goal for basic added value units

The amount of waste we generated in FY 2014 increased by 136t compared to the previous fiscal year to 4,038t (an increase of 3.5% YOY). In terms of basic added value units, we worked towards our target of 5.63t/1 billion yen (a 2% or more reduction compared to FY 2012) but were unable to reach it when this came to 6.00t/1 billion yen (a 4.5% increase compared to FY 2012). For FY 2015, we will strengthen our initiatives to reduce the amount of waste we generate.

What is more, our amount of landfill decreased by 3t compared to the previous fiscal year to come to 5t, giving us a 0.12% landfill disposal rate and enabling us to continue to achieve zero emissions.\*

From FY 2015 onward, we will define zero emissions as a value for our amount of landfill for the amount of waste we generate as being less than 0.5% in terms of its ratio by weight, and will strive to continue to achieve zero emissions under this stricter standard.

\* This is when the amount of landfill for the amount of waste generated is under 1% by ratio of weight.



\* Since FY 2013 we have set targets for reducing waste that exclude waste equipment and molds that were generated temporarily, and changed to a 1% or more reduction compared to FY 2012 in basic added value units.

### Initiatives to Decrease Waste

#### Recycling waste plastic and turning it into power-saving tags

In order to cut down on our amount of waste, we have made efforts for internal recycling. Automobile lamp products, which are our flagship products, use enormous amounts of plastic materials, with about 55% of our waste comprised of waste plastic. Therefore, we recycle plastic and in FY 2014 we began reforming it into power-saving tags to be installed on lighting canopy switches. To recycle waste plastic the waste materials are sorted by material and by configuration (such as surface processing, etc.), with each undergoing a number of processes as shown in the figure on the right to turn them into reclaimed goods.

For the future, we will work hard to use limited resources effectively and reduce our impact on the environment.



### Water Usage Status

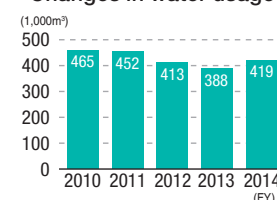
Water usage increased 8% compared with the previous year. We instituted basic unit management starting in FY 2015.

Our factories use an enormous amount of water for processes like washing and cooling off the products and jigs during the manufacturing process.

Our water usage for FY 2014 came to 419,000m<sup>3</sup>, which represents a YOY increase of 8.0%. We are making efforts to reduce wastefulness through routine management that involves reusing and conserving water in our various processes in order to effectively use our precious water resources and cut down on the amount used.

We will be instituting basic unit management in FY 2015 and setting target figures for this, through which we will continue to work to cut the amount of water used.

#### Changes in water usage





## Design for Environment

In order to minimize our impact on the environment to the extent possible and achieve the "creation of new values in harmony with the environment," we in the Stanley Group promote energy and resource conservation and the prevention of pollution over the entire life cycle of our products, while also working to cut down on our environmental impact globally.

### Conserving Power and Ensuring Safety

#### LED-ADB headlamps offer a safe and secure visual range at nighttime

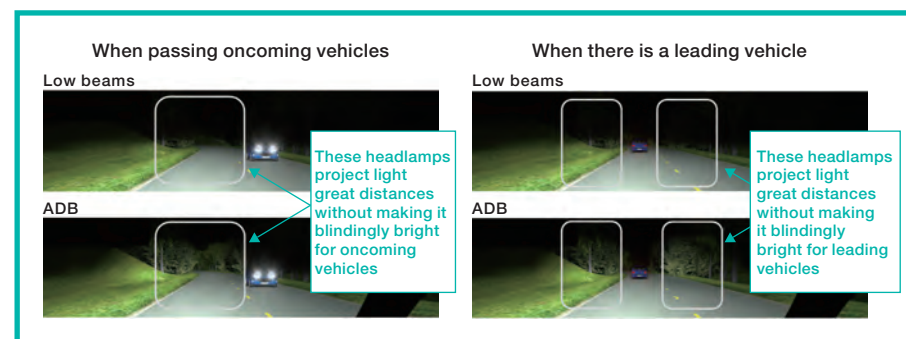
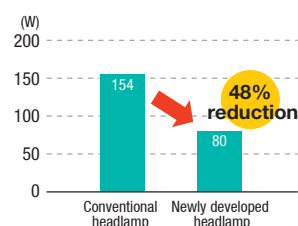
This is the first time that ADB headlamps using LEDs designed and developed by Stanley have been put to use.

ADBs (or Adaptive Driving Beams) achieve a light distribution close to that of high beams without making it blindingly bright for leading vehicles or oncoming vehicles. This allows drivers to quickly recognize upcoming pedestrians and signs, thereby offering them a safe and secure visual range at nighttime.

By adopting LED headlamps and achieving ADBs that do not use any mechanical parts, we are working to save power and make our headlamps smaller and lighter.



Power consumption for each individual headlamp



### Reducing Resource Use and Weight

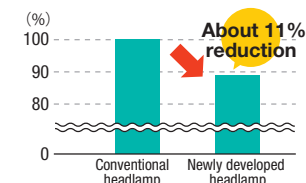
#### Contributing to increased fuel efficiency through power savings and thinner housing with LED light sources

Our LED headlamps use LED light sources for their driving beams, passing beams, and width indicator lights, thus achieving power savings of 56% compared with conventional combination halogen headlamps.

What is more, by overhauling our conventional construction method for the lens housing, we were able to make this about 11% thinner. This contributes enormously to improving the fuel efficiency of vehicles.



Material thinning ratio



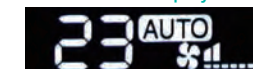
### Power Saving

#### Improving materials contributes to power savings

Our passive drive LCDs are used in displays such as those for onboard air conditioner panels in vehicles. For these we have achieved high contrast and a wide viewing angle unlike that is seen with previous versions, which produces a sense of unity with the area around the panel.

What is more, improving the optical characteristics of the components has allowed us to achieve contrast that is 2.5-times higher and transmittance that is about 27% greater than before. This contributes to power savings by curbing the brightness of the LED backlight.

Conventional display



Newly developed display



(Sample comparisons of characteristics)

Product	Contrast ratio	Transmittance
Conventional panel	1	11%
Newly developed panel	2.5	14%



## Design for Environment



### Life Cycle Assessment (LCA)

#### Promoting design for the environment through the use of a checklist

In order to promote the manufacture of products designed for the environment we use our Design for Environment Guidelines and apply them to the full range of our product design. We perform evaluations through the use of checklists in order to reduce our impact on the environment to the extent possible.

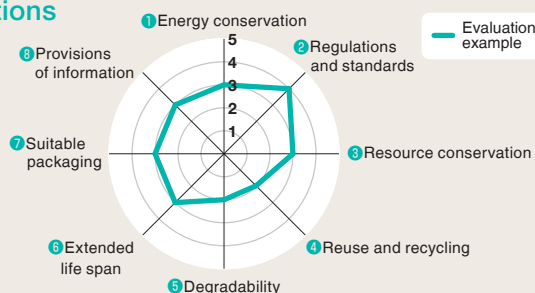
We quantitatively evaluate the eight items of: ① energy conservation, ② regulations and standards, ③ resource conservation, ④ reuse and recycling, ⑤ degradability, ⑥ extended life span, ⑦ suitable packaging, and ⑧ provisions of information are quantified and evaluated. This is done in an effort to improve our environmental friendliness.

What is more, our checklists allow us to determine the CO<sub>2</sub> emissions given off in every step from the selection of the raw materials to the manufacturing of the product and its delivery to customers.

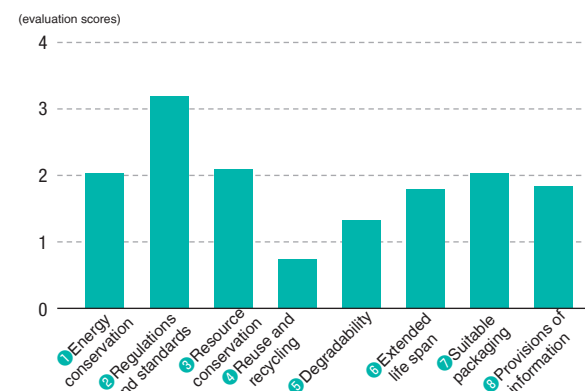
#### Overview of the Evaluations

##### Evaluations via Checklists

As indicated in the figure on the right, we perform quantitative evaluations for different items on a five-point scale in the aim of creating more products designed for the environment.

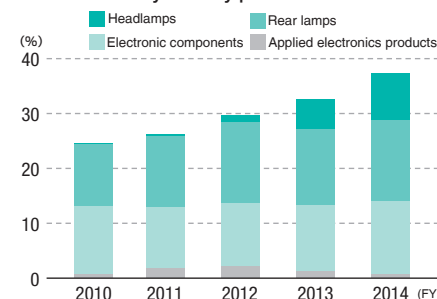


#### Product evaluations via our FY 2014 checklist



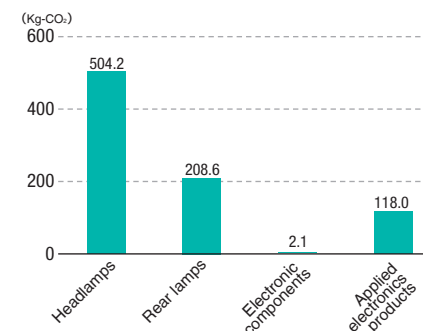
Our average product evaluation scores for FY 2014 are shown in the figure on the left. Through the use of checklists, we can evaluate all of our products through the same indicators. This allows us to precisely define each of their respective strengths and weaknesses and reflect this in product design. Through this, we work to improve the level of environmental responsiveness of our products.

#### Changes in the proportion of our environmentally friendly products



The percentage of our sales accounted for by products designed for the environment over the past five years is shown in the above graph. Automobile lamp products using LEDs are increasing, and the percentage of such products designed for the environment is on the rise.

#### CO<sub>2</sub> emissions up through the manufacturing of our products and their delivery to customers



The above graph shows the CO<sub>2</sub> emissions for each of our product categories. By determining the CO<sub>2</sub> emissions given off in every step from the extraction of the raw materials to the manufacturing of the product and its delivery to customers, we can clarify initiatives to cut CO<sub>2</sub> emissions for each product category, which in turn leads to boosting the environmental responsiveness of our products.



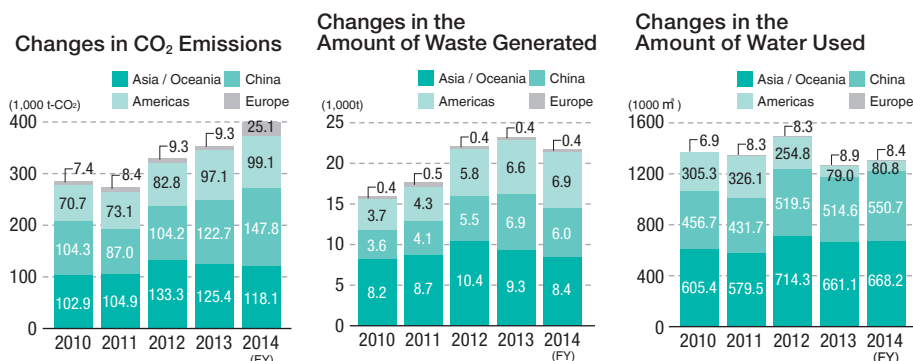
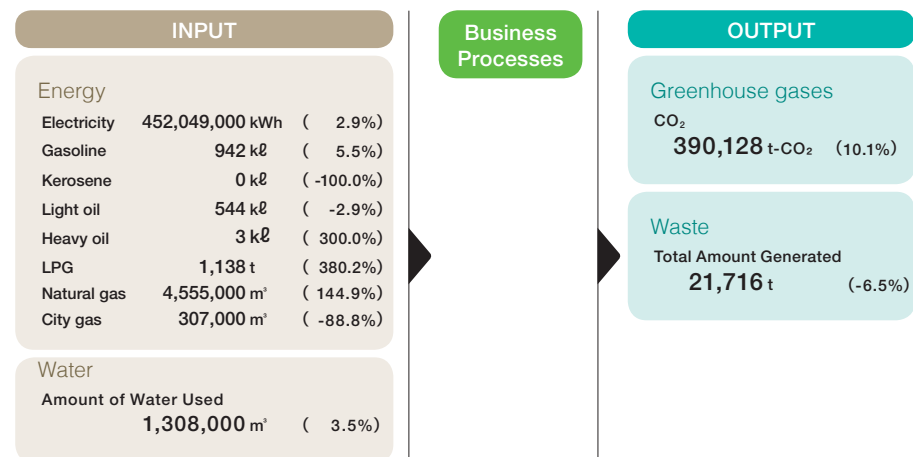


## Initiatives at Our Overseas Production Bases

The environmental impact and contents of activities at our overseas group companies are listed below.

We quantitatively determine these environmental impacts and carry out activities to reduce them.

### Environmental Impact of Our Business Activities in FY 2014 (Data for Our Overseas Group: 15 Companies)



\* The amount of CO<sub>2</sub> was calculated based on "The Estimated Report for the CO<sub>2</sub> Basic Units for Power Sector Emissions in Each Country - Ver. 3," edited by The Japan Electrical Manufacturer's Association (JEMA)

## Initiatives for Conserving Energy

### Improving Efficiency by Installing Cooling Pads

Asian Stanley International in Thailand has built a chiller structure and installed cooling pads\* around it, which lowers the ambient temperature entering the chiller structure. This improves the chiller's cooling effectiveness, resulting in a reduction of 170t-CO<sub>2</sub> per year.

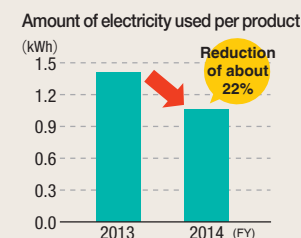
Furthermore, they also installed cooling pads in front of the shutter to the compressor room, which blow cool air at the compressors. This in turn improves the compression efficiency of the compressor, resulting in a reduction of 207t-CO<sub>2</sub> per year.

\* A cooling pad is a device that uses water cooling to chill a pad, and which functions to cool the temperature of the air that passes through it



### Reducing Electricity Use through Energy Conservation Patrols

At Indonesia Stanley Electric, the local staff form teams and conduct monthly energy conservation patrols in working to thoroughly reduce wasted electricity. As a result, in FY 2014 they were able to reduce the amount of electricity used per product by about 22% compared with the previous year.



### Using Power Meters to Promote and Verify the Results of Energy Conservation

The Stanley Group has installed power meters and promotes activities to reduce power consumption by monitoring and analyzing power consumption. Also in FY 2014, the power meters that were installed at Thai Stanley Electric Public were substantially upgraded.

With the new system, at Thai Stanley Electric Public power meters were installed by subdividing its major circuit breaker panels into 47 locations and the lower-level circuit breaker panels under these into 265 locations, with this including a total of seven lamp and mold manufacturing factories, office buildings, and more. This made it possible to determine the amount of power used in a detailed manner.

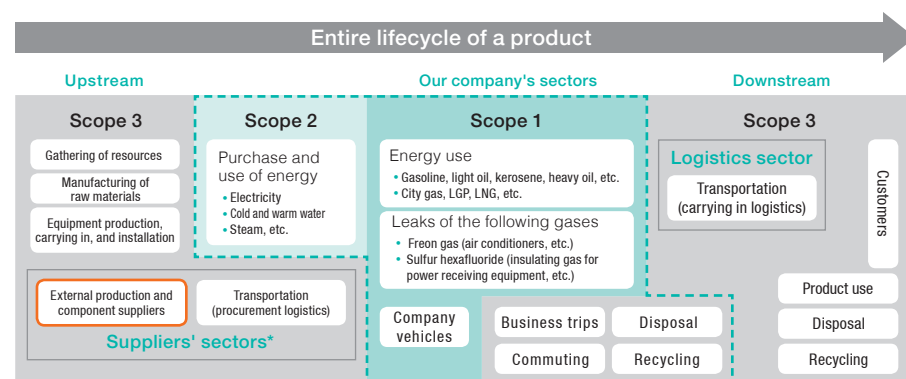
For the future, we will start analyzing the amount of power used as we accelerate our activities to improve energy conservation at each factory.



## Scope 3

To date, the Stanley Group has determined and worked on reduction activities for Scope 1 and Scope 2 emissions of greenhouse gases (GHG) for our company's sectors in an effort to prevent global warming and comply with regulations (see the figure below).

In addition, we have set up a new structure to determine GHG emissions over the entire lifecycle of a product that adds Scope 3 to the Scope 1 and 2 sectors. Getting a grasp of GHG emissions for each sector allows us to clarify those sectors that give off lots of emissions as we continue to institute efficient reduction measures.



\* As a general rule, primary suppliers are subject to this, but in cases where said primary supplier is a trading company or the like, then secondary suppliers are subjects.

We began performing surveys in FY 2010 on the supplier sector (colored orange in the above figure), which is a part of Scope 3, to determine this, and affirmed that this came to 41,078t-CO<sub>2</sub> in FY 2014. For the future, we will promote the sharing of energy conservation case examples and reduction status with our suppliers as we work on reduction efforts in the supplier sector.

As for other initiatives beyond Scope 3, starting from FY 2015 we will determine GHG emissions from group employees' commutes and business trips, as well as the transport and disposal of waste, to get a grasp of our impact in each sector and consider possibilities for reducing said emissions.

## Initiatives for Capital Investments

The Stanley Group is working to prevent global warming by means of optimizing the energy used in conjunction with our business activities.

As one such initiative, the Stanley Group has enacted the Stanley Environmental Index Guidelines for Facilities in order to promote the conservation of energy with our facilities. We are working to reduce our emissions of CO<sub>2</sub> with forethought given to the environment by making capital investments based on these guidelines. Our major capital investments for FY 2014 are as follows.

### Major capital investments

Investment Item	Investment Amount (1 million yen)	Power Consumption Reduction (1,000 kWh)	Reduction of CO <sub>2</sub> emissions (t-CO <sub>2</sub> )
Investment in solar power generator	160	285	100
Upgrading of air conditioning equipment	17	41	14
Upgrading to high efficiency compressors	13	141	49
Improving the efficiency of cooling equipment	8	138	48



## Relations with Communities

As a member of society, the Stanley Group not only contributes to society through its business activities, but also makes efforts that enable us to maintain better relations with local communities. We also work to contribute to society through a variety of different activities, such as volunteer activities by our employees.

## Environmental Communication

### External Communication

#### Introduction of Initiatives at Exhibitions

The Stanley Group holds displays at exhibitions to introduce people to things like our environmentally conscious efforts through our products. We also strive for greater communication with a diverse array of stakeholders through various different activities.



Tokyo Auto Salon



CEATEC JAPAN

### Internal Communication

#### Raising environmental awareness through our internal newsletter

We promote a work culture and human resource development that allows each and every employee of the Stanley Group to remain environmentally aware at all times and proactively engages in environmentally friendly conduct in all sorts of social, community, and corporate settings.

An environmental column is included in every edition of the Stanley Group's internal newsletter, and in FY 2014 we included the theme of biodiversity in an effort to raise environmental awareness.

The "Ecocco Eco Action Report" is a column that provides environmental information in our internal newsletter



## Social Contributions

### Initiatives for Biodiversity

The Stanley Group strives to improve the environment in communities by reducing our environmental impact by optimizing the amounts of energy and raw materials used, as well as by offering environmentally friendly products. These are just a few examples of how we work towards both biodiversity conservation through our business activities and social contribution activities like volunteering.

### Community Environmental Activities

#### Taking part in social activities

#### ● Hosting the Stanley Ladies Golf Tournament

Every year Stanley Electric sponsors the Stanley Ladies Golf Tournament, which is sanctioned by the Ladies Professional Golfers' Association of Japan.

For FY 2014 we carried on in holding this as the Assistance for the Reconstruction from the Great East Japan Earthquake charity program. The prize money of 10.60 million yen, which was based on the scores of the participating golfers, was donated to activities that provide assistance to children orphaned by the earthquake in Iwate, Miyagi, and Fukushima Prefectures. In addition, we also carried out various other environmentally friendly activities, such as setting up eco stations at the venue to sort garbage and donating the equivalent of 16,000 saplings to the Shizuoka Prefecture Forest Union Association.





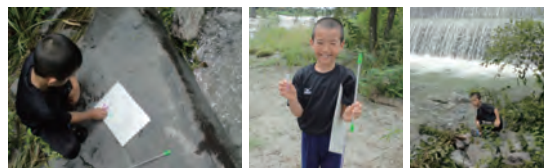
## Social Contributions

### ● Participation in Parent and Child Water Quality Surveys

Since 1996, Stanley Ina Works has taken part in the Recycling System Research Group, which is comprised of local companies. Employees and their families work to conserve the earth's environment through a variety of events, such as environmental picnics and 24-hour water quality surveys.

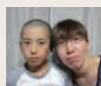
In August 2014 employees took part in the 14<sup>th</sup> Parent and Child Water Quality Surveys, in which water quality tests on chemical oxygen demand (COD) and surveys through the children's five senses were carried out. A survey report meeting was held in October, where efforts were made to boost environmental awareness and conserve biodiversity. This served as an excellent opportunity for everyone to seek out the causes of pollution in a river near and dear to them and give consideration to domestic wastewater in order to restore the river to a clean state.

These various environmental activities are beneficial for boosting the environmental awareness of our employees.



#### Views

**We must take  
good care of  
our water!**

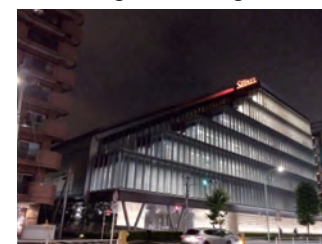


**Junko Ookubo**  
Production Department, Stanley Ina Works

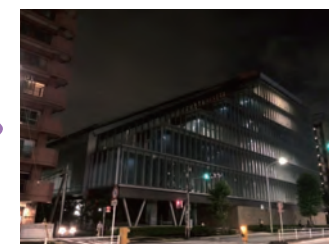
This is the first time I've taken part in a water quality survey, but I learned that you cannot just judge this based on whether the river water is clear or cloudy. The COD survey was a new experience for the children, and they had a good time carrying it out. Water is something we normally use without giving much thought to, but since water is important to our way of life we should use it with care.

### ● Participating in the Light Down Campaign

Our Stanley Group companies in Japan have been participating in the CO<sub>2</sub> Reduction / Light Down Campaign since 2013, which is sponsored by the Ministry of the Environment, across all of our branches. We sympathize with the campaign's aim of turning off lights in order to prevent global warming. Each of our branches provided notification to their employees, who turned off all types of indoor and outdoor lights (including those in offices, externally lit signboards, parking lots, entranceways, etc.) from June 21 to July 7, 2014, thereby contributing to reducing CO<sub>2</sub>.



Lights on



Lights off

## Community and Home Initiatives

Carrying out clean-up activities in different regions with community members

### ● Clean-up Activities

Stanley Group companies have employees and their families carry out cleanup activities together with local residents as a way to contribute to local communities.



Nagoya Branch



Utsunomiya Technical Center



Stanley Ina Works



Stanley Iwaki Works



Stanley Tsuruoka Works