

Hitachi Appliances Environmental Report 2011





Our goal is to earn and maintain
by using our proven technology

The management and employees of Hitachi Appliances offer sincere condolences to those affected by the Great East Japan Earthquake of March 11 and prayers for the repose of those who tragically perished in the disaster.

Hitachi Appliances incurred damage in the disaster to plant buildings and production facilities at the Taga Works in Ibaraki Prefecture, the main home appliances plant. Because we were determined to discharge our social responsibility by supplying products that could contribute to the restoration and reconstruction of Japan, we resumed production on March 22 following an all-out restoration effort.

Hitachi Appliances, a member of the Hitachi Group, supports social and living infrastructure. True to our name, for many years we have supplied air conditioning and home appliances that enrich people's lives and society. In October 2010, we added the lighting business to our portfolio.

The accident at TEPCO's Fukushima Daiichi Nuclear Power Station caused by the earthquake and tsunami has affected energy policy not only in Japan, but in

countries around the world. Discussions of matters such as the stable supply of energy and economic efficiency, reduction of environmental impact and emergency preparedness are likely to take on greater urgency, and a long-term global transformation of the state of energy supply and demand is expected.

Usage of various energy-consuming products that support an improved way of life and bolster industrial and economic activity has spread in developed and developing countries alike. Demand for energy conservation from such products will steadily increase, and demand for sophisticated energy-control systems to minimize and standardize the energy consumed by equipment and systems is likely to grow.

In these circumstances, Hitachi Appliances will continue to offer air conditioning and home appliances developed and manufactured in pursuit of energy performance and usability. Adhering to the Hitachi Group's corporate philosophy of contributing to society through technology, we will propose and provide products that enrich people's lives by meeting the requirements of individual countries and regions.

the confidence of the public
to contribute to society.

The Hitachi Group has established an environmental vision that focuses primarily on the prevention of global warming, the conservation of resources, and the preservation of ecosystems as its basic policy for environmental activities to contribute to the realization of a sustainable society. In keeping with this environmental vision, Hitachi Appliances will move forward as a company that contributes to protection of the global environment by engaging in environmental impact reduction in all business activities. Our environmental initiatives include environmental consideration in products, energy conservation at business sites, reinforcement of management of environmentally hazardous chemical substances, and recycling and appropriate disposal of waste.

We look forward to receiving the frank opinions of readers about our initiatives.

President & Director



Haruki Yamamoto

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Hitachi Appliances has developed unique energy-saving technologies, including further improvements to its Advance Frost Recycling Cooling Technology.

Refrigerator

The Advance Frost Recycling Cooling Technology and numerous other original technologies improve energy performance. Expanded capacity of 670 liters.

Energy Conservation

The Advance Frost Recycling Cooling Technology uses air cooled by frost forming on the cooling device during operation to cool the refrigerator's interior and vegetable compartment. The use of coolant valve control and flexible vacuum insulation material reduces annual power consumption.

Environmentally Friendly

The refrigerator utilizes the non-fluorocarbon refrigerant R600a (isobutane), which has a very low environmental impact.



R-B6700 (XT)



Tochigi Home Appliance Works
Refrigerator Design Department
Engineer

Shintaro Yamawaki

With this refrigerator, progress didn't stop with the development of energy-saving technologies. In the vacuum compartment, which utilizes the effects of a vacuum* to minimize oxidation, we achieved advances such as the incorporation of a CO₂ sensor and a food sensor to both check for the presence

of vegetables and automatically set the temperature accordingly and to control chilling speed depending on the amount of food stored. The result is a product that delivers greater customer satisfaction.

* The term vacuum refers to any space with lower-than-atmospheric air pressure. Since the air pressure of approximately 0.8 atmospheres in the low-oxygen chilled compartment is lower than atmospheric pressure, we call it a vacuum.

This air conditioner has Hitachi's unique "Stainless Steel Clean System."

Room Air Conditioner

These air conditioners feature the Stainless Steel Clean System, which employs stainless steel inside the air conditioner to curb grime and mold. "Look, hear, and feel" sensors detect the movement and location of room occupants, ambient sounds like television audio and vacuum cleaner noise and floor and wall temperature resulting from sunlight and other factors, making possible finely adjustable energy-saving operation*¹ adapted to the surroundings.

*¹ Evaluation of the RAS-S40A2 under conditions independently established by Hitachi Appliances

Energy Conservation

Equipped with CV-PAM*² control and a high-efficiency motor. High energy-saving performance from more efficient indoor units and high-density outdoor units (4.0 to 7.1 kW class models)

*² Cascade Vector PAM (Power Active Module) control

Reduced Time and Labor

The automatic stainless steel filter-cleaning function reduces the time and labor required for bothersome filter cleaning.

Six Sensors for Eco-friendly Laundering

Washer-dryer

This Washer-dryer features an automatic cleaning mechanism that with every laundry cycle automatically washes away sebum dirt and detergent residue that has adhered to the underside of the washing tub and other unseen areas.

Water Conservation

This Washer-dryer is the only top-loading washer-dryer with a water circulation pump. It realizes substantial water savings by employing a laundry method that, unlike conventional washing in a filled tub of water, uses triple beat wings agitate the clothes up and down and circulate the water.



Illustrated operation



BW-D9MV (N)

Triple beat wings
Water circulation pump



Taga Home Appliance Works
Household Products Design Department I
Senior Engineer

Takuya Tateyama

The Eco Water Sensor system and Eco Beat washing system have been refined to further improve ecological performance. The Eco Water Sensor system intelligently adjusts the detergent quantity indicator, water volume, and washing time by employing six sensors: the four previous sensors

to check the hardness and temperature of the water and the quantity and characteristics of the laundry, and two new sensors to check rinse conditions, and spin conditions. In addition, the Beat Wash is the only top-loading washer-dryer to feature a water-saving circulation pump and Hitachi's original Eco-Beat washing system for pressing, beating, and kneading, which saves water by circulating detergent liquid, washing clothes to a brilliant white.

RAS-S40A2 (W)



Tochigi Air Conditioning Works
Air Conditioning System Design Department
Engineer

Yoshinori Iizuka

We developed a sensor capable of more detailed assumptions about people's activities with sensors for people's movements and ambient sounds combined with a sensor for radiative heat.

that reduce the burden on the environment by helping to prevent global conserving resources and reducing the use of chemical substances.

Meeting Diverse Customer Needs with Three Update Methods

LED Lighting

Hitachi Appliances satisfies wide-ranging customer needs for LED lighting, including the desire to use LED lamps in existing fixtures and the desire to change to new fixture types for LED lamps.

Energy Conservation

The use of high-efficiency LEDs results in energy savings of about 44% compared to conventional FLR40 fluorescent lamp fixtures (with 94% of the brightness).



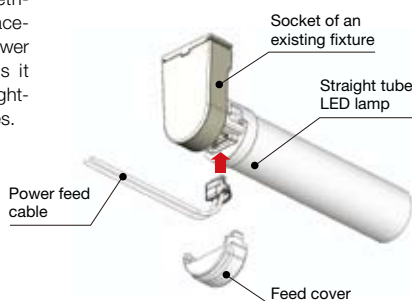
Equipped with a high-efficiency LED module



Customers can choose from three update methods

The power feed cable method, the socket replacement method, or the LED fixture replacement method. Use of the power feed cable method makes it possible to update to LED lighting using existing light fixtures.

Power feed cable method



Powerful Shower even when Hot Water is used at Two Places at Once

Heat Pump Water Heater

This heat pump water heater employs a tap water direct pressure method, which instantaneously heats water. Rust and grime resistant stainless steel is used for the direct pressure boiler pipes inside the hot water storage unit which are connected to the shower and taps (combination taps).

Energy Conservation

Utilizing a flexible vacuum insulation panel and improving the efficiency of the heat pump unit realized energy conservation in performance.

Environmentally Friendly

In consideration of the global environment, CO₂, a natural refrigerant, is used, so there is no concern about ozone depletion.

Space Saving

Utilizing a box-shaped tank, this hot water storage unit has a slim body only 415 mm wide.



Heat pump unit

Hot water storage unit*

* The hot water storage unit in the photo is equipped with leg covers (sold separately).



Taga Home Appliance Works
Lighting Design Department
Ryohei Yamamoto

We adopted external feeding (the power feed cable method) to ensure that current doesn't flow to the lamp if someone mistakenly installs a fluorescent lamp. This is optimal for updating to LEDs using existing light fixtures.



Water Heater Division
Water Heater Design Department
Engineer
Koji Shimazaki

We improved the efficiency of the heat pump unit compressor and other components and the thermal insulation characteristics of the hot-water storage unit and pursued high energy performance by combining these improvements with learning functions.

Compact fixture and lamp to deliver the same brightness with fewer resources

High Frequency Fluorescent Lamp

Energy Conservation

High efficiency of 107 lumens/watt

Resource Conservation

Approx. 55% reduction in mass*1 from the use of lamps with a small tube diameter of 15.5 mm.

*1 Comparison of an FLR-40 lamp (FLR40S) and a High-Slim UV lamp (FHF45S EN-V) FLR40S: Approx. 255 g FHF45S EN-V: Approx. 115 g

Long Service Life

Rated life of 20,000 hours is approx. 1.7-times*2 that of conventional products.

*2 Rated life comparison of an FLR-40 lamp (FLR40S) and a High-Slim UV lamp (FHF45S EN-V) FLR40S: 12,000 hr FHF45S EN-V: 20,000 hr

Rated life is the average life calculated based on experimental data in accordance with the JIS standard. Service life varies according to the use environment and method of use.



Installation example



Ome Lightning Works
Design Department
Engineer
Yoshimasa Takahashi

We used long-life electrodes and thin glass tubes in the lamps and a slim design for the lighting fixtures to increase service life, conserve resources, and reduce weight.

To create environment-friendly and stylish lighting, we employed high-mount mercury vapor pressure control for a slim design that delivers ample brightness. Furthermore, a nano-particle UV-absorbent coating prevents discoloration and repels insects.

Increased Energy Conservation and Improved Comfort

Packaged Air Conditioning System for Stores and Offices

Models 40 (1.5 horsepower equivalent) to 280 (10 horsepower equivalent) meet the 2015 standards under the Act on the Rational Use of Energy and deliver industry-top-class*1 APF (annual performance factor). Improved system energy performance has the added benefit of reducing power consumption and CO₂ emissions.

*1 For packaged Air Conditioning System for Stores and Offices models 40 to 280 (excluding model 335) as of September 2011. Simultaneous use of models 224 model and 280 in a combination of a Premium system and a new cassette four-direction model.

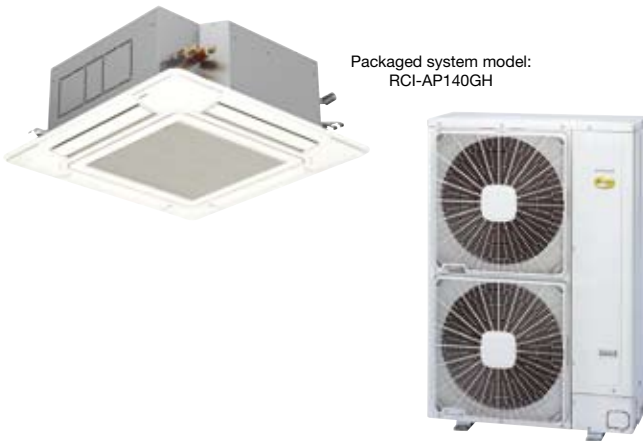
Energy Conservation

Improved compressor structure and a new type DC inverter motor, etc., utilized in a new scroll compressor, enhancing its low speed operation capability, has reduced annual energy consumption by approximately 57%*2.

*2 Compared to RAS-P140H, our constant speed product of 10 years ago (according to the estimate, when connected the model 140 4-way cassette (single type) JRA 4048 at stores in Tokyo)

Environmentally Friendly

Uses a refrigerant, R-410A, which does not harm the ozone layer.



Partial Load Efficiency Improved through Use of Inverter to Control Rotation Speed

High Efficiency Centrifugal Chiller with Inverter

Inverter control yields significant energy savings during fall, winter and spring, when outside air temperatures are low. The maximum coefficient of performance (COP) has been substantially improved through enhancements to the freezing cycle and rotation speed control system.

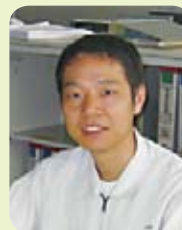
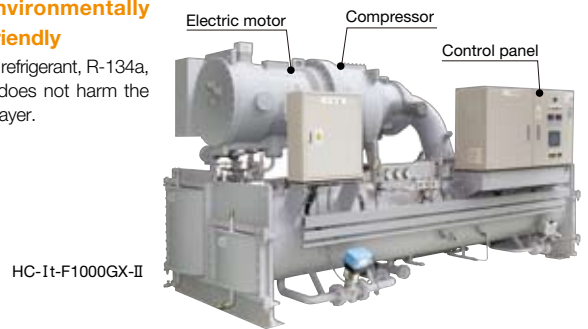
Energy Conservation

Partial load operating efficiency has been increased by controlling the compressor rotation rate to take advantage of seasonal changes in coolant temperature. This has reduced annual power consumption by approximately 58%*1.

*1 Comparison between HC-It-F1000GX-II and the existing HC-F1250 (fixed-speed model). Both are based on the 1050RT/7.C model (annual load ratio: 40-90%).

Environmentally Friendly

Uses a refrigerant, R-134a, which does not harm the ozone layer.



Tsuchiura Air Conditioning Works
Design Department
Engineer

Takanori Sekimoto

We substantially improved the coefficient of performance during partial load operation by modifying the chiller cycle and the RPM control method. This product is ideal for today's era of strong demand for energy performance.

Cutting-Edge Energy Saving Systems through Systems Integration

Air Conditioning System Solutions

We provide system solutions tailored to individual fields such as food/distribution, semiconductor/liquid crystal, pharmaceutical/medical, and research institutes, based on our core technologies including those of air conditioning, cryogenics, and anti-pollution.

Proposed System Featuring Our Highly Efficient Equipment

- Compressor with inverter
- Highly energy-efficient equipment

Proposed Comprehensive Energy Saving System

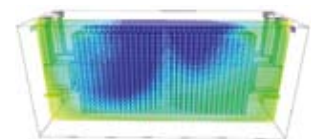
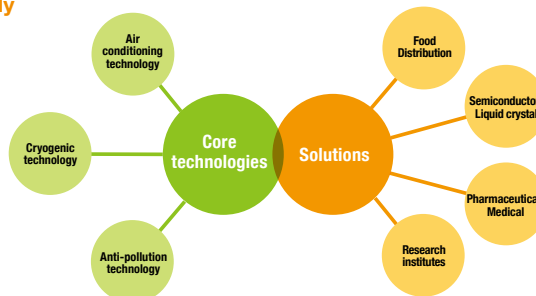
- Operation control optimization
- Exhaust heat and drainage water use
- Natural energy use

Proposed Reliable Renovation

- Initial running cost reduction
- Elaborate on-site survey and execution plan
- Measures to address impacts on existing production lines

Proposed Energy Saving Refrigerator/Freezer Warehouse Utilizing Ice Thermal Storage

- Introduction of liquefaction cooling, ice thermal storage facility in refrigeration/freezing warehouse
- Electricity reduction
- Running cost reduction



Air flow simulation



Packaged outdoor units



Module chiller

Reporting on Environmental Activities

Action Guidelines for Environmental Conservation

These guidelines set forth Hitachi Appliances' action for addressing environmental conservation in relation to its business activities based on the "Hitachi Appliances Group Standards of Corporate Conduct."

Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, Hitachi Appliances is committed to meeting its social responsibilities by promoting globally-applicable "MONOZUKURI" (designing, manufacturing or repairing of products), which is aimed at reducing environmental burdens of products throughout their entire life cycles, ensuring global environmental conservation.

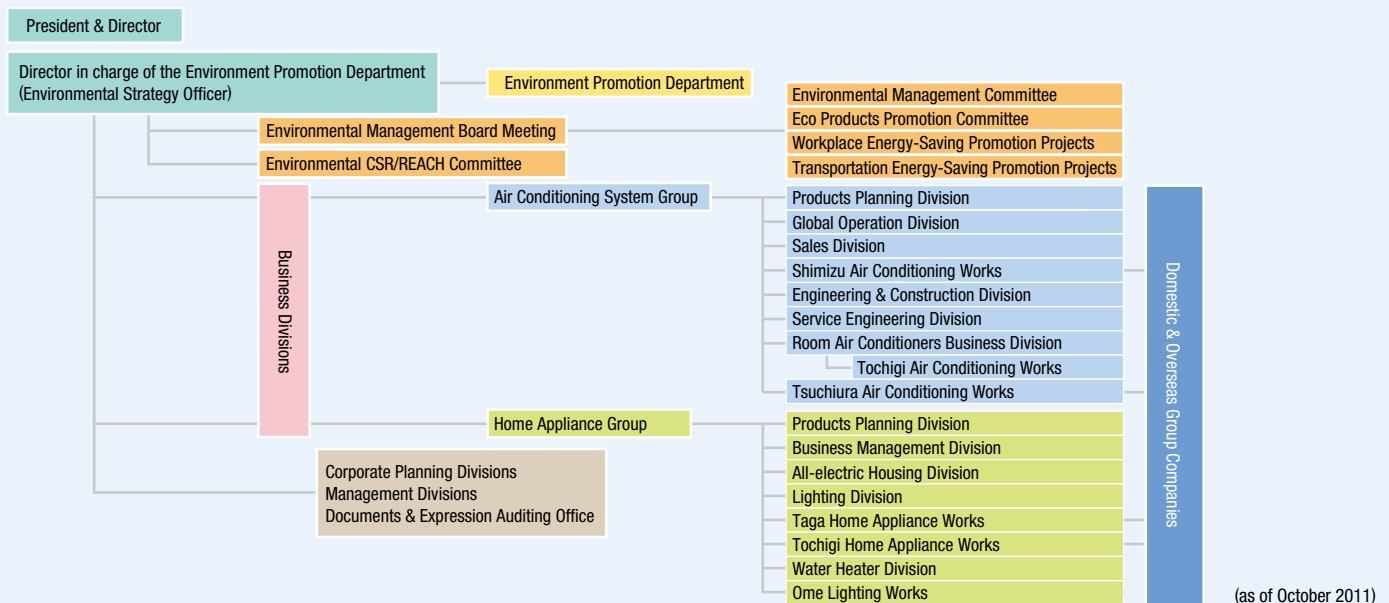
Action Guidelines

1. Global environmental conservation is a critical challenge shared by all humans. Hitachi Appliances is committed, therefore, to fulfilling its responsibilities by assisting in the realization of an environmentally harmonious and sustainable society as one of its management priorities.
2. Hitachi Appliances will make efforts to contribute to society by developing highly reliable technologies and production processes, while identifying needs considering concerns related to the prevention of global warming, conservation of resources, and preservation of ecosystem.
3. Members of the board in charge of environmental conservation are responsible for facilitating appropriate environmental conservation activities. Departments responsible for environmental conservation should endeavor to promote and ensure environmental conservation activities, including improving environment-related rules and regulations and setting goals for environmental burden reduction. These departments should also confirm that their environmental conservation activities are conducted in a proper manner and ensure that these activities are maintained and improved.
4. Hitachi Appliances will promote globally-applicable "MONOZUKURI" with the aim of understanding and reducing environmental burdens at every stage, including product research and development, design, production, distribution, sales, usage, and final disposal.
5. Hitachi Appliances will investigate and review the environmental impact caused in the course of its "MONOZUKURI" processes. Hitachi Appliances will also introduce excellent technologies and materials useful to safeguard the environment, in other words, to reduce environmental burdens through energy and resource saving, recycling, chemical substance management, consideration of ecosystem, and other measures.
6. Hitachi Appliances' environmental conservation efforts are not only to be focused on observing international environmental regulations and those of national and local governments, but also on conserving the environment by implementing voluntary environmental standards when necessary.
7. Regarding globally-applicable "MONOZUKURI" activities, impact on the local environment and community are to be considered. In addition, measures that meet local communities' requests should be implemented.
8. Hitachi Appliances will educate its employees to take action in order to obey environment-related laws, raise their global environmental awareness, and encourage their interest in environmental conservation having wide-view about society activities
9. Hitachi Appliances will evaluate potential environmental problems and prevent them from occurring. In the event that any environmental problem occurs, Hitachi Appliances will take appropriate measures to minimize the environmental burden.
10. Hitachi Appliances will make efforts to disclose information on its environmental conservation activities to its relevant stakeholders. Hitachi Appliances will also actively communicate with these stakeholders so as to strengthen mutual understanding and forge cooperative relationships with them.

(Revised on July 2010)

Environmental Management Structure

Hitachi Appliances has established the Environmental Management Board Meeting as a forum for deliberations and decisions concerning Group-level policies and targets. This committee consists of the Environmental Strategy Officer, who coordinates environmental policy for the entire Group, and environmental officers representing business sites and key domestic subsidiaries. Environmental protection activities are implemented by the Environmental Promotion Department, in cooperation with Business Divisions, Corporate Planning Divisions, Management Divisions and the Documents & Expression Auditing Office, on the basis of decisions made by the Environmental Management Board Meeting.



(as of October 2011)

Development of Environmental Management System

One of the ways in which Hitachi Appliances is working to reduce its environmental footprint and contribute to environmental protection is through the development of environmental management systems based on the ISO14001 standard, especially at manufacturing sites with significant environmental loads. These systems are now being certified by third-party organizations.

ISO14001 Certification of Manufacturing Sites

Site	Certification date
Tochigi Works	January 29, 1997
Taga Works	July 22, 1996
Shimizu Works	October 28, 1997
Tsuchiura Works	March 25, 1997
Ome Works	September 30, 1997
Hitachi Taga Technology, Ltd.	July 22, 1996
Hitachi Reftechno, Inc.	January 29, 1997
Hitachi-kucho SE, Ltd.	October 28, 1997
Ome Sangyo K.K.	September 30, 1997
Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd.	June 28, 2004

Site	Certification date
Hitachi Compressor Products (Guangzhou) Co., Ltd.	April 30, 2006
Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.	December 19, 2005
Shanghai Hitachi Household Appliances Co., Ltd.	November 23, 2000
Hitachi Household Appliances (Wuhu) Co., Ltd.	October 10, 2003
Hitachi Home & Life Solutions (India) Ltd.	February 14, 2006
Hitachi Air Conditioning Products (Malaysia) Sdn. Bhd.	April 22, 1997
Taiwan Hitachi Co., Ltd.	August 28, 1997
Hitachi Consumer Products (Thailand), Ltd.	December 20, 1999
Hitachi Compressor (Thailand), Ltd.	November 4, 1999
Hitachi Air Conditioning Products Europe, S.A.	May 4, 1999

Global Warming Prevention

To reduce greenhouse gas emissions and contribute to global warming prevention, Hitachi Appliances has continuously worked to reduce CO₂ emissions from energy use accompanying production activities in Japan by FY2010.

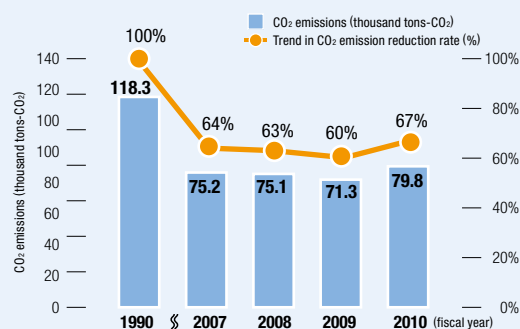
Although emissions rose by 8,500 tons from the previous year to 79,800 tons in FY2010 because of increased production of home appliances due to the impact of the Eco-point program, this represents a reduction of about 33% compared with the FY1990 level.

■ Trends in CO₂ emissions in Japan

Data gathered for: Tochigi Works; Taga Works*; Shimizu Works; Ome Works*; and Hitachi Reftechno, Inc.

(Excludes Tsuchiura Works which is positioned within the Tsuchiura Branch of Hitachi Plant Technologies, Ltd. and works as part of Hitachi Plant Technologies, Ltd.)

*1 Includes affiliate companies working with the above companies.

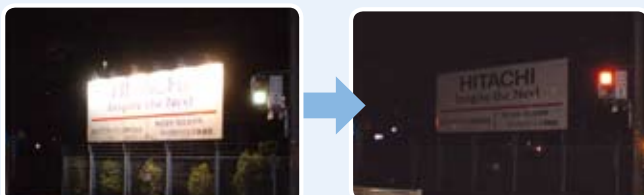


CO₂ emissions were calculated using the CO₂ emission coefficient stipulated in the Greenhouse Gas Accounting and Reporting System as defined in the Act on Promotion of Global Warming Countermeasures. Comparisons of electric power CO₂ emission coefficients with FY1990 levels are based on the average for all sources of electric power. Figures for FY2007 and subsequent years were calculated using actual emission coefficients for electric power companies, as published by the Ministry of the Environment. However, the figures for FY2010 is unpublished, FY2009 figures were used for FY2010.

Participation in the Lights Down Campaign

Hitachi Appliances participates in the Light Down Campaign conducted by the Ministry of the Environment and extinguishes signboard lights at the Tochigi Works and Ome Works.

The Ministry of the Environment has conducted the CO₂ Reduction/Lights Down Campaign since 2003, calling on companies to extinguish lights at illuminated facilities as a global warming prevention measure. In previous years, the campaign was conducted on two days: the summer solstice, the longest day and shortest night of the year, and July 7, the date of the Tanabata festival. This summer, however, the period of the Lights Down Campaign was extended to more than two months, from June 22 (the summer solstice) to August 31, during which the Ministry called on companies to voluntarily turn off lights during the day and at night.



Signboard light of Ome Works

Modal Shift Initiative

To reduce CO₂ emissions in product transport, Hitachi Appliances is implementing a partial modal shift from truck transport to rail and ship transport. Although railways and ships are mass transportation modes that entail lower CO₂ emissions than truck transport (approx. 1/7 for railways and 1/3 for ships), where transportation routes end it is necessary to transfer cargo to trucks. For this reason, we are flexibly combining these transportation modes to achieve an overall reduction in CO₂ emissions.

The Tochigi Works has expanded rail transport when transporting marine containers from the Port of Tokyo to the Tochigi Works by introducing a trailer chassis that can be loaded with marine containers of different sizes for efficient truck transport between the Port of Tokyo and Tokyo Freight Terminal Station and between Utsunomiya Freight Terminal Station and the Tochigi Works.

For this initiative, Hitachi Transport System, Ltd. and Hitachi Appliances received the Excellent Green Logistics Company Commendation (commendation of the Deputy Minister for Technical Affairs, Minister's Secretariat, Ministry of Land, Infrastructure, Transport and Tourism).

Effective Utilization of Resources

Hitachi Appliances is working to reduce the amount of residual materials (defined as waste products and resources with a market value) generated in production activities and their final disposal at landfills.

In FY2010 higher production volumes resulted in an increase in the amount of residual materials generated of approximately 4,700 tons from the FY2009 level to approximately 31,200 tons. However, final disposals decreased by 1.4 tons from the FY2009 level to 6.2 tons as a result of steady waste separation and recycling activities at our plants. Final disposals at the five plants in Japan have been reduced practically to zero, resulting in achievement of zero emission*1.

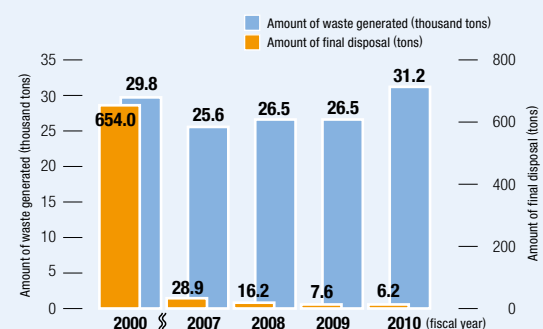
*1 Zero emission: This approach aims to reduce final disposals at landfills to zero by using waste as raw materials for other industries. The Hitachi definition of this approach states that landfill disposal ratio (landfill disposals/ total waste, etc.) in a given year must not exceed 1%, and that the quantity of landfill disposals must be less than 5 tons.

■ Trends in the waste generated and final disposal in Japan

Data gathered for: Tochigi Works; Taga Works*; Shimizu Works*; Ome Works*; and Hitachi Reftechno, Inc.

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Recycling of Home Appliances

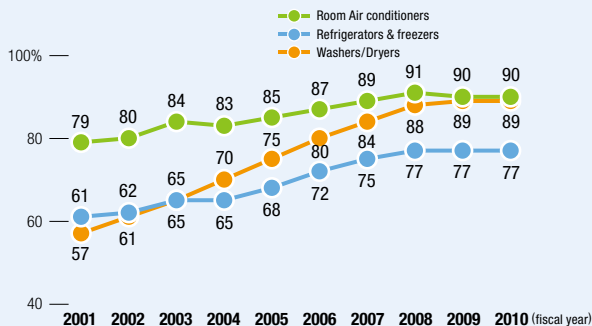
Japan's Act on the Recycling of Specified Kinds of Home Appliances came into effect in April 2001. Hitachi Appliances has complied with this law by recycling the four specified types of home appliances at Kanto Eco Recycle Co., Ltd., a home appliance recycling plant within the Tochigi Works. Knowledge gained through this activity has been reflected in product designs that facilitate dismantling and sorting.

Hitachi Taga Technology, Ltd., based at the Taga Works, has established facilities to modify and recondition plastic recovered from used appliances at the recycling plant. The recovered plastic is reused in products manufactured by Hitachi Appliances.

FY2010 recycling results for 3 used home appliance products

Item	Room Air conditioners	Refrigerators & freezers	Washers / Dryers
Number of units recycled (thousand units)	339	513	700
Processing weight of recycled units (tons)	13,964	31,421	23,927
Weight of recycled material (tons)	12,661	24,201	21,481
Recycling rate (%)	90	77	89
Legal recycling rate (%)	70	60	65

Changes in the recycling rate of 3 used home appliances



Management of Chemicals

Hitachi Appliances is working to reduce emissions from its plants of 41 volatile organic compounds (VOCs)*1 independently determined by the Hitachi Group, including xylene, toluene and methanol, in accordance with the Amended Air Pollution Control Act, which took effect in April 2005.

In FY2010, atmospheric emissions of VOCs rose sharply due to factors including expansion of painting facilities as part of a production rationalization project at the Taga Works and higher production volumes resulting from the Eco-point program for home appliances.

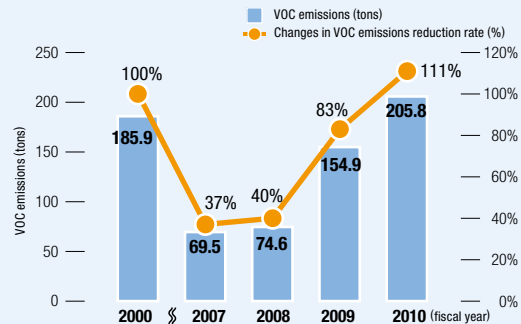
*1 Volatile organic compounds such as toluene, xylene and ethanol.

Trends in VOC emissions in Japan

Data gathered for: Tochigi Works; Taga Works*1; Shimizu Works*1; Ome Works*1; and Hitachi Reftechno, Inc.

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Management of Chemical Substances Contained in Products, Compliance with REACH Regulations

To manage chemical substances contained in products, Hitachi Appliances has established the Environmental CSR Compliant Monozukuri Standards and manages chemical substances contained in products at the product development and design, procurement, and manufacturing stages. In the standards, we have designated 13 prohibited substances*1 and 13 controlled substances*2 to be regulated and established guidelines for their control and handling as substances subject to voluntary control by the Hitachi Group.

In addition, to comply with REACH*3, the EU's regulatory framework for the management of chemicals, we conduct briefings at our domestic and overseas plants and supplier briefings and have developed a framework for collecting, ascertaining, and communicating information on SVHC (Substance of Very High Concern) content.

*1 Thirteen prohibited substances:

1. Cadmium, 2. Hexavalent chromium, 3. Lead, 4. Mercury, 5. TBTO, 6. PBB, 7. PBDE, 8. PCB, 9. Polychlorinated naphthalene, 10. Short chain chlorinated paraffin, 11. Asbestos, 12. Azo dyes and pigments, 13. Ozone layer depleting substances (Class I)

*2 Thirteen controlled substances:

1. Antimony, 2. Arsenic, 3. Beryllium, 4. Bismuth, 5. Nickel, 6. Selenium, 7. Bromic flame retarders, 8. PVC, 9. Phthalate ester, 10. TBT and TPT, 11. Ozone layer-depleting substances (Class II), 12. Radioactive material, 13. Potential REACH SVHC

*3 REACH is an abbreviation of Registration, Evaluation, Authorization and Restriction of Chemicals.



Briefing session to partner company at Tochigi Works

Participation in Exhibitions

Hitachi Appliances participates at exhibitions in Japan and abroad to increase understanding of our environmental initiatives and environment-friendly products and technologies.

In Japan, in December 2010 we exhibited at Eco-Products 2010, Japan's largest environment-related trade fair, held at Tokyo Big Sight. We exhibited refrigerators, washer-dryers, LED lighting and other products under the theme Aiming for a Sustainable Society — Contributing to Preservation of the Global Environment through Business.

Overseas, in February 2011 we participated at the 7th Eco-Products International Fair in New Delhi, India, where we exhibited products including air conditioners from Hitachi Home & Life Solutions (India) Ltd.



Eco-Products Exhibition 2010 (held at Tokyo Big Sight in December 2010)



The 7th Eco-Products International Fair (in New Delhi, India in February 2011)

Hitachi Group's Environmental and Energy Conservation Fair 2011 in Kansai (held at HERBIS OSAKA in February 2011)



Introduce our industrial air conditioner and heat pump water heater.



Lighting Fair 2011 (The 10th International Lighting Fair held at Tokyo Big Sight in March 2011)

Introduce our LED lights etc.

Contribution to Environmental Education

Hitachi Appliances focuses effort on environmental education in Japan and overseas to increase the ecology-mindedness of children and gain their understanding of our environmental initiatives. We strive to create learning opportunities for children, from time to time holding study sessions for the families of employees, conducting plant tours for local elementary schools, and accepting requests to conduct study sessions sponsored by outside organizations.

Facility tour of disposal of industrial waste at Shimizu Works



Conducting plant tour for children of local elementary school at Taga Works

Nature Conservation Activities

Hitachi Appliances engages in social contribution activities related to nature conservation in Japan and overseas, including greenbelt conservation activities at plant sites and tree-planting activities in which employee participate.

When the Tochigi Works was established, it created a greenbelt that closely resembles the original state of the land by transplanting to the roadside trees indigenous to the site and devising the layout to as far as possible avoid dividing the natural forest. The plant has designated the greenbelt within its grounds as a park area and opened a portion of it for use by area residents. It is used as an activities ground for nearby kindergartens and elementary schools. These activities have met with public acclaim, and in October 2010 the Tochigi Works was accredited as one of 100 cases of corporate green sites that contribute to biodiversity preservation under the Social and Environment Green Evaluation System.

At Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd. and Hitachi Compressor Products (Guangzhou) Co., Ltd., employees and their families participate in tree-planting activities sponsored by the of Greening Committee of Conghua City, Guangdong Province on a continuing basis.



Greenbelt in the plant at Tochigi Works



Employees and family members who participated in tree-planting in Conghua City, Guangdong Province, from Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd. and Hitachi Compressor Products (Guangzhou) Co., Ltd.

Corporate Overview

Company name	Hitachi Appliances, Inc.
Main business	Development, manufacture, and sales of comprehensive air conditioning systems and home appliances
President & Director	Haruki Yamamoto

Capital Stock	20 billion yen (Hitachi, Ltd. 100%)
Date established	April 1, 2006
Number of employees (consolidated)	18,200 (as of March 31, 2011)
Website	http://www.hitachi-ap.co.jp

Head Office, Takeshiba Office

Head Office (Home Appliance Group)
Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL: 81-3-3502-2111

Takeshiba Office (Air Conditioning System Group)
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4555

Factories in Japan

Tochigi Works
800, Tomita, Ohira-machi, Tochigi City, Tochigi 329-4493 Japan
TEL: 81-282-43-1122

Taga Works
1-1, Higashitaga-cho 1-chome, Hitachi City, Ibaraki 316-8502 Japan
TEL: 81-294-34-1111

Shimizu Works
390, Muramatsu, Shimizu-ku, Shizuoka City, Shizuoka 424-0926 Japan
TEL: 81-54-334-2081

Tsuchiura Works
603, Kandatsu-machi, Tsuchiura City, Ibaraki 300-0013 Japan
TEL: 81-29-832-5840

Ome Works
16-2, Shinmachi 6-chome, Ome City, Tokyo 198-8611 Japan
TEL: 81-428-31-1211

Sales Divisions, Branches, and Marketing Offices (Air Conditioning System Group)

Hokkaido Marketing Branch
Oda Bldg., 10-1, Kita Kujo Nishi 3-chome, Kita-ku, Sapporo City, Hokkaido 060-0809 Japan
TEL: 81-11-717-5301

Kitanihon Branch Office
Ookiaoba Bldg., 9-7, Futsuka-machi, Aoba-ku, Sendai City, Miyagi 980-0802 Japan
TEL: 81-22-266-1321

Fukushima Marketing Branch
5-15, Midori-machi, Koriyama City, Fukushima 963-8023 Japan
TEL: 81-24-921-5550

Kanto Branch Office
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4510

Hokuriku Branch Office
627-3, Kurosaki, Toyama City, Toyama 939-8214 Japan
TEL: 81-76-429-4051

Chubu Branch Office
Sakae Center Bldg., 13-20, Sakae 3-chome, Naka-ku, Nagoya City, Aichi 460-0008 Japan
TEL: 81-52-251-0371

Kansai Branch Office (Air Conditioning System Division)
OX-Nishihonmachi Bldg., 10-10, Nishihonmachi 1-chome, Nishi-ku, Osaka City, Osaka 550-0005 Japan
TEL: 81-6-6531-9111

Chushikoku Branch Office
Sonpo Japan Hiroshima Otemachi Bldg., 2-31, Otemachi 3-chome, Naka-ku, Hiroshima City, Hiroshima 730-0051 Japan
TEL: 81-82-240-6151

Shikoku Marketing Branch
Hanazono Bldg., 1-5, Hanazonocho 1-chome, Takamatsu City, Kagawa 760-0072 Japan
TEL: 81-87-833-8701

Kyushu Branch Office
9-17, Shimizu 4-chome, Minami-ku, Fukuoka City, Fukuoka 815-0031 Japan
TEL: 81-92-561-4851

Sales Divisions, Branches and Marketing Offices (Home Appliance Group, Lighting Division)

Tohoku Marketing Branch
Ooki Aoba Bldg., 9-7, Futsuka-machi, Aoba-ku, Sendai City, Miyagi 960-0802 Japan
TEL: 81-22-266-1321

Tokyo Marketing Branch
Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL: 81-3-3506-1455

Kanto Marketing Branch
Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL: 81-3-3506-1458

Kanto Marketing Branch Ibaraki Sales Division
1492 Suifu-cho, Mito City, Ibaraki 310-0005 Japan
TEL: 81-29-231-7717

Chubu Marketing Branch
Same as Hitachi Industrial Equipment Systems Co., Ltd. Chubu Branch 16-17, Sakurada-cho, Atuta-ku, Nagoya City, Aichi 456-8544 Japan
TEL: 81-52-884-5831

Kansai Marketing Branch
Edobori Fukoku Seimei Bldg. 3F, 6-33 Edobori 2-chome, Nishi-ku, Osaka City, Osaka 550-0002 Japan
TEL: 81-6-6448-6321

Chushikoku Marketing Branch
7-17, kanon-shinmachi 1-chome, Nishi-ku, Hiroshima City, Hiroshima 733-0036 Japan
TEL: 81-82-233-4381

Kyushu Marketing Branch
Hakata Watanabe Bldg., 7-18 Tenyamachi, Hakata-ku, Fukuoka City, Fukuoka 812-0025 Japan
TEL: 81-92-281-3737

Affiliated Companies in Japan

Hitachi Taga Technology, Ltd.	Hitachi Reftechno, Inc.	Hitachi-kucho SE, Ltd.	Ome Sangyo K.K.
Hitachi Air Conditioning Kanto, Ltd.	Niigata Hitachi Co., Ltd.	Hitachi Kucho Kansai K.K.	Kyushu Hitachi Kucho K.K.
Kanagawa Hitachi Air Conditioning Co., Ltd.	Shizuoka Hitachi Reinetsu Co., Ltd.	Hitachi Kucho Techno Service K.K.	Kanto Eco Recycle Co., Ltd.
			Hitachi Softec Co., Ltd.

Affiliated Companies in Overseas

Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd.	Hitachi Compressor Products (Guangzhou) Co., Ltd.	Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.
Hitachi Air Conditioning Technology (Suzhou) Co., Ltd.	Shanghai Hitachi Household Appliances Co., Ltd.	Hitachi Household Appliances (Wuhu) Co., Ltd.
Shanghai Hitachi Electrical Appliances Co., Ltd.	Hitachi Home & Life Solutions (India) Ltd.	Hitachi Air Conditioning Products (Malaysia) Sdn. Bhd.
Hitachi Industrial Machinery Philippines Corp.	Hitachi Air Conditioning Products (Phils), Inc.	Taiwan Hitachi Co., Ltd.
Hitachi Consumer Products (Thailand), Ltd.	Hitachi Compressor (Thailand), Ltd.	Hitachi Tochigi Electronics (Thailand) Co., Ltd.
Hitachi Air-conditioning Systems (Shanghai) Co., Ltd.	Hitachi Air-conditioning Systems (Hong Kong) Co., Ltd.	Hitachi Asia Ltd.
Hitachi Air Conditioning Products Europe, S.A.	Hitachi Europe S.A.S.	Hitachi Air Conditioning Products Brazil, Ltd.
Hitachi America, Ltd.		

Scope of Report

- **Reporting Period:** FY2010 (April 1, 2010 to March 31, 2011)
- **Scope of Reporting:** Hitachi Appliances Group consolidated companies
Where the scope is different from the above, describe it is so indicated.
- **Referenced Guidelines:** “Environmental Reporting Guidelines (FY2007 Version)” (Ministry of the Environment, Japan), “Environmental Performance Indicators Guide-line for Organizations (FY2002 Version)” (Ministry of the Environment, Japan), “Environmental Reporting Guidelines 2001— With Focus on Stakeholders” (Ministry of Economy, Trade and Industry, Japan)
- **Next Issue:** Around August 2012
- **Website:** <http://www.hitachi-ap.co.jp/company/environment/kankyo/>

Contact Address

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