2017 Environmental Report

Outshining Light

STANLEY ELECTRIC CO., LTD.

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 domestic affiliate companies, and 15 major overseas production affiliate companies.

●Applicable Period of the Report

FY 2016 (April 1, 2016 to March 31, 2017)
Some parts of the report include environmental activities from FY 2017.

●Business Changes related to the Environment during the Report Period

[Overseas]
- The dissolution and liquidation of Chongqing Hua-yu Stanley Electric Co., Ltd. is underway
  No data
- Tianjin Stanley Electric Technology Co., Ltd.
  Data added

●Guidelines Consulted

The Environmental Reporting Guidelines 2012

●Month Issued / Next Scheduled Issuance

Month Issued: July 2017
Next Scheduled Issuance: July 2018
(Issued every year since 2002)

For more information, please contact
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Top Message

Aiming for the Sustainable Development of Society and Business

President
Takanori Kitano

In recent years, as summer approaches we have come to hear frequent warnings of heavy rains unlike anything experienced before. By all rights, the expression "unlike anything experienced before" is not a phrase that should be used with such frequency. But nowadays we hear this phrase so much that it has become commonplace. If we continue on like this, we will be compelled to acknowledge that, no matter how you look at it, our current weather conditions are abnormal. It is claimed that global warming provides the backdrop for such weather conditions. As such, we must promptly take a variety of measures, such as curbing emissions of greenhouse gases, in order to prevent global warming, since failing to do so carries with it the risk that such abnormal weather conditions will only worsen.

Given such conditions, the role that companies must play in resolving environment issues is growing larger and larger, and it is crucial that they respond to the various demands and requests of society.

For the Stanley Group, for whom "manufacturing" lies at the core of our corporate activities, we are working on improving efficiency with our energy consumption and creating products designed for the environment as themes that are absolutely crucial.

Specifically, we proactively adopt production facilities and air conditioners that offer excellent energy efficiency, as well as promoting energy savings by adopting systems that monitor the energy consumption at our domestic and overseas plants in real-time. We have also succeeded in switching between high beam and low beam via a single unit that was previously done via 4 lamp system LED units, thereby substantially reducing both the size and weight of our lighting products. These are just some of the many initiatives we are forging ahead with.

Moreover, one area we are placing particular emphasis on as we move ahead with our business activities is thoroughly eliminating waste. In other words, eliminating waste throughout all of our business processes minimizes the raw materials, water, energy, and other resources that go into our business activities and uses them in an economical manner, thereby boosting productivity. Such steadfast initiatives are geared towards continuing to eliminate waste by making us constantly aware of it throughout our day-to-day work. For this reason, we regard such initiatives as the foundation for continuing to balance environmental protection with economic development.

We in the Stanley Group will continue on with our various activities that aim for the sustainable development of society and our company by pooling our wisdom. 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 2017 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

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

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, etc.: Omiya, Sayama, Suzuka, Sendai, Mizushima, Asaka
Factories : Hatano, Okazaki, Hamamatsu, Hiroshima, Yamagata

Overview of the Stanley Group

Consolidated affiliates: 38 companies
Affiliates accounted for by the equity method: 3 companies

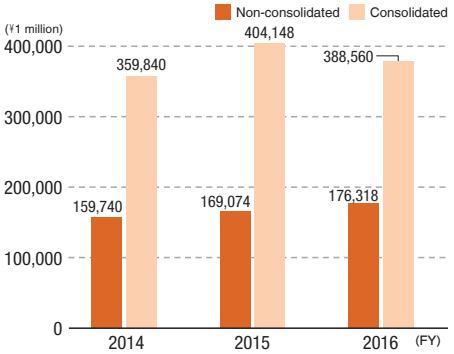
Major Lines of Business

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

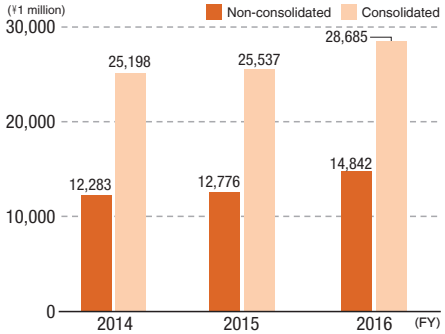
(As of March 31, 2017)

Summary of the Stanley Group

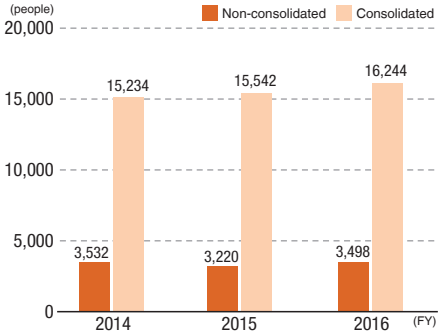
Changes in Sales



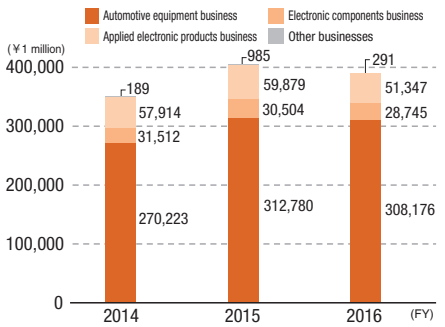
Changes in Net Profit

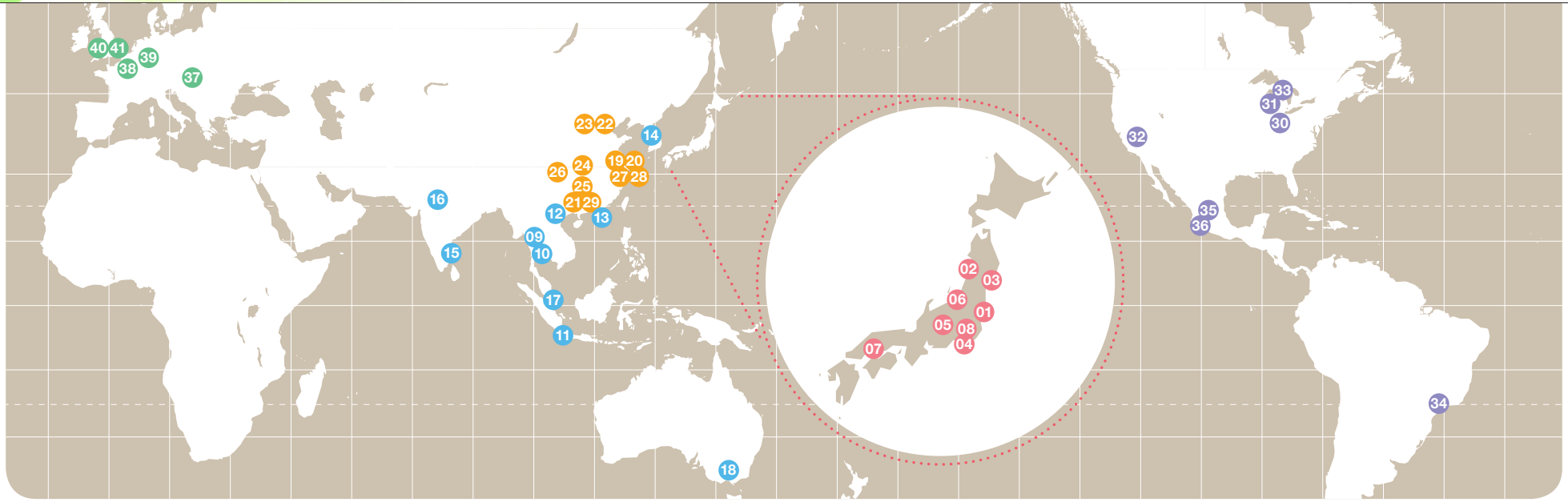


Changes in the Workforce



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 Tianjin Stanley Electric Technology Co., Ltd. (TST)
- 24 Wuhan Stanley Electric Co., Ltd. (WSE)
- 25 Guangzhou Stanley Electric Co., Ltd. (GSE)
- 26 Chongqing Hua-yu Stanley Electric Co., Ltd. (CHS)
- 27 Shanghai Stanley Electric Co., Ltd. (SSE)
- 28 Stanley Electric (China) Investment Co., Ltd. (SECN)
- 29 Stanley Electric Trading (Shenzhen) Co., Ltd. (SST)

Americas

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

Europe

Hungary	37 Stanley Electric Hungary Kft. (SEH)
France	38 STANLEY–IDESS S. A. S. (SID)
Germany	39 Stanley Electric GmbH (SED)
England	40 Stanley Electric (U.K.) Co., Ltd. (SEU)
	41 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

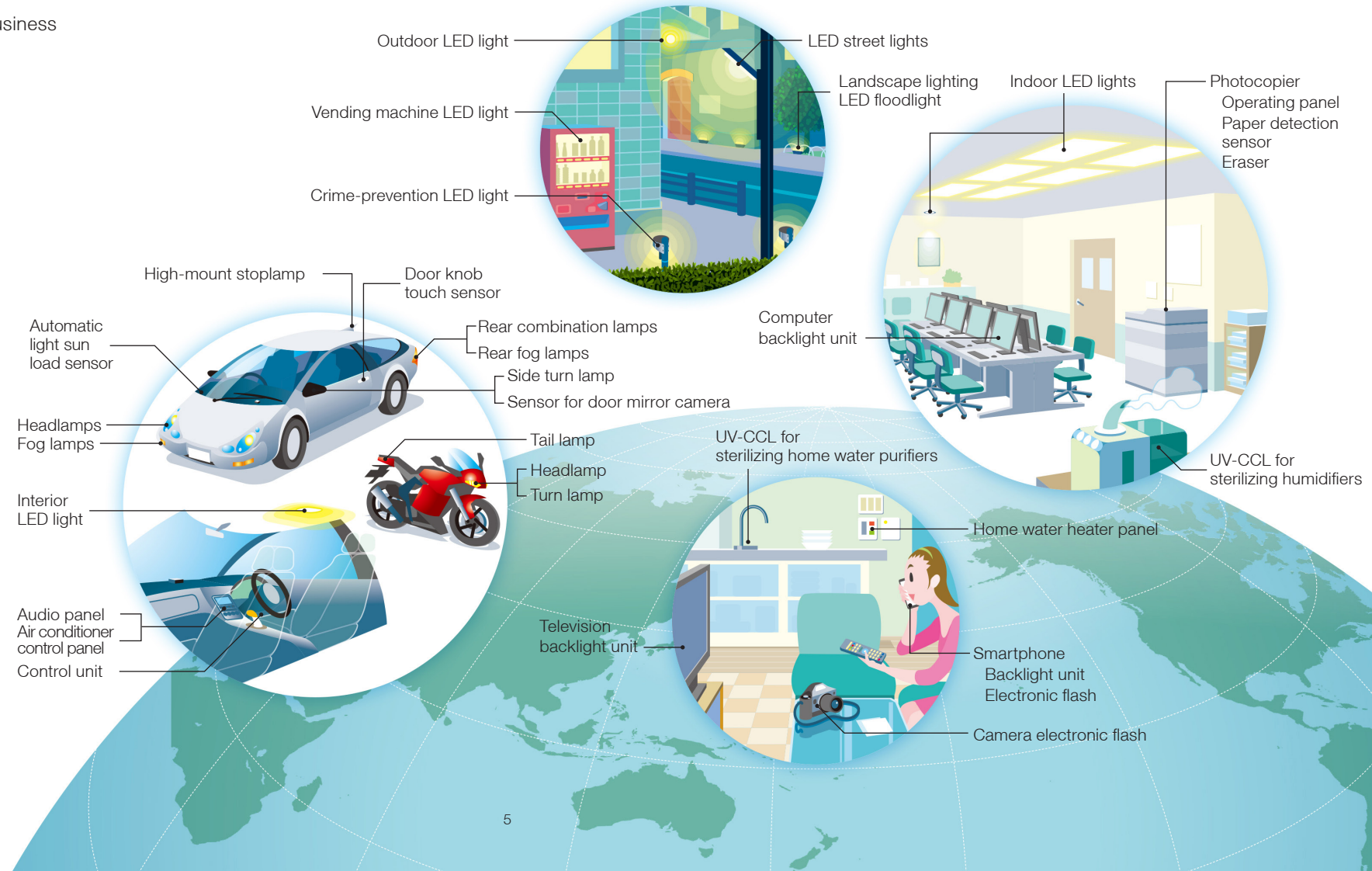
LED Headlamps
HID Headlamps
Halogen Headlamps
Rear Combination Lamps
Motorcycle LED Headlamps
Motorcycle Halogen Headlamps
Motorcycle Taillamps
High-mount Stoplamps
Fog Lamps
LED Bulbs
Automotive Bulbs

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 2016—

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.

Products

Contributing to safety via boosting visibility

Successfully miniaturizing and reducing the weight of headlamps

Many of our products come equipped on the new CX-5 from Mazda Motor Corporation, including its headlamps, rear combination lamps, rear fog lamps, high-mount stop lamps, and more.

For the headlamps, we have developed a new Bi-function LED unit, as a move away from conventional 4 lamp system LED units, in an effort to miniaturize them and reduce their weight. Moreover, increasing the Adaptive Driving Beam (ADB) partitions from four to twelve segments makes it possible to control the light distribution to suit a variety of different situations, which contributes to further improving safety by boosting visibility.

▶ See Page 24 for details

Products

First ever UV bactericidal functionality built into a Chinese water purifier

Supplying safe and secure water via powerful bactericidal capabilities

VIOMI is a Chinese manufacturer of home water purifiers that builds our UV cold-cathode lamps into its products.

This is the first time that UV bactericidal functionality has been built into a Chinese water purifier. Our product is small, yet features a long operating life, low energy consumption, and powerful bactericidal capabilities. It uses the power of light to sterilize the germs found within water that cannot be removed with filters, thereby supplying safe and secure water.

Red boxes:
Our built-in UV cold-cathode lamp

◂ Views

An initiative realized through the combined efforts of Japan and China

Lín Yì (left)
Sales Department, Shanghai Stanley
Takako Kuwabara (right)
Sales Department, Head Office

This is an initiative that was tackled through the combined efforts of our Shanghai staff and the design, production, and planning departments of Stanley Japan. The end product was put to use in sterilizing drinking water, which is a first for Stanley. Moving forward, we will continue to provide safety and peace of mind by using the power of light to sterilize the water that is absolutely essential for human life.

—Highlights of Our Environmental Activities in FY 2016—

Creating Value from Light and Illuminating a Bright Future

Products

A wide range of far-field lighting with minimal electricity consumption

Illuminate Niagara Falls with vivid colors

Our ultra narrow light angle 2.5° LED floodlights equipped with the same optical technology as our headlamps were adopted to light up Niagara Falls, one of the world's foremost tourist attractions. The previous equipment used a 4kW xenon arc bulb. But our LED floodlight with improved luminous efficiency offers electricity consumption reductions of roughly 60%, even when you include that from the peripheral equipment involved with the lighting.

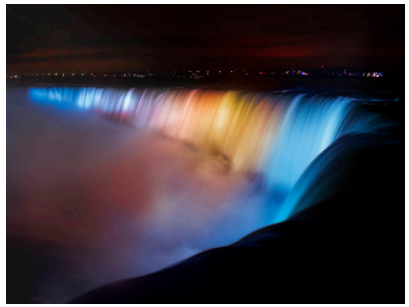
Moreover, the xenon arc bulbs were capable of expressing colors through a combination of four color filters. But our LED floodlights are capable of expressing more than 16.77 million colors through combining and dimming the four colors of red, green, blue, and white, thereby achieving detailed colorations. Our products serve to further accentuate the nighttime charm of Niagara Falls.

Views

We succeeded in brightly and uniformly illuminating falls that are 600m away using Stanley's technology

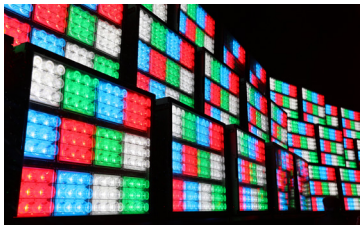
Tony Abe
Stanley Electric Sales of America

Stringent requirements were placed on the Niagara Falls project, in which the lighting equipment was to be renewed for the first time in roughly 20 years. We had to double the brightness, use color mixing to produce a multi-color display, and reduce power consumption by approximately 60% through environmental considerations, among others. But by aggregating together Stanley's technologies, we were able to surmount these challenges. I encourage everyone to enjoy the light display that takes place at night at the world-famous tourist attraction of Niagara Falls.



Canadian Falls

Far: American Falls; Front: Canadian Falls



Installation of 1,400 LED floodlights
A collaborative project with four local Canadian companies*

※Salex Inc., Scenework Consulting Ltd., Ecco Electric Ltd., Mulvey & Banani Lighting Inc.

Products

Smooth operation with the feel of a tablet

Achieving a fully-flat profile with our capacitive sensing touchscreen

Konica Minolta, Inc.'s A3 full-color multifunction copy machines come equipped with control panels from Stanley Electric. The control panel has a comfortable 10.1-inch large, liquid crystal display that is both easy to see and operate, thereby improving work efficiency in office environments. We achieved a stepless, fully-flat profile and gave it multitouch functionality by using a capacitive sensing touchscreen, thereby enabling smooth operation with the feel of a tablet. Despite the large liquid crystal screen, the controls were made slim and compact, thereby substantially reducing the amount of resin used. Making the keypad optional also contributes to further reducing the amount of resin used. Efforts have also been made to effectively use resources and make these environmentally-friendly by using recycled resin for some of the control components.

—Highlights of Our Environmental Activities in FY 2016—

Creating Value from Light and Illuminating a Bright Future

Award

Appraisal for our activities to reduce energy

Vietnam Stanley Electric won the Effective Energy Management Award

In May 2016, Vietnam Stanley Electric Co., Ltd. won the Effective Energy Management Award for its ongoing activities to reduce energy over three years from the Ministry of Industry and Trade of Vietnam. For this award, 16 companies were selected from among 300,000 Vietnamese companies, of which only one was given the award.

Vietnam Stanley Electric switched its hydraulic molding machines over to the latest servomotor-driven molding machines, and switched its mercury and fluorescent lights to LED lights. These and other efforts enabled it to reduce its CO_2 emissions over a three-year period by 4,734t-CO_2, which resulted in reducing their electricity fees by 61 million yen. The company will continue to implement proactive activities to reduce energy in the future.

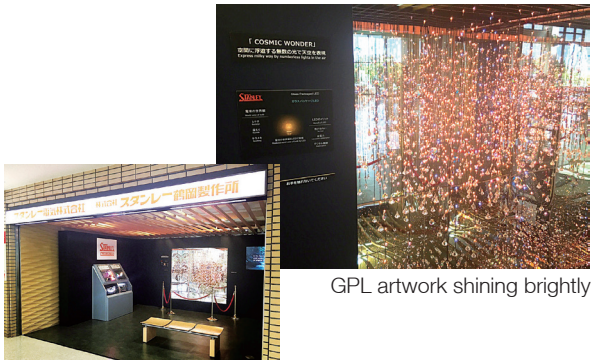
▶ Other environmental awards: See page 17 for details

Initiatives

Introduction to our environmentally-friendly initiatives

Installation of a display corner within Shonai Airport

We set up a standing display that lasted for two months from July 27 – September 30, 2016 consisting of a piece of artwork that used Glass Packaged LED (GPL), LED headlamps, and more at the Shonai Airport, which is located near Stanley Tsuruoka Works. GPL achieves power savings and long operating lives while still recreating a glittering sensation, sense of warmth, and retro feel from incandescent light bulbs that had previously been difficult to reproduce. The display corner was located on the departure lobby floor, where it introduced numerous airport users to Stanley's environmentally friendly initiatives.



GPL artwork shining brightly

Initiatives

Raising awareness of environmental protection

Taking part in the Shenzhen Green City Tree-Planting Campaign

Employees from Shenzhen Stanley Electric Co., Ltd. (China) and their families take part in the Shenzhen Green City Tree-Planting Campaign that has been held every year since FY2007 in Shenzhen City by planting trees.

Every year they plant trees in a nearby region that has now amounted to 340 trees. Company name plates are installed with every single sapling, offering the joy and anticipation of growing together with the trees 10 and 20 years on into the future. Having their families take part in planting trees leads to raising awareness about the conservation of biodiversity and protecting the natural environment among our employees.

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

STANLEY SPIRIT

Outshining Light

We shall blaze our own trail to a brilliant future by daring to "outshine light."

BUSINESS PHILOSOPHY

The boundless pursuit of the Value of Light

We shall contribute broadly to society by exploring the infinite possibilities of light and bringing its value to humankind.

Business innovation by maximizing our potential as a manufacturer

We shall continually reinvent our processes to draw out further value and quality from our business base in manufacturing.

Ensuring the welfare of those who truly support our mission

We shall value those who truly support Stanley and endeavor to ensure their welfare.

THE FIVE WAYS OF CREATING VALUE WITH LIGHT

We shall create new benefits to humankind by dedicating ourselves to the Five Ways of Creating Value with Light.

CREATING	creating light
RECOGNIZING	sensing and recognizing with light
INFORMING	processing information with light
ENERGIZING	harnessing light's energy
EXPRESSING	producing feeling with light

GUIDELINES FOR ACTION

CHALLENGE
Always challenge yourself with the highest standards and set out to reach them.

INNOVATE
Combine boundless creativity and user understanding to create new value.

COLLABORATE
Share and leverage our diverse total know-how to enhance our overall value.

HUMANIZE
Be considerate of society in general and our environment to develop your humanity.

GLOBALIZE
Respect and understand global diversity.

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

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)

Underlying Concepts of Ecological Activities

Under our Basic Environmental Philosophy, the Stanley Group aims for the sustainable development of society and business. In addition, through the implementation of our Environmental Policies, we are working 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.

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.

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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

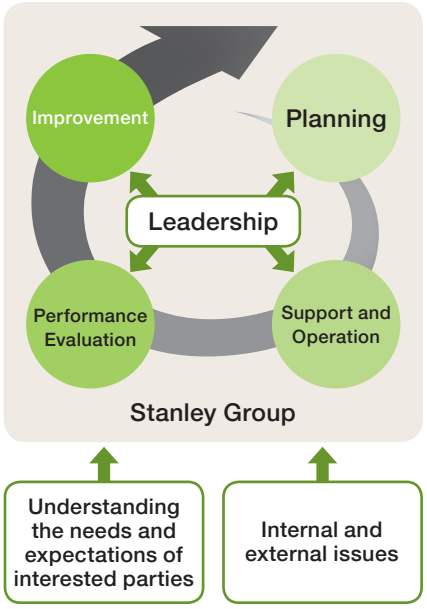
	Phase IV Environmental Mid-Term Management Plan (April 2010 to March 2014)	Phase V Environmental Mid-Term Management Plan (April 2014 to March 2017)	Phase VI Environmental Mid-Term Management Plan (April 2017 to March 2020)
Second Environmental Long-Term Management Plan	Achieve sustainable development 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		
	Domestic: Improve the efficiency of operation through EMS integration	Strengthen the regulated EMS activities	Promote self-sufficient EMS activities at each base
	Overseas: 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		
	Domestic: Reductions of 1% a year or more relative to FY 2009 in basic added value units		
		Overseas: 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 basic units	<Distribution region> Reductions of 1% a year or more relative to FY 2012 in sales basic 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

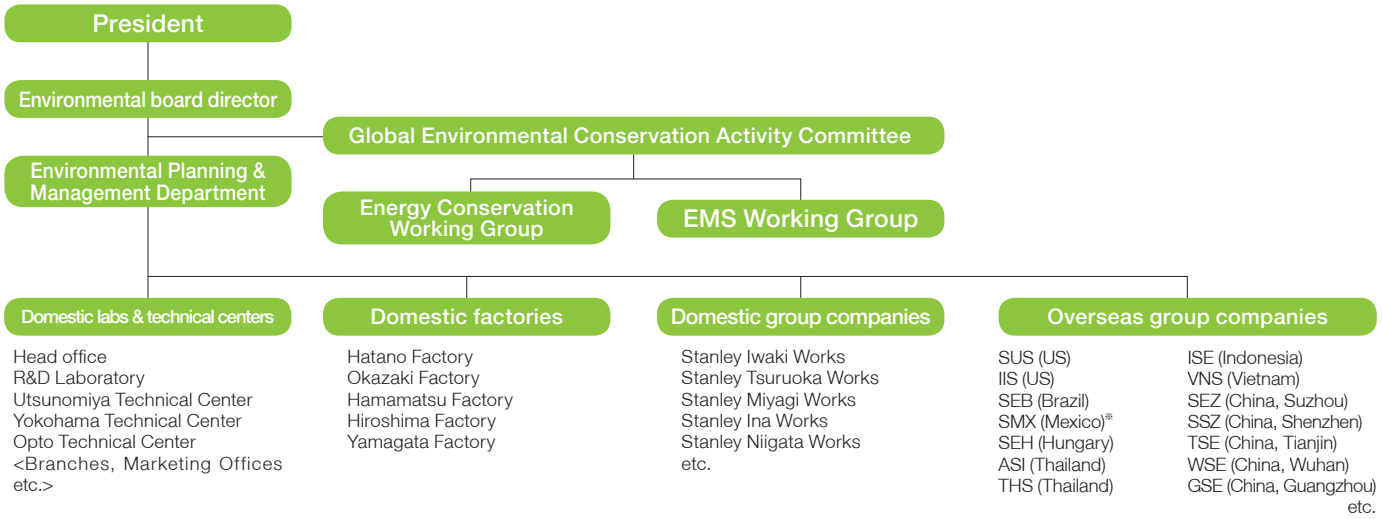
The Stanley Group has erected an Environmental Management System (EMS) based upon ISO 14001 international standards and promotes long-term environmental management plans and addresses environmental activities based on our Environmental Policies across the group as a whole.

In FY 2017 we plan to complete our changeover to the 2015 edition of ISO 14001 at the global level.



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 our domestic and overseas group companies.



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

Global Environmental Conservation Activity Committee	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.
Energy Conservation Working Group	Facilitates energy conservation by drafting and promoting policies related to the Stanley Group's energy management.
EMS Working Group	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.
Environmental Planning & Management Department	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. The Stanley Group conducts 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. Our domestic group companies implement audits by environmental management supervisors at each base on a reciprocal basis to promote the maintenance and improvement of the EMS level at each base.

External Audits

Checking to confirm items that need improvement through regular external audits

Our domestic group companies have received integrated authentication as Stanley Electric Co., Ltd., and include all of our factories and laboratories, our head office, branch offices, and affiliates in Japan. These companies and our overseas group companies undergo external audits regularly once per year, as well as renewal inspections once every three years at each base, through third party certifying agencies.

The results of an external audit from FY 2016 indicated that issues that had previously been pointed out had already been completely corrected, and we have finished deploying these corrections laterally at each base around the globe.

In FY 2017 we plan to complete our changeover to the 2015 edition of ISO 14001 at the global level.

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.

Major Initiatives for FY2016

Offering group education to overseas group companies Standardizing our level of management for the chemical substances contained within our products

As regulations on chemical substances grow stricter at the global level, the Stanley Group is working to improve the efficiency of and enhance our management of chemical substances. In FY 2016 we offered the following education.

For the future, we will continue to offer education in an ongoing manner in aiming to standardize our level of management for chemical substances at the global level.

- **Group education in Japan**

  In September 2016, we held group education at our Hatano Factory based on the Education for product EMS auditors and our Database of substances of environmental concern by gathering together the staff involved in the actual management of chemical substances at our overseas bases. This was designed to unify our management of the chemical substances contained within our products globally.

- **Group education at a base in China**

  China is home to a large number of our bases. As such, in December 2016 we gathered together the staff involved in the actual management of chemical substances at various bases, in Suzhou, where we offered group education via our environmental managers from Japan.

Initiatives through Our Supply Chain

Promoting 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 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

Green Procurement Policies

Holding yearly meetings to explain our purchasing policies

Stanley Electric holds yearly meetings to explain our purchasing policies to our major suppliers based on our green procurement policies, and continues to further strengthen and promote environmental initiatives and green procurement.

As for our activities to reduce greenhouse gas emissions starting in FY 2015, we are making efforts designed to reduce our basic units for CO_2 emission by 1% or more over the entirety of our supply chain.

Continuing on from the previous fiscal year, in FY 2016 we commended two of our suppliers that reduced CO_2 emissions by 1% or more on a basic unit-basis and carried out outstanding initiatives to improve the environment during the target period with our Green Procurement Award. We will continue to enhance reductions over the entirety of our supply chain.

Environmental Risk Management

PRTR Substances

We reduced the amount of chemical substances we used by 20.2% YOY, thus achieving our basic unit target

Pursuant to the PRTR Law, we determine the emissions and transfer of chemical substances which are subject to said law. In FY 2016 our emissions and amount transferred came to 59.9t (decrease of 6.3% YOY) and 17.6t (decrease of 6.9% YOY), respectively.

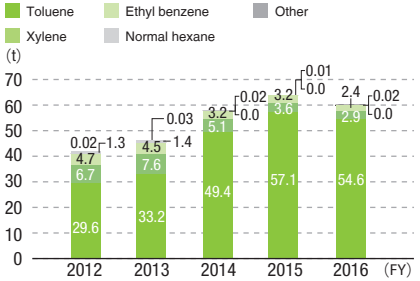
Furthermore, starting in FY 2015, we adopted basic unit management for chemical substances, including substances subject to PRTR.

We worked towards our goal of 1.09t/.1 billion yen or less for basic added value units for FY 2016 (decrease relative to FY 2014), which we achieved by coming in at 0.87t/.1 billion yen (decrease of 20.2% relative to FY 2014).

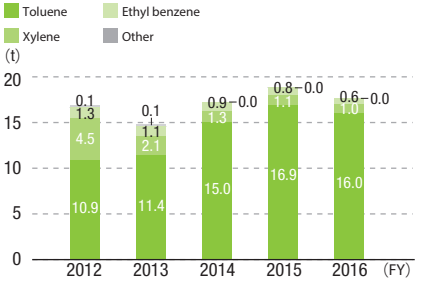
Records of PRTR-designated Class 1 Chemicals (Data from Notifying Factories)

	Objective	FY2012	FY2013	FY2014	FY2015	FY2016
Emissions	Atmospheric emissions	42.4t	46.7t	57.8t	63.9t	59.9t
	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	42.4t	46.7t	57.8t	63.9t	59.9t
Amount transferred	Transfer to sewage	0.0t	0.0t	0.0t	0.0t	0.0t
	Transfer to outside	16.8t	14.8t	17.1t	18.9t	17.6t
	Total amount transferred	16.8t	14.8t	17.1t	18.9t	17.6t

Changes in Emissions by Type of Substance Requiring Notification under PRTR



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



Management of Polychlorinated Biphenyl (PCB)

Finishing the disposal of high-pressure capacitor equipment

PCB storage equipment

Equipment	No. of units
Capacitor	109
Stabilizer	16
Total	125

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

For FY 2016 we finished disposing of 41 high-pressure capacitors from among the equipment in storage. The results of this are shown in the table above. We have already finished registering the treatment of PCB wastes with a waste treatment contractor, and will treat them in sequence.

Soil Contamination Surveys

A survey was carried out at one location

The survey results for FY 2016 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
Former Stanley Niigata Marketing Office	Through a voluntary survey it was confirmed that there is no soil contamination

※The data published on the page is relevant to Stanley's domestic group companies.

Compliance with Laws and Ordinances

We regularly confirm our compliance status

Our domestic group companies perform internal audits at each base based on the Checklist of Environmental Laws and Regulations prepared by our Environmental Management Department to confirm their compliance status. In addition, each of our bases performs reciprocal internal environmental audits on one another in an effort to thoroughly ensure compliance with laws and regulations.

For our overseas group companies, starting in FY 2016, our Environmental Management Department in Japan began using external agencies to get a grasp of legal and regulatory trends in different countries. A checklist is prepared based on this which is then used to regularly confirm their legal and regulatory compliance status in order to strengthen management for said compliance.

In addition, both our domestic and overseas group companies check to confirm whether the results of their legal and regulatory checks are appropriate via external audits in aiming to thoroughly ensure compliance.

Environment-related Awards

Appraisal for our environmental initiatives

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 2016 our day-to-day activities were commended by relevant agencies as described below.

Awards for our Hiroshima Factory

Evaluating the Operation and Maintenance of Our Facilities for Hazardous Materials

In June 2016, our Hiroshima Factory was given an award by the Hiroshima Association for Safety of Hazardous Materials for its contributions to preventing disasters through the care it has shown regarding the operation and maintenance of its facilities for hazardous materials. This was the Hiroshima Factory's second year in a row for such a commendation, after having received an award from the Higashi Hiroshima Association for Safety of Hazardous Materials in 2015. This demonstrates the thorough operation and maintenance of such facilities by the factory.


表彰状

スタンレー電気株式会社
広島工場 様

貴事業所は多年その保有する危険物施設の維持管理に細心の注意を払われ災害の防止に尽力されました
その功績は他の模範であります
よって記念品を贈り表彰します

平成二十八年六月十七日

一般社団法人 広島県危険物安全協会連合会
理事長 宮田典治

Assessments from Society

Nikkei Environmental Management Level Survey

Every year, Nikkei Inc. carries out its Environmental Management Level Survey to assess major Japanese companies on their initiatives to balance their environmental measures with corporate management, and releases the results of this through scores and rankings. There are five evaluation criteria: "environmental management" "promotion structure," "measures against pollution / support for biodiversity," "resource recycling," "product measures," and "measures against global warming." These are rated out of 100 points for each of these, with a perfect score being 500 points in total.

The Stanley Group responds to this survey every year. In the FY 2016 survey we boosted our ranking to 86th place out of 396 companies (improving our rank by 32 places compared with FY 2015). Moving forward, we will continue working to improve the environment by taking the status of the Stanley Group's environmental activities as one indicator for objectively evaluating this through the survey in the future.

Environmental Performance

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

In order to continue to effectively advance our 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 is it important to continue evaluating our environmental performance.

Results of Activities from FY 2016

The Stanley Group's major targets for FY 2016 and their achievement status are listed at right.

We also take opportunities to proactively provide education designed to encourage a raised awareness of the environment among our employees, such as regularly sending out environmental information and providing environmental e-learning.

Starting 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.

Moving forward, we will strive to thoroughly implement various environmental measures across the Stanley Group to achieve our environmental targets.

Item	Target	Results	
Initiatives for environmental regulations	Continue complying with regulations related to business activities	Continue complying with regulations related to the environment	○
Design for Environment	Offer products designed for the environment that will contribute to the Earth's environment (continuously)	100% implementation of designs for the environment checklists Provide training for design-related departments	○
Prevention of global warming	**Domestic** Basic added value units of CO_2: 78.0t-CO_2/.1 billion yen or less (reduction of 7% or more relative to FY 2009)	**Domestic** Basic added value units of CO_2: 73.6t-CO_2/.1 billion yen (reduction of 12.3% relative to FY 2009)	○
	Overseas Basic added value units of CO_2: 328.7t-CO_2/.1 billion yen or less (reduction of 3% or more relative to FY 2013)	**Overseas** Basic added value units of CO_2: 303.1t-CO_2/.1 billion yen (reduction of 10.6% relative to FY 2013)	○
	Domestic Distribution region Sales basic units: 2.24t-CO_2/.1 billion yen or less (reduction of 4% or more relative to FY 2012)	**Domestic** Distribution region Sales basic units: 2.37t-CO_2/.1 billion yen (increase of 1.7% relative to FY 2012)	×
Resource recycling / waste reduction	**Domestic** Basic added value units for the amount of waste generated: 5.51t/.1 billion yen or less (reduction of 4% or more relative to FY 2012)	**Domestic** Basic added value units for the amount of waste generated: 5.05t/.1 billion yen (reduction of 12.0% relative to FY 2012)	○
	Overseas Basic added value units for the amount of waste generated: 20.0t/.1 billion yen or less (reduction of 2% or more relative to FY 2014)	**Overseas** Basic added value units for the amount of waste generated: 17.4t/.1 billion yen (reduction of 14.7% relative to FY 2014)	○
	Domestic Continue with zero emissions (landfill disposal rate of 0.50% or less)	**Domestic** Continue with zero emissions (landfill disposal rate of 0.14%)	○
	Domestic Basic added value units for the amount of water used: 650m^3/.1 billion yen or less (decrease relative to FY 2014)	**Domestic** Basic added value units for the amount of water used: 470m^3/.1 billion yen or less (decrease of 28.2% relative to FY 2014)	○
	Overseas Basic added value units for the amount of water used: 1,220m^3/.1 billion yen or less (decrease relative to FY 2014)	**Overseas** Basic added value units for the amount of water used: 1,070m^3/.1 billion yen or less (reduction of 12.2% relative to FY 2014)	○
Prevention of pollution / product environment	Continue with zero environmental defects	We verify the content of substances of environmental concern through x-ray fluorescence inspections and other means to continue with zero environmental accidents	○
	Domestic Basic added value units for the amount of chemical substances used: 1.09t/.1 billion yen or less (decrease relative to FY 2014)	**Domestic** Basic added value units for the amount of chemical substances used: 0.87t/.1 billion yen (reduction of 20.2% relative to FY 2014)	○
Initiatives for biodiversity	Contribute to regional ecosystem protection activities	Institute social contribution activities and volunteer activities	○

○ : **Achieved** × : **Unachieved**

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_2 gas, NOx, and SOx 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 2016 is listed on the right. We quantitatively determine the environmental impacts from these and carry out environmental conservation 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 2016

The figures in parentheses are the percentage change YOY

INPUT

Domestic group companies

Raw Materials	Resin materials	25,868t	(6.1%)
	Coating materials	319t	(-2.7%)
	Glass	126t	(-19.7%)
Energy	Electricity	145,729,000kWh	(1.5%)
	Kerosene	137kℓ	(22.3%)
	Light oil	5kℓ	(-16.7%)
	Heavy oil	625kℓ	(4.0%)
	LPG	352t	(45.5%)
	City gas	408,000Nm²	(16.9%)
Water	Water supply	90,000m²	(0.0%)
	Groundwater	214,000m²	(9.2%)
	Other cistern water	49,000m²	(2.1%)
Chemical Substances	* Targets chemicals subject to notification under the PRTR Law		
	Amount handled	185t	(-8.0%)
Vehicle fuel	Gasoline	320kℓ	(-3.3%)

Overseas group companies

Energy	Electricity	501,855,000kWh	(4.8%)
	Kerosene	0kℓ	(-100.0%)
	Light oil	565kℓ	(3.3%)
	Heavy oil	0kℓ	(-100.0%)
	LPG	519t	(-6.8%)
	Natural gas	4,808,000Nm²	(-4.5%)
	City gas	7,000Nm²	(-66.7%)
Water	Amount of water used	1,398,000m²	(4.0%)
Vehicle fuel	Gasoline	769kℓ	(6.7%)

Business Processes

R&D and design → Procurement → Manufacturing → Cleaning / Collection and recycling / Sales

OUTPUT

Greenhouse gases	CO_2	55,705t-CO_2	(2.4%)
Impact on the atmospheric environment	NOx	5.1t	(-15.0%)
	SOx	19.9t	(-49.1%)
Impact on water environments	BOD	4.4t	(-85.1%)
	COD	1.0t	(42.9%)
Waste	* The total amount generated is the total amount of waste and valuable materials		
	Total amount generated	4,065t	(0.3%)
	Amount recycled	3,949t	(-0.0%)
	Amount of landfill	6t	(20.0%)
Chemical Substances	* Targets chemicals subject to notification under the PRTR Law		
	Amount emitted	59.9t	(-6.3%)
	Amount transferred	17.6t	(-6.9%)

Overseas group companies

Greenhouse gases	CO_2	396,026t-CO_2	(5.4%)
Waste	* The total amount generated is the total amount of waste and valuable materials		
	Total amount generated	22,775t	(-3.6%)

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_2

Both our domestic and overseas group companies achieved their basic unit targets in FY 2016

In FY 2016 net emissions of CO_2 by our domestic group companies increased by 1,287t-CO_2 compared to the previous fiscal year to come in at 55,705t-CO_2 (increase of 2.4% YOY). In terms of basic added value units, these companies made efforts to achieve our target of 78.0t-CO_2/.1 billion yen or less (reduction of 7% or more relative to FY 2009), which they achieved when this came in at 73.6t-CO_2/.1 billion yen (decrease of 12.3% relative to FY 2009).

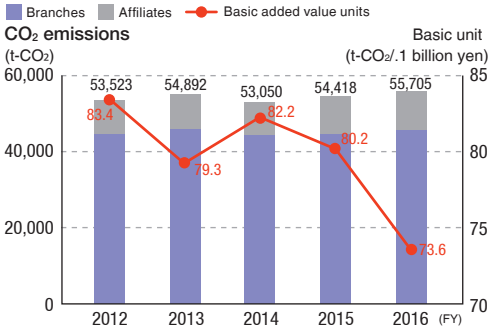
Net emissions of CO_2 by our overseas group companies increased by 20,397t-CO_2 compared to the previous fiscal year to come in at 396,026t-CO_2 (increase of 5.4% YOY). These companies made efforts to achieve our basic unit target of 328.7t-CO_2/.1 billion yen or less (reduction of 3% or more relative to FY 2013), which they achieved when this came in at 303.1t-CO_2/.1 billion yen (decrease of 10.6% relative to FY 2013).

Thus, in FY 2016 both our domestic and overseas group companies achieved their basic unit targets.

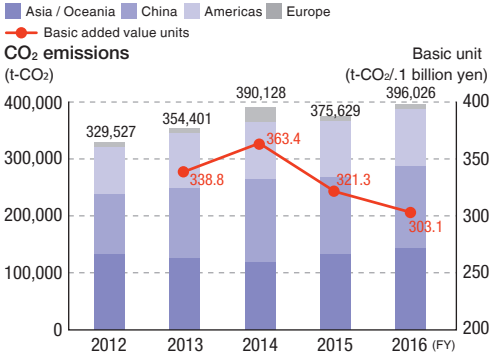
Domestic
The CO_2 emission basic unit for the usage side announced by the Federation of Electric Power Companies of Japan was applied for the calculations of the amount of CO_2 pertaining to electricity.
Overseas
The amount of CO_2 was calculated based on the Survey Report on Estimating Basic Units for CO_2 Emissions from the Power Sectors of Each Country – Ver.3 compiled by the Japan Electrical Manufacturers' Association

Changes in CO_2 Emissions and Basic Units

(Domestic)

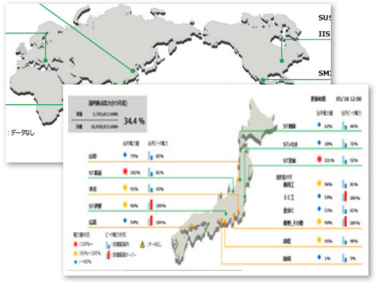


(Overseas)



Promoting energy conservation through the use of an integrated power monitoring system

The Stanley Group has adopted an integrated power monitoring system as a tool for our energy reduction activities. The system aggregates data on the amount of power used by 27 of our major production factories, including domestic and overseas group companies, and performs intensive monitoring of this in real-time. The main feature of this system is that it makes it possible to get a grasp of the current power consumption status at our domestic and overseas factories at a glance. It displays yellow and red signals that serve as monthly estimates to indicate whether the current status is on track or off-pace to hit the targets that have been established. Initiatives are taken for those bases where red warnings are displayed, such as checking on the status of energy-saving measures, considering additional measures, and enhancing patrols on non- working days. As such, this is used as a tool for taking action before the final results come in. Moreover, since this makes it possible to compare the actual results with those of other factories, it promotes exchanges of information on and the lateral deployment of measures that achieve results. Proactively promoting energy-saving measures through the use of this tool allowed both our domestic and overseas companies to achieve their targets for FY 2016.



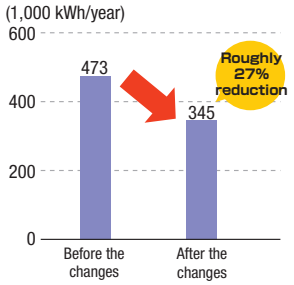
Initiatives for the Prevention of Global Warming

Initiatives geared towards moderating our energy use

Contributing to the prevention of global warming by optimizing energy use

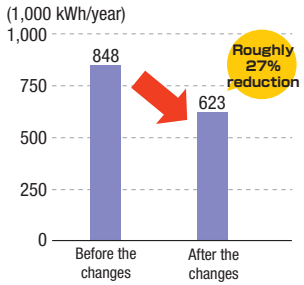
● Introducing inverter-controlled chillers

For upgrading the air conditioners for the clean room at our Research & Development Laboratory, we introduced inverter-controlled chillers that are highly effective at conserving energy. Controlling these via inverters improves their operating efficiency, while reorganizing the chillers added additional ventilating functionality. This made it possible to maintain the same degree of cleanliness at minimal power, even on non-working days and operating downtimes. This allowed us to cut energy consumption by 128,000 kWh per year.



● Improving the use of air handling units for air conditioning

Our Hamamatsu Factory has worked to cut its power consumption by focusing on the fact that non-working days accounted for a large share of its power consumption. As a result of analyzing data from the power monitoring system, they realized that the air handling units (AHU) for air conditioning in the production areas were operating constantly because they were storing parts that required strictly controlled conditions there. A single AHU was being used to control ten machines, so they reorganized this so that each machine could now be controlled by an AHU. This allowed for detailed control of the operating times, which made it possible to stop AHUs that were not needed and cut power consumption by 225,000 kWh a year.

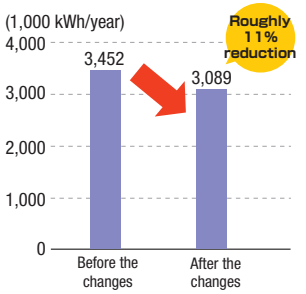


● Installing control units on the air conditioning chillers

Asian Stanley International in Thailand monitors the pressure and temperature of its water supply and drainage and controls the load placed on its chillers to ensure they operate under optimal conditions. As such, it installed sequential controllers on its air conditioning chillers. This made it possible to operate them in a manner that conserved energy, thereby reducing their power consumption by 736,000 kWh a year.

● Installing inverter-controlled compressors and multi-unit control panels

When Guangzhou Stanley Electric in China upgraded its compressors, the company installed inverter-controlled compressors and multi-unit control panels. This made it possible to accommodate fluctuations in the air load and enabled efficient operation via the minimum number of units necessary, thereby reducing power consumption by 363,000 kWh a year.



Initiatives for Resource Recycling (Waste)

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.

Status for Reducing the Total Waste Generated

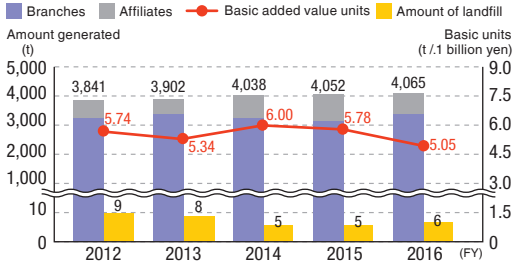
Both our domestic and overseas group companies achieved their basic unit targets in FY 2016

The amount of waste generated by our domestic group companies in FY 2016 increased by 13t compared to the previous fiscal year to 4,065t (increase of 0.3% YOY). In terms of basic added value units, they worked towards our goal of 5.51t/.1 billion yen or less (reduction of 4% or more relative to FY 2012) and reached it when this came to 5.05t/.1 billion yen (decrease of 12% relative to FY 2012). What is more, their amount of landfill came to 6t, giving them a 0.14% landfill disposal rate and enabling them to continue to achieve zero emissions.*

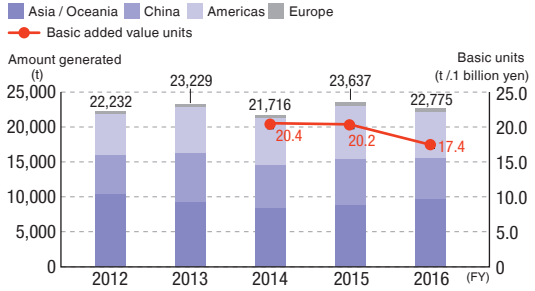
The amount of waste generated by our overseas group companies decreased by 862t compared to the previous fiscal year to 22,775t-CO_2 (decrease of 3.6% YOY). They worked towards our goal for basic units of 20t/.1 billion yen or less (reduction of 2% or more relative to FY 2014) and reached it when this came to 17.4t/.1 billion yen (decrease of 14.7% relative to FY 2014).

Thus, in FY 2016 both our domestic and overseas group companies achieved their basic unit targets.

Changes in the Amount of Total Waste Generated and Basic Units (Domestic)



(Overseas)



* The value for our amount of landfill versus the amount of waste generated is less than 0.5% in terms of its ratio by weight

● Initiatives to Decrease Waste

Reducing mounts by producing the identifying tape we affix to our products in-house

Our Hiroshima Factory affixes identifying tape to products in order to differentiate them by their specifications. The factory used to purchase this as an outside product, with the identifying tape attached to a long strip of mount. But after the tape was affixed to the product, the mount just generated waste. By changing over to identifying tape that is rolled up, producing it in-house, and doing away with the mount, the factory was able to reduce its waste by 471kg a year. Similar processes exist at other factories as well, so we will promote further reductions of waste by deploying this laterally out to them.

The Stanley Group also carries out reduction activities by participating in community environmental activities.

Stanley Miyagi Works received a thank-you letter for its participation in the Nichiban Makishin ECO Project. This is a project that collects the cores around which the adhesive tape we use in-house is wound, and then reuses these as resources. It served to reduce waste from the replacement cores, while also leading to restoring cardboard and planting mangrove trees.

Initiatives for Resource Recycling (Water)

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.

Reduction status of water usage

Both our domestic and overseas group companies achieved their basic unit targets in FY 2016

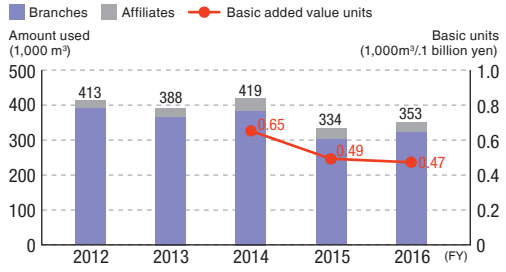
Water usage by our domestic group companies in FY 2016 came to 353,000m³, an increase of 19,000m³ compared to the previous fiscal year (increase of 5.7% YOY). In terms of basic added value units, they worked towards our target of 650m³/.1 billion yen or less (decrease relative to FY 2014) which they achieved by coming in at 470m³/.1 billion yen (decrease of 28.2% relative to FY 2014).

Water usage by our overseas group companies came to 1.398 million m³, an increase of 54,000m³ compared to the previous fiscal year (increase of 4.0% YOY). They worked towards our basic unit target of 1,220m³/.1 billion yen or less (decrease relative to FY 2014) which they achieved by coming in at 1,070m³/.1 billion yen (decrease of 12.2% relative to FY 2014).

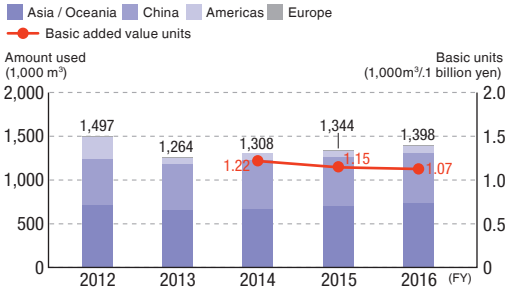
Thus, in FY 2016 both our domestic and overseas group companies achieved their basic unit targets. For the future, we will continue working to effectively use our precious water resources.

Changes in water usage and basic units

(Domestic)



(Overseas)



● Initiatives to reduce our water usage

Reducing the amount of makeup water through thorough water quality management

Water quality management for the cooling tower for our air conditioning chillers is crucial in order to prevent damage to the cooling towers themselves and their pipes from the formation and adhesion of scale, as well as to prevent Legionella bacteria and other bacteria from propagating. Our Hatano Factory was able to reduce its amount of makeup water by partnering with specialized service providers to engage in thorough water quality management and revise its management of its concentrations of water treatment agents. This allowed it to reduce its water usage by roughly 115m³ per unit per year, thus achieving reductions in its water usage of roughly 460m³ a year in total for all four units.

Reusing the water used to wash products as coolant water

Shenzhen Stanley Electric in China had been discharging the pure water it used to clean its products into the drainage system. But now it collects this pure water in a tank after it is used and connects it to its cooling towers. In addition, it has installed sensors that detect changes and control panels on its cooling towers and supplies water automatically, thereby making it possible to reuse this as coolant water. By installing this system on all of its cooling towers, it has been able to reduce its water usage by 18m³ per day.

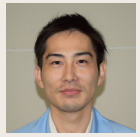
Design for Environment

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.

Achieving Miniaturization and Weight Reductions through the Development of Bi-function LED Units

Improving both the design freedom of headlamps and vehicle fuel economy performance

Adopting LEDs as the light source for headlamps has allowed us to achieve substantial power savings. With conventional LED headlamps, switching between high and low beams required a special module, which resulted in a 4 lamp system LED unit. But with our newly developed Bi-function LED unit, it is possible to switch between high and low beams with a single unit. This device comes equipped on the Mazda CX-5. This allowed us to substantially miniaturize the LED light source relative to conventional ones. We also replaced die-cast aluminum with resin as the material for the bracket and shrank down the size of the light circuit in an effort to further reduce its weight. Regarding the signature lighting, we were able to successfully reduce the number of LEDs and achieve energy savings while still improving the feel of lighting. This also contributed to improving styling freedom for the headlamp and the vehicle fuel economy performance.



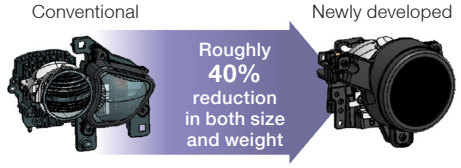
Keita Ushigusa
Design Department, Hiroshima Factory

Views

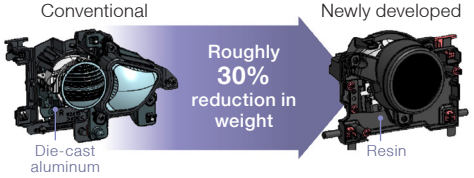
With the evolution to a 12-segment ADB, we devoted ourselves to improving visibility and achieving a visual quality with our signature lighting

We carried out development with the view of equipping vehicles with Stanley's first ever 12-segment ADB. We devoted ourselves to achieving a visual quality for the signature lighting more than ever before, for which we earned rave reviews. We were aiming to achieve both power-savings and size reductions, while also making it easy to assemble. Its structure was devised by integrating production, marketing, and technical know-how. We will continue to work towards design for the environment in the future.

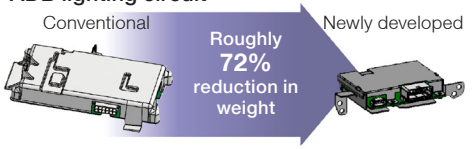
Switch from 4 lamp system LED units to the Bi-function LED unit



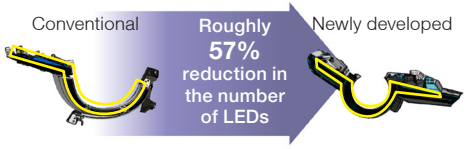
Change in bracket material

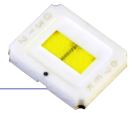


ADB lighting circuit



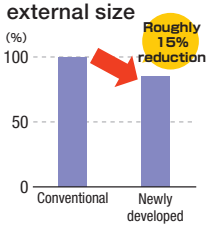
Number of LEDs





Successfully reducing resources through integrated installation

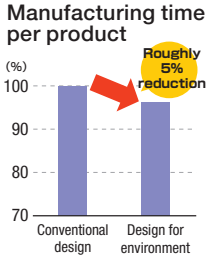
Responding to market demand for small size and high output



In response to the market demands placed on LED light sources for small size and high output, we were able to install LED elements within a single package in an integrated manner without any significant loss in efficiency. We also worked to miniaturize the installation size and reduce the area of the installed circuit board, thereby reducing their size by roughly 15% relative to the area of the product's external size. Adopting a structure where the points of light are arranged next to one another produces a light source that can contribute to reducing the size of the system in combination with the external lenses and other parts.

Conserving energy and improving recyclability by overhauling the structure

Reducing the number of screws used and shortening manufacturing times



When it comes to headlamps, improving product performance leads to increasing the number of parts as well as the number of screws used to assemble them. Therefore, through design for the environment, we overhauled the assembled structure to use thermal coupling and coupling to fasten multiple parts together, thereby reducing the number of screws used. This reduced CO_2 emissions by shortening the manufacturing time per product, while also leading to improvements in recycling by boosting the efficiency of segregating parts.

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.

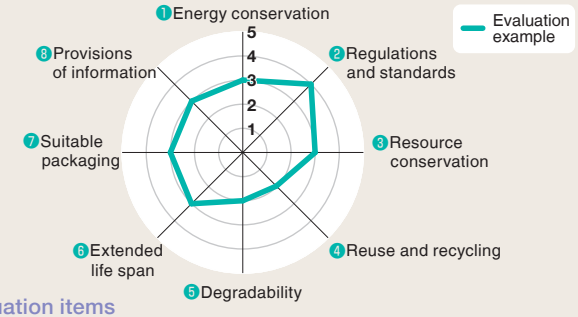
Our approach to evaluating these is to use an eight-item checklist that includes: ❶ energy conservation, ❷ regulations and standards, ❸ resource conservation, ❹ reuse and recycling, ❺ degradability, ❻ extended life span, ❼ suitable packaging, and ❽ provisions of information. Our designers personally quantify and evaluate these in an effort to improve our environmental friendliness.

What is more, our checklists allow us to determine the CO_2 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.



*** Supplement to the evaluation items**

❷ Regulations and standards: We must meet standards like the REACH Regulations and RoHS Directive. But over and above these, we are aiming to meet our own, even stricter, voluntary standards.

❽ Provision of information: We disclose environmental items that warrant attention as stipulated by law. On top of this, we aim to disclose information based on the guidelines of industry associations and the like.

Major Initiatives in FY 2016

Using the Design for Environment Checklists allows us to evaluate all of our products by the same indicators to determine their strengths and weaknesses. Our domestic group companies have worked to improve their environmental friendliness with respect to the following items.

❶ Energy conservation: Further progress was made in switching to LEDs in our car light products and their power consumption was reduced, thereby reducing the energy consumed at the usage stage.

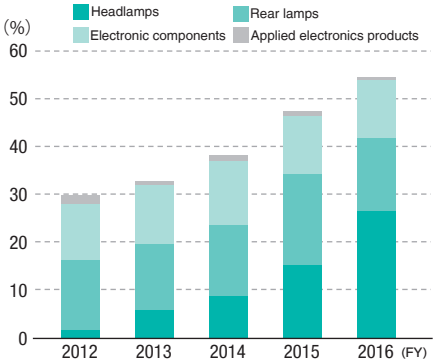
❸ Resource conservation: Progress was made in reducing the materials used by combining together different functions, such as for car light products.

❹ Reuse and recycling: Progress was made in giving consideration to using recycled materials for parts that do not have an impact on quality, and in actually adopting these.

For our overseas group companies as well, in FY 2016 we completed the education provided to our overseas design departments and started having the designers themselves perform evaluations using the checklists. This was done in order to promote the creation of products that are designed for the environment.

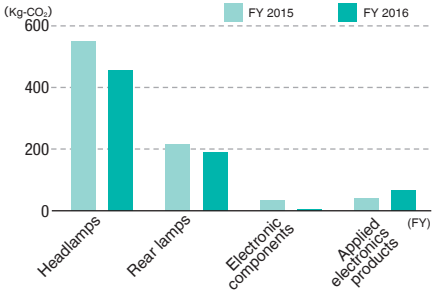
Moving forward, we will continue to advance design for the environment by making greater use of this checklist at the global level.

Changes in the proportion of products designed for the environment



The percentage of our sales accounted for by products designed for the environment over the past five years is shown in the above graph. For FY 2016, headlamps using LEDs continued to increase, due to which the sales ratio of our products designed for the environment grew, and such products came to account for more than 50% of our products.

CO_2 emissions up through the manufacturing of our products and their delivery to customers



The above graph shows the CO_2 emissions for each of our product categories given off in every step from the extraction of the raw materials to the manufacturing of the product and its delivery to customers. Determining the CO_2 emissions for each product leads to boosting the environmental responsiveness of our products.

Comparing the CO_2 emissions for each and every one of our products in FY 2016 with those from the previous fiscal year reveals that these decreased for products other than applied electronics products.

We will continue with our initiatives to enhance design for environment, improve our production processes, and reduce transportation energy, through which we aim to cut CO_2 emissions across the entire life cycle of our products.

Scope 3

To date, the Stanley Group has determined and worked on reduction activities for Scope 1 and Scope 2, which represent emissions of greenhouse gases (GHG) for our company's section, from before, as well as "9. Transportation and delivery (downstream)," which is one of the items under Scope 3. This is done in an effort to prevent global warming and comply with regulations.

Since FY 2010, we have made efforts to determine "1. Purchased products and services," which is a supplier section under Scope 3. What is more, since FY 2015 we have been working to get a grasp of "6. Business trips" for employees and "7. Employee commuting," and since FY 2016 we have worked to determine the extent of our activities regarding "5. Waste from business activities," thereby increasing the number of survey categories as described below.

Moving forward, we will improve the accuracy of our calculations for each category to further promote reduction activities as we work to reduce our environmental impact across our supply chain as a whole.

Scope category			Emissions ($t\text{-}CO_2$)		Subject to calculations
			FY 2015	FY 2016	
Scope 1			4,145	4,700	Direct emissions from the use of fuel internally
Scope 2			50,273	51,005	Indirect emissions from the use of electricity we purchased
Scope 3	1	Purchased products and services	37,034	38,567	Emissions from activities leading up to the use of raw materials, the materials used in parts, and so forth in manufacturing
	5	Waste from business activities	-	2,575	Emissions resulting from the transport and disposal of the waste we generate
	6	Business trips	2,133	1,877	Emissions from employee business trips
	7	Employee commuting	4,778	4,655	Emissions from travel when employees commute to and from their branch
	9	Delivery and transportation (downstream)	4,017	4,177	Emission from the transport and storage of products
Total for Scopes 1, 2, and 3			**102,380**	**107,556**	

Capital Investments for Environmental Conservation Activities and Results

The Stanley Group determines the costs required for environmental conservation activities and the results obtained from these in order to promote environmental conservation activities efficiently and effectively. The values for FY 2016 are listed below.

By means of determining our environmental conservation results, we will continue to strive to carry out business activities that are environmentally friendly on into the future.

Major capital investments

Investment Item	Investment Amount (million yen)		Power Consumption Reduction (1,000 kWh)		Reduction of CO_2 emissions ($t\text{-}CO_2$)	
	Domestic	Overseas	Domestic	Overseas	Domestic	Overseas
Upgrading of production equipment	677	192	383	317	134	193
Upgrading of air conditioning equipment	67	300	467	500	163	334
Upgrading of light fixtures (switch to LEDs)	63	663	428	3,314	150	1,574
Upgrading of compressors	62	-	940	-	329	-

Environmental conservation results

Item	Details	Results ($t\text{-}CO_2$)	
		Domestic	Overseas
Energy conservation	Energy conservation measures such as capital investments and operational improvements	4,152	21,488

Economic results from environmental conservation measures

Item	Details	Results (million yen)	
		Domestic	Overseas
Energy conservation	Cost savings from energy conservation measures	190	332
Resource conservation	Gains from the sale of waste that has been turned into valuables	85	-

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 through Exhibitions


The Stanley Group introduces people to things like our environmentally conscious efforts through our products via displays at exhibitions and venues for a diverse array of activities. We also lent our support and held an exhibition at Soene Akari Park 2016, which was held in Ueno Park for five days starting from November 2, 2016. Through things like introducing examples of our activities for energy conservation as well as light-up artworks that use our LED headlamps, we were able to deepen people's understanding of our environmental activities.

Internal Communication

Raising environmental awareness by sending out environmental information each month

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.

Starting from August 2016, we began newly issuing a publication called Green Information in an effort to raise environmental awareness. This is designed to provide our employees with an understanding of environmental protection activities and to serve as a reference for their day-to-day environmental activities.

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.

● Keeping in check increases in the indoor temperature via a green curtain

Every year our Stanley Ina Works creates a green curtain cultivated from the seeds of Japanese morning glory and other such climbing plants. The green curtain is an effective tool for conserving energy, because it blocks sunlight from entering through windows and keeps in check increases in the indoor temperature. The employees can also catch sight of seedlings they raised themselves growing quickly, blooming beautiful flowers early in the morning, and cooling the area down right in their vicinity. As a result, it provides the employees with both the joy and the soothing effects of nurturing plants.

Starting in 2011, Stanley Ina Works began donating saplings raised by its employees each year to three nearby nursery schools and foster homes. Through this, it hopes to contribute to the community and give rise to a raised awareness regarding the protection of biodiversity starting from childhood.



Relations with Communities

Community Environmental Activities

Taking part in social activities

Hosting Charity Events to Support Reconstruction from the Great East Japan Earthquake

● 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 2016 we carried on in holding this as the Assistance for the Reconstruction from the Great East Japan Earthquake charity program. The prize money of 8.69 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 sorting garbage at the venue and donating the equivalent of 8,670 saplings to the Shizuoka Prefecture Forest Union Association.

◂ Views

Annual donations to the Shizuoka Prefecture Forest Union Association

Tetsuhiko Mochizuki
Representative Director
Shizuoka Prefecture Forest Union Association

Through its annual golf tournament, Stanley Electric donates an amount equal to the cost of about 10,000 saplings.

Forest work is insular and closed-off in Japan, and recently we have largely failed to cultivate many successors to carry on with this work. As such, we have taken the liberty of using some of the donated funds to enhance our educational activities for forestry workers. Recently, we have also put it to use for exchanges of information and training by deepening our cooperative ties with Shinshu University and Nagano Prefecture, as well as Austria, which is a pioneer when it comes to forestry work. The issues dealt with here include the use of biomass, training human resources engaged in the forestry industry, and the protection and use of forest resources.

Community and Home Initiatives

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

● Clean-up Activities


Okazaki Factory


Hamamatsu Factory


Hiroshima Factory


Shenzhen Stanley Electric (China)


Stanley Iwaki Works


Stanley Miyagi Works


Tianjin Stanley Electric (China)

◂ Views

Employees take part in removing illegally dumped waste

Yuzuru Uchida
Administrative Department, Hatano Factory

Every year, employees from the Hatano Factory take part in removing illegally dumped waste as part of the Campaign to Prevent Illegal Dumping in the Hadano District sponsored by the Hadano District Committee on Countermeasures against Industrial Waste. Waste is removed about four times a year with the objective of raising awareness about illegal dumping among residents, with such initiatives spearheaded by the municipality, local companies, and others. In FY 2016, a total of 52 people collected 400kg of trash. For the future, we will continue to play an active role in environmental activities rooted in the local community.