

Every year the Daikin Group reports on its CSR (corporate social responsibility) activities. On the Sustainability section of the Daikin Web site, we have past years' data and related information so that you can read the details of all activities we are involved in.

This PDF file contains all the fiscal 2012 information from the Sustainability section of our Web site. You may download and print it out.

Note: The printed version of the CSR Report 2013 focuses on our main activities and efforts. It can also be downloaded as a PDF file.

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# **Editorial Policy**

## CSR Report Editorial Policy



# **Editorial Policy**

This site details the Daikin Group's corporate social responsibility (CSR) activities: basic CSR philosophy, performances in fiscal 2012, and plans for the near future. Information that, due to space limitations, could not fit into the CSR Report 2013 (printed version) released in June 2013 is included on this website.

We divided the CSR Report by what we consider to be the key themes of our CSR activities: the environment, quality and customer satisfaction, human resources, and social contribution. Each section deals with the Daikin Group's major areas of activity and subjects in which our stakeholders are most interested.

You'll find features on the Daikin Group's human resource training and on our efforts to curb global warming, which has been a major focus for us in recent years.

This website is divided into sections on our environmental protection activities and on each stakeholder group: customers, suppliers, shareholders and investors, employees, and local communities. This allows readers easy access to important information concerning Daikin.

- Environment (Page 67)
- Responsibility to Stakeholders (Page 167)

We also give specific examples of how Daikin and its bases around the world contribute to key efforts of working to prevent global warming and to foster human resources.

Key Activities (Page 43)

To ensure an objective assessment of our activities and of this report, and to deepen dialogue with stakeholders, we have included independent, third party opinions.

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Independent Opinions (Page 41)
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#### **Reference Guidelines**

Environmental Reporting Guidelines (fiscal 2012 edition) released by the Ministry of the Environment Sustainability Reporting Guidelines Version 3.1 (G3.1) released by the Global Reporting Initiative (GRI) ISO 26000

Note

In reporting on fiscal 2012 environmental protection activities, data was carefully reviewed and was revised in cases where discrepancies occurred between actual results and information reported for fiscal 2011. Also, because figures are rounded off, totals may not equal the sum of individual figures.

#### Forecasts, Expectations, and Plans

This report includes forecasts, expectations, and plans, in addition to past and present facts, about Daikin Industries, Ltd., and its subsidiaries (collectively called the Daikin Group). Please be aware that these are assumptions and judgments made based on the information available at the time this report was written and thus incorporate a degree of uncertainty.

Consequently, there is a risk that events occurring in the future may turn out differently from the forecasts, expectations, and plans stated in this report.

## What This Report Covers

### **Term Covered**

This report covers fiscal 2012 (April 1, 2012 to March 31, 2013).

#### **Daikin Organizations Covered**

This report covers Daikin Industries, Ltd. and its consolidated subsidiaries. Environmental performance data, however, covers four Daikin Industries, Ltd., production bases; eight production subsidiaries in Japan, and 41 production subsidiaries overseas.

#### 📕 Japan

Daikin Industries, Ltd.	
Head Office	
Tokyo Office	
Sakai Plant	Air conditioning/refrigeration equipment, compressors
Shiga Plant	Air conditioning equipment, compressors
Yodogawa Plant	Fluorochemical products, hydraulic equipment, air-conditioning equipment, precision defense equipment
Kashima Plant	Fluorochemical products

8 Production Subsidiaries
Daikin Sheet-Metal Co., Ltd.
Daikin Piping Co., Ltd.
Daikin Hydraulic Engineering Co., Ltd.
Daikin Rexxam Electronics (Japan) Ltd.
Daikin Sunrise Settsu Ltd.
Toho Kasei Co., Ltd.
Kyoei Kasei Industries, Ltd.
Nippon Muki Co., Ltd.

#### Overseas

41 Production Subsidiaries		
Daikin Australia Pty., Ltd.	O.Y.L. Condair Industries Sdn. Bhd.	
Daikin Industries (Thailand) Ltd.	J & E Hall Refrigeration Sdn. Bhd.	
Daikin Airconditioning (Thailand) Ltd.	O.Y.L. Technology Sdn. Bhd.	
Daikin Europe N.V.	O.Y.L. Steel Centre Sdn. Bhd.	
Daikin Compressor Industries Ltd.	Shenzhen McQuay Air Conditioning Co., Ltd.	
Daikin Chemical France S.A.S.	McQuay Air Conditioning & Refrigeration (Wuhan) Co., Ltd.	
Daikin Chemical Netherlands B.V.	O.Y.L. Technology (Shenzhen) Co., Ltd.	
Daikin Device Czech Republic s.r.o.	McQuay Air Conditioning & Refrigeration (Suzhou) Co., Ltd.	
Daikin Industries Czech Republic s.r.o.	AAF (Suzhou) Co., Ltd.	
Daikin Air-conditioning (Shanghai) Co., Ltd.	AAF (Shenzhen) Co., Ltd.	
Daikin Air-conditioning (Shanghai) Co., Ltd. (Huizhou Branch)	American Air Filter Manufacturing Sdn. Bhd.	
Xi'an Daikin Qing'an Compressor Co., Ltd.	AAF (Wuhan) Co., Ltd.	
Daikin Fluoro Coatings (Shanghai) Co., Ltd.	AAF-McQuay Inc. (Delaware)	
Daikin Fluorochemicals (China) Co., Ltd.	J & E Hall Limited (United Kingdom)	
Daikin Device (Suzhou) Co., Ltd.	Coulstock & Place Engineering Co. Limited (United Kingdom)	
Daikin Motor (Suzhou) Co., Ltd.	McQuay (UK) Limited (United Kingdom)	
Daikin America, Inc.	AAF-Limited (United Kingdom)	
Daikin Refrigeration (Suzhou) Co., Ltd.	AAF International B.V. (The Netherland)	
Rotex Heating Systems GmbH	AAF International s.r.o. (Slovakia)	
Daikin Airconditioning India Pvt. Ltd.	McQuay Italia S.p.A. (Italy)	
O.Y.L. Manufacturing Company Sdn. Bhd.		



# Daikin's CSR

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# Air Conditioning and Chemical Technologies Work Hand-in-Hand

# Contributing to Society with World-Leading Technologies as a Pillar to Environmental Contribution

The Daikin Group offers products utilizing technologies in both air conditioning and fluorochemicals to provide comfort in all aspects of people's lives around the world.

Through our strength in energy-efficient technologies, we develop and bring to market products and services that reduce energy consumption, thus contributing to sustainable development in society.

#### **Daikin Group Business**

86.8%

FY 2012 consolidated

sales by business

segment

#### Air Conditioning Business

Achieving Both Comfort and Environmental Performance to Meet All Global Air Conditioning Needs









#### **Chemicals Business**

World's Leading Lineup of Fluorochemicals



# Automotive Fluoroelastomers





**Oil Hydraulics, Defense Systems Business** Proprietary Technologies at Work in a Range of Industries









## **Worldwide Business**

# Contributing to Development of Local Communities while Respecting the Diverse Cultures and Values of Each Country

The Daikin Group does business around the world in countries and regions like China, Southeast Asia, Oceania, Europe, and North America. Overseas sales now account for 60% of the Daikin Group's total, and three-fourths of the Group's employees work outside Japan.

By respecting the cultures and values of each country and region, by coming out with products that match regional needs, and by building a workplace that motivates employees and brings out their unique personalities, Daikin is contributing to development in communities around the world.





The Daikin Group does business in Japan, China and the rest of Asia, Oceania, Europe, and the United States with the goal of maximizing corporate value to become a truly global and excellent company. In fiscal 2012, we further expanded our geographical area and markets through the acquisition of Goodman Global Group, Inc., the leading manufacturer and distributor in the U.S. residential unitary air-conditioning market. As we continue to grow worldwide, we are striving even further to contribute to society in respecting the diverse cultures and values of the countries and regions where we operate and by hiring locally to ensure our products and services meet local needs.

People are the force behind improving corporate value. To become a company trusted throughout the world, all Group employees must understand and implement our Group Philosophy, and our company must create a work environment in which employees can maximize their unique traits and work with enthusiasm and pride.

We will continue to reward stakeholders-customers, shareholders, employees, and local citizens-through our corporate growth. In the process, we will think globally while being a good citizen of the Earth and acting in the best interests of each community in our goal of becoming a truly first-rate company.

## Daikin's CSR Chairman's Message





Aiming for Sustainable Growth through Two Pillars: Contributing to the Environment while Expanding Business, and Nurturing Human Resources

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Noriyuki Inoue Chairman and CEO Daikin Industries, Ltd.

The Daikin Group strives to contribute to the sustainable development of both the company and society through its Fusion 15 strategic management plan, which encompasses the CSR challenges we face in carrying out our business. Fusion 15 is founded on two pillars: contributing to the environment while expanding business, and nurturing human resources.

Amidst the difficult business environment of 2012, when the European economy stagnated and economic expansion slowed in emerging countries, the Daikin Group took numerous key measures that gave it firmer footing towards achieving its business goals.

Our acquisition of Goodman Global Group, Inc., the leading manufacturer in the residential air conditioner field in the United States, presents us with a rare opportunity to use our inverter technologies to boost our competitiveness in the North American Air conditioner market, which is at the crossroads of stricter environmental regulations. By complementing Goodman's strength in the mass-consumer market with Daikin's environmental technologies, we are aiming to achieve Fusion 15's goal of contributing to the environment while expanding business.

# Pursuing New Environmental Technologies such as the Adoption of R32, a New Refrigerant

In 2012, the Daikin Group's bold technological challenges reaped new rewards. In November, we became the world's first company to introduce an air conditioner, the Urusara 7, running on R32, a new refrigerant that reduces global warming impact to just one-third that of conventional refrigerants. The Daikin Group has been working to get the use of R32 air conditioners adopted in numerous countries, doing what is expected of one of the world's leading air conditioner manufacturers by working closely with partners in the air conditioning field through the exchange and provision of information related to revising international standards. We are also offering technical support towards the adoption of R32 in emerging countries, where the use of new refrigerants is crucial, by disclosing free of charge the patents needed to make adoption a reality.

We are working to expand business in emerging countries by offering both convenience and environmental benefits; for example, in India and Turkey, we are boosting manufacturing bases and bringing to market low-cost, energy-efficient inverter products.

For its superb energy efficiency, Daikin's Urusara 7 won the Minister's Prize, the Ministry of Economy, Trade and Industry in the fiscal 2012 Grand Prize for Excellence in Energy Efficiency and Conservation. In the same Grand Prize for Excellence in Energy Efficiency and Conservation, Daikin's energy-saving solutions for commercial air conditioners won the Chairman's Prize, the Energy Conservation Center, Japan. We will continue to make the most of such equipment and solutions to contribute to greater energy efficiency.

The amount of greenhouse gases is expected to increase as we expand our business. To counter this effect, we are doing all we can to achieve our ambitious target of reducing fiscal 2015 greenhouse gas emissions to just one-third of fiscal 2005 levels.

As well, the Daikin Group is working to protect and revitalize nature, such as through its project in the UNESCO World Heritage Site of Shiretoko, and through regular employee volunteer cleanup activities. Since employees are the ones who plan and carry out activities, we strive to raise their environmental awareness and nurture them to become people who can contribute to the environment through Daikin's business activities.

# Striving for Global Human Resource Development and Diversity

We believe that the "cumulative growth of all Group members serves as the foundation for the Group's development." That's why we strive to create an environment in which employees can use their talents to the fullest in carrying out exciting and rewarding work.

The Daikin Group has a sales network covering 90 countries and manufacturing bases in 64 locations. The key to business growth is a company that is interwoven with the countries and regions where it does business and that allows its locally hired employees to use their talents to the fullest. We thus have made nurturing globally minded human resources a core strategy of Fusion 15 as we develop human resources at all of our worldwide operations. By nurturing employees ideally suited to the needs of both Daikin as a whole and the local community, we are contributing to sustainable growth of Daikin bases and their host countries and regions.

Having a diverse range of people and personalities in an organization makes a company more dynamic. To make the Daikin Group more diverse, we strive to give women a greater role, re-employ retired workers, and hire people with disabilities. Daikin's efforts in this respect have been recognized with its being granted the "Nadeshiko Brand," a designation by Japan's Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) for companies that are exceptional in encouraging women's success in the workplace.

# Contributing to Society In Response to the Expectations of Worldwide Stakeholders

In 2008, the Daikin Group began participating in the United Nations Global Compact, under which we abide by principles including the support of human rights and labor rights, protection of the environment, and abolition of corruption. We also plan and implement CSR-related activities in accordance with the ISO 26000 standard for social responsibility.

To become a sustainable company that responds to the expectations of stakeholders by achieving new growth and progress, we believe that we must respond to the changing times with flexibility and agility. We will continue our efforts to be a company that responds to society by contributing to society.

June 2013

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Deright Noriyuki Inoue

Chairman and CEO Daikin Industries, Ltd.

# Daikin's CSR CSR Philosophy



# Basic Management Policy of the Daikin Group

# Our Group Philosophy and People-Centered Management

Our Group Philosophy is the basis for all action aimed at becoming a corporate group that is trusted by customers worldwide, and that instills pride in Daikin employees around the globe. Daikin's People-Centered Management, meanwhile, is based on the belief that employee growth generates corporate growth and is implemented with the goal of creating a workplace where employees can use their talents to the fullest.

The Daikin Group believes that if both employees and company executives put Our Group Philosophy and People-Centered Management into practice, then we can achieve sustainable development and growth.

# **Philosophy of CSR Action**

#### Daikin Fulfills Its Responsibility to Listen and Respond to What Customers Want

Daikin strives to meet a variety of stakeholder expectations by implementing Our Group Philosophy and People-Centered Management.

In line with international standards like the UN Global Compact and the ISO 26000 social responsibility standard, we implement CSR while listening to what stakeholders say.

Responsibility to Stakeholders (Page 167)

# **Corporate Policies**

- 1. Absolute Credibility
- 2. Enterprising Management
- 3. Harmonious Personal Relations

#### Our Group Philosophy

The basis for the shared thoughts and actions of all employees

#### People-Centered Management

The cumulative growth of all Group members serves as the foundation for the Group's development



#### 4 Key Themes: (1) Human Resources Are the Driving Force behind Our Ef forts in (2) the Environment, (3) Quality and Customer Satisfaction, (4) and Social Contribution

As a major global manufacturer of both air conditioners and fluorochemicals, our business plans are built on the four key themes of the environment, quality and customer satisfaction, human resources, and social contribution.

In particular, a core philosophy of the Daikin Group is People-Centered Management. We believe that human resources form the basis of all our activities, and we focus on building a corporate culture in which employees take pride and find reward in their jobs, can work with enthusiasm, and ultimately grow as human beings.

CSR Targets and Achievements in line with our key CSR themes (Page 32)



# **Our Group Philosophy**

- 1. Create New Value by Anticipating the Future Needs of Customers
- 2. Contribute to Society with World-Leading Technologies
- 3. Realize Future Dreams by Maximizing Corporate Value
- 4. Think and Act Globally
- 5. Be a Flexible and Dynamic Group
- 6. Be a Company that Leads in Applying Environmentally Friendly Practices
- 7. With Our Relationship with Society in Mind, Take Action and Earn Society's Trust
- 8. The Pride and Enthusiasm of Each Employee Are the Driving Forces of Our Group
- 9. Be Recognized Worldwide by Optimally Managing the Organization and its Human Resources, under Our Fast & Flat Management System
- 10. An Atmosphere of Freedom, Boldness, and "Best Practice, Our Way"

# How We View CSR in the Daikin Group

- 1. By ensuring implementation of Our Group Philosophy, the Daikin Group will execute our social responsibilities globally in relations with all our stakeholders, and thereby raise our corporate value and contribute to the sustainable development of society.
- 2. Based upon thorough observance of legal compliance and corporate ethics, the Daikin Group will carry out our CSR initiatives with priority on contributing to society through our business activities such as:
  - Creating and offering new value by anticipating the future needs of customers;
  - Taking initiatives to sustain and improve the environment in all aspects of our business operations, and promoting the development of new products and the innovation of technologies that will lead to a more environmentally healthy world;
  - Building friendly yet competitive relations with all our business partners such as suppliers; and
  - Cultivating workplaces that foster pride and enthusiasm in each employee.

Furthermore, as a good corporate citizen the Daikin Group will make beneficial contributions to each community in which we are based by being highly receptive to its needs.

- 3. Instead of simply giving consideration to CSR, the Daikin Group will proactively incorporate CSR initiatives in all our business activities, and fuse and integrate such initiatives with these activities in order to ensure truly ongoing CSR initiatives and lead to the improvement of our business performance.
- 4. The Daikin Group will pursue CSR in our unique way by riding on our strengths, such as our atmosphere of freedom and boldness, thorough customer-oriented management, and warm hospitality and other valued traditions and culture, as well as world-leading technologies.
- 5. The Daikin Group will fulfill our CSR by promoting interactive communications widely with society, achieving accountability, and maintaining high transparency.

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# **Basic Environmental Policy of the Daikin Group**

#### **Environmental Philosophy**

#### Be a Company that Leads in Applying Environmentally Friendly Practices

As we continue developing our business operations in various fields, it is our mission to proactively develop initiatives to respond to environmental issues. Incorporating environmental initiatives throughout our management must be a priority for us.

In all aspects of our business operations, including product development, manufacturing and sales, we need to formulate initiatives that sustain and improve the environment. Meanwhile, we need to promote the development of new products and the innovation of technologies that will lead to a more environmentally healthy world.

Under the precept "environmental response is an important management resource," we must integrate environmental initiatives into our corporate management since they can lead to business expansion, improved business performance, and further enhancement of our credibility with outside parties. We intend to continue being a leading company in the practice of "environmental management," thus contributing to a healthier global environment as a good citizen of the earth.

### **Action Guidelines**

- 1. Ensure that all members of the Group deepen our understanding of environmental issues and take responsibility for the impact our actions have on society in general.
- 2. Establish, promote, and continuously improve an Environmental Management System to actively and effectively implement Environmental Management as a Group.
- Develop and implement environmental initiatives in all aspects of our business operations, including product development, production, sales, distribution, services, and recycling. In particular, be a leader in society by developing products, technologies, and business opportunities that contribute to sustaining and improving our environment.
- Implement environmental initiatives that are globally consistent as well as promote initiatives that respond to the particular circumstances of each country and region.
   Furthermore, actively promote cooperation and alliances with related companies, external organizations, and institutions.
- 5. Disclose environmentally related information in a truthful and fair manner. Listen to the views of people both inside and outside the company to continuously improve our environmental preservation efforts.

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# Group Compliance Guidelines

These compliance guidelines set forth the basic premises to observe as a basic framework for compliance for all Group companies as well as each and every one of their executives and employees in the worldwide expansion of the Daikin Group.

Each company of the global Group shall draft specific criteria based on these guidelines as a code of conduct that corresponds to differences in laws and customs of each country and region and thoroughly maintains compliance.

#### 1. Providing Safe, High Quality Products and Services

We shall make every effort to ensure the safety and quality of our products and services from the standpoint of our customers. Should a problem occur regarding safety, we shall immediately take appropriate action.

#### 2. Free Competition and Fair Trading

We shall perform fair corporate activities in compliance with all applicable laws and regulations relating to fair competition and fair trade of each country and region.

#### 3. Observing Trade Control Laws

We shall not participate in any transactions that may undermine the maintenance of global peace and security and world order in compliance with all applicable export and import related laws and regulations of each country and region as well as Daikin Group Policy.

#### 4. Respect and Protection of Intellectual Property Rights

Recognizing that intellectual property rights are important company assets, we shall strive to protect and maintain our intellectual property rights and effectively utilize them. Furthermore, we shall respect and make every effort not to infringe upon the intellectual property rights of other companies.

#### 5. Proper Management and Utilization of Information

We shall properly manage and effectively utilize the confidential information of our company, the confidential information obtained from other companies, and the personal information of our customers and employees and shall not obtain any information through improper means. We shall thoroughly execute IT security management for our computer systems and the data-resources saved on them.

#### 6. Prohibition of Insider Trading

To maintain the trust of the securities market, we shall not use non-public information about the Daikin Group or other companies to buy or sell stocks or other securities (insider trading).

#### 7. Timely and Appropriate Disclosure of Corporate Information

Aiming to be an "open company" with high transparency and earn the respect of society, we shall actively convey corporate information in a timely fashion not only to shareholders and investors but also to a wide spectrum of society, and engage in two-way communication.

#### 8. Preservation of the Global Environment

We shall observe all applicable environment laws and regulations of each country and region and practice initiatives that sustain and improve the environment in all aspects of our business operations, including product development, manufacturing, sales, distribution, and services. Also, each and every one of us shall strive to promote environmentally conscious actions.

#### 9. Ensuring the Safety of Operations

We shall take all possible precautions for safe operations and act with a mindset of "Safety First" to ensure the safety of the workplace and further gain the trust of people in the regions we serve.

#### 10. Respect for Human Rights and Diversity in the Workplace and Observance of Labor Laws

We shall respect the human rights of each and every employee and diversity in values and approach to work while striving to create a workplace that is safe and comfortable to work. We shall also observe both the letter and spirit of all labor laws and regulations of each country and region, and under no circumstances sanction the labor performed under compulsion or against a person's will (forced labor), or labor of children who do not meet the minimum age requirements for labor as regulated by laws and regulations of each country and region (child labor).

#### 11. Protection of Company Assets

We shall properly manage the tangible and intangible assets of our company to protect and utilize effectively these assets.

#### 12. Proper Handling of Accounting Procedures

We shall comply with all accounting standards and tax laws of each country and region as well as internal company rules in properly performing accounting procedures and shall make every effort to improve internal controls.

#### 13. Practicing Moderation in Entertainment and Gift Exchanges

We shall exercise moderation and perform within the acceptable range of social norms and obey the laws and regulations of each country and region in regards to entertainment and exchange of presents performed relating to our business. In particular, we shall neither entertain nor provide gifts of monetary value to public officials at home and abroad in violation of applicable laws and regulations in each country and region.

#### 14. Maintaining a Firm Attitude against Anti-social Activities

We shall take a firm attitude against anti-social force or organization that threatens the safety and order of the citizens of society.

#### 15. Observing Various Business Law and Regulation

We shall accurately comprehend and observe all business laws and regulations of each country and region applicable to our business activities.

# Participation in the Global Compact

#### **Building a System for Unified Group Action**

In October 2008, Daikin Industries' participation in the United Nations Global Compact was acknowledged.

The United Nations Global Compact, proposed by former United Nations Secretary-General Kofi Annan in 1999 at the World Economic Forum, presents a unique strategic platform for companies to advance their commitments to sustainability and corporate



This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

citizenship. The Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment, and anti-corruption.

In August 2008, we established our Group Compliance Guidelines. And in September 2008, we revised our Handbook for Corporate Ethics, adding items such as the abolition of forced labor and child labor. In this way, we are incorporating the spirit of the Global Compact into our Group management strategy and putting it into action in our business activities as we strive to contribute to a sustainable society and raise the Daikin Group's corporate value.

- See Group Compliance Guidelines (Page 14)
- See Compliance and Risk Management Efforts (Page 25)

#### Ten Principles of the UN Global Compact

#### **Human Rights**

- 1. Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2. make sure that they are not complicit in human rights abuses.

#### Labour Standards

- 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4. the elimination of all forms of forced and compulsory labour;
- 5. the effective abolition of child labour; and
- 6. the elimination of discrimination in respect of employment and occupation.

#### Environment

- 7. Businesses should support a precautionary approach to environmental challenges;
- 8. undertake initiatives to promote greater environmental responsibility; and
- 9. encourage the development and diffusion of environmentally friendly technologies.

#### Anti-Corruption

10. Businesses should work against corruption in all its forms, including extortion and bribery.

## Daikin's CSR CSR Management



The Daikin Group believes that CSR means to fulfill our responsibility to society through the implementation of Our Group Philosophy while adhering to the basic principles of corporate philosophy and legal compliance. We are stepping up CSR activities at overseas group companies.

# **CSR Promotion Activities**

#### **Building a System for Unified Group CSR**

The Daikin Group has systems for the comprehensive, cross-organizational promotion of CSR activities throughout the entire group.

#### Read more (Page 20)

- **CSR Management Structure**
- CSR Promotion Plan
- Communication with NPOs, NGOs, and Industry Organizations

### **Corporate Governance**

#### Outside Viewpoint Ensures Sound Transparent Management

Daikin Industries' corporate governance system aims for fast decision-making and execution by having the two together in an integrated management framework. We also have mechanisms that ensure the soundness and transparency of our management.

The board of directors oversees the CSR Committee, the Corporate Ethics and Risk Management Committee, and the Disclosure Committee, all of which work to ensure that corporate governance is based firmly in corporate social responsibility.

# **Compliance and Risk Management**

#### **Daikin in UN Global Compact Since 2008**

The Daikin Group has systems for carrying out integrated action in compliance and risk management.

We have given all employees our Handbook for Corporate Ethics, which summarizes employee rules for action and behavior. And in October 2008, we joined the United Nations Global Compact.

See Participation in the Global Compact (Page 16)

#### Read more (Page 22)

Corporate Governance
 Corporate Governance (as of March 31, 2012)

## Read more (Page 24)

- Management Structure
- Corporate Ethics and Risk Management A
- Compliance and Risk Management Efforts
- Education
- Help-Line
- Risk and Measures
- Preparing for Earthquakes

# Free Competition and Fair Business Dealings

The Daikin group strives for fair business practices through measures for complying with the Anti-Monopoly Act, Misleading Representations Act, and the Subcontract Act.

# **Prohibiting Bribes**

**Information Security** 

We do our utmost to ensure that business entertainment and gift-giving related to business are conducted within the laws and customs of each country and region.

We have built an information management system with specific in-house protocols in efforts to ensure complete control over information security.

And we constantly ensure that this system is being properly implemented and improved through regular audits and other checks.

# **Respect for Intellectual Property Rights**

We recognize intellectual property as one of a company's most valuable assets. We carry out proper and fair exercise of rights in response to violation of intellectual property as well as respect other companies' intellectual property. Training is held for each management level of employees and thorough checks are carried out during development of new products and technologies to ensure there is no infringement on the intellectual property of other companies.

**Read more** (Page 28)

Proper Management and Use of Information Personal Information

- **Read more** (Page 29)
  - Respect for Intellectual Property Rights
  - Encouraging Employees to Create Intellectual Property
  - Scientific Technology Transfer

**Read more** (Page 27)

**Read more** (Page 27)

# Suppliers Must Be in Legal Compliance

#### Management That Achieves Legal Compliance throughout the Supply Chain

The Daikin Group urges its suppliers to abide by laborrelated laws.

Before taking on new suppliers, in the Air Conditioning Manufacturing Division, we inquire into things like their management policies and labor situation. The Chemicals Division carries out unscheduled audits and monitors suppliers for improper labor practices such as excessive work hours.

# Respect for Human Rights

### Basic Policy of Respect for Human Rights and Diversity, and Compliance with Labor Laws

Daikin Industries makes employees aware of human rights issues as part of its goal of creating a corporate culture free of discrimination where each individual is respected.

The Handbook for Corporate Ethics states our policy of respecting human rights and diversity in the workplace and abiding by labor laws, and we constantly remind employees to be aware of this. **Read more** (Page 31)

- Policy and Management Structure
- Human Rights Education
- Preventing Harassment

#### Read more (Page 216)

# **CSR Management Structure**



Firmly grounded in corporate ethics and legal compliance, the Daikin Group's CSR efforts are aimed at contributing to society through its business activities.

The CSR Committee chaired by officers in charge of CSR sets Daikin's CSR direction and monitors the progress of CSR activities. Under this committee, their staff in the CSR & Global Environment Center lead comprehensive, cross-organizational CSR activities throughout the entire group.

- See How We View CSR in the Daikin Group (Page 13)
- See Participation in the Global Compact (Page 16)

# **CSR Promotion Plan**

#### Deepening Focus on Key Issues in Response to Society's Expectations

In the 10 years since we formulated Our Group Philosophy, Daikin has rapidly expanded as a global corporate group, and with this expansion have come greater demands from society and greater corporate social responsibility (CSR).

We have striven to fulfill our CSR by responding to the expectations of our various stakeholders while implementing our Group management philosophy. In 2011, the Daikin Group set targets for the coming five years that will determine our future. These targets reflect our resolve to step up our past activities and continue being a company that earns the trust of society.

# 2002

#### Daikin Formulates Our Group Philosophy as Its Basic Philosophy of Business

Daikin formulated Our Group Philosophy with the aim of becoming a corporate group trusted by worldwide customers and where employees in all countries could work with pride. By sharing Our Group Philosophy as the fundamental business philosophy of the entire Group, it has become the cornerstone of all employees' thoughts and actions.

The management policies and plans of Daikin Industries and all other Group companies were created in line with Our Group Philosophy, and we believe that the embodiment of this philosophy has brought us closer to becoming a truly global and excellent company.

• Our Group Philosophy (Page 12)

FUSION 05 mar	2002 ● Formulation of Our Group Philosophy
lage	2003
ement plan	<ul> <li>Establishment of Corporate Ethics Committee and Corporate Ethics Office</li> </ul>
	2004
	<ul> <li>2005</li> <li>Establishment of CSR Committee and CSR Office</li> <li>Announcement of CSR Philosophy inside and outside the company</li> </ul>

# 2005

# The Daikin Group Defines Its Philosophy on Responsibility towards Stakeholders

We believe that the Daikin Group's CSR is to conduct business that puts Our Group Philosophy into practice and fulfills our responsibility to society by meeting the expectations of shareholders.

How We View CSR in the Daikin Group (Page 13)

# 2008

#### Daikin Establishes Key Themes with Consideration for Business Plans and Impact on Stakeholders

In light of the unique characteristics and business plans of Daikin, a global manufacturer of air conditioners and fluorochemicals, we conduct CSR based on key themes in four areas: the environment, quality & customer satisfaction, human resources, and social contribution.

Key CSR Themes (Page 12)

# 2011 onward

Active CSR Based on the Fusion 15 Strategic Management Plan

In fiscal 2011, we launched our Fusion 15 strategic management plan, under which we strive to achieve mediumand long-term CSR goals and respond to the demand of society.

CSR Targets and Achievements (Page 32)

# Communication with NPOs, NGOs, and Industry Organizations

#### **Dialogue with Organizations**

The Daikin Group holds talks with a wide range of NPOs and NGOs, exchanging information on our respective strengths and striving to build a partnership.

In dialogue with industry organizations, we fulfill our responsibility as a top-level company by showing leadership and promoting communication.

FUSIO	2006
Ň 10	2007
strategic manageme	<ul> <li>2008</li> <li>Formulation of key CSR themes</li> <li>Participation in the United Nations Global Compact</li> <li>Become first company in air conditioner industry to be endorsed as Eco First Company</li> </ul>
nt plan	2009
_	2010
FUSION 15 strategic management plan	<ul> <li>2011 onward</li> <li>Begin to get stakeholders more involved</li> <li>Set targets in line with key themes</li> </ul>

# Corporate Governance



#### **Ensuring Sound, Transparent Management**

Unlike the committee system\* in the United States, where decision-making and execution are completely independent of each other, the Daikin Group employs an integrated management framework in which directors assume responsibility for both management and execution. This integrated management framework effectively speeds up decision-making and execution. We also have mechanisms that ensure the soundness and transparency of our management.

We appoint two outside board members with no vested interest in our company. Besides objectively monitoring and leading management, these outside board members sit on the Human Resources and Compensation Committee, where they discuss and deliberate on directors' personnel and compensation matters. We also appoint two external audit & supervisory board members who not only sit in on the Audit & Supervisory Board and the Board of Directors Meeting but also on key meetings such as the Executive Officers Meeting where they monitor and manage the execution of policy.

We also strive to raise soundness and transparency through the Corporate Advisors, who offer unbiased operational advice.

Of the 12 board members, there is one female and one non-Japanese national.

\* Committee system:

A system with a committee comprising mostly outside directors instead of audit & supervisory board members to raise management transparency.

#### Strengthening Governance in the Daikin Group Worldwide to Protect Stakeholders' Profit

The Independent Committee was formed to ensure that when there is a large-scale purchase of Daikin shares, Daikin's corporate value and shareholders' joint profit are protected. The committee helps provide our shareholders with impartial information so that there is transparency in our paperwork and dealings, as well as a high degree of objectivity. If someone does want to make a large-scale purchase of Daikin shares, our Daikin Shareholder Relationship Policy (DSR Policy) states that we will provide our shareholders with sufficient information on the situation.

To ensure that the interests of stakeholders other than shareholders are respected and protected, the board of directors oversees the CSR Committee, the Corporate Ethics and Risk Management Committee, and the Disclosure Committee, all of which work to ensure that corporate governance is based firmly in corporate social responsibility.

To ensure governance throughout the entire Group, including companies acquired by Daikin, the Group Management Meeting aims for action based on unified opinion throughout the Group. It does this by sharing important Group policies and basic strategies, as well as providing support for problem-solving in Group companies. The Group Auditors Meeting, made up of auditors from the main Group companies, works to strengthen auditing and control functions throughout the Group and ensure that these functions are working to the fullest. In our acquisition of Goodman Global Group, Inc. in fiscal 2012, in addition to adhering to existing systems, we established the Auditing Committee in order to ensure management transparency. We have also established two other new bodies: the Group Management Meeting, which deliberates on important management issues related to execution; and the Compensation Committee, which recommends and decides on compensation between Daikin and the Goodman Global Group.

The Group will pursue various ways to ensure optimal corporate governance grounded in CSR by looking at ways that we can revise our next-term strategic management plan Fusion15.



#### Corporate Governance (as of March 31, 2012)

# Management Structure

#### Conducting Integrated Group-Wide Promotion of Compliance and Risk Management

The Daikin Group has a unified system for the promotion of compliance and risk management.

The Corporate Ethics and Risk Management Committee is the organ for leading group-wide corporate ethics activities. It is headed by the Officer in Charge of Compliance and Corporate Ethics and made up of general managers and presidents of major Group companies in Japan. As a rule, this committee meets twice a year to discuss and work towards solving a variety of issues.

Monthly meetings are held by compliance and risk management leaders (CRLs), who are appointed in each division and major Group company in Japan. The goal of the CRLs is to follow the state of compliance and risk management activities, share information, and ensure that measures are in place to prevent non-compliance and unnecessary risks.

#### Building Compliance and Risk Management Systems for Overseas Group Companies

Modeled on Daikin Industries in Japan, a compliance and risk management system has been built for each country and world region to match particular local needs.

Each of these systems has compliance committees and Corporate Ethics Handbooks, and they conduct regular self assessments and risk management checks.

As well, Corporate Ethics and Risk Management Committee members of Daikin Industries regularly visit overseas Group companies to join compliance committee meetings, where they confirm the state of compliance and risk management, and share information. This process enables Daikin Industries and its overseas companies to share and implement each other's best practices.



#### Corporate Ethics and Risk Management



Compliance meeting in India

## Handbook for Corporate Ethics, and Regular Self Assessments

Daikin's Handbook for Corporate Ethics summarizes employee rules for action and behavior to ensure compliance in Japan. As well, employees in Japan have been given compliance cards and are urged to carry these with them at all times to ensure that they always follow rules and ethics.

In the area of legal compliance, compliance and risk management leaders (CRLs) in each division head efforts to gather the latest legal information and check to see if laws are reflected in company rules and manuals. There are also monthly daily triple checks to ensure everyone is following laws and company rules and manuals. In 1995, we introduced self assessments, a Daikin initiative, which are conducted once a year in 全実施電ハンドブック 企業施電ハンドブック 90000000 97001000000

Handbook for Corporate Ethics

all divisions and Group companies to ensure soundness in both legal compliance and risk matters. Based on the results of these self assessments, the Legal Affairs, Compliance and Intellectual Property Department conducts legal audits in divisions and Group companies, while the Internal Auditing Department confirms legal compliance through audits.

In the area of risk management, all divisions conduct risk management checks along with self assessments. If any major risks are identified by these checks, measures are drawn up to reduce such risks.

- See Group Compliance Guidelines (Page 14)
- Ensuring Legal Compliance in the Entire Supply Chain (Responsibility to Business Partners) (Page 216)

# Education

# **Educating Employees Towards Thorough Compliance**

We strive to make every employee constantly aware of compliance through a special emphasis on educational activities. We constantly improve these through better compliance education tools and improved ways to relay the importance of compliance.

For example, employees who are studying look at case studies related to legal matters in specific areas, such as management, production, and procurement. Education is also divided by employee category, with courses for directors, new employees, newly appointed managers, CRLs, and other kinds of employees.

And to raise employees' compliance awareness, training is supplemented by sessions with individual division heads and managers, who tour workplaces to talk about the importance of compliance from their own experience.

In fiscal 2012, Daikin's Compliance Caravan made up of representatives from the Legal Department and Service Department toured six service bases in Japan to explain the assumed risks and key points of compliance and to lead training that included active dialogue on case studies relevant to Daikin business.

Every two months, employees receive an email newsletter called Daikin Compliance News, which uses familiar case studies to raise employee awareness of the importance of compliance.

# Help-Line

#### Help-Line for Corporate Ethics Offers Counseling and Gathers Opinions

We have a Help-Line for Corporate Ethics in the Legal Affairs, Compliance and Intellectual Property Department, where employees can give opinions or receive consultation on all corporate ethics matters. The names of all employees who call are kept confidential.

The Legal Affairs, Compliance and Intellectual Property Department investigates all queries and opinions to the Help-Line, and works with related company divisions to decide on measures to prevent the reoccurrence of problems. This makes for the smooth creation of measures and the solution of problems.

To ensure that the help-line is well publicized, the help-line's contact information is provided on the compliance card that all employees carry with them at all times.

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# **Risk and Measures**

#### Identifying the Most Important Risks, then Formulating and Implementing Measures

With the Daikin Group expanding rapidly around the globe, we have introduced company-wide, crossorganizational risk management in order to quickly get an overall picture of risks from a global point of view and reduce the risks.

All divisions carry out annual risk assessments in which they determine important risks and create measures to deal with them. Based on the results of these assessments, the most important company-wide risks are determined, with measures proposed and implemented to deal with them in order to reduce risk.

In fiscal 2012, there were seven important risks identified, including earthquakes, the building of a system for managing global Group intellectual property rights, dealing with bylaws on the elimination of crime syndicates, and information leaks. Measures were thus taken to deal with these.

# Preparing for Earthquakes

#### **Revamping Earthquake Preparations Based on Government Estimates**

Daikin has made earthquake risk measures a key company-wide theme and we are formulating measures via task-specific teams.

Based on estimates made by the Central Disaster Management Council of Japan's Cabinet Office, we are revising standards for earthquake reinforcement and flooding measures at our plants as part of proposed disaster preparation plans. We are progressing with factory earthquake reinforcement measures and chemical plant flooding measures based on these plans.

We are also creating a business continuity plan (BCP) that includes concrete measures to eliminate risk and we are putting this plan into action. Group companies are all proceeding with their own BCPs.

## Free Competition and Fair Business Dealings

# Thorough Compliance with the Anti-Monopoly Act, Misleading Representations Act, and Subcontract Act

Based on our Group Compliance Guidelines, which state that we conduct free competition and fair business dealings, the Daikin group conducts fair business practices through measures for complying with the Anti-Monopoly Act, Misleading Representations Act, and the Subcontract Act.

For example, annual training plans are made based on the needs of each division. As necessary, these division-based training courses will be assigned experts such as lawyers and instructors from the Legal Affairs, Compliance and Intellectual Property Department. In this way, communication with each division ensures the most effective training. At the same time, self assessments include checks that relevant laws are being obeyed.

For more information, see Education. (Page 25)



# Reasonable Business Entertainment and Gift-Giving

#### **Thorough Measures to Prevent Bribes**

The Group Compliance Guidelines state that we shall conduct business entertainment and gift-giving within the laws and customs of each country and region. We are especially strict in enforcing this in relation to gifts and entertainment for government officials.

To this end, we hold company-wide training so that employees obey rules on sound and transparent relations with government offices, are compliant with the Political Funds Control Law and the Public Offices Election Act, and conduct reasonable entertainment and gift-giving with suppliers.

# Proper Management and Use of Information

#### Proper Management and Use of All Confidential Information Including That of Other Companies

The Group Compliance Guidelines state that we manage and use confidential information appropriately. Information managers in each division follow in-house protocols in thoroughly managing confidential information, be it our own or that of other companies. The system undergoes continuous improvement as employees carry out their own self assessments, the Legal Affairs, Compliance and Intellectual Property Department carries out legal audits, and the Internal Auditing Department conducts audits.

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## **Personal Information**

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See Protecting Customer Information (Responsibility to Customers) (Page 186)

# **Respect for Intellectual Property Rights**

#### Acquire Intellectual Property Rights While Respecting That of Other Companies As Well

Daikin Industries understands that intellectual property rights constitute a valuable company asset. We thus strive to both protect these rights and use them effectively. Our Group Compliance Guidelines state that we will respect other companies' intellectual property rights and ensure that our inventions do not infringe on these companies. Using the guidelines, we formulated more detailed points in our Compliance Action Guidelines, which state that we will acquire patents and avoid infringement by having the person in charge of R&D at Daikin be the person responsible for a patent and having the researcher/developer understand that he/she is the sole developer of the product or invention.

In new product and new technology development, part of the design review process involves verifying that these products and technologies do not infringe on existing patents. In collaborations with other companies, confidential technologies and know-how disclosed to the other party is designated as such and kept out of reach.

#### **Intellectual Property Manager in Research Department**

To actively support researchers/developers, the Legal Affairs, Compliance and Intellectual Property Department assigns an intellectual property manager in each division.

The intellectual property managers keep in contact with each other, and manage the variety of intellectual property matters that come up daily (filing/acquisition of rights, reduction of risk of infringement upon and infringement by other companies, etc.). They also educate employees at various levels on intellectual property and reward Daikin patent awardees. And to ensure strategic implementation of intellectual property activities, they form patent networks with researchers/developers and strengthen global intellectual property survey functions.

In fiscal 2013, we are aiming to better manage our intellectual property rights by acquiring and using a greater number of patents and higher quality patents.

#### Strengthening the Intellectual Property Rights System at Overseas Group Companies

We are also strengthening our intellectual property rights systems at our overseas R&D bases. In China in particular, at the R&D bases of group companies, besides patent applications made so far, efforts are being made to acquire intellectual property rights by submitting at least 50 applications a year for utility models aimed at preventing product copying in fiscal 2012. As well, we are stepping up patent applications in newly emerging countries like India and Brazil in order to gain an advantage in business in these markets.

We will continue to acquire and apply intellectual property rights—the fruits of our R&D—around the world, while also ensuring that we avoid inadvertently infringing on the intellectual property of other companies.

## **Encouraging Employees to Create Intellectual Property**

See Spurring the Creation of Intellectual Property (Resposibility to Employees) (Page 211)

# Scientific Technology Transfer

# Free-of-Charge Access to Patent for Technology to Reduce Refrigerant Environmental Impact

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Daikin strives to make available technologies that improve society.

In September 2011, we gave newly emerging countries free-of-charge access to the "Basic Patent Indispensable for the Manufacture and Sale of Air Conditioners Using R32 Single Component Refrigerant." This helps those countries reduce their environmental impact from refrigerants.

See Key Activities of Fiscal 2012: Practical Application of Next-Generation Refrigerants (Page 52)

# Policy and Management Structure

#### Respecting Human Rights in Action Guidelines Based on the U.N. Global Compact

Daikin Industries makes employees aware of human rights issues as part of its goal of creating a corporate culture free of discrimination where each individual is respected.

To this end, regular self assessments by employees ensure that no human rights violations occur. There is also human rights education when necessary for officers and other management levels.

In October 2008, Daikin Industries took part in the United Nations Global Compact for aligning operations to universally accepted principles on human rights, labor standards, the environment, and anti-corruption. Prior to that, we revised our Handbook for Corporate Ethics, and as one of the guidelines in the Group Compliance Guidelines, we stated our policy of no forced labor or child labor, respect for individual human rights and for diverse values and ways of looking at work, and the creation of a safe and employee-friendly workplace.

The Group Compliance Guidelines were revised to create the Compliance Action Guidelines, which detail the laws and regulations that Daikin Industries and the Daikin Group in Japan must follow.

Based on the Global Compliance Guidelines, the Handbook for Corporate Ethics for each major overseas group company was revised to ensure thorough respect for human rights in the workplace.

#### See Participation in the Global Compact (Page 16)

# Human Rights Education

#### Holding Training for All Job Descriptions including Officers, Managers, and New Employees

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Part of Daikin Industries' human rights awareness efforts is the annual Antidiscrimination Committee meetings, under which is held human rights training for job descriptions including officers, managers, and new employees.

Other efforts to raise human rights awareness among employees include articles in the company newsletter and human rights slogan contests at the factories.

We are also a member of the Corporate Report Association of Human Rights Issues and the Osaka Corporate Human Rights Promotion Council, through which we take part in extensive human rights awareness activities that will make our own employees more conscious of human rights.

# **Preventing Harassment**

#### **Educating Managers on Sexual and Power Harassment**

The Compliance Action Guidelines promote respect for human rights and diversity and compliance with labor laws in the workplace. It is our policy to respect human rights by building a fair, bright, and positive workplace that is free of sexual harassment and power harassment.

In fiscal 2012, the entire company joined in a unified education campaign as posters condemning sexual harassment and power harassment were put up in workplaces, branches, cafeterias, and hallways. We also continued training sessions on sexual and power harassment from the previous year.

In fiscal 2011, we launched our Fusion 15 strategic management plan under which we seek to meet the needs of society by achieving medium-term goals in line with our key CSR themes.

# **CSR Challenges Facing Daikin**

#### Challenge 1: Safeguarding the climate system

#### Meeting increasing air conditioner demand in emerging countries

Air conditioner demand is rapidly increasing in emerging countries like China, India, and Turkey, and this in turn is driving up electricity consumption. Companies must make energy-efficient products that match the needs of the region.



# Preventing global warming

Japan faces an energy shortage following the March 2011 earthquake and tsunami. Air conditioners consume an especially large amount of electricity, and companies must make these products energy efficient.



#### Mitigating environmental load by refrigerants

Ozone-depleting refrigerants have been replaced with non-ozone-depleting ones, but these refrigerants are still considered a cause of global warming.



#### Challenge 2: Contributing to societies

Increasing employment, developing human resources, and helping communities develop

Emerging countries require the creation of more new jobs and the training of human resources to support their development and raise the standard of living of their people.



#### Providing the World with Products That Help Customers Reduce CO<sub>2</sub> Emissions

- Increasing use of inverter products (Page 83)
- Increasing use of heat-pump type heating systems (Page 85)
- Offering energy-saving solutions (Page 87)
- Developing future refrigerants (Page 96)

#### Medium-term CSR Goals and Plans (by Fiscal 2015)

- Increase use of environmentally conscious products in emerging countries, where growth is particularly remarkable. Increasing sales of inverter air conditioners and other energy-efficient products could reduce CO2 emissions in emerging countries by 30 million tons of CO2.
- Create global demand in the power conservation business.
- Develop technologies and introduce products that comply with refrigerant restrictions.

#### Contributing to CO<sub>2</sub> Emission Reductions through Daikin Products\* CO<sub>2</sub> emissions



#### Fiscal 2012 Achievements

- CO2 Emission Reductions in Emerging Countries: Estimated 18 Million Tons\* (Page 83)
- Practical Application of Next-Generation Refrigerant (Page 52)



Products with Low Environmental Impact (Page 73)

\* Calculation of annual reduction amount as a result of using energy-efficient inverter products, compared to the baseline of annual greenhouse gas emissions in the case of using conventional air conditioners such as non-inverter products; based on guidelines of Japan Electronics and Information Technology Industries Association (JEITA). The figure for CO2 emission reductions is the annual reduction amount multiplied by the number of air conditioners in operation.

#### Key CSR Themes

#### Minimizing Environmental Impact in Production

- Reducing greenhouse gas emissions (Page 108)
- Effectively using water and other resources (Page 129)
- Reducing chemicals (Page 127)

#### Medium-term CSR Goals and Plans (by Fiscal 2015)

By 2015, reduce greenhouse gas emissions to one-third of fiscal 2005 levels

#### **Reducing Greenhouse Gases**



#### **Fiscal 2012 Achievements**

68% Reduction in Greenhouse Gases (Page 108)



#### Expanding "Green Heart"\*

- Reforestation and tree-planting (Page 236)
- Environmental education (Page 153)

#### Medium-term CSR Goals and Plans (by Fiscal 2015)

# Protecting biodiversity around the world

#### Expanding a Green Heart



\* Green Heart: Think of the Earth and take care of the environment

#### Fiscal 2012 Achievements

Protection of Biodiversity (At Three Levels: Globally, Locally, and at Daikin Sites) (Page 156)



# Quality and Customer Satisfaction Targets and Achievements

#### Key CSR Themes

# Giving Customers Unmatched Satisfaction

- Safety & Quality: Products are designed from the perspective of the customer to assure safety and quality.
- Customer Satisfaction: We strive to achieve the ultimate in quality service: speed, accuracy, and good manners.
- Product Quality and Safety (Page 173)
- Customer Satisfaction (Page 180)

#### Medium-term CSR Goals and Plans (by Fiscal 2015)

- Daikin's quality standard gives superior, optimal products that earn customer trust.
- We have a system for developing products that meet the needs of customers, wherever they live.

We are switching to a global development system and strengthening our marketing research functions throughout the world.



#### **Fiscal 2012 Achievements**

Quality Assurance in Emerging Countries (Page 58)



Global Air Conditioner
 Development Sites (Page 181)



#### Through People-Centered Management, Creating a Workplace Where Employees Can Demonstrate Their Abilities

- Human Resource Development: The entire Daikin Group trains human resources to match business growth.
- Diversity of Employees: We strive to build a diverse workplace where everyone can play an important role by respecting each other regardless of age, sex, nationality, or physical disabilities.
- Balancing the Responsibilities of Work and Family: We allow employees to work flexible schedules so that they can have quality time with their families.
- Occupational Safety & Health: We strive for employee satisfaction by building a safe, comfortable workplace where employees can enjoy both mental and physical well-being.
- Fostering Human Resources (Page 207)
- Workplace Diversity (Page 192)
- Work-Life Balance (Page 198)
- Occupational Safety and Health (Page 202)

#### Medium-term CSR Goals and Plans (by Fiscal 2015)

- Becoming a corporate group with global values by working autonomously and freely in line with Our Group Philosophy and shared policies and strategies
- Communication between head office and local bases
- Making greater use of women and experienced employees





#### Fiscal 2012 Achievements

The Embodiment of Daikin CSR Development of Urusara 7 (Page 46)



#### Building an HR System Suitable for a Corporate Group with Global Values

- Hiring: Hiring talented HR from around the world
  - Conduct internship programs worldwide
  - Participate in on-campus recruiting worldwide
- Fostering, placement: Assigning people of all nationalities to be Daikin executives
  - Percentage of presidents hired locally: Approx. 40%
  - Percentage of locals in executive positions: Approx. 45%
  - Overseas base practical training: 230 (cumulative)
- Assessment, compensation: Increase the use of performance-based unify HR and compensation systems for senior management at all bases.
- Global Personnel Development (Page 61)
# Social Contribution Targets and Achievements

### Key CSR Themes

# **Employees Taking the Initiative in** • Contribute to society as a **Local Grassroots Action** respected and trusted con

- Through contributions to environmental protection, education support, and arts and culture, Daikin employees take the lead in community service aimed at providing each region with the support it needs.
- Communities (Page 225)

### Medium-term CSR Goals and Plans (by Fiscal 2015)

Contribute to society as a respected and trusted company with roots in communities around the world.



### Fiscal 2012 Achievements

 Social Contributions with Strong Community Ties (Page 64)



 A Good Corporate Citizen
 Activities in Each Community (Page 239)

### Daikin's CSR Honors for Daikin



### **Daikin Group**

Socially Responsible Investment Indexes

Chosen for inclusion in the Dow Jones Sustainability Asia Pacific Index



Chosen for inclusion in the Morningstar Socially Responsible Investment Index



### Granted the "Nadeshiko Brand"



# Daikin Air-Conditioning Technology (Shanghai), Ltd.

Named a "Trusted and Responsible Company" by the Shanghai Household Appliances Association





### **Daikin Industries**

Urusara 7 won the Minister's Prize, the Ministry of Economy, Trade and Industry in the fiscal 2012 Grand Prize for Excellence in Energy Efficiency and Conservation.



### **Daikin Australia**

Head office building received 5.5 stars in Australia's NABERS system for ranking energy-efficient buildings



Daikin's electricity-saving solution for commercial air conditioners won the Chairman's Prize, the Energy Conservation Center, Japan in the fiscal 2012 Grand Prize for Excellence in Energy Efficiency and Conservation.



Daikin's Japanese website for its reforestation project in Indonesia, won the Biodiversity Prize in the 12th Environmental Goo Awards.



Daikin's inverter technology using no electrolytic capacitor was developed to help spread the use of air conditioners in emerging countries. For this technology, Daikin won a Technical Achievement Award in the Consumer Electronics category from the Japan Electrical Manufacturers' Association (JEMA).

# Quality & Customer Satisfaction

### **Daikin Industries**

Urusara 7 Won a Red Dot Design Award



### Daikin Refrigeration (Suzhou) Co., Ltd.

### New Suzhou Plant

Awarded two stars in China's Green Building Design Label system

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### Daikin Airconditioning (Singapore) Pte. Ltd.

Magnetic centrifugal chiller Selected for the Singapore Green Building Council's Green Chiller



### **Daikin New Zealand**

Honored in the heat pump category of the fiscal 2012 Canstar Blue Most Satisfied Customers Awards



### Daikin (China) Investment Co., Ltd.

Won a fiscal 2012 Trendsetting Brand Award from *Rayli* magazine



Selected Excellent Business Partner in the air conditioner category of the 2012 China Real Estate Developers Top 500



Daikin Air-Conditioning Technology (Shanghai), Ltd.

Awarded a rank of "A," the highest, in the Household Appliances Maintenance Awards, given by the Shanghai Household Appliances Association



### ROTEX

HPSU Compact and GSU Compact received 2013 Plus X Awards



### **Recognition of Occupational Safety and Health**

### Daikin Industries (Thailand) Ltd.

Thai Ministry of Industry Received the Prime Minister's Industry Award 2012, Safety Management



### Daikin Airconditioning (Singapore) Pte.

Ranked BizSafe Star Level Note: Ranked according to the implementation level of occupational safety and health.



### **Recognition of Personnel Systems**

### **Daikin Industries**

Won in the Employee Diversity category of the 5th Diversity Management Awards, sponsored by the *Weekly Toyo Keizai* 



#### Daikin (China) Investment Co., Ltd.

Chosen one of the top 100 companies in China in 2012 in maximizing the strength of its human resources



### Daikin Refrigeration (Suzhou) Co., Ltd.

Commended as a company with an advanced system for subsidizing employee housing

## Social Contribution

#### Daikin America Inc.

Received Alabama Medium Manufacturer of the Year Award



#### Daikin Europe N.V.

Chosen for the Top Employers 2013 awards for the eighth year in a row



#### Daikin America Inc.

Received the Diversity Award from the Decatur-Morgan Chamber of Commerce



### Daikin's CSR Independent Opinions



Outside Expert Comments on Daikin Group CSR (June 2013)



### Takeshi Shimotaya Managing Directer, Sustainavision Ltd.

### Profile

CSR consultant (London base). He worked for a heavy industries company in Japan, gaining experiences in human resources, employee education, labor management, health and safety. He also had been engaged in a new environmental business company to assist the implementation of innovative environmental management, recycling systems, and renewable energy brand development as a start up from scratch. He obtained the degrees in MSc environmental science from the University of East Anglia and in MBA from Lancaster University. After undertaken both degrees, he established Sustainavision Ltd., a CSR consultancy, in London in 2010 to bridge the gap between Japanese CSR and European CSR.

After reading the 2013 Daikin CSR Report, I would like to give my opinions from a global point of view on the Daikin Group's CSR activities and its disclosure of information.

I think it is significant that the Daikin Group, through its Fusion 15 corporate strategy, is committed to taking on the challenges we face today, namely safeguarding the climate system and contributing to societies. A good example of this is the company's efforts to use its technologies to develop and spread the use of environmentally friendly air conditioners in order to help alleviate the problems of increased energy consumption and CO<sub>2</sub> emissions that will accompany the growing demand for air conditioners in newly emerging countries. I expect to see Daikin continue to develop environmental technologies that contribute to a sustainable society by reducing environmental impact.

As well, under the theme of People-Centered Management, the Daikin Group strives to develop global personnel and promote diversity. It especially strives to become a truly global company by building a personnel system worthy a multinational corporation, hiring top talent around the world, and appointing globally minded people—no matter what their nationality—to executive positions. I hope Daikin continues to show leadership as a globalized Japanese company.

That being said, I would like to suggest Daikin take on the following CSR tasks.

### For Stakeholders

The report identified six types of stakeholders. It's important for Daikin to explain and show, for example, why certain stakeholders are important to the company, as well as how it is approaching and communicating with each type of stakeholder. It is also becoming crucial that Daikin, as a company doing business worldwide, identify the key stakeholders in each region, and that it report on how it has met the needs and expectations of these stakeholders. If this is not sufficiently identified, readers of the report are unsure which region of stakeholders a message is meant for, and it's therefore possible that the message will not get across to the target stakeholders. This is why I would like Daikin to more clearly identify stakeholder groups.

## **CSR** Promotion

The purpose of a CSR Report is to report to stakeholders on the results of CSR activities and to explain the policy and plans of medium- and long-term CSR activities. Because Daikin's CSR Report contains information only on environmental action plans, I think it is difficult for stakeholders to see what kind of CSR action Daikin intends to take in future. As well, while the beginning of this report lists the CSR guidelines that Daikin referenced, it is difficult for readers to see exactly how Daikin used these guidelines. I would like Daikin to show stakeholders just how serious it is about its CSR initiatives by drawing up overall medium- and long-term CSR action plans along with key performance indicators and demonstrating its commitment to implementing and achieving these. Daikin can ensure transparency and build trust reporting everything—both positive and negative—in its CSR Report. In other countries, stakeholders want to know how a company makes and implements its CSR plans. I recommend that Daikin go further in adopting international guidelines and aggressively disclosing information.

## **Business and Human Rights**

In March 2011, the United Nations announced the Guiding Principles on Business and Human Rights, which shone a worldwide spotlight on the links between human rights and business activity. Daikin's CSR Report contains no concrete information on human rights and labor practices in Daikin, its subsidiaries, the supply chain, or communities. I would like to suggest that Daikin think about starting and reporting on initiatives related to human rights and labor practices; for example, expanding green procurement to include CSR procurement.



# **Key Activities**

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### Fiscal 2012 Key Activities

# Feature The Embodiment of Daikin CSR Development of Urusara 7

The Ultimate in Manufacturing Achieves Outstanding Energy Efficiency and Comfort

- Human Resources: Shiga Plant Manufacturing Brings Together the Power of Human Resources
- Environment: New Refrigerant and Structure Achieve Outstanding Air Conditioning Energy-Savings Performance
- Quality and Customer Satisfaction: Performance and Design Reflect the Desires of the Market

Practical Application of Next-Generation Refrigerant

# World's First Adoption of R32, a Refrigerant with Low Global Warming Potential

Dialogue with Environmental and Air Conditioning Experts around the World

- Refrigerants Must Not Harm the Ozone Layer or Contribute to Global Warming
- Commercialize R32 Products and Demonstrate Daikin's Direction

Quality and Customer Satisfaction

nvironment

### **Quality Assurance in Emerging Countries**

# Striving to Achieve the Level of Quality Sought by Global Customers

Raising the Bar at Dealers and Authorized Service Providers

- India: Key Market with Hidden Potential
- Dealing with India's Extreme Air Conditioner Environment
- Surveying Customer Needs and Training Employees to Raise Service Quality







Human Resources

Social

Contribution

#### **Global Personnel Development**

# Achieving Globally Minded Management Emphasizing Unity of the Daikin Group

Training People Who Can Be a Bridge Between Countries

- Centrifugal Forces and Cohesive Forces Indispensable to Overseas Strategy
- Accelerate Management Globalization by Training Local Management Candidates at Overseas Bases
- Focusing on Global HR Development That Brings Together the Head Office and Bases and Drives Home Group Philosophy

Social Contributions with Strong Community Ties

# Strengthening Ties with the Community

Community Contributions as the Core of Daikin Management

- Community Understanding and Cooperation Essential for a Chemical Company
- Homespun Event with Local Residents Educates Public about Japan
- Contributions to the Community Recognized with Alabama Business Award







### The Ultimate in Manufacturing Achieves Outstanding Energy Efficiency and Comfort

Competition among manufacturers in the global air conditioner market is heating up. Amidst a changing market environment, Daikin concentrated the strengths of its *monozukuri* (the art of manufacturing), which is aimed at performance quality, and the capabilities of its human resources, to develop an air conditioner offering the type of Japanese quality that the world has come to expect. The result was Urusara 7, a residential air conditioner released in November 2012 and winner of that year's Grand Prize for Excellence in Energy Efficiency and Conservation. From the very beginning of product development, Daikin adopted a concurrent system that brought together personnel from all relevant company divisions. Thanks to the passion and ingenuity intrinsic to Daikin manufacturing, the Urusara 7 was able to achieve outstanding energy efficiency and comfort. Development of this product could also be called the embodiment of Daikin CSR, since it centered on human resources in pursuit of solutions based on the environment, quality, and customer satisfaction (CS).



For the industry-leading<sup>\*2</sup> energy efficiency of the Urusara 7, Daikin received the Minister's Prize, the Ministry of Economy, Trade and Industry in the Fiscal 2012 Grand Prize for Excellence in Energy Efficiency and Conservation (Product Category & Business Model Category).

Product: Urusara 7 (S40PTRXP, S56PTRXP, S63PTRXP, S71PTRXP) Sponsor: The Energy Conservation Center, Japan



# Features of the Urusara 7



The new refrigerant helps to mitigate the effects of global warming with 1.5 times the heat-carrying capacity of conventional refrigerants and just one-third the global warming potential.





### APF 7.0, the industry's highest\*2

With an annual performance factor (APF) increase of 0.4 (6%), the product achieves the industry's highest energy efficiency.



### Innovative airflow method: "Circulating airflow"

Thanks to a new flap and dual intake structure, the product achieves a circulating airflow that takes air to every corner of even a large living room.



### Sarara drying operation gives comfort and energy efficiency

Since only a portion of the heat exchanger is cooled, dehumidifying occurs without excessive cooling of the room. Plus, power consumption is only about half that of conventional reheating dehumidification (Daikin comparison).



### **Ururu humidifying operation offers improved no-water-supply humidification** Daikin's unique technology allows the Ururu to use the moisture already present in the air for humidification. Plus, the outdoor unit is 20% smaller.



### New Yuragi-pattern airflow reproduces a natural breeze effect

We improved our airflow control technology to achieve a natural breeze effect that is comfortable on the human body even over long periods of time.



### Unique air purifying technology: Streamer discharge

Daikin's unique technology traps, breaks down, and eliminates airborne particles such as mold and pollen while also keeping the inside of the air conditioner clean.

- \*1 For residential wall-mounted room air conditioners as of date of release (November 1, 2012).
- \*2 For residential wall-mounted room air conditioners (40-kW, 5.6-kW class) as of date of release (June 26, 2013). Seasonal power consumption: AN40PRP model: 1,145 kWh; AN56PRP model: 1,840 kWh

### Fiscal 2012 Key Activities Feature

## The Embodiment of Daikin CSR Development of Urusara 7



# Human Resources Concurrent Development System Transcends Company Divisions Shiga Plant Manufacturing Brings Together the Power of Human Resources

### First True Test of Daikin's New Development System

A new development system came about because employees wanted to preserve the Daikin spirit of manufacturing. The new system's first target was revolutionary: achieve annual performance factor (APF) 7.0, a target that would require pooling the talents and energies of employees transcending company divisions.

Our Group Philosophy states that "the cumulative growth of all Group members serves as the foundation for the Group's development." This belief formed the basis of a revision of our development system as we embarked on a project that brought together employees from all relevant divisions under a new concurrent system.



### Free and Open Discussions Overcome Technical Barriers

Rather than just involving employees in the development and design divisions, we decided from the start of the development process that we needed to make everyone— whether they were from production technology, procurement, the factory, or marketing—a part of the manufacturing process. This allowed all employees to work as a team in preparing for and solving all challenges in all processes (for example, design, assembly of parts based on blueprints, and marketing). By looking ahead through the entire process until final product delivery, we were able to come up with entirely new ideas through constant discussion and debate.

By sharing the ideas and hopes of employees in all divisions in a customer-oriented process that brings out the collective ideal, we were able to both nurture employee talents and create products we could truly be proud of.

### A Word from the Project Leader

# All Employees Set a Revolutionary Target To Demonstrate the Strength of Japan's *Monozukuri*

APF is normally raised by between about 0.1 and 0.2 points each year, and this year we felt around 6.6 was a reasonable figure. However, we didn't believe that this was high enough to demonstrate the strength of Japanese manufacturing. We therefore set an extremely high target of APF 7.0 for the Urusara 7 and went about reaching this by revamping all facets of our development culture so that employees in all divisions, be it design, production, procurement, or marketing, could work as one unified team in re-thinking all aspects of the air conditioner— from refrigerant to indoor and outdoor units—from the ground up.

> Takahiro Okamoto Product Development Group, Air Conditioning Manufacturing Division



### Environment Creating a New Design Structure through Ground Up Development

New Refrigerant and Structure Achieve Outstanding Air Conditioning Energy-Savings Performance

### World's First Product\*1 Using New Refrigerant R32

Recent events in Japan like the Great East Japan Earthquake of March 2011, along with trends like the increase in living rooms larger than 20 square meters, have created a need for air conditioners that heat and cool spacious rooms while achieving low electricity costs. What eventually came out of this need was the use of the new refrigerant R32. Not only is R32 superior in energy savings, with 1.5 times the heat-carrying capacity of conventional refrigerants; it is also effective in mitigating the effects of global warming, with a global warming potential that is one-third that of conventional refrigerants. The difficulty, however, lies in controlling R32. Daikin utilized microfabrication technology to allow optimal control of R32 and developed a heat exchanger that takes full advantage of R32's characteristics. The result was the market release of the world's first air conditioner to use R32 refrigerant.

See "Practical Application of Next-Generation Refrigerant" for more on R32 (Page 52)

# Completely Revamping the Indoor Unit Design Structure to Increase Efficiency

Conventional air conditioners that draw air from the upper part of the unit do not allow sufficient utilization of the heat exchanger on the back of the indoor unit. By redesigning the interior unit from scratch and giving it a specially developed, industry-first\*1 flap with dual intake structure so that it sucks air from below, we boosted the efficiency of the heat exchanger.

This quest for energy efficiency resulted in the release of the Urusara 7, an air conditioner with an industry-best<sup>\*2</sup> APF 7.0. For this revolutionary improvement in energy efficiency, Daikin was honored with the Minister's Prize, the Ministry of Economy, Trade and Industry in the Fiscal 2012 Energy Conservation Grand Prize.



- \*1 For residential wall-mounted room air conditioners as of date of release (November 1, 2012).
- \*2 For residential wall-mounted room air conditioners (40-kW, 5.6-kW class) as of date of release (June 26, 2013).

Seasonal power consumption: AN40PRP model: 1,145 kWh; AN56PRP model: 1,840 kWh

### **Dual Intake Structure**



### A Word from the Mechanical Design Manager for Indoor Units

# Pursuit of Energy-Savings Gives Birth to Circulating Airflow and Even Room Temperature

With conventional air conditioners, cool air tends to stay at floor level. We solved this problem with the new dual intake structure, which although developed to give greater energy savings also ensures greater comfort by evenly distributing the airflow. Using new flaps employing the Coanda effect in which airflow clings to a nearby surface, we succeeded in creating a circulating airflow that draws in air from underneath and sends it quickly along the ceiling to all parts of the room. Air is efficiently circulated, even in spacious living rooms, to enable comfortable air conditioning in half time at even the temperature.

> Masanao Yasutomi Product Development Group, Air Conditioning Manufacturing Division

# Quality and Customer Satisfaction Giving Consumers the Comfort They Want Performance and Design Reflect the Desires of the Market

### **Customers Testing and Retail Installation Verification**

Daikin listened closely to the opinions of customers and dealers as it verified the performance and design during product development.

We designed the indoor unit of the Urusara 7 to have higher energy efficiency and give users greater comfort. However, these changes also gave it a dimensional depth of 37 cm, which was greater than previous indoor units. We did our best to make the design unobtrusive and conducted tests to learn what users thought of a thicker indoor unit. After installing this thicker unit in showrooms and asking user opinions, results showed that most people understood the energy efficiency and airflow benefits and did not care about the thickness as long as it offered energy-efficient performance. This provided the impetus for us to continue development with this thicker indoor unit. We also installed units in retail stores to get the opinion of dealers.

# Working with Researchers to Recreate a Natural Breeze Effect

We also strove to make sure the wind from the Urusara 7 was comfortable on the human body. Working jointly with researchers from the Prefectural University of Kumamoto to analyze the characteristics of wind in nature and improve our airflow control technology, we successfully developed a new flap that can instantly change the direction of airflow, just like natural breeze. All participants in the university experiments said that the new cooling breeze airflow that we developed felt good on the body, even over long periods of time.



Analyzing comfortable airflow



We conducted multiple simulations of the product in homes and stores to find out what end users and dealers thought about the design.

As a result of the collective work of many people, the Urusara 7 was an immediate hit in helping Daikin boost its air conditioner sales. It was also lauded for its looks as it took home a prize in the product design category of the prestigious Red Dot Design Awards 2013.



The Urusara 7 was chosen from among 4,662 entrees from 56 countries in the Red Dot Design Awards



### What Users Are Saying

- Although it seemed big when I saw it in the store, after having it installed, I found it quite attractive.
   (30-year-old woman)
- I've only used the heating function so far, but it keeps my feet warm and it can humidify, so I don't need a separate humidifier. (50-year-old woman)
- The airflow control and motion sensor give greater comfort than I expected. (60-year-old man)
- I'm very satisfied that it heats the room evenly, has sufficient heating power, and quickly makes the room comfortable. (30-year-old man)



## Dialogue with Environmental and Air Conditioning Experts around the World

The refrigerant circulates inside the air conditioner and carries heat: it is, for all practical purposes, the "lifeblood" of the product. At the same time, it is also the cause of problems like ozone depletion and global warming. As the world's only company making both air conditioners and refrigerants, Daikin has adopted a new refrigerant for air conditioners, R32, that has just one-third the global warming potential of conventional refrigerants. To create greater understanding of the significance of this fact, we engaged in dialogue with environmental and air conditioning experts at numerous international conferences.

# Background

### **Refrigerants Must Not Harm the Ozone Layer or Contribute to Global Warming**

There is growing worldwide interest in finding a next-generation refrigerant that does not harm the ozone layer or contribute to global warming.

At one time, CFCs were used as air conditioner refrigerants, but the 1987 Montreal Protocol designated CFCs as substances that seriously deplete the ozone layer and therefore called for their total phasing out. HCFCs became substitutes for CFCs; however, even they were later added to the list of banned substances under the Montreal Protocol since HCFCs also deplete the ozone layer. All HCFC production must be completely phased out in industrialized countries by 2020 and in developing countries by 2030.

Industrialized countries are in the process of replacing HCFCs with HFCs, which do not harm the ozone layer but which do contribute to global warming. The Kyoto Protocol, adopted in 1997, called for a reduction in HFC emissions.



### **Newly Developing Countries in Urgent Quest for Next-Generation Refrigerants**

HFCs such as R410A are the most commonly used refrigerants in industrialized countries. But developing countries are still using HCFCs because of the later date for their phasing out under the Montreal Protocol. These countries are thus still a source of these ozone-layer-depleting substances.

But starting in 2013, developing countries begin a schedule to reduce the amount of HCFCs used. Demand for air conditioners is rapidly increasing in these countries, and the amount of refrigerants is naturally expected to also increase. Because global warming will rise if developing countries follow industrialized countries in adopting R410A, there are increasing calls to bypass R410A and instead adopt a refrigerant with lower global warming impact. Industrialized countries are also aiming to reduce HFC emissions and like their developing country counterparts are on an intensifying quest for a next-generation refrigerant.

### **Decision on Next-Generation Refrigerants Must Consider All Factors, Not Just Environmental Performance**

Being the only manufacturer in the world making both air conditioners and refrigerants, Daikin is going full speed ahead to realize the practical application of next-generation refrigerants.

A number of substances are being considered as a next-generation refrigerant: R32, a type of HFC with a relatively low GWP; HFO refrigerants, which have a low GWP; and natural substances such as CO2 and propane, which have refrigerating characteristics.

A refrigerant may have a low GWP, but if its production requires large amounts of energy, or if the air conditioner using it exhibits poor energy efficiency, then the result will be a greater contribution to global warming. There are also safety considerations: the lower a refrigerant's GWP, the higher its flammability tends to be. Furthermore, besides the high cost of a refrigerant, the high cost of making an air conditioner using that refrigerant will make the product more expensive to buy. This means fewer people will buy it. In short, a decision on which next-generation refrigerant to adopt must take into account all relevant factors, including its contribution to global warming, its safety, economic viability, and efficiency.

Similarly, the functions needed in a refrigerant vary depending on the size and type of the air conditioner it will be used in, so it's necessary to select the most suitable refrigerant for each particular application.



### **Characteristics Needed in a Next-Generation Refrigerant**

### **International Discussions for Next-Generation Refrigerants**

In changing to a new refrigerant, there are numerous matters to be considered, such as standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), national regulations and standards, safety standards, installation and maintenance methods, refrigerant supply, and disposal of equipment. Choosing a refrigerant is not the work of one single company, but rather an exercise in international collaboration.

This is why Daikin takes part in discussions involving worldwide governments, regulatory organizations, industry groups, and air conditioner and refrigerant manufacturers. We also provide the information needed to make decisions on international rules and government policies, and when requested we provide information such as the results of tests.

By presenting information that is logical and objective from a perspective of what is best for society as a whole, we strive for dialogue that leads to the selection of the most appropriate refrigerant.



International conference on next-generation refrigerants

Fiscal 2012 Key Activities Environment

Practical Application of Next-Generation Refrigerant

### World's First Adoption of R32, a Refrigerant With Low Global Warming Potential



### **Commercialize R32 Products and Demonstrate Daikin's Direction**

After the numerous aforementioned activities in which we considered and evaluated refrigerants from all possible angles, Daikin determined R32 to be the most suitable refrigerant for air conditioners. One reason is that its GWP is just one-third that of R410A (an HFC mixture), the most common refrigerant in use in industrialized countries at present. In addition, R32's superb energy efficiency means that air conditioners using it emit fewer greenhouse gases and require less refrigerant volume to operate. And since it is not a mixture of different types of refrigerants like R410A, R32 will be ideal in the near future when the international community plans to have refrigerant recycling systems in place.

Although a number of industrialized countries have been proposing next-generation refrigerants with consideration for factors like their own competitiveness and economic performance, it has proven hard to come up with new technologies and actually release products. Daikin believes that its job as the leading air conditioner company is to first commercialize products and show developing countries the direction it is taking.

### Characteristics of Possible Next-Generation Refrigerants (for Residential and Light Commercial Air Conditioners)

		Environmental performance		Safety		Economic performance	Efficiency
		ODP	GWP*	Flammability	Toxicity	Equipment cost	Efficiency
Refrigerants currently used in developing countries	R22 (HCFC)	0.055	1,810	0	0	0	0
Refrigerants currently used in industrialized countries	R410A (HFC)	0	2,090	0	0	0	0
	R1234yf (HFO)	0	4	$\bigtriangleup$	0	$\bigtriangleup$	×
Possible next-generation refrigerants	R32 (HFC)	0	675	$\bigtriangleup$	0	0	0
	R744 (CO2)	0	1	0	$\bigcirc$	×	×
	R717 (ammonia)	0	0	$\bigtriangleup$	×	×	0
	R290 (propane)	0	3.3	×	0	0	0

\* GWP is quoted from the Fourth Assessment Report of the IPCC.

Note: × indicates a condition not met. △ indicates a condition partially met. ○ indicates a condition met.

 GWP of R32 Compared to Current Refrigerant (R410A)



### World's First R32 Air Conditioner Released in Japan and India

R32 has a slight degree of flammability, and until November 2012, it had not been commercialized as a refrigerant. However, countries around the world have begun to accept refrigerants that are mildly flammable with the goal of reducing global warming. Even the International Organization for Standardization (ISO) is currently revising safety standards for refrigeration and air conditioning equipment.

Manufacturing R32 air conditioners in India

In November 2012, for the first time ever Daikin began using R32 for residential air conditioners for the Japanese market. In October 2012, prior to market release, we held seminars for our installation contractors all over Japan to explain the characteristics of mildly flammable R32 and to talk about the procedures for handling it. Our goal was to ensure that our contractors were qualified to install R32 air conditioners and that all installation work would be of the highest quality.

In March 2013, India began the sale of residential air conditioners using R32. Our next step is to release R32 air conditioners in other countries and have R32 employed in commercial air conditioners.





Urusara 7 Residential Air Conditioner Urusara 7 with new R32 refrigerant has world's highest\* energy efficiency.



- \* For residential wall-mounted room air conditioners (40-kW, 5.6-kW class) as of date of release (June 26, 2013). Seasonal power consumption: AN40PRP model: 1,145 kWh; AN56PRP model: 1,840 kWh
- See "The Embodiment of Daikin CSR Development of Urusara 7" (Page 46)

### Open Licensing of Basic Patent to Promote Refrigerant Shift in Developing Countries

Daikin does everything it can to contribute to the shift to refrigerants with minimal environmental impact. Specifically, to promote adoption of R32 in developing countries nearing conversion to next-generation refrigerants, in September 2011 Daikin began giving free access to its "Basic Patent Indispensable for the Manufacture and Sale of Air Conditioners Using R32 Single Component Refrigerant." Daikin also participated in a developing country support program sponsored by Japan's Ministry of Economy, Trade and Industry and the Japan International Cooperation Agency (JICA), in which Daikin hosted trainees from seven Asian countries to provide them with detailed information on next-generation air conditioners.

Daikin continues to work towards the practical application of next-generation refrigerants. We continue to carry out research. And like our successful launch of water heaters using the natural refrigerant CO<sub>2</sub>, we are on the lookout for other suitable uses of next-generation refrigerants beyond air conditioners.

We will continue to provide support upon request from various countries as we contribute to the switch to refrigerants with lower environmental impact in the process of helping to protect the ozone layer and mitigate the effects of global warming.

### What Stakeholders Are Saying

### Outstanding Example of Safeguarding the Ozone Layer and Climate System

With their high global warming potential, HFC refrigerants have proven to be a double-edged sword. In products such as refrigerators and air conditioners, they are much needed substitutes in the movement to phase out CFCs and HCFCs, which are ozone-depleting gases. At the same time, however, HFC refrigerants are extremely powerful global warming gases. Their widespread and continued use would jeopardize the success of the Montreal Protocol.

Good news comes from Daikin: the company has successfully brought to market air conditioners using R32, a refrigerant with a relatively low global warming potential and shorter atmospheric life. It is also focusing on enhancing the energy efficiency of air conditioning systems that use R32. This is an outstanding example of safeguarding the ozone layer and the climate system.

Rajendra Shende Chairman, TERRE Policy Centre Former Director of United Nations Environment Programme (UNEP)



R32 briefing for trainees from 7 Asian countries





### **Raising the Bar at Dealers and Authorized Service Providers**

India is a key country in expanding Daikin's overseas business, but its air conditioner market is very different from Japan's. To meet the particular needs of customers in this market, Daikin is holding service training programs at its bases and at its dealers and authorized service providers in India in an effort to raise the quality of service offered to customers.

# Background

### India: Key Market with Hidden Potential

Under our Fusion 15 strategic management plan, we aim to gain full entry into emerging countries and volume-zone markets. One of these is the booming economy of India, where there is a rapidly growing population of potentially free-spending middle-income earners in large cities, where demand continues to grow for consumer durables like air conditioners. Established in 2000, Daikin Airconditioning India Pvt. Ltd. is Daikin's manufacturing and sales base in India. The company's fiscal 2012 sales grew by an astounding 5.3 times between fiscal 2009 and 2012.

Nonetheless, only 36.8% of households in the five largest cities have air conditioners, and nationwide the figure is just 2.7%. Despite being a country with temperatures that can reach almost 50°C, India still has very few homes with air conditioners and is regarded as a market with great hidden potential.



### **Dealing with India's Extreme Air Conditioner Environment**

India's air conditioner market is very different from Japan's and requires products and services that meet local conditions and needs of locals. Air conditioners operate under extreme conditions in India. Infrastructure such as electricity and transportation is poor, power outages and voltage fluctuations occur frequently, and heat exchangers get clogged with dust.

Daikin Airconditioning India Pvt. Ltd. sells stabilizers to handle voltage fluctuations, and call centers take customer inquiries on repairs and other matters. The Company's after-sales service system is rounded out by 11 service centers.

# Surveying Customer Needs and Training Employees to Raise Service Quality

We have been conducting customer satisfaction surveys to determine what kind of after-sales service customers want. Surveys have revealed what they want most are skilled service engineers and quick access to repair help.

To respond to this need for prompt and careful maintenance, we concentrate on training service engineers. Our training program is led by three full-time managers. Service engineers can receive training at the Neemrana Plant or at service centers to learn the basics of air conditioners and inverters; the skills needed to carry out periodic inspections and troubleshooting; and the correct approach for handling customers.

Air conditioners must be installed properly if customers are to enjoy air conditioning to its fullest. Currently about 60% of breakdowns are due to faulty installation. That's why we are working to improve installation quality through training that boosts installation skills.

In many cases, residential air conditioner installation is carried out by local dealers or authorized service providers. To ensure that customers get professional installation from pleasant personnel, our training and skills workshops are open to service engineers from not only Daikin but from its dealers and authorized service providers as well.

We will continue to provide service geared to local needs so that we can expand business in India by being the type of air conditioner manufacturer that customers expect.



With less-than-ideal infrastructure such as electricity and transportation, India is a tough place for air conditioners to operate.



Training is open to service engineers from dealers and authorized service providers.

### Results of Customer Satisfaction Surveys

Level of service users expect	How Daikin ranks (Among four mair companies)
1 Skilled service engineers	1st
2 Quick access to repair help	3rd
3 On-time arrival for repair service calls	1st
4 Short time from inquiry to service call	1st
5 Explanation of repair details	1st

### Fiscal 2012 Service Training Participants

Total **7,510** 

(116 from Daikin and 7,394 from dealers and authorized service providers)

### What Stakeholders Are Saying

#### Proper Maintenance Gives Customers a Good Feeling toward Daikin

Three years ago, we had a VRV system installed and signed a yearly maintenance contract. Since the 26 outdoor units and 128 indoor units were installed, Daikin has been continuously conducting thorough maintenance of these, and we are pleased with the way the service engineers treat us.

Daikin engineers appeared to be extremely skilled at their jobs. I am expecting the engineers from the dealer carrying out periodic inspections to be just as skilled.

Ashishi Mathur Chief Engineer, Optus Sarovar Premier



### Fiscal 2012 Key Activities Human Resources

**Global Personnel Development** 

## Achieving Globally Minded Management Emphasizing Unity of the Daikin Group



### Training People Who Can Be a Bridge Between Countries

Sharing Our Group Philosophy and engaging in communication are critical for success in globalizing company management and fostering a sense of unity as a group at overseas bases. Consequently, special attention is given in the development of global human resources that are to become bridge persons that can play an active role in any region of the world.

# Background

### Centrifugal Forces and Cohesive Forces Indispensable to Overseas Strategy

Daikin sells products in over 90 countries. Amidst the globalization of the world's economy, Daikin's Fusion 15 strategic management plan calls for accelerated globalization of our management and better communication between the head office and Daikin bases around the world.

To stay close to regional markets of the world and rapidly develop business that conforms to local needs, it is essential that we globalize management by actively promoting local human resources to executive positions and retain a "centrifugal force" in which each base demonstrates autonomy. Similarly, to maximize management efficiency of the entire Group with an increased sense of unity as a group and a corporate culture where employees enjoy high job satisfaction, it is essential that we have communication between the head office and local bases and retain a "cohesive force" in which bases pursue overall optimization of the Group by sharing Our Group Philosophy.



### Accelerate Management Globalization by Training Local Management Candidates at Overseas Bases

Daikin has already localized strategic functions at major overseas bases in areas such as product development, marketing, and financial strategy and is aiming to accelerate this centrifugal force in training local nationals to be executives at overseas bases.

At the group companies of the O.Y.L. Group, headquartered in Malaysia, we are training local nationals to be future Daikin Group executives by giving them the necessary skills and know-how in the Young Executive Program.

Thanks to efforts like these, about 40% of the presidents at overseas Daikin bases were local nationals and about 45% were directors as of the end of fiscal 2012. Of Daikin's 15 European sales bases, 13 of them had local nationals as presidents.

### Focusing on Global HR Development That Brings Together the Head Office and Bases and Drives Home Group Philosophy

At the same time Group values and direction are shared as corporate philosophy, it is also necessary to have a cohesive force that binds the organization and leads us to overall optimization. Thus, even as we allocate resources for training "global HR" that can play a role transcending country and regional boundaries, we are also enhancing opportunities for communication to gain each person's acceptance, bridging gaps between Japan and overseas bases, and instilling the corporate philosophy throughout the Daikin Group.

One opportunity for communication is manager meetings where Daikin executives travel to our main overseas bases to speak directly with local executives and managers. Another is the Daikin Business School, which has trained many local candidates to take on management positions at Daikin companies. The school was temporarily stopped but will start again in 2013.

Our overseas practical training program fosters global human resources by sending young employees to overseas bases for one year. While assisting with work duties, they learn the local culture and customs with the goal of one day contributing to the Daikin Group through a global viewpoint that transcends borders. So far, 230 employees have taken this training, and we will continue by sending 40 employees every year to Daikin bases in emerging and other countries.

We will continue to accelerate overseas business expansion by training managers who can contribute to both local communities and the overall optimization of the Daikin Group.

Overseas Practical Training Program Participants







Manager meeting where local senior managers engage in communication with the Daikin top management



Overseas practical training program fosters individuals who can act as bridges between Japan and the rest of Daikin

### What Stakeholders Are Saying

#### Daikin Among the Most Globalized Japanese Companies

While recent years have seen accelerating efforts by leading international companies in Asia and the West to globalize, Japanese companies are being left behind. I feel, however, that Daikin is doing a better job than most Japanese companies at globalizing its management. For example, its solid globalization measures include putting as many local nationals as possible in key managerial positions at its overseas bases and taking advantage of the strengths and autonomy of companies that it acquires.

Daikin's core competence is nurturing employees by maximizing its fast and flat management system. This core competence must be incorporated into Daikin's worldwide group organization and human resources. By taking responsibility to do this, Daikin will show that it is a leading global company.

> Seiichi Yamamoto Director, Deloitte Touche Tohmatsu LLC





### Community Contributions as the Core of Daikin Management

As a responsible corporate citizen, the Daikin Group is continuously sensitive in meeting and solving the needs and issues of the communities in which it does business. Daikin America is one of Daikin's oldest manufacturing bases overseas, and its Decatur Plant has been involved in a range of community service activities ever since it started operation in 1994.

# Background

### Community Understanding and Cooperation Essential for a Chemical Company

The Decatur Plant of Daikin America is one of the Group's key factories for manufacturing fluorochemicals. The United States is a huge market for fluorochemicals, accounting for 30% of worldwide demand, and the Decatur Plant opened in 1994 to respond to this large demand.

Operating a plant requires the understanding and cooperation of local citizens. In particular, plants making chemicals must earn acceptance from the community through environmental, safety, and other measures that dispel any concerns that locals may have. Daikin America will continue to meet the needs and expectations of the community through dialogue and social interaction that boost understanding of Daikin, and through financial and other support measures for local activities.



# Homespun Event with Local Residents Educates Public about Japan

The Daikin Festival is a well-established, huge event put on each year by the Decatur Plant. At the 18th festival held on May 25, 2012, about 22,000 people, the equivalent of 40% of the city's population, joined in the festivities.

Joining an authentic Bon dance just like in Japan and learning to write calligraphy and do other Japanese arts are just some of the things to be enjoyed at the Daikin Festival. There are booths with information on Daikin products, 12 lit-up hot-air balloons, fun attractions for children, and karaoke. Daikin employees join local resident volunteers in offering homemade Japanese and American foods like *yaki soba* (fried noodles), barbecued meat and vegetables, and hamburgers.

Daikin America employees plan and run the entire event, and have fun doing it as they strengthen ties with the community, boost the Daikin brand image, and earn new fans of Daikin and Japan.

### **Contributions to the Community Recognized with Alabama Business Award**

Every year since its start in 1994, the Decatur Plant has taken about a dozen local high school students and teachers to Japan for one week. The students get to experience Japan firsthand as they stay with the families of Daikin employees in Osaka, tour the Yodogawa Plant, practice the sport of *kendo* (Japanese fencing), and visit the historic city of Kyoto.

Another regular event is a charity golf tournament where about 200 invited suppliers and business partners donate money through aid agencies for causes such as disaster relief and support of people with disabilities. The fiscal 2012 tournament marked the 12th edition of the event, which has so far collected about 300 million yen for charity.

Other continuing efforts at Daikin America include a semiannual Neighbors Night dinner with local residents and community leaders, art contests, Christmas parties, and scholarships. For these and other initiatives, on June 20, 2012, Daikin America received the 2012 Alabama Medium Manufacturer of the Year Award for companies committed to improving Alabama in terms of community development, safety, and the environment. Daikin America employees will continue to initiate social contribution efforts that make their company a trusted member of the community.

Money Gathered at the Charity Golf Tournament So Far







Daikin Festival

This event held by the Decatur Plant of Daikin America Inc. goes back almost 20 years. An annual fixture in the local community, the Daikin Festival welcomes large numbers of locals who love the warm, homespun hospitality.



About 250 students have visited Japan under Daikin America's homestay program.



Neighbors Night brings Daikin America and the community together for dinner and dialogue.

### What Stakeholders Are Saying

### A Familiar Company with Local Roots

Decatur is in the process of recovering from a recession but has not gotten its economy back to previous levels quite yet. Daikin is nurturing our region through its continuous support of the community and hiring of local residents. I know of no other company with such strong roots in the community.

Many years ago, before I was mayor, my son was selected as a Daikin homestay participant. Through the Daikin homestay program I learned a great deal about the genuine concern and caring Daikin has for the community, and how Daikin strives to be a good community member. Through its support of both the economy and spirit of Decatur, I think Daikin is a perfect example of a good corporate citizen.

> Don Kyle Mayor, City of Decatur





# Environment

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The Daikin Group focuses on reducing both fluorocarbon emissions generated during product manufacture and electricity used during air conditioner use, the major contributors to global warming.

Likewise, we strive to reduce environmental impact through the recovery and destruction of fluorocarbons during the processes of production, maintenance, and product disposal. In product development, we are shifting to refrigerant alternatives that do not deplete the ozone layer as we continue to work toward lessening the impact our business has on the environment.

Data on this page is only from Daikin Industries in FY2012. Figures in parentheses are global Group totals.



### Environment Environmental Action Targets and Achievements

# **Overview of Fiscal 2012**



### **Environmental Action Plan 2015 Proceeding Well**

Environmental Action Plan 2015 focuses on three pillars: (1) Providing Environmentally Conscious Products, (2) Eco-conscious Factories and Offices, and (3) Environmental Cooperation with Stakeholders.

For (1), one action target is to contribute to the reduction of CO<sub>2</sub> emissions through the provision of products. Our goal is to reduce CO<sub>2</sub> emissions by 30 million tons in emerging countries in fiscal 2015 through measures including selling inverter products, and in fiscal 2012 we were able to reduce emissions by 18 million tons.

For (2), we have set a target of reducing greenhouse gas emissions from production in fiscal 2015 to just one-third of fiscal 2005 levels (a 67% reduction). In fiscal 2012, we achieved 68% emission reductions. Also in fiscal 2012, nine more overseas bases were certified as Green Heart Factories.

For (3), our action target is to work with local governments, NPOs, and other groups in conducting ongoing social contribution activities that meet local needs. In fiscal 2012, we signed a new agreement with Osaka Prefecture and other local governments for forest protection.

Action targets	FY2015 target values	FY2012 results	Self assessment			
<b>Providing Environmentally Conscious Products</b> Provide the world with products that help customers reduce CO2 emissions.						
Spread use of energy-efficient air conditioners to reduce CO2 emissions. Spread use of heat-pump type heating systems. Offer energy-saving solutions. Develop future refrigerants.	<ul> <li>Through expansion in the widespread use of energy-saving products such as those using inverters, aim to help curtail CO2 emissions by 30 million* tons for emerging countries.</li> <li>* Calculation of annual reduction amount as a result of using energy-efficient inverter products, compared to the baseline of annual greenhouse gas emissions in the case of using conventional air conditioners such as non-inverter products; based on guidelines of Japan Electronics and Information Technology Industries Association (JEITA). The figure for CO2 emission reductions is the annual reduction amount multiplied by the number of air conditioners in operation.</li> </ul>	Estimated 18 million ton curtailment	***			

### Environmental Action Plan 2015

Action targets		FY2	015 target values	FY2012 results	Self assessment
Eco-conscious Factories & Offices Minimize environmental impact from production and other activities.					
Greenhouse gases	Reduce CO2 emissions.	Reduce fis (67%) of with fiscal	scal 2015 levels to 1/3 the level compared I 2005.	68% reduction	***
		Japan	Reduce per-unit CO2 from energy use by 20% against fiscal 2005.	25% reduction	***
		Overseas	Reduce per-unit CO2 from energy use by 10% against fiscal 2010.	12% reduction	***
Waste	Reduce overall amount of waste by effectively using resources.	Japan	Machinery-related: Reduce per-unit emissions by 5% against fiscal 2010.	7% reduction	***
			Chemical-related: Reduce per-unit emissions by 10% against fiscal 2010.	15% reduction	***
		Overseas	Reduce per-unit emissions by 10% against fiscal 2010 at all bases.	11% reduction	***
Water	Reduce amount of water used.	Japan	Reduce per-unit emissions by 5% against fiscal 2010.	4% reduction	***
		Overseas	Reduce per-unit emissions by 10% against fiscal 2010 at all bases.	25% reduction	***
Chemicals	Minimize emissions of environmentally harmful substances.	Japan	Reduce PRTR substances by 15% against fiscal 2010.	16% reduction	***
			Reduce VOCs by 20% against fiscal 2010.	20% reduction	***
		Overseas	Reduce per-unit VOCs by 10% against fiscal 2010 at all bases.	Analyzed data on substances	*
Green Heart Factories	Achieve environmentally friendly plants.	Have major production sites certified as Green Heart Factories.		8 bases in Japan 9 bases overseas	***
Green Heart Offices	Achieve environmentally friendly offices.	Have majo certified a	or bases in Japan as Green Heart Offices.	Efforts began at all bases in Japan	*
Action targets		FY2015 target values	FY2012 results	Self assessment	
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Environmental Cooperation with Stake		holders Expand the Green Heart c	ircle to Daikin wor	ldwide.	
Environmental and social contribution activities	Join local governments, citizens, and NPOs to make environmental and social contributions at each global base according to regional characteristics.	Continue to carry out environmental and social contribution activities (forest restoration, tree-planting, environmental education, protection of biodiversity within Daikin bases) at worldwide bases.	Sign new agreement with Osaka Prefecture for forest protection	***	

Self assessment: Shows level of achievement of targets in three designations:

 $\star \star \star$  : Succeeded  $\star \star$  : Will soon succeed  $\star$  : Doing all we can



The Daikin Group is developing products with minimal environmental impact by raising energy efficiency, switching to refrigerants with the least possible burden on the environment, and making products easier to recycle. We are also striving to reduce the impact that chemicals have on human health and the environment.

# **Environmentally Conscious Design**

### Reducing Products' Environmental Impact through Life Cycle Assessment

We assess products starting from the planning and design stages to ensure that they are energy efficient and recyclable. We conduct quantitative environmental assessments for each product life cycle so that we can make the next product release less of an impact on the environment.

### Read more (Page 76)

- Environmentally Conscious Design through Product Assessment
- Product Assessment Items
- Improving Energy Efficiency of Air Conditioners
   Sample of LCA: Comparison of Life Cycle CO2 Emissions(energy-induced CO2)
  - Electricity Consumption and Energy Consumption Efficiency (residential air conditioners) Int
  - Electricity Consumption and Energy Consumption Efficiency (commercial air conditioners)

# Promoting the Use of Inverter Products

### Tap Markets of China, North America, and Other World Regions with Inverter Products

The Daikin Group aims to provide more highly energy efficient inverter air conditioners worldwide and thus reduce the amount of CO<sub>2</sub> emissions from energy consumption during product use.

### Read more (Page 83)

- Inverter Technology
- Promoting the Use of Inverter Products
- Inverter-Products as Percentage of Residential Air Conditioner Demand (number of air conditioners)

# Promoting the Use of Heat-Pump Type Space and Hot Water Heaters

### Promoting Heat-Pump Products in Space and Hot Water Heating Market

The Daikin Group is developing space and hot water heaters using highly energy efficient heat-pump technology. In heat-pump technology for air conditioning, heat is drawn from the air and transferred for use as cooling or heating. Compared to space or water heating methods that burn fossil fuels directly, it produces less than one-half the CO<sub>2</sub>.

### Read more (Page 85)

- Heat Pump Systems for Space Heating and Water Heaters
- Promoting the Use of Heat-Pump Type Space and Hot Water Heaters
  - Features of the New Model MEGA-Q A
  - Comparison of Annual CO2 Emissions: MEGA-Q Large-Scale Commercial Heat Pump Water Heating System versus Combustion-Type Boiler

# **Products That Help Customers Save Energy**

# Daikin Helps Customers Reduce CO2 Emissions with Air Conditioners, Chemicals, and Oil Hydraulic Products

Room air conditioners, large commercial air conditioners, fluorochemical products, and oil hydraulic products—Daikin develops environmentally conscious products so it can offer complete packages for helping customers reduce their overall CO2 emissions.

### Read more (Page 87)

- Air Conditioning Products
  - Energy-Saving Solutions
  - Air Conditioning Network Service System II
  - VRV Energy-Saving Tuning
  - Building and Energy Management System (BEMS)
  - DESICA Commercial Humidity Controlling Heat Recovery Ventilation System
  - Daikin Develops Products Compliant with EU's ErP Directive
  - SKY SOLAR, Residential Solar Power System
- Fluorochemical Products
  - ZEFFLE Infrared Reflective Coating
  - Fluorine Characteristics Help Solar Cells Last Longer
  - New Mass-Production Facilities for Electrolyte for Lithium-Ion Batteries
- Oil Hydraulic Equipment
  - Energy-Efficient Hybrid Hydraulic Super Unit
  - 9 Series Oil Cooling Unit
  - Hybrid Construction Machinery

# **Environmentally Conscious Fluorochemical Products**

# The Unique Characteristics of Fluorine are Applied in Fields Such as Fuel Cells and Solar Cells

Fluorine mainly bonds with carbon atoms to become compounds that are highly stable and have useful functions such as the ability to resist heat and repel chemicals.

Daikin uses the unique characteristics of fluorine to bring consumers a range of products that help protect the environment.

### Read more (Page 94)

- Fluorochemical Products That Contribute to Environmental Protection
  - Environmental Solutions Pioneered with Fluorochemical Products
  - Automobile fuel hose made of fluororesin
- Eliminating PFOA Emissions

# Low-Impact Refrigerants

### Daikin is developing refrigerants that do not deplete the ozone layer and that have low global warming potential.

We can offer the most adequate refrigerant for each case, we are conducting R&D that will achieve practical use of everything from natural refrigerants to HFC fluorocarbons, which have a relatively low global warming potential.

See Key Activities of Fiscal 2012: Practical Application of Next-Generation Refrigerant (Page 52)

# 3R & Repair

### Designing Products that are Easy to Dismantle and Separate: Recycling Used Air Conditioners

The Daikin Group strives to use resources as effectively as possible by carrying out the 3Rs—reducing, reusing, and recycling—along with repairing under its 3R & Repair initiative. We develop products that are smaller and lighter, and that use materials and designs that are easy to separate and recycle.

### Read more (Page 96)

- Protecting the Ozone Layer
   Switching to HFC Refrigerants Around the World
- Low-Impact Refrigerants
  - Bringing Next-Generation Refrigerants to Countries
  - Daikin's Stance on the Environmental Impacts of Refrigerants

### **Read more** (Page 99)

- 3R & Repair
  - 3R & Repair: Approach A
  - 3R & Repair: Effective Use of Resources A
- Recycling
- Reducing
  - ► Amount of Packaging per Product (wood, cardboard, styrofoam, etc.) 🖬
- Reusing
- Repair
  - Daikin Contact Center A
- Recycling Residential Air Conditioners
  - Recycling of Residential Air Conditioners in FY2012 (Japan) III

# **Environmentally Conscious Design through Product Assessment**

### Only Products that Pass 14 Assessment Items Make it to Market

Besides factors like performance and ease of use, the Daikin Group stresses environmental performance in product development. We strive to raise this environmental performance by incorporating product assessment in the planning and design stages for new products.

Product assessment consists of 14 assessment items that we strictly adhere to in developing products.

We also assess global warming impact of air conditioners using the life cycle assessment (LCA) method, which allows us to determine the environmental impact at each stage of a product's life cycle. Products only make it to market after we have assessed them against their predecessor products to confirm they exert less environmental impact.

### Product Assessment Items

- 1. Weight reduction of products
- 3. Raise possibility of reuse of resources
- 5. Ease of collecting/transporting
- 7. Ease of shredding/classifying for recycling
- 9. Safety
- 11. Energy and resource conservation in use
- Reduction in environmental impact in the manufacturing process

- 2. Use of recycled materials and parts
- 4. Product life extension
- 6. Ease of disassembly and separation of materials by hand
- 8. Packaging
- 10. Environmental conservation capabilities
- 12. Disclosure of information
- 14. LCA

For details on product assessment items, see the following website (Page 79)

# Improving Energy Efficiency of Air Conditioners

### Boosting Annual Performance Factor (APF) and Reducing Standby Power Consumption

In the life cycle of an air conditioner, from design and manufacture to use and disposal, the majority of the CO2 that is emitted occurs during product use: over 90% in fact.

That is why when we revised our voluntary environmental standards in fiscal 2007, we tightened our criteria for energy efficiency in the product use stage in order to improve the energy efficiency of products.

In fiscal 2012, we released the Urusara 7 in the 4.0-kW air conditioner class, which has a 0.4 (6%) higher annual performance factor (APF). We also improved the efficiency of the Hot Cool heat-pump hot water heating system by combining it with an air conditioner. We also boosted the APF and reduced the standby power consumption of residential air conditioners.

See Key Activities of Fiscal 2012: The Embodiment of Daikin CSR Development of Urusara 7 (Page 46)

### Sample of LCA: Comparison<sup>\*1</sup> of Life Cycle CO<sub>2</sub> Emissions(energy-induced CO<sub>2</sub>)

More than 90% of the CO<sub>2</sub> emissions (energy-induced CO<sub>2</sub>) during the life cycle of an air conditioner come during product use. That's why we put the majority of our efforts into making products more energy efficient.



\*1 Based on Daikin standards for 14-kW class commercial air conditioners and 2.8-kW class residential air conditioners.

\*2 The seasonal power consumption is calculated in accordance with the standard of the Japan Refrigeration and Air Conditioning Industry Association for commercial air conditioners and the Japanese Industrial Standards (JIS) for residential air conditioners.

### Electricity Consumption and Energy Consumption Efficiency (residential air conditioners)\*1



\*1 Calculated for Daikin 2.8-kW class air conditioners. Under JIS conditions.

\*2 For products with prescribed measurements

### Electricity Consumption and Energy Consumption Efficiency (commercial air conditioners)\*

Electricity consumption (kWh)

- Cooling and heating average (COP) - Cooling and heating average (APF)

 --- Standards of the Law Concerning the Rational Use of Energy (effective as of fiscal 2007)



\* Calculated for Daikin 14.0-kW class air conditioners. Under conditions of the Japan Refrigeration and Air Conditioning Industry Association, and the Japanese Industrial Standards (JIS).

In 2006, the Law Concerning the Rational Use of Energy was partially revised: residential air conditioners of 4.0 kW or smaller now have to achieve not only the COP standard values, but also APF standard values with fiscal 2010 as the target year, and commercial air conditioners have to achieve APF standard values with fiscal 2015 as the target year.

### \* COP APF:

COP (coefficient of performance): The value of kW of cooling or heating capacity generated per 1 kW of power consumption. Calculated as follows: Cooling or heating capacity (kW) divided by electricity consumption (kW).

APF (annual performance factor): The ratio of the total heat quantity (Wh) required to cool and heat a room during both the cooling and heating period to the total power consumption (Wh) during the same period. This allows calculation of an efficiency figure that more closely approximates the figure during actual use.

# 

# Eco-ZEAS Commercial Air Conditioner Automatically Saves Energy with Intelligent Savings Function

Daikin's Eco-ZEAS 80 air conditioner for stores and offices has one of the industry's highest APF values. And a new model released in May 2012 boasts new functions for saving energy. One of these is the Intelligent Savings Function, which memorizes daily operation patterns and automatically cuts peak energy use by approximately 15% with the touch of a button. It is also the industry's first such product to have standby power consumption of less than 1 watt.

The Eco-ZEAS 80 is also the first heat-pump-type air conditioner with an all-aluminum heat exchanger, which reduces product weight and cuts the use of refrigerant.

### Eco-ZEAS 80 Intelligent Savings Function



# **Product Assessment Items**

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	Assessment item	Assessment standard		
	1-1 Weight reduction of product	Has product weight been reduced?		
01. Which we have a first	1-2 Weight reduction of main materials and parts	Have main materials and parts been reduced, or been used in improved yield?		
products	1-3 Weight reduction of scarce materials	Have fewer scarce materials been used?		
	1-4 Reduction of refrigerants, use of natural refrigerants	Has less refrigerant (HFC) been used, or has refrigerant with low GWP been used?		
	2-1 Use of recycled plastics	Have recycled plastics been used?		
02. Use of recycled materials and parts	2-2 Labelling use of recycled plastics	Have parts been labelled as using recycled plastics?		
	2-3 Use of recycled parts	Have reused parts been used, and are these of standard quality?		
03. Raise possibility of	3-1 Raise recycling ratio	Has the overall possible recycling ratio of the product been raised?		
	3-2 Raise possibility of use of plastics	Have easy-to-recycle plastics been used?		
	4-1 Improve durability of products	Are products more durable?		
	4-2 Improve durability of parts and materials	Have durable parts and materials been used?		
	4-3 Improve ease of parts replacement	Does construction allow for easy consumables replacement, and is information provided on how to replace consumables?		
04. Product life extension	4-4 Make it easier to maintain and repair	<ul> <li>Have parts requiring maintenance and repair been clearly indicated?</li> <li>Are parts common across products?</li> <li>Does construction allow for easy maintenance and repair?</li> </ul>		
	4-5 Tell customers how to get longer use out of products	<ul> <li>Has information been provided to end users and repair outlets on how to get longer use out of products?</li> <li>Have repair outlets been provided with information on repair diagnosis and repair measures, and safety?</li> </ul>		
05. Ease of collecting/transporting	5-1 Make work of collecting and transporting easier	<ul> <li>Have items been loaded evenly and balanced, and can collection and transport take place safely?</li> <li>For heavy, bulky items, are handles and wheels properly positioned?</li> </ul>		
	5-2 More efficient loading when collecting and transporting	Is it easy to improve loading efficiency, and is there no danger of items falling off?		

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	Assessment item	Assessment standard		
	6-1 Make it easier to disassemble and separate items by hand	Does construction allow for easy removal of items to be disassembled and separated by hand?		
06. Ease of disassembly and separation of materials by hand	6-2 Make disassembly easier	<ul> <li>Are construction and assembly such that disassembly by hand is easy?</li> <li>Are there few screws that need to be removed during disassembly by hand?</li> <li>Has information been provided that makes disassembly easy?</li> </ul>		
	6-3 Reduce compound materials	Has compound material been reduced?		
	6-4 Use common materials across products	Have common materials been used across products?		
	6-5 Label types of materials to make separation easier	Have plastic parts been properly labelled as such?		
07. Ease of shredding/classifying for recycling	7-1 Make shredding easier	<ul> <li>Is shredding with a shredder easy?</li> <li>Can products and parts fit into a shredder?</li> <li>Has there been a check to ensure that there are no substances that may damage or dirty the equipment or the materials that will be reused?</li> </ul>		
	7-2 Make classifying easier	<ul> <li>Are there any foreign materials containing similar properties?</li> <li>Have common materials been used across products?</li> </ul>		
	8-1 Reduce weight of packaging, simplify packaging	<ul> <li>Has packaging weight been reduced, and packaging simplified?</li> <li>Is used packaging compact, or is it easy to take apart, collect, and transport?</li> </ul>		
08. Packaging	8-2 Make it possible to recycle more packaging	<ul> <li>Has the use of compound materials been reduced?</li> <li>Is it easy to separate each type of material in compound materials?</li> <li>Have common materials been used across products?</li> <li>Has packaging reuse been considered?</li> </ul>		
	8-3 Reduce or eliminate hazardous or poisonous packaging materials	Has there been a check to ensure that there are no substances used that are harmful to human health, or that will hinder proper processing or recycling?		
	8-4 Use recycled packaging materials	Has recycled packaging material been used?		
	8-5 Have labelling identifying packaging materials	Does labelling identify packaging materials according to laws?		

	Assessment item	Assessment standard
	9-1 Improve safety in the production process	Is the production process safe?
	9-2 Improve safety in distribution	Is transportation safe?
09. Safety	9-3 Improve safety during product use	Is it safe to use the product?
	9-4 Improve safety during servicing	Is product servicing safe?
	9-5 Improve safety during recycling	<ul><li> Is it safe to recycle the product?</li><li> Is it safe to disassemble and separate the product by hand?</li></ul>
	10-1 Ensure compliance with legal restrictions on environmentally harmful substances	Are amounts of environmentally harmful substances within legal limits?
	10-2 Remove environmentally harmful substances from products	<ul> <li>Are products free of prohibited substances on the list of designated chemical substances in the Green Procurement Guidelines (4th edition)?</li> <li>Prohibited substances are (1) previous prohibited substances, F gas from foaming agents, (2) RoHS substances.</li> </ul>
	10-3 Reduce PVC	Has the amount of PVC been reduced?
10. Environmental conservation capabilities	10-4 Ensure environmental protection during recycling and disposal	<ul> <li>Has it been ensured that during disassembly, environmentally harmful substances will not leak or will not pose a danger to workers?</li> <li>Has it been ensured that the recycling facilities will not be harmed in any way by the recycling process?</li> <li>Have substances that may cause environmental impact during recycling or afterwards been reduced to the minimum?</li> <li>Is it easy to remove parts containing environmentally harmful substances?</li> </ul>

	Assessment item	Assessment standard		
10. Environmental conservation capabilities	10-5 Provide information to persons at all stages of the life cycle	<ul> <li>Have users been given important information at time of purchasing?</li> <li>Have users and repair persons been informed of important points to keep in mind during product use, repair, and movement?</li> <li>Does the user manual and other documents give users important points to keep in mind when disposing of product?</li> <li>Can retailers, or those transporting, installing, or collecting products easily know important points to keep in mind during product collection and transport?</li> <li>Are important points to keep in mind written on the product itself for those recycling and disposing of the product?</li> </ul>		
	11-1 Include energy and resource saving functions	Are there energy and resource saving functions?		
11. Energy and resource	11-2 Improve energy efficiency during use	Has the product been made more energy efficient during use?		
conservation in use	11-3 Reduce energy consumption in standby mode	Has the product been made more energy efficient in standby?		
	11-4 Reduce amount of product consumables	Has the amount of consumables been reduced?		
	12-1 Label product, parts, user manual, packaging, etc.	Is labelling of product, parts, user manual, and packaging in line with labelling guidelines?		
information	12-2 Provide information on recycling and waste treatment	Are there sufficient documents (treatment manuals) with information on safety during processing so as to promote recycling and environmental protection?		
13. Reduction in environmental impact in the manufacturing process	13-1 Reduce emissions from manufacturing	Has the amount of by-products (emissions from manufacturing) been reduced?		
14. LCA	14-1 Determine the environmental impact at each lifecycle stage	Has environmental impact been determined for the material, production, transport, use, and disposal stages?		
	14-2 Consider how to reduce environmental impact during the lifecycle	Is it possible to reduce environmental impact?		

### Low-Impact Products Promoting the Use of Inverter Products

# Inverter Technology

### Can Reduce Power Consumption by Approx. 30%

Inverters are frequency conversion devices that control electrical voltage, current, and frequency.

Since inverter technology enables the minute control of room temperature, air conditioners equipped with inverters can reduce annual power consumption by approximately 30% compared to non-inverter models (Daikin estimate for residential air conditioners).

### What is Inverter Technology?



# Promoting the Use of Inverter Products

### Helping Spread the Use of Inverter Products

The Daikin Group aims to spread the use of energy-efficient inverter products so that consumers use less energy during air conditioner operation and thus emit less CO<sub>2</sub>.

In China, we have been expanding our lineup of inverter products and selling them at an affordable price in order to build a market for inverter air conditioners. In April 2012, we began production at the Suzhou factory, which has an annual production capacity of 1.5 million units and makes products for the Chinese market. Factors including stricter environmental regulations and increasing consumer awareness about saving energy have helped inverter products make up a vastly growing percentage of the air conditioner market.

We will focus our efforts on spreading the use of inverter products in other world markets including North America, where we recently acquired Goodman Global Group, Inc.

Inverter-Products as Percentage of Residential Air Conditioner Demand (number of air conditioners)



\* Residential air conditioner: Ductless air conditioners, other than window and portable type products, for residential use. Only in North America does this category include duct-type air conditioners for residential use.

Source: Figures for market demand from report on estimates of worldwide air conditioner demand, published by Japan Refrigeration and Air Conditioning Industry Association; figures for inverter products as percentage of entire market, from Daikin Industries.

# Low-Impact Products Promoting the Use of Heat-Pump Type Space and Hot Water Heaters

# Heat Pump Systems for Space Heating and Water Heaters

### Less than Half the CO<sub>2</sub> Emissions Compared to Burning Fossil Fuels

In the heat-pump method used in air conditioners and other products, thermal energy stored in the air or water is extracted and transferred to perform cooling and heating.

Compared to carrying out space and water heating using methods in which fossil fuels such as gas, oil, and coal are directly burned, heat pump systems emit less than half the CO<sub>2</sub>.

### The Heat Pump Mechanism



Solar energy stored in the air is collected (Source: International Energy Agency (IEA)) using a heat pump and used for air conditioning and water heating.

# Promoting the Use of Heat-Pump Type Space and Hot Water Heaters

# Bringing More CO2-Reducing Heat-Pump Type Space and Hot Water Heaters to the European Market

The Daikin Group is developing space and hot water heaters using energy-efficient heat pump technology. This technology, which is also used for air conditioning, involves drawing heat from the air and transferring it for use in cooling and heating. Compared to space or water heating methods that burn fossil fuels directly, it produces approximately one-third the CO<sub>2</sub>.

The EU has set a target of having renewable energy such as wind and solar power account for 20% of the energy mix by 2020. In January 2009, heat pumps were recognized in the EU as technology that captures renewable energy and heat pump heaters are being recommended as part of this target. In 2006, the Daikin Group began selling a heat-pump type hot water heaters and heating system in Europe and we have been expanding the product lineup since then.

While Daikin is taking the opportunity provided by EU energy policy to spread the use of heat pump products throughout the continent, it is also doing the same in other markets around the world.

## Increasing Sales in the Commercial Market for Products Including the MEGA-Q Large-Scale Heat Pump Hot Water System

Daikin's heat-pump technology is incorporated into ECOCUTE heat pump water heaters and Hot Eco-Floor heat-pump hot-water floor heaters. The Daikin Group is also developing space and hot water heaters for the commercial market as well using highly energy efficient heat-pump technology.

In November 2012, we began selling a new model of the commercial heat pump water heating system (MEGA-Q) for large-scale facilities such as hotels and hospitals, which we first introduced in April 2009. Compared to combustion-type water heaters, this new model releases about 62% fewer CO<sub>2</sub> emissions and reduces running cost by about 68%. Facilities like hospitals and golf courses require changing volumes of hot water daily, and Daikin meets this challenge with a hybrid hot water supply system that provides hot water during base periods with MEGA-Q and that switches to boiler operation during peak periods.

As well, we are working to spread the use of the Danzen Heat system for commercial facilities, which cuts CO2 emissions by 52% compared to an oil-powered hot-air space heater.

By replacing combustion-type water heaters with heat pump models, we are switching the source of heat and thus contributing to energy efficiency.

### Features of the New Model MEGA-Q

- Utilizes dual refrigerant pipes that maximize the characteristics of two types of HFC refrigerant, R410A and R134a. Achieves COP 4.0 for boiling and COP 3.0 during circulation and heat retention.
- 22% less energy required per year for water heating and heat retention (compared to previous Daikin model).
- Heat source device has circulation and heat retention functions so the new MEGA-Q requires no reheating unit for pipe heat retention and no electric heater for tank heat retention.
- Operates at a wider temperature range; at outside temperatures as low as -20°C (for extremely cold regions).
- Operates at full capacity even at -5°C (even when frost forms).
- Can be attached to either an open or closed tank.
- Comes standard with hybrid control circuit to reduce instrumentation work on site.

### Comparison of Annual CO2 Emissions:

MEGA-Q Large-Scale Commercial Heat Pump Water Heating System versus Combustion-Type Boiler



# **Air Conditioning Products**

### Focus on Energy-Saving Solutions for Commercial Air Conditioners

Since the March 2011 Great East Japan Earthquake, companies have faced possible energy shortage due to closed nuclear power plants, not to mention electricity price hikes, forcing them to step up energy-saving efforts and thus cut costs. Crucial to these efforts are energy-saving and energy-efficient measures related to air conditioners, which account for about 40% of the energy consumption of office buildings.

In April 2011, Daikin installed a power-saving control center for commercial air conditioners in the jurisdiction of Tokyo Electric Power Company (TEPCO) and Kansai Electric Power Company (KEPCO). There are currently about 30 different measures for helping customers save power on commercial air conditioner use. These measures contributed to about 600,000 kW of electricity savings during the summer of 2011 and this accomplishment was recognized with the Chairman's Prize, the Energy Conservation Center, Japan in the fiscal 2012 Grand Prize for Excellence in Energy Efficiency and Conservation (Business Model Category). In the winter of 2012-2013, Daikin established the first power-saving measures in the jurisdiction of Hokkaido Electric Power Company, Inc. (HEPCO) in response to HEPCO's target of at least 7% energy savings.

We will continue to offer ways for customers to save energy on their existing air conditioners, as well as step up our marketing strategy with the aim of securing upgrade sales of new energy-efficient models and securing orders of central control systems.

# Air Conditioning Network Service System II Remotely Monitors Building Air Conditioning and Suggests Ways to Improve Energy Efficiency

Air conditioning accounts for about 40% of the energy consumed by commercial buildings in Japan. Daikin strives to bring more energy-efficient air conditioners to market. But we also know that how these air conditioners are used can greatly affect the amount of energy consumed. That's why we offer the Air Conditioning Network Service System II to remotely support energy-efficient air conditioner operation.

This service started out as a maintenance function to monitor air conditioner operation in order to prevent malfunctions or breakdowns before they occur. But to add more value, we came up with a remote energy-saving tuning function, which keeps air conditioners at the most energy-efficient operation level by monitoring product use and weather conditions. This service was recognized for energy savings of up to 20% and reduction of CO2 emissions and in December 2008 was awarded the Minister of the Environment Prize in the 5th Eco-Product Awards in Japan.

In March 2009, we added an energy saving improvement support function to the Air Conditioning Network Service System II. Using an online screen showing daily operational data of the air conditioning system in a customer's building, Daikin monitors operation in each room for four criteria that help avoid wasted energy: that rooms are not overheated or overcooled, that lights are turned off, that filters are properly cleaned, and that electricity use is not exceeding targets. Daikin then makes suggestions based on these.

Because electricity price hikes have increased the need for customers to reduce electricity consumption, we added an energy efficiency improvement suggestion page to the report where operation data is gathered. Along with the improvement suggestions is included an energy efficiency effect estimate value that helps improve efficiency.

# Daikin Begins Service to Boost Energy Efficiency of Existing Building Air Conditioners VRV Energy-Saving Tuning

The Revised Rationalization in Energy Use Law went into effect in April 2010 in Japan, obligating small- and medium-size companies to report energy use and set non-binding targets for energy-saving measures.

In response, since September 2010 we have been offering our VRV Energy-Saving Tuning service, which helps customers who have purchased Daikin building air conditioners we have been selling since before 2006 save energy. Customers don't need to purchase another air conditioner and tuning takes only a short time. And annual savings are up to 20%. Customers have praised this service, which keeps on saving energy for several years until customers upgrade to a new air conditioner.

Also as part of our total energy support, we have ENE-FOCUS, a system that allows companies with multiple buildings to efficiently manage their energy use and report to the government authorities in accordance with the Rationalization in Energy Use Law. In recognition of Daikin's installation of so many units of this highly energy-efficient system, in December 2011 we received the Ministry of Economy, Trade and Industry Award in the 8th Eco-Product Awards.

In May 2012, we expanded the package air conditioner lineup for stores and other commercial customers. We will continue to improve our service by developing products that solve customer issues and by suggesting every way possible to save energy when we visit customers.

## Building and Energy Management System (BEMS) Contributing to Building Energy Efficiency as a BEMS Aggregator

Energy management systems (EMS) are an effective way to save energy while keeping the building comfortable.

In April 2012, Japan's Ministry of Economy, Trade and Industry started a project to hasten the introduction of EMS. Under this project, Daikin was selected as a BEMS aggregator: a company charged with managing a BEMS. This effort is hastening the realization of a system that can achieve precise demand control and thus give both a comfortable building temperature and energy-saving operation; and that can use weather forecast data to automatically set equipment so that it operates in the most energy-efficient and energy-saving manner possible.

For example, under our Air Conditioning Network Service System for the energy management (of building air conditioners), we provide a BEMS service for customers in small- and medium-sized buildings using building air conditioners that offers precise demand control and energy-efficient control, shows the actual flow of energy, and offers consultation on saving energy. Since we introduced this service, it has been adopted by tenants in Daikin buildings, large retail stores, and hospitals and other care facilities.

Daikin's D-irect Energy Management System (for retail stores) is a service packaged with air conditioners purchased by owners of retail chains. It has been popular for its ability to show the actual flow of energy of air conditioners and give unified control of monitoring and control functions.

Air Conditioning Network Service System for Buildings



Retailers

## DESICA Commercial Humidity Controlling Heat Recovery Ventilation System Invention Award from the Minister of Economy, Trade and Industry at the 2011 National Commendation for Invention

Requiring no water drainage or supply pipes, DESICA instead uses outside air to control humidity, either humidifying or dehumidifying. Equipped with the Hybrid DESICA Element, which contains both highly efficient water absorption material and a heat exchanger, it consumes just one-sixth the energy of conventional humidity controlling devices (according to Daikin tests).

This superb performance earned Daikin the Invention Award form the Minister of Economy, Trade and Industry at the 2011 National Commendation for Invention in June 2011.



Receiving the National Invention Award

Daikin D-irect Energy Management System for

In fiscal 2012, we released a large-scale version of DESICA, meaning that the system can meet all customer needs from small rooms to entire floors of buildings.

### The DESICA Commercial Air Conditioning System



### Daikin Develops Products Compliant with EU's ErP Directive

The ErP Directive sets eco-design requirements for energy-using products (since July 2005) and energy-related products (since November 2009). In 2013, a set of minimum requirements were introduced for air conditioning equipment up to 12 kW, and in 2014, requirements will be introduced for all other equipment. In response to these requirements, Daikin introduced the Seasonal Smart (2011) and the Seasonal Classic (2012) commercial air conditioners for offices and retailers.

In 2015, all boilers (electric boilers, fossil fuel boilers, cogeneration units and air/water/ground to water heat pumps) will have to comply with minimum requirements under the ErP directive as well, and boilers up to 70 kW will have to bear an energy label. Daikin will continue to develop products that comply with minimum requirements under the ErP directive.

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### Industry and Academia Team Up for European Net Zero Energy Project

Daikin Europe N.V. has been carrying out the European Net Zero Energy Project, an experimental cooperative project between Daikin and universities including Technical University Dortmund of Germany. As a first step, in July 2010, Daikin Europe, in cooperation with Zeller Group, a wholesaler of Daikin Airconditioning Germany, constructed a Net Zero Energy Office in northwest Germany (Herten) that features photovoltaic solar power generation and energy-saving Daikin products. The project received the Deutsche Kältepreis, an annual award for energy-efficient, future-oriented refrigeration and air-conditioning technology given by the German Ministry for the Environment, Nature Conservancy



Daikin receives the Deutsche Kältepreis

and Nuclear Reactor Safety (BMU). This office has achieved near zero net energy use by having heat pump technology generate energy equivalent to that generated by solar cells.

Using the knowledge gained from the Net Zero Energy Project, Daikin will embark on new projects in Spain and the U.K. in which Daikin products achieve optimal operation in real-life building situations.

Daikin plans to introduce an energy control system to the project so that it can offer heat pump technology to its major customers.

### SKY SOLAR, Residential Solar Power System Aiming to Achieve Zero Net Energy Balance in the Home

In April 2012, Daikin Industries released its SKY SOLAR residential solar power generation system.

By giving the system air conditioning, water heating, and a storage battery system run by highly energy efficient heat pump technology, Daikin is meeting customers' energy needs. The aim of this system is to eventually help home-owners achieve a zero net energy balance. As well, the system is compatible with smart homes and home energy management systems (HEMS), so it allows users to see the actual flow of energy and it contributes to energy efficiency. Among other things, customers have praised the system for reducing their utility bills and for making it more fun for their families to save electricity.



SKY SOLAR, residential solar power generation system

# **Fluorochemical Products**

# An Easy to Install "Air Conditioner": ZEFFLE Infrared Reflective Coating Eases Air Conditioning Burden

Daikin developed ZEFFLE infrared reflective coating, a fluororesin-based paint that reflects the sun's infrared rays off building roofs. Compared to conventional paints, ZEFFLE reduces building roof surface temperature by as much as 15-20°C, thus keeping inside temperature down. It also reduces power consumption by approximately 15% to make a major contribution to saving energy in the summer.

ZEFFLE could almost be called a "easy-to-install air conditioner." Used in combination with an energy-efficient air conditioner, ZEFFLE can help reduce electricity consumption.

Besides the roof and outer walls of a building, ZEFFLE is effective in blocking heat and preventing weathering in other ways. For example, by applying it to water storage tanks such as those holding drinking water, it prevents the temperature from rising, thus maintaining sanitation. On water and ice storage tanks, it maintains the cooling effect and saves energy. As well, it is being used increasingly on the top deck of marine vessels to keep cargo space from heating up, and to prevent deterioration due to salt water and ultraviolet rays.

ZEFFLE is being sold in a growing number of countries and regions including China, Europe, and the Middle-East. The Changshu Plant of Daikin Fluorochemicals (China) installed facilities for the manufacture of the raw material resin and mass-production began in May 2013.

### Features of ZEFFLE Infrared Reflective Coating



Example of Use of ZEFFLE Infrared Reflective Coating

Ship



On this ship, ZEFFLE helps prevent salt corrosion, keep temperatures down, and maintain the appearance

Oil tank



By keeping the temperature down, ZEFFLE helps prevent the transpiration of oil vapor inside the tank

### Fluorine Characteristics Help Solar Cells Last Longer

Making the most of fluoropolymers' chemical resistance, heat resistance, and weather resistance, Daikin provides materials that contribute to the spread of solar cells.

For example, the fluororesin (ETFE)\* used for the surface protection film on solar cells has high light transmittance and lasts for more than 20 years under the sunlight. Compared to the glass film conventionally used for surface protection, such protection film allows for the creation of versatile flexible solar cells that bring solar energy to a wider range of applications. It is also beginning to replace glass film on crystalline solar cells and is expected to see increasing use in this area as well.

ZEFFLE infrared reflective coating, which is used for the back sheet to prevent the infiltration of infrared rays and moisture, both of which harm the interior of solar cells, is thinner than conventional fluoropolymer film while offering the same weather-proofing and durability.

\* ETFE: A fluoropolymer with superb chemical resistance and insulation qualities. It is used as coating for items such as electrical wires.

### New Mass-Production Facilities for Electrolyte for Lithium-Ion Batteries

Fluorine is gaining increasing attention for its ability to improve the performance and safety of lithium-ion batteries. Daikin America Inc. installed mass-production facilities for lithium-ion battery electrolyte so as to expand its customer base using the unique features of fluorine. This will form a new pillar for future business growth.

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# **Oil Hydraulic Equipment**

### Energy-Efficient Hybrid Hydraulic Super Unit Energy Savings and Lower CO<sub>2</sub> Emissions in Factories

Daikin also leads the industry in making energy-efficient hydraulic units for factory production lines.

The energy-efficient hybrid hydraulic Super Unit employs the same motor inverter technology that is used in Daikin's energy-efficient air conditioners. The Super Unit determines the load on the machine, depending on whether it is in standby, operation, or pressure holding mode, and electronically controls the pump at the necessary RPM. The result is energy savings of more than 50% in pressure holding mode (compared to Daikin piston pumps). For use on presses, molding equipment, and inspection devices, the Super Unit contributes to energy savings and lower CO<sub>2</sub> emissions. As the need grows for companies to save electricity in response to rising electricity costs, Daikin will continue to bring the Super Unit to more and more customers.

The Super Unit is widely used on molding equipment around the world and is popular for its superior precision and energy efficiency. In January 2011, we established Daikin Device (Suzhou) Co., Ltd., an oil hydraulic equipment sales company, to expand sales in this field.



### Electricity Consumption of Super Unit and Conventional Hydraulic Unit

# 9 Series Oil Cooling Unit Contributes to High-Precision Machine Tools and 45% Greater Energy Efficiency

In machine tools, precision is dramatically affected by the temperature control for the lubricating oil and cooling oil. With increasingly precise machine tools comes a growing demand for detailed temperature control.

Released in June 2012, Daikin's 9 Series Oil Cooling Unit allows temperature adjustment to  $\pm 0.1$  °C. In addition, with inverter control and the most advanced compressor, it offers 45% greater energy efficiency than conventional on/off controllers. As well, it has already been certified for the EU's RoHS Directive\*. Daikin's 9 Series Oil Cooling Unit thus helps companies protect the environment, save energy, and boost productivity.



#### \* RoHS Directive:

9 Series Oil Cooling Unit

The RoHS (Restriction of Hazardous Substances) Directive is an EU directive that restricts the use of certain hazardous materials in the manufacture of various types of electronic and electrical equipment in order to reduce harmful impacts on human health and the environment.

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### Daikin's Motor Inverter Saves 40% on Fuel in Hybrid Construction Machinery

Just as in the automobile industry, the field of construction machinery is moving towards hybrid motors. Backhoes have begun employing hybrid drive systems of engines and motors and Daikin provides the key parts for these systems.

In a hybrid backhoe, when the shovel circles around the chassis, the energy from this movement is stored in a battery, and this energy is supplied via the generating motor to assist the engine. This allows engines to be smaller and more fuel efficient. Daikin makes the rotating motor, which creates the rotating energy stored in the battery, the generating motor, which generates energy and assists the engine, and the controller for these.



# Fluorochemical Products That Contribute to Environmental Protection

### **Contributing to Environmental Protection in a Range of Areas**

Fluorine mainly bonds with carbon atoms to become compounds that are highly stable and have useful functions such as the ability to resist heat and repel chemicals.

Daikin uses the unique characteristics of fluorine to bring consumers a range of products that help protect the environment.

Examples that save customers energy include ZEFFLE infrared reflective coating, which can be painted onto buildings to prevent rising temperatures inside and reduce the load on air conditioning, and NEOFLON ETFE, which prolongs the life of solar cells. As well, fluorine contributes to the mass-production of lithium-ion batteries and so is becoming increasingly used in electrolyte and other materials.

### Environmental Solutions Pioneered with Fluorochemical Products



### In the Automotive Industry, Fluoride Materials Reduce Leaking of VOCs

In the automotive industry, the movement is towards stricter regulations to prevent the leaking of air-polluting volatile organic compounds (VOCs) from gasoline and other substances.

Fluororesins and fluoroelastomers are used to make automobile fuel hoses that prevent the permeation and leakage of VOCs in the hot engine surroundings. Daikin's newly developed NEOFLON CPT is a fluoropolymer with particularly excellent barrier properties against fuel; it reduces permeation to just one-fifth of Daikin's previous product, NEOFLON ETFE.



And NEOFLON CPT adheres to polyamide resins and general purpose rubbers used to make conventional fuel hoses, meaning it can be used for laminated tubes.

In China and other emerging countries where automobile production is on the rise, fluoride materials are replacing non-fluoride materials to comply with stricter environmental regulations. Fluorine materials are also beginning to see growing use in developed countries, where environmental regulations are increasing in scope and severity. Daikin aims to respond to the growing demand that will be created by these trends.

### Fluoride Materials Reduce Environmental Impact in Various Applications

Fluoride materials contribute to reduced environmental impact in a range of other applications as well. FEP fluororesins have superb flame resistance, which allows them to replace metal pipelines as covering for LAN wiring and thus save resources; and PTFE fluororesins prevent air pollution and save resources when used as highly efficient, long-lasting dust-collecting bag filters in incinerators and power stations.

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# **Eliminating PFOA Emissions**

# Developing Polymerization Aids That Do Not Give Off PFOA With The Goal of Eliminating PFOA Use and Reducing Emissions by 99% by 2015

Daikin has set a target of totally eliminating its use of Perfluorooctanoic Acid (PFOA), a fluorochemical compound concerned to have environmental effects, by the end of 2015.

Daikin used PFOA as a polymerization aid for some fluororesins and fluoroelastomers that are used in a wide range of fields including semiconductors, information and telecommunication, automotive, and aerospace. As well, minute quantities of PFOA are given off as a by-product in the production process of fluorochemical products that are applied to the surface of clothing and carpets to repel water and oil. While stable, it does not readily degrade in the environment, and if it is ingested by living organisms, it may remain for relatively long periods in the body. Therefore, in 2006 the U.S. Environmental Protection Agency announced the creation of the PFOA Stewardship Program with the goal of totally eliminating PFOA emissions and PFOA use by the end of 2015. Daikin Industries and seven other of the world's leading fluorochemical manufacturers took part in this program.

After the program began, Daikin announced its own PFOA reduction program to achieve total elimination by the end of 2012, three years ahead of schedule. Under this program, Daikin has been switching to non-PFOA polymerization aids and developing flourochemical products that do not give off PFOA during production processes. As of the end of October 2012, we had completed the switch to non-PFOA polymerization aids and phased out all PFOA used during production processes. As a result, compared to fiscal 2000, PFOA released into the environment was down more than 99%. However, we have not totally eliminated the use of products that give off PFOA as a by-product during production. We have therefore stepped up efforts to develop substitutes that do not give off PFOA as a by-product during product during production and have extended the deadline for total elimination to the end of 2015, the same deadline as the PFOA Stewardship Program.

# Protecting the Ozone Layer

### Switching to Substitute Refrigerants and Recovering Fluorocarbons

Refrigerant is used to transport heat between the interior and exterior units of an air conditioner. HCFC used to be the major refrigerant used, but in the 1980s experts suspected it was depleting the ozone layer, so under the Montreal Protocol developed nations agreed to completely phase out its production in developed countries by 2020. Daikin has for years worked to prevent ozone layer destruction by developing substitute refrigerants that do not deplete the ozone layer. In 1991 we began the first mass-production in Japan of HFC, a refrigerant with an ozone depletion potential of zero, and in 1995, we began selling air conditioners that use HFC as the refrigerant.

Besides switching to HFC refrigerants, we have also been working to ensure that there is no leakage into the atmosphere: we design and develop products that are easy to recover refrigerant and prevent its leakage, and we recover refrigerant during the manufacturing stage and product repair. In April 2002, we began a fluorocarbon recovery and destruction business in which we recover and properly dispose of refrigerants from used air conditioners.

### For details, see Key Activities of Fiscal 2012: Practical Application of Next-Generation Refrigerant. (Page 52)

### Switching to Refrigerants with Zero Ozone Depletion Potential outside Japan

The Daikin Group is phasing out conventional HCFC refrigerants and switching to HFC, a refrigerant with an ozone depletion potential of zero.

Daikin sells only products using HFC in Japan and Europe. We were also the first company in China to offer HFC VRV, and we currently provide HFC residential air conditioners as well.

In Southeast Asia and other countries where HCFC air conditioners are the norm, we are offering HFC models (where possible given current infrastructure) and promoting their benefits.

### Switching to HFC Refrigerants Around the World

Japan	We sell only products using HFC
Europe	We sell only products using HFC
Australia	We sell products using HFC
U.S.	We sell products using HFC
China	We sell HFC VRV systems
Other parts of Asia, rest of world	We sell HFC VRV systems

### **Research into a Wide Range of Next-Generation Refrigerants**

Although HFC has an ozone depletion potential of zero, it contributes to global warming if released into the atmosphere.

The Daikin Group is conducting research aimed at achieving practical use of next-generation refrigerants that contribute less to global warming than HFC, currently the most widely used refrigerant. In conducting research aimed at eventually releasing products using such next-generation refrigerants, we focus not only on their direct effect on global warming but also on their effects throughout the entire lifecycle, including energy efficiency during air conditioner use. We are also making decisions based on all contributing factors: besides the environmental impact of refrigerants themselves, we look at safety factors like combustibility and toxicity, the cost of the refrigerant, and the cost of producing air conditioners that use the refrigerant.

Different characteristics are required of refrigerants, depending on whether they are used in, for example, residential or commercial air conditioners, water and space heaters, or freezing/refrigeration equipment. So that we can offer the most adequate refrigerant for each case, we are developing a range of refrigerants: everything from natural refrigerants to HFC fluorocarbons, which have a relatively low global warming potential.

We are also providing opportunities for dialogue at international conferences and trade shows in efforts to provide the public with information on the global warming impact of refrigerants and on what can be done to prevent this.

### Start of Use of R32, a Low Global Warming Potential Refrigerant

In November 2012, Daikin became the first company in the world to use R32 (HFC). Used in residential air conditioners for the Japanese market, R32 has just one-third the global warming potential of conventional the R410A (HFC) refrigerant. In March 2013, we released a residential air conditioner using R32 in India. We aim to release these R32 air conditioners in other countries and use R32 for commercial air conditioners as well.

To promote the use of R32 in developing countries, in September 2011 Daikin began giving these countries free-of-charge access to the "Basic Patent Indispensable for the Manufacture and Sale of Air Conditioners Using R32 Single Component Refrigerant."

We plan to spread the use of next-generation refrigerants with low environmental impact to Europe, the U.S., China, and other countries and regions to match the needs of their respective regulations and market conditions.

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Japan	Daikin releases world's first residential air conditioner using R32 (HFC).
Europe	Under the F-Gas Regulation, new cars released to market on and after January 1, 2011 are prohibited from using air conditioner refrigerants with a GWP higher than 150.
U.S.	Switch from HCFC to HFC begun.
China	The government has decided on HCFC substitutes: propane for residential air conditioners and R32 for commercial air conditioners.

### Bringing Next-Generation Refrigerants to Countries

For details, see Key Activities of Fiscal 2012: Practical Application of Next-Generation Refrigerant. (Page 52)

### Daikin's Stance on the Environmental Impacts of Refrigerants

Refrigerants		ODP	GWP*	Flammability	Refrigerant characteristics	Daikin's stance
Current refrigerants in developing countries	R22 (HCFC)	0.055	1,810	Nonflammable	Production to be completely phased out in industrialized countries by 2020. In developing countries, production to be decreased starting in 2013 and completely phased out by 2030.	All of the major models completed refrigerant switchover from HCFC to HFC
Current refrigerants in industrialized countries	R410A (HCFC)	0	2,090	Nonflammable	Because propane has no impact on the ozone layer and has the same global warming potential and efficiency as HCFC22, it is being adopted in industrialized countries.	
Next-generation refrigerants	R1234yf (HFO)	0	4	Slightly flammable	No impact on the ozone layer and a low global warming potential. Flammable. Safety and price issues.	Seen as a possible refrigerant in the future
	R32 (HFC)	0	675	Slightly flammable	No impact on the ozone layer, and one of the lowest global warming potentials among HFCs. Flammable.	
	R744 (CO2)	0	1	Nonflammable	No impact on the ozone layer and low global warming potential. Low efficiency when used for air conditioning.	Put into commercial production as refrigerants for hot water supply units, for which performance is equivalent to that of conventional refrigerants
	R290 (Propane)	0	3.3	Highly flammable	No impact on the ozone layer and low global warming potential. An efficient refrigerant, but highly flammable and susceptible to explosion.	Technical development is needed to adopt as refrigerant for air conditioners in order to ensure safety

Note: Source: IPCC Fourth Assessment Report, other documents. R1234yf/ze values from ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers).

# 3R & Repair

### **Stressing Effective Use of Resources in Design**

The Daikin Group strives to use resources as effectively as possible by carrying out the 3Rs-reducing, reusing, and recycling-along with repairing under its 3R & Repair initiative.

This initiative plays a key role in our product design and development. Based on product assessment, we design and develop products that are smaller and lighter, and that use materials and construction that make them easy to maintain, separate, and recycle.

### Environmentally Conscious Design through Product Assessment (Page 76)

#### 3R & Repair: Approach

Reduce	Make products smaller and lighter, Use recycled materials				
Reuse	Use parts from end-of-life products				
Recycle	Development Develo				
	After use	Recycle end-of-life products			
Repair	Development	Design products that are easy to maintain			
	After disposal	Have a repair support system that contributes to long-lasting products			

### 3R & Repair: Effective Use of Resources



# Recycling

### **Designing Products for Easy Disassembly**

Product design stresses 3R & Repair based on product assessment. Since 1997, we have designed products so that their construction makes them easy to disassemble.

In fiscal 2012, we made the ECOCUTE's thin storage unit even lighter, and we reduced the amount of packaging. To halve the assembly process of the Urusara 7, we took measures including making the humidification duct out of a single mold, reducing the number of parts, and eliminating unnecessary parts.

# Reducing

### Maker Smaller and Lighter Products that are Still Energy Efficient

Making products smaller and lighter means they will use fewer resources. When making air conditioners, for each product we set weight reduction targets for both the entire product and its components. However, it is technically difficult to achieve this without sacrificing energy efficiency. If making it smaller and lighter means that it consumes more energy, then the product's environmental performance throughout the entire lifecycle has not yet been improved.

When the Daikin Group develops new products, we establish weight reduction targets for each product on the condition that the annual performance factor (APF) does not decrease. For example, the Eco-ZEAS 80, released in May 2012, is approximately 26% lighter than our previous model thanks to innovations such as an all-aluminum heat exchanger, the first for a heat-pump-type air conditioner, and more compact electronic components.

The outdoor unit of Urusara 7 for small rooms (2.2-kW and 2.5-kW class), released in November 2012, is approximately 21% lighter than the previous model thanks to improvements including more compact electronic components, a fan with a smaller radius, and no fans for humidification and absorption.

### Product Packaging Weight Reduced by 2% Since Fiscal 2010

We set a target of reducing the amount of packaging for air conditioning products by 6% in fiscal 2010 compared to fiscal 2005.

In fiscal 2011, our distribution and design divisions worked together to make our new models stronger and develop a new structure for packaging to reduce the amount of packaging. As a result, we achieved our goal of a 1% reduction in packaging weight compared to fiscal 2010.

In fiscal 2012, the design divisions worked to make products stronger and reduce protruding parts, and succeeded in the fiscal 2012 goal of reducing



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packaging weight by 2%. In fiscal 2013, we aim to reduce the weight by 3% over 2010 by revising assessment test standards and adopting new packaging materials.

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# 1. Making Products Stronger Resulted in Approximately 27% Less Packaging

In fiscal 2012, reinforcement ribs helped strengthen products and reduce the pressure elements. At the same time, we developed a cardboard buffer construction with air layers that helped reduce packaging by approximately 27%.



### 2. ECOCUTE Packaging Reduced by 27%

We reduced the unnecessary buffer material supporting the bottom of the tank of the ECOCUTE by 57% by concentrating strong cardboard angles around the products, and we conducted simulations to see which parts of the product required support.

And by employing a strong buffer construction, we reduced overall packaging use by 27%.



### 3. Increase Number of Products that Use Returnable Containers

In the Service Division, conventional wooden containers used to ship service parts overseas are gradually being replaced by returnable steel containers that can be used repeatedly.

In fiscal 2007, we began using these in Europe, and Thailand started the following year. Currently about 60% of products being shipped used these returnable containers, and this has saved us about 330 tons of wood. We will increase the percentage of products using these returnable containers in Europe and Thailand, and we will use them in China as well.

In the Distribution Division, the import and transport of compressors and other distributed parts uses returnable palettes, and in the near future Europe and China bases will switch to returnable packaging.

### 4. Cardboard Packaging Used to Reduce Packaging Material by Approximately 30%

In the past, products whose main unit was not very strong required wood-frame packaging to compensate for the pressure placed on them. Daikin's design division made the product stronger so that cardboard was sufficient for the packaging. This resulted in an approximately 30% reduction in packaging material.



### **Belgium: Returnable Packaging**

At the end of fiscal 2010, Daikin Europe N.V. switched from cardboard boxes to foldable plastic boxes for product packaging. The company now disposes of no packaging waste—where it used to throw away 44,000 kg—and it can fit more packages into delivery trucks. The result has been CO<sub>2</sub> emission reductions of 8,500 kg.





### Repair and Reusing Parts that have Already Been Replaced

In the Daikin Group, we try to use resources efficiently. We take parts that have already been replaced and that contain multiple components, such as printed circuit boards, and we repair any malfunctions or replace the worn-out components. These parts (the printed circuit board, for example) are then tested for quality by ensuring that they are functioning properly and, with the customer's permission, are used as replacement parts when performing repair on a product.

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# Repair

### **Reinforcing the Global Repair System**

Making products that last longer means that fewer resources are used. To this end, the Daikin Group is strengthening its repair system by establishing service outlets around the world to take customer repair requests and questions and enquiries regarding products.

In Japan, the Daikin Contact Center is open 24 hours a day, every day of the year to take inquiries. We will continue to strive for even greater customer satisfaction by improving the technical expertise and etiquette of our service engineers through an engineer certification system.

With Daikin picking up the pace of its overseas expansion in recent years, it is crucial that we strengthen our service network in each country. We have added service bases in countries like Spain, Singapore, and Italy through the integration of the service system of O.Y.L. Industries Bhd, which Daikin acquired in 2006. In North America and China, Daikin is working with O.Y.L company McQuay International to exchange employees and utilize networks so as to improve the service system.

### Daikin Contact Center



# **Recycling Residential Air Conditioners**

### Daikin Achieves Recycling Ratio of 88%, Well above Obligations under Home Appliance Recycling Law

The Home Appliance Recycling Law obligates manufacturers to recycle at least 70% of the material from their own air conditioners as well as recover and then reuse or destroy refrigerants.

In fiscal 2012, we recovered about 210,000 products totaling 8,998 tons. The recycling ratio was 88% and the amount of fluorocarbons recovered was 135 tons.

### Recycling of Residential Air Conditioners in FY2012 (Japan)





# Environment Low-Impact Production

The Daikin Group strives to reduce environmental impact during production (including procurement and transportation). Besides making it a priority to reduce emissions of greenhouse gases during production, we do all we can to manage and reduce emissions of chemicals and reduce waste and water use. We are also working to achieve targets that our manufacturing bases around the world have set for recovering and destroying fluorocarbon refrigerants during production process and during maintenance or final disposal of air conditioners.

# **Preventing Global Warming — Production, Transportation**

### Aiming to Reduce Emissions to One-Third of Fiscal 2005 Levels by Fiscal 2015

The Chemicals Division and machinery divisions of the Daikin Group emit during production four kinds of fluorocarbons (HFC, PFC, CFC, and HCFC) that are greenhouse gases. We therefore make it a top priority to reduce fluorocarbons by preventing their leakage during production processes and by recovering and properly destroying them.

We also reduce CO<sub>2</sub> emissions during production and transportation by introducing energy-efficient technologies and raising transportation efficiency.

### **Read more** (Page 108)

- Reducing Overall Group Greenhouse Gas Emissions
   Greenhouse Gas Emissions (during production)
- Reducing Fluorocarbon Emissions
   HFC and PFC Emissions and Global Warming Impact I
  - Inspecting for Refrigerant Leaks in the Air Conditioner Manufacturing Process
- Reducing Energy-Induced CO2
   Total CO2 Emissions, CO2 Emissions per Production Output Im
- Reducing CO2 Emissions during Transportation
- CO2 Emissions per Sales from Transportation (air-conditioning)
- Green Heart Factories and Green Heart Offices
- Saving Energy at Overseas Bases

# Recovering and Destroying Fluorocarbons from Customers' Air Conditioners

# Proper Recovery of Refrigerants during Air Conditioner Disposal and Repair Prevents Release into the Atmosphere

To protect the ozone layer and help curb global warming, it is crucial that we prevent release of air conditioner refrigerants (fluorocarbons) into the atmosphere. The Daikin Group has a system for recovering and treating refrigerants so that they are not released into the atmosphere during the maintenance, upgrading, or disposal of air conditioners.

Daikin strives to prevent refrigerant emissions post-sales. We have a fluorocarbon recovery and destruction business in which we take requests from customers for refrigerant recovery.

### Read more (Page 116)

- Recovery and Destruction of Fluorocarbons from Customers' Air Conditioners
  - Efforts to Prevent Environmental Burden from CFC Emissions
  - Recovery and Destruction of Refrigerants A
- Efforts in Japan
  - Unified Management System of Refrigerant Recovery and Destruction
  - Recovered Fluorocarbons (at time of repair and at time of disposal)
  - Types of Fluorocarbons Recovered during Maintenance (Japan) III
- Efforts Overseas

### **Green Procurement**

## Picking Up the Pace of Overseas Green Procurement: 98% in Thailand, 92% in China and 83% in Europe.

Whenever possible, the Daikin Group purchases only green parts and materials from suppliers and throughout the entire supply chain.

Since fiscal 2000, we have been urging our suppliers to comply with our Green Procurement Guidelines in order to conduct their business in an environmentally conscious manner.

\*Green procurement rate: The percentage of our suppliers that have scored at least 82% on the green procurement survey.

#### Read more (Page 120)

- Green Procurement
  - ► Green Procurement Rate (Japan) 🖬
  - Green Procurement Rate by Region
  - Overview of Green Procurement Guidelines, 6th Edition ▲
- Compliance with Restrictions on Toxic Chemicals
   Specified Chemical Substance List (for products)

# **Compliance with J-Moss**

For Daikin room air conditioners, we report which of the six substances covered by J-Moss (the marking of presence of the specific chemical substances for electrical and electronic equipment) are contained in our products.

# **Management of Chemical Substances**

# Goal to Reduce PRTR Substances in Japan by 15% Against Fiscal 2010

The Daikin Group has voluntary restrictions that its uses to strictly manage the chemical substances used in production processes in the Chemicals Division. We have set a goal of reducing emissions of PRTR (Pollutant Release and Transfer Registry) substances by 15% by fiscal 2015 compared to fiscal 2010.

#### **Read more** (Page 124)

Compliance with J-Moss
 Substances Contained in Room Air Conditioners

#### Read more (Page 127)

- Management of Chemical Substances
  - Release of Substances Designated by the Pollutant Release and Transfer Register Law (Japan) Int
  - Compilation of PRTR Substances in FY2012 (PRTR substances of which at least 1 ton was handled)

### **Reducing Waste and Water**

# Reducing Overall Waste Emissions and Water Usage

The Daikin Group strives to reduce the amount of waste generated and make effective use of waste through efforts including material and thermal recycling.

And through measures such as improving production processes and reusing waste water, we strive for effective use of water resources.

#### **Read more** (Page 129)

- Reducing Waste
- Amount of Waste and Recycled Materials II
- Recycling Efforts
- Using Water Resources
- Water Used/Water Use per Production Output A
# Reducing Overall Group Greenhouse Gas Emissions

# Fiscal 2012 Emissions Down 68% from Fiscal 2005

One of the key environmental targets of the fiscal 2010 Fusion 15 strategic management plan is to reduce total Group CO<sub>2</sub> emissions to one-third of fiscal 2005 levels by fiscal 2015 (67% reduction). This will go towards our aim of reducing the Daikin Group's greenhouse gas emissions in 2020 to one-quarter of fiscal 2005 emissions.

As a result of efforts towards this target, overall Group greenhouse gas emissions in fiscal 2012 were 1.34 million tons-CO<sub>2</sub>, down by 68% over fiscal 2005.



#### Greenhouse Gas Emissions (during production)

Note: BAU (Business as usual). Estimated value in the case measures are not taken.

## Success in meeting Japan's 6% reduction target

The Daikin Group in Japan emitted 280,000 tons-CO<sub>2</sub> of gases designated by the Kyoto Protocol (CO<sub>2</sub>, HFC, and PFC) in fiscal 2012, a reduction of 97% compared to the 10.33 million tons-CO<sub>2</sub> emitted in the base year of the Kyoto Protocol (FY1990 for CO<sub>2</sub>, FY1995 for HFC and PFC).

## M Terminology

## **Kyoto Protocol**

An international agreement under which developed countries are obligated to reduce overall greenhouse gases by at least 5% compared to 1990 between 2008 and 2012. It was passed in 1997 at the 3rd Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in Kyoto. Greenhouse gases designated by the Kyoto Protocol are CO<sub>2</sub>, methane, N<sub>2</sub>O, and three CFC alternatives (HFC, PFC, and SF6). Major developed nations are obligated to reduce greenhouse gas emissions: Japan by 6%, the United States by 7% (although the United States has not ratified the Kyoto Protocol), and the EU by 8%. In March 2008, Japan's Cabinet approved a revised plan for targets that includes additional measures to improve the energy efficiency in the residential and construction sectors. The government is also aiming to achieve Japan's targets through revision of the Law Concerning the Promotion of the Measures to Cope with Global Warming.

# **Reducing Fluorocarbon Emissions**

# Greenhouse Gases HFC and PFC Reduced by 71% in Fiscal 2012 Against 2005

The Daikin Group emits two kinds of greenhouse gases: CO2 from energy use, and fluorocarbons handled in the production processes.

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Of these, there are four kinds of fluorocarbons released during Daikin's production processes: HFC and PFC, which are covered by the Kyoto Protocol, and CFC and HCFC, which are not. We have set reduction targets for each of these fluorocarbons.

In fiscal 2012, we reduced PFC emissions in fluorochemical production processes and succeeded in lowering emissions by 200,000 tons-CO<sub>2</sub> over the previous year. As a result, fiscal 2012 emissions of the HFC and PFC covered by the Kyoto Protocol were 142 tons (760,000 tons CO<sub>2</sub> equivalent), a 71% reduction over fiscal 2005.



#### HFC and PFC Emissions and Global Warming Impact

# Fluorocarbon Recovery Equipment Ensures Proper Destruction of Refrigerants (Chemicals Division)

The fluorocarbons emitted in the Chemicals Division are raw materials and by-products in the production of fluorochemical products. To prevent such emissions, we have been installing recovery equipment on production lines and properly destroying the fluorocarbon gases recovered. We also take the fluorite generated during the destruction process and use it as raw material for the production of fluorochemical products.

# Establishing Facilities at Worldwide Bases for the Recovery and Destruction of Fluorocarbons in Production Processes

To reduce fluorocarbon emissions, the Chemicals Division has been establishing facilities since fiscal 2001 for the proper recovery and destruction of fluorocarbons during manufacturing processes.

In fiscal 2009, we built new recovery facilities at the Yodogawa and Kashima plants, and in fiscal 2010 we upgraded destruction facilities (special incinerator) at the Yodogawa Plant to ensure stable operation.

In countries in which we operate that have no fluorocarbon emission restrictions, we voluntarily recover gas and either destroy it at our factories or outsource destruction.

In December 2008, fluorocarbon destruction facilities that we built in Daikin Thailand were certified by the government and this site can now destroy fluorocarbons recovered at other group companies in Thailand. In fiscal 2012, we expanded destruction facilities at manufacturing bases in China and plan to upgrade destruction facilities in the U.S. in 2013.

# Ensuring No Leaks When Filling Air Conditioners with Refrigerant (Machinery Divisions)

During the air conditioner manufacturing process, we do everything possible to ensure no refrigerants (HFC, HCFC) leak during filling.

These measures include the following:

- We inspect all pipes for leakage before refrigerant filling.
- If operation inspections show that a product must be fixed, we do so after recovering all the refrigerant from it.
- We take every precaution possible during refrigerant filling to ensure there are no leaks.



Recovering refrigerant

All this and other related work is done by certified technicians

according to maintenance manual procedures. Technicians also undergo training every year based on the manual.

In fiscal 2012, the refrigerant emissions ratio was 0.2% at Daikin in Japan and 0.5% overseas.

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# Switching from HCFC to Helium Gas in the Inspection Process

In the Daikin Group machinery divisions, where air conditioners and other products are made, all products are inspected for air-tightness during manufacturing using inspection gas to prevent refrigerant gas from leaking from air conditioners.

The Daikin Group used to use low-cost HCFC as this inspection gas but has gradually been switching from HCFC to helium, which does not deplete the ozone layer and is not a greenhouse gas. This means that even if a product is defective and leaks gas during inspection it will not harm the environment. After inspection, the refrigerant system is vacuumed out to ensure no helium remains.

We have switched from HCFC to helium gas for inspections at 20 manufacturing bases around the world. With the switch to helium gas at all Daikin plants in Japan in 2009 and all overseas plants in 2010, all major worldwide production bases no longer use HCFC as inspection gas.

#### Inspecting for Refrigerant Leaks in the Air Conditioner Manufacturing Process

Daikin Industries carries out three inspections for refrigerant leaks during the production process for residential and commercial air conditioners. This gives customers highly reliable products and prevents refrigerant emissions due to product defects.



1. Air-tightness and pressure resistance inspection Before we insert refrigerant, we pump air at an extremely high pressure of 4.2 MPa to check for leaks at the welded sections, pipes, and other parts refrigerant passes through.



2. Gas leak inspection After ensuring there are no leaks, refrigerant is sealed inside and a refrigerant detector is used to inspect all brazed parts.



3. Pre-delivery inspection When the product is completed and packed, a refrigerant detector is once again used to ensure no refrigerant has leaked.

# Reducing Energy-Induced CO2

# Despite a Production Volume Rise, Energy-Induced CO2 Dropped by 26% Against Fiscal 2005

In fiscal 2012, we lowered the lead time during the air conditioner manufacturing process by the maximum possible amount in order to raise production efficiency. In the fluorochemical production process, a production revamping project helped us boost efficiency and reduce energy losses. We also continued last fiscal year's efforts to achieve energy efficiency in any little way possible in all daily duties.

As a result of these efforts, fiscal 2012 energy-induced CO<sub>2</sub> was 580,000 tons-CO<sub>2</sub>, and CO<sub>2</sub> emissions per production output were down 26% over fiscal 2005.





LED lighting (Daikin Air-Conditioning (Shanghai) Co., Ltd.)



Solar power generation (Daikin America, Inc.)

#### Terminology

#### CO<sub>2</sub> emissions per production output

The amount of CO<sub>2</sub> emitted by the amount of production. The lower this figure, the less CO<sub>2</sub> a company emits per unit of production and thus the more efficiently that company can make products.

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## Small Efforts Add Up to More Effective Energy Use and Less Energy Wasted

Daikin employees do every little thing possible in their daily work to contribute to energy-efficient operation. For example, they turn off unnecessary lights and shut down computers when they are away from their desks.

In fiscal 2012, we continued on efforts from the previous year to make sure nothing was wasted. For example, we made our own wind power driven by factory exhaust air and hydropower driven by the flow of water at wastewater processing plants. We also installed solar power generators.

# **Reducing CO2 Emissions during Transportation**

#### CO2 Emissions Reduced by 3.6% Over Fiscal 2010

Daikin Industries set a goal of decreasing CO<sub>2</sub> emissions (per sales) from transportation by 4% in fiscal 2012 compared to fiscal 2010 by switching from trucks to trains and ferries. As well, we increased the use of direct shipping from overseas production sites to Japan to ensure the shortest possible transportation route.

In fiscal 2012, as a result of efforts including using more freight train routes, we reduced CO2 emissions during transportation by 3.6% over fiscal 2010.

Daikin Europe N.V. worked to reduce emissions during procurement by eliminating and consolidating warehouses and reducing inventory, part of efforts by Daikin overseas bases to reduce environmental impact from transporation activities.



#### CO2 Emissions per Sales from Transportation (air-conditioning)

- At manufacturing bases in Japan, we have replaced gasoline-powered forklifts for logistics with electric models.
- We are changing the layout of warehouses so that forklifts will drive shorter distances; changing the workplace layout has improved efficiency and contributed to a two-hour decrease in work time.
- All vehicles driving at manufacturing bases turn off their engines when not moving to reduce exhaust fumes. We are also having our transport partners turn off their engines.
- We are reducing CO<sub>2</sub> emissions through improved transportation efficiency and decreased packaging volume, and reducing electricity consumption through shorter working hours.

# Daikin Receives First Eco-Rail Mark Certification for Air Conditioning Products

In November 2010, Daikin Industries and five Daikin air conditioning products were certified for the Eco-Rail Mark from the Ministry of Land, Infrastructure, Transport and Tourism. This is the first time an air conditioning product has been certified for this system, which certifies products that travel solely on land or, if not, at least 500 kilometers on land and 30 percent or more of the goods are carried on railways.



Daikin will continue shifting more products to railway shipping.

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# Start of Safe Driving Control System

Since June 2011, the After Sales Service Division of Daikin Industries and Daikin Air Techno, Ltd. have been gradually introducing a safe driving control system. To raise driver awareness about safety and the environment, an on-board unit is placed in each company vehicle. The unit gathers data on things like idling time and driving speed, then gives drivers feedback on how to improve vehicle operation. There are currently 377 vehicles with these units installed.

In June 2012, Daikin was registered for the Osaka Prefectural Government's Osaka Traffic Eco Challenge Promotion Project.

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## **Introducing Eco-Cars in Europe**

Daikin air conditioner sales companies in Belgium, France, Poland, and England have been introducing low-exhaust eco-cars.

For example, the 22 low-exhaust diesel vehicles that were introduced in Poland helped reduce annual emissions by 50 tons-CO<sub>2</sub>.

# **Green Heart Factories and Green Heart Offices**

# "Green Heart Factory" Initiative Expanded Overseas

The Daikin Group has been certifying environmentally conscious plants under its in-house Green Heart Factories initiative since fiscal 2005. Bases scoring at least 85 points out of 100 are certified as Green Heart Factories, while those scoring at least 95 points are certified as Super Green Heart Factories.

In fiscal 2012, nine Daikin in China, Thailand, Europe, and the U.S. were certified as Green Heart Factories, bringing the total to 17.

There are currently three bases certified as Super Green Heart Factories. In fiscal 2013, we intend to use upgraded standards that include criteria for things like biodiversity protection.

# "Green Heart Office" Initiative

Daikin began the "Green Heart Office" initiative in fiscal 2011 to improve environmental consciousness at non-production bases. Activities began with a contest that invited employees to design a poster to promote and raise awareness of Green Heart Offices. The winning poster has been put up in Daikin offices.



Green Heart Office promotion poster

# Saving Energy at Overseas Bases

## Belgium: Green Energy Use Helps Reduce CO2 Emissions by 67%

Governments in Europe, using EU regulations on renewable energy like solar, wind, and hydro, are aiming to have renewable energy account for 20% of the energy mix by 2020. Daikin Europe N.V. has since fiscal 2007 been switching its factory and office power to hydro, and today 100% of the approximately 13 million kWh is covered by hydropower. This has eliminated the CO<sub>2</sub> previously emitted from purchased electricity, and so the company has reduced the previous 5,000 tons-CO<sub>2</sub> per year, or a total of approximately 1,660 tons-CO<sub>2</sub>.

In fiscal 2012, the company teamed up with a renewable energy contractor to install 1,932 solar panels, which are expected to provide 450,000 kWh of power a year.



Daikin Europe N.V. installed 1,932 solar panels

# **Overseas Bases Certified for Energy-Efficient Buildings**

In fiscal 2011, the McQuay International parts warehouse in Dayton, Ohio earned Energy Star certification for meeting strict criteria including comfort and energy performance.

In addition, in fiscal 2012 Daikin Australia's head office building was again one of just a handful to receive a rating of 5.5 stars in NABERS (National Australian Built Environment Rating System) ratings.

#### Certificate of NABERS certification

NABERSENERGY

# LEED® Gold Certification for Daikin-McQuay Applied Development Center in the United States

In December 2010, the Daikin-McQuay Applied Development Center in Minnesota earned LEED® Gold certification from the U.S. Green Building Council for its energy efficiency and green design.

The facility was highly rated for a green design that includes major facilities equipped with an inverter air conditioning system, test equipment using heat recovery technology, and energy-efficient lighting. More than 90% of the center's energy is used for development testing (cooling and heating water, etc.), and 75% of this energy is recovered and reused to make the facility energy efficient.



At the awards ceremony

# **Daikin Takes Part in Government Energy-Reduction Project**

Daikin Europe N.V. is participating in an energy-reduction project being carried out by the government of Flanders, Belgium. Between 2009 and 2013, based on an in-house energy-reduction plan, the company is striving to reduce its energy use through measures including converting equipment to inverters and recovering heat from test equipment.

# **Using Renewable Energy in Thailand**

Daikin Industries (Thailand) Ltd., a major plant in Southeast Asia, uses renewable energy, such as hydropower that utilizes the in-house cooling water, and wind and solar power.

The power generated is used in the factory and for nearby street lighting.



Wind power built by employees



Hydropower utilizing cooling water from the plant

# Recovery and Destruction of Fluorocarbons from Customers' Air Conditioners

# Thorough Recovery during Production, Maintenance, and Upgrading

The fluorocarbons used as refrigerants in air conditioners have a global warming impact that is from several hundred times up to 2,000 times more than that of CO2.

As an air conditioner manufacturer, Daikin has taken responsibility to prevent fluorocarbons from entering the atmosphere. We are also conducting research and development into refrigerants with a low global warming potential and preventing the release of fluorocarbons (refrigerants) into the atmosphere during production and post-sales.

At all worldwide production bases, we recover and destroy refrigerants placed in air conditioners during testing and other processes. During maintenance and upgrading of customers' air conditioners, the service or installation staff always start by thoroughly recovering the refrigerant. We also constantly improve the skills of installation staff to ensure the work is done properly and that no refrigerant leaks during product use.





## Recovery and Destruction of Refrigerants



# Efforts in Japan

# **Refrigerant Recovery Network System**

In Japan, we are thorough in our recovery of fluorocarbons (refrigerants) from commercial air conditioners. In September 2006, we created a network system for the integrated management of all information from recovery to destruction of refrigerants. By computerizing all previously written records, from amount of refrigerant recovered to amount destroyed, we have made it easier to accurately keep track.

The companies recovering and destroying the refrigerants add up the totals and these are reported annually to the prefectural governments in Japan. Because these reports can be generated from the system, these companies can work more efficiently.

#### Unified Management System of Refrigerant Recovery and Destruction

With each instance of refrigerant recovery, details such as the model of air conditioner and number of units, and the amount of refrigerant recovered, are entered into the electronic manifest. This makes it possible to get an accurate picture of the refrigerant recovery rate.



# Taking Calls 24 Hours a Day, 365 Days a Year for Recovery and Destruction (Fluorocarbon Recovery and Destruction Business)

We take requests from retailers and other businesses for the proper recovery and destruction of refrigerants. The Daikin Contact Center takes calls all day, every day, and the recovered refrigerants are taken to our Yodogawa Plant, Kashima Plant, or one of the contracted destruction facilities around Japan where they are properly destroyed.

In fiscal 2012, 375 tons of fluorocarbons were recovered.



Fluorocarbon destruction facilities (Yodogawa Plant)

#### Recovered Fluorocarbons (at time of repair and at time of disposal)



## Maintenance Only After Thorough Recovery of Refrigerant

During the parts replacement that takes place during maintenance of air conditioners, refrigerant can leak out into the atmosphere. To prevent this, the Daikin Group has recovery equipment at service outlets across Japan that carry out such maintenance, and this equipment is used to recover refrigerant before any repair work begins.

In fiscal 2012, a total of approximately 345 tons of refrigerants was recovered at all service outlets.



#### Types of Fluorocarbons Recovered during Maintenance (Japan)

# **Training for Refrigerant Recovery Personnel**

The recovery of refrigerants requires special knowledge and skills. Daikin Industries provides the necessary training for the sales, technical, installation, and service staff who will be recovering refrigerants.

After one of these training programs, the technician training course, participants take a final test and if they pass are registered as refrigerant recovery technicians by the Refrigerants Recycling Promotion and Technology Center. In fiscal 2012, 1,257 people, mostly from retailers and installers, passed the test. Of all those registered as refrigerant recovery technicians in Japan, 37.5% took the Daikin technician training course.

As well, 300 employees of Daikin Industries and Group companies have passed training in leak detection sponsored by the Japan Federation of Construction Contractors.

# Daikin Begins Certification System for Refrigerant Pipe Installation Technicians

On April 1, 2011, Daikin started a certification system for refrigerant pipe technicians with the goal of preventing faulty pipe installation, one of the causes of refrigerant leaks. We also became the first manufacturer to establish an in-house system for certifying that refrigerant pipe installers have outstanding knowledge, techniques, skills, and ethics in this area.

As of the end of fiscal 2012, 823 retailers and installers had been certified.



Refrigerant pipe installation training

# Visual Representations of Refrigerants in Refrigeration and Air Conditioning Equipment

The refrigerants used in refrigeration and air conditioning equipment are colorless, odorless, and tasteless gases that, although not harmful to humans, must be prevented from leaking into the atmosphere since these refrigerants have a great impact on global warming. In 2009, the Japan Refrigeration and Air Conditioning Industry Association announced a policy of displaying the effects of global warming caused by these refrigerants: a 'visualization' of their movement.

Since that time, the Daikin Group in Japan has placed stickers on its refrigeration and air conditioning equipment for the Japanese market that show that fluorocarbons are being monitored. These same stickers are placed on products made overseas for the Japanese market. As of March 2011, stickers were being placed on all relevant products.

We are improving the placement of stickers and designing products so that stickers are highly visible to end-users and installers and so that we can improve the recovery rate.

#### Fluorocarbon 'visualization' sticker (for indoor unit)



# Efforts Overseas

# Training Personnel in Refrigerant Recovery and Installing Recovery Equipment

At the Daikin Europe Academy, training is held to teach the knowledge and skills needed to carry out refrigerant recovery. Course content is also in line with the EU regulations to prevent the release of refrigerants into the atmosphere.

In China and other parts of Asia, all service bases have refrigerant recovery equipment. As we recover refrigerants, we remind customers how important this activity is to environmental protection, irrespective of the cost.

In fiscal 2012, we expanded destruction facilities at manufacturing bases in China and plan to upgrade destruction facilities in the U.S. in 2013.

# **Green Procurement**

# Green Procurement Guidelines Revised to Cover Biodiversity

The Daikin Group established its Green Procurement Guidelines in fiscal 2000 and requires suppliers in Japan and overseas to abide by these in the procurement of materials and parts used in manufacturing. We mark suppliers on environmental protection activities using a green procurement checklist. As well, the ErP Directive obligates manufacturers of energy-using and energy-related products (ErP) to reduce their energy consumption. To comply with this directive, Daikin's green procurement survey for suppliers determines energy-induced CO<sub>2</sub>.

We are discussing individual measures that will remedy the particular problems of suppliers, and we are designating as 'green supplier' those who score 100 points on the survey.

For details, see Products that Help Customers Save Energy in the section Low-Impact Products. (Page 89)

#### Striving for a Higher Green Procurement Rate

We hold meetings for suppliers to explain the importance of green procurement in order to further raise the green procurement rate.

In fiscal 2012, Group companies in Japan had a green procurement rate of 88%.

Overseas, the green procurement rate is still low in some regions, so we plan to continue working to increase it through a range of efforts.





Green procurement briefing in Suzhou, China

# Green Procurement Rate by Region (%)

	Japan	China	Thailand	Other countries in Asia and Oceania	Europe	North America	All regions
FY2009	99	89	97	85	63	-	83
FY2010	99	89	97	85	82	45	87
FY2011	96	91	98	87	81	3	84
FY2012	99	92	98	90	83	36	88

Value of goods procured from suppliers

Green procurement rate = who meet our assessment criteria

Value of all goods procured

## Overview of Green Procurement Guidelines, 6th Edition

#### **Environmental Management Conditions for Suppliers**

- An ISO 14001-certified environmental management system
- Compliance with relevant laws and regulations
- Promotion of voluntary activities of improving environment energy conservation, waste reduction, and improvement of transport means
- Provision of necessary environmental information upon request from Daikin

#### **Product-Related Conditions**

- Chemical substance management
  - 1. Restrictions on use of chemical substances
  - 2. Cooperation to investigation of chemical substances
  - 3. Voluntary reduction of substances ranked to reduce, and the implementation of adequate management procedures of them
- Reduction of packaging materials
- Use of eco-friendly design

For details, see the Green Procurement Guidelines. (Responsibility to Business Partners) (Page 220)

# **Compliance with Restrictions on Toxic Chemicals**

# **Establishing Standards for Managing Chemical Substances in Products**

The Daikin Group has a list (shown below) of 30 substances not allowed in products, as well as SVHC (substances of very high concern) under the REACH Regulation\*, which will be added in future. Daikin requires suppliers to ensure that they comply with the Daikin Group Green Procurement Guidelines.

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When the Green Procurement Guidelines were revised in October 2009, we updated the list of restricted substances and increased the number from 26 to 30. We will continue to make the necessary additions and changes to our guidelines based on data newly released by relevant organizations.

\* The REACH Regulation on chemical substances went into effect in Europe in June 2007. REACH obligates companies manufacturing or importing at least 1 ton of chemical substances a year in the EU to register with EU authorities. REACH covers almost all chemicals on the market in the EU.

#### Specified Chemical Substance List (for products)

Control levels	Substance name
Prohibited	Cadmium and cadmium compounds Hexavalent chromium compounds Lead and lead compounds Mercury and mercury compounds Tributyl tin oxide (TBTO) Tributyl tins (TBTs) compounds *1 Dibutyl tins (TDTs) compounds *1 Dibutyl tin compounds (DBTs) *1 Polybrominated biphenyls (PBs) Polybrominated biphenyls (PBs) Deca-Bromodiphenylether (Deca-BDE) *2 Polychlorinated terphenyls (PCTs) *2 Polychlorinated terphenyls (PCTs) *2 Polychlorinated terphenyls (PCTs) *2 Polychloronapthalenes (C1=>3) Short chain chlorinated paraffins Perfluorooctane sulfonate (PFOSs) *3 F gas (HFC, PFC, SF6) *4 Asbestos Azocolourants and azodyes which form certain aromatic amines *5 Ozone depleting substances (other than HCFCs) *6 Radioactive substances Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl) *2 Dimethlyfumarate (DMF) *7
Reduced	Vinyl chloride polymer (PVC) *8 Ozone depleting substances (only HCFCs)
Managed	Beryllium oxide (BeO) *2 Phthalates (DINP, DIDP, DNOP) *2 Perchlorates *2 Nickel and nickel compounds *9 Brominated flame retardants (other than PBBs, PBDEs, HBCDDs) Formaldehyde *2 EU REACH Regulation (SVHC: substances of very high concern) group (Prohibited materials specified by this guideline are excluded) *10

- \*1 The use of TBTs and TPTs is prohibited as of July 2010. The use of DBTs is prohibited as of January 2012 (January 2015 for certain substances). The use of DOTs is prohibited as of January 2012. However, only "Commodities that touch the skin" and "Two-component normal temperature silicone modules" will be prohibited.
- \*2 Materials added to JIG representation material (July 2009).
- \*3 The use of PFOSs is prohibited as of May 2009 under the POPs Agreement. Prohibited as of April 2010 under Japan's Law Concerning the Evaluation of Chemical Substances (except for applications in semiconductors, etching, and business photographic film).
- \*4 The use of F gas (HFC, PFC, etc) is prohibited in one-component foams (except when required to meet national safety standards). (Banned in the EU starting in July 2008.) The use of F gas (HFC, PFC, etc.) is permitted for refrigerants.
- \*5 Limited to applications in azo dyes and pigments which constitute the specific amines defined by the German Consumer Goods Ordinance and which come into contact with the human body for long hours.
- \*6 The use of HCFC for the production of foams shall be prohibited, and the use as refrigerants for Japan and EU models shall also be prohibited.
- \*7 Use prohibited as of May 2009 (formerly used as a fungicide in leather products and furniture before being prohibited in the EU).
  \*8 There are fewer substances that can be used as PVC substitutes.
- \*9 In cases in which the nickel comes into contact with the human body for long hours.
- \*10 All SVHC (substances of very high concern) added in future shall be managed. Postscripts do not need to be added in future.

# **Complying With Chemical Substance Restrictions Around the World**

The Daikin Group complies with chemical substance-related restrictions around the world: in Europe, the REACH Regulation on chemical substances and the RoHS Directive, which restricts the use of certain hazardous substances in electrical and electronic equipment; and in China, the Management Methods for Controlling Pollution Caused by Electronic Information Products Regulation (China RoHS), which restricts the use of toxic chemicals.

Compliance efforts include sharing information among group companies and using measuring instruments to confirm the presence of the relevant chemicals.

# **Compliance with J-Moss**

We release information on the presence in our products of the six substances covered by J-Moss (the marking for presence of the specific chemical substances for electrical and electronic equipment). Daikin room air conditioners are covered by J-Moss.

Since 2001, Daikin has been determining and controlling chemical substances contained in products and we have stopped using substances specified under J-Moss. As a result, all models of our air conditioners (produced since July 2006) contain none of the substances exceeding the amounts under the standards.

We will continue to actively provide information about our environmentally conscious products so that we can offer customers a peace of mind when making purchases.

## J-Moss

Also known as JIS C 0950, J-Moss is an abbreviation of "The marking for presence of the specific chemical substances for electrical and electronic equipment." J-Moss requires the labelling of electrical and electronic products containing six substances: lead, mercury, cadmium, hexavalent chromium, and two specified bromide fire retardants (polybrominated biphenyls (PBB) and polybrominated biphenyl ether (PBDE)). There are seven types of products covered: (1) personal computers, (2) unit air conditioners, (3) TVs, (4) electric refrigerators, (5) electric washing machines, (6) microwave ovens, and (7) clothes dryers.

## **Daikin Products**

The substances contained in Daikin room air conditioners are shown on the table below. Note that the room air conditioners shipped in Japan starting in 2007 bear the Japan's Green Mark eco-label.



Green Mark eco-label

#### Substances Contained in Room Air Conditioners

Product type: Room air conditioner (interior/outdoor units) Model: All models produced since in July 2006 (see note 3).

Class		Chemical substance code				
		Hg	Cd	Cr(VI)	PBB	PBDE
Manufactured parts	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Refrigerant system parts	N/A	$\bigcirc$	0	0	$\bigcirc$	0
Electrical/electronic parts	N/A	$\bigcirc$	0	0	$\bigcirc$	0
Compressor	N/A	$\bigcirc$	0	0	$\bigcirc$	0
Refrigerant	$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$	0
Accessories	0	$\bigcirc$	0	0	$\bigcirc$	0

JIS C 0950:2008

Note: 1 A " ()" symbol means that the substance contained does not exceed the allowable amount under the standard. Note: 2 N/A means the substance is "not applicable" for labeling.

Note: 3 Models designated below.

Indoor unit: Wall mount, embedded ceiling cassette (single flow, double flow), embedded wall, built-in amenity, floor standing Exterior unit: For the following: Pair type, System Pack, Multi-Split System, Wide Select Multi, Equipped with Hot Water Floor Heating function

# **Overview of J-Moss**

Under Japan's Law for the Promotion of Effective Utilization of Resources, relevant equipment must meet J-Moss standards.

J-Moss (JIS C 0950)

The marking for presence of the specific chemical substances for electrical and electronic equipment

The marking for presence of the specific chemical substances for electrical and electronic equipment

# **Gist of the Standards**

Indicating on labelling which of the specified chemical substances are contained in electrical and electronic equipment is meant to achieve the following:

- Management of chemical substances will be improved in all stages of the supply chain and life cycle.
- End consumers can easily understand the substances contained.
- It will lead to more effective use of resources and less impact on the environment.
- Spread the use of electrical and electronic equipment in which substances are properly controlled.

# **Products Covered**

(1) Personal computers,	(2) Unit air conditioners,	(3) TVs,	(4) Electric refrigerators,
(5) Electric washing	(6) Microwave ovens,	(7) Clothes dryers	
machines.			

#### Specified chemical substances

Chemical substance	Code	Standard for % by weight
Lead	Pb	0.1
Mercury	Hg	0.1
Cadmium	Cd	0.01
Hexavalent chromium	Cr(VI)	0.1
Polybrominated biphenyls	PBB	0.1
Polybrominated biphenyl ether	PBDE	0.1

# **Content Labelling**

If the content of the specified chemical substance exceeds the standard values, its content must be indicated on the product itself, the packaging, and on catalogs and other documentation. This information must also be put on the company's Web site.

The content of some of the chemical substances does not need to be indicated on the labelling, and other chemical substances do not need to be indicated on labelling if they are below the standard value. However, these must still be shown on the company's Web site.



Label indicating substances contained in product

# **Green Mark Labelling**

Electrical and electronic equipment whose content of the specified chemical substances does not exceed the standard values may bear Japan's Green Mark eco-label on the conditions stated in the Guidelines for Using the Green Mark for Specified Chemical Substances in Electrical and Electronic Equipment.

Note: The Guidelines are recognized by the following groups. Japan Electronics and Information Technology Industries Association (JEITA) Japan Electrical Manufacturers' Association (JEMA) Japan Refrigeration and Air Conditioning Industry Association (JRAIA)



# Low-Impact Production Management of Chemical Substances

# Management of Chemical Substances

# **Emissions of PRTR Substance Down by 16%**

The Daikin Group in Japan is working towards a target of reducing emissions of PRTR substances in fiscal 2015 by 15% compared to fiscal 2010.

In fiscal 2012, we raised our collection rate for methylene chloride, one of our main emission substances. The result was fiscal 2012 emissions of 111 tons, down 16% against fiscal 2010.



# Release of Substances Designated by the Pollutant Release and Transfer Register Law (Japan)

Note: Under revisions to the Pollutant Release and Transfer Register Law (effective October 1, 2009), the number of designated substances increased from 354 to 462.

## M Terminology

## PRTR Law (Pollutant Release and Transfer Register (PRTR) Law)

Enacted in Japan in 1999, the PRTR Law is a legal framework in Japan for the calculation and publicizing of the amounts of certain hazardous chemical substances that are emitted or transferred as waste into the environment (air, water, and soil) or into public sewage systems. Other countries have similar regulations. The PRTR Law was revised in 2009.

# Compilation of PRTR Substances in FY2012 (PRTR substances of which at least 1 ton was handled)

		Amou	unt emitted(	Amount transported (tons)		
	Substance name	Air	Public waterways	Soil	Waste	Sewage
104	Chlorodifluoromethane (also called HCFC-22)	52.20	0.00	0.00	3.68	0.00
127	Chloroform	0.83	0.00	0.00	2.40	0.00
374	Hydrogen fluoride and other water- soluble salts	0.24	0.00	0.00	3.20	0.00
186	Dichloromethane (also called methylene chloride)	30.37	0.00	0.00	0.06	0.00
103	1-chloro-1,1-difluoroethane (also called HCFC-142b)	10.00	0.00	0.00	0.00	0.00
149	Carbon tetrachloride	0.00	0.00	0.00	0.00	0.00
4	Acrylic acid and other water-soluble salts	0.00	0.00	0.00	11.00	0.00
71	Ferric chloride	0.00	0.00	0.00	8.88	0.00
240	Styrene	0.16	0.00	0.00	0.00	0.00
28	Allyl alcohol	0.00	0.00	0.00	17.00	0.00
105	2-Chloro-1,1,1,2-tetrafluoroethane (also called HCFC-124)	1.30	0.00	0.00	0.00	0.00
80	Xylene	1.22	0.00	0.00	0.02	0.00
213	N,N-dimethylacetamide	0.01	0.00	0.00	0.01	0.00
300	Toluene	3.01	0.00	0.00	0.09	0.00
1	Water soluble lead compounds	0.00	0.00	0.00	1.24	0.30
460	Tritolyl phosphate	0.00	0.00	0.00	0.05	0.00
392	Normal hexane	5.66	0.00	0.00	1.10	0.12
232	N,N-dimethylformamide	0.00	0.00	0.00	31.00	0.00
53	Ethylbenzene	0.57	0.00	0.00	0.00	0.00
13	Acetonitrile	0.01	0.00	0.00	1.10	0.04
272	Water-soluble copper salt (except complex salts)	0.00	0.00	0.00	0.00	0.00
20	2-aminoethanol	0.00	0.00	0.00	0.00	0.16
Total		105.55	0.00	0.00	80.84	0.62

# **Reducing Waste**

# Waste Generated Per Unit Reduced by 6%

All Daikin Group production bases in Japan had achieved zero waste<sup>\*</sup> as of fiscal 2005. Overseas, 11 bases had achieved zero waste as of the end of fiscal 2012. The Daikin Group is continuing its efforts to make effective use of waste through methods such as material and thermal recycling.

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In fiscal 2012, we improved the yield ratio in production processes, reduced the amount of paint waste by improving paint line methods, and reduced the amount of waste by using returnable packaging.

As a result, in fiscal 2012 the entire group achieved a reduction in waste per unit of 6% against fiscal 2010, as well as an 82% recycling ratio.

\* Zero Waste: The Daikin Group's zero waste goal is an effort to recycle waste from production processes so as to decrease the amount to landfill. Zero waste is defined as at least 99.5% recycled in Japan and at least 99% recycled overseas.



#### Amount of Waste and Recycled Materials

# **Thailand: Recycling Grinding Sludge**

Daikin Compressor Industries Ltd. (DCI; head office: Thailand), the manufacturing base for compressors for residential air-conditioners, mixes equal parts of the sludge from grinding and the cutting debris from casting, dries the mixture out, compresses it, and recycles it as casting material. The company was able to recycle 145 tons of sludge in this way in fiscal 2011.



# Japan: Recycling Wooden Palettes

The Shiga Plant has been procuring an increasing amount of materials and parts from overseas and these have been accompanied by an increasing number of pallets.

The plant tried to figure out how to recycle these pallets and came up with the idea of making them into charcoal, which is now used as deodorizing agent in the deodorizing equipment on painting lines.







Absorption deodorizer

Crushing wooden palettes

Making charcoal (activated charcoal)

# Japan: Effectively Using Steel Plate Punching Debris

The Shiga Plant recovers and recycles the debris from the steel plate punching process, using it for parts (the outlet grill) on air conditioner outdoor units. This effort has reduced waste by 10 tons a year.

The plant also improved the coating process for heat exchanger fin presses, which reduced the amount of punch oil released into the air.

# The Accumulation of Small Efforts Gives Birth to New Recycling Ideas

Daikin employees do every little thing possible in their daily work to reduce the amount of waste generated.

Efforts at the Sakai Plant include reusing buffer material in product packaging, while employees there trade new recycling ideas.

The Shiga Plant has reduced the amount of wood waste by 75% by reusing this valuable resource whenever possible.

It also has reduced the amount of sludge requiring processing by reducing the water content following water treatment.

In fiscal 2012, we made wood waste into charcoal that is used to remove organic substances during water treatment and as deodorizing agent.

In the Chemicals Division, we incinerate waste on site to create raw materials we can use. At the Kashima Plant, we have reduced the amount of sludge requiring processing by drying it to reduce the water content.

Report by Business Site (http://www.daikin.com/csr/environment/site\_data/index.html)

# Using Water Resources

#### **Proper Water Use through Regular Monitoring**

At our plants, we periodically repair and patrol equipment that uses water in the production processes. We also strive to reduce the water we use by measuring the amount of water used and trying to reuse as much waste water as possible. As targets for fiscal 2015 against fiscal 2010, we aim to reduce water use per unit by the Daikin Group in Japan by 5% and water use per unit at overseas bases by 10%.

In fiscal 2012, efforts including reusing wastewater helped Daikin's Japan bases achieve a 4% reduction over fiscal 2010 for water use per unit, and overseas bases a 25% reduction.



# We aim to further reduce waste water amounts, and we are looking into a waste water recycling system as one way to do this.

# Belgium: Metal Treatment Process Altered to Reduce Cleaning Water Use by 70%

In August 2010, Daikin Europe N.V. changed its washing process for metal plates. Changing the chemicals used allowed the washing water to be reused, cutting use of clean water by 70%. Our next goal is to reduce the use of water in our quality control divisions.





# **Thailand: Reusing Waste Water from Employee Areas**

Daikin Compressor Industries Ltd. (Thailand) (DCI) has installed a new filter system on the water treatment equipment for waste water from the cafeteria and restrooms. This waste water can be made as clean as industrial-use water and is used for the company toilets. This new filter system contributed to the reuse of 10,578 m<sup>3</sup> of water in fiscal 2011.





We are striving to strengthen environmental audits, eliminate environmental risks, and provide environmental education with the aim of establishing the integrated group environmental management system.

# **Environmental Management System**

# ISO 14001 Certification at All the Major Bases around the World

A common goal of the entire Group is to build and operate ISO 14001-based environmental management systems (EMS) that will boost our environmental activities.

In Japan, all Daikin bases and subsidiaries come under an integrated EMS. We are currently working to build an environmental management promotion system that includes recent additions to the Daikin Group: the OYL Group and Goodman Global Group, Inc.

## Read more (Page 135)

- Environmental Management System
- System Driving Environmental Management A
- Ratio of Employees Belonging to Facilities That Obtained ISO 14001 Certification (FY2012) III
- Daikin bases certified for ISO 14001 (Japan, overseas)
- Global Environmental Meetings

# **Environmental Audits**

# **Internal Auditors Conduct Strict Audits**

The Daikin Group has regular annual environmental audits: internal audits by Daikin itself and audits by third-party certification institutes. These help us check and constantly improve the functioning of our systems.

#### **Read more** (Page 140)

- Environmental Audits
- Report from Audits (FY2012)

# Audits and Regular Disaster Drills Reduce Environmental Risk

A company-wide internal environmental auditing team carries out regular legal audits once a year to ensure environmental risk is kept to a minimum.

If any accidents or calamities should occur, manufacturing bases and production subsidiaries are prepared to deal with the problem thanks to regular disaster drills for all employees.

## Read more (Page 141)

- Environmental Risk Management
- Monitoring Environmental Standards
- Measures for Soil and Groundwater Pollution
- Storage and Treatment of PCBs
  - Daikin's Storage of PCBs A

# Environmental Accounting

# In FY2012, we spent 16% less on research and development related to energy efficiency and refrigerants

Environmental accounting gives a quantitative representation of the costs and effects of environmental measures and constitutes an important item of environment information. As well, it is a tool for managing the overall environmental impact of our global group and for coming up with the most efficient and effective ways to reduce this impact.

# **Environmental Education**

# **E-learning Boosts Environmental Awareness**

The Daikin Group has a variety of environmental education programs that get employees to take action by deepening their understanding of things like environmental management systems and Daikin's effect on the environment.

Part of this education is done via e-learning over our intranet for employees in Japan.

Read more (Page 144)

- Environmental Accounting
  - Accounting Method A
  - Breakdown of Environmental Conservation Costs (% of total)
  - Cost of environmental conservation A
  - Effects of environmental conservation A
  - Economic benefits of environmental conservation efforts (monetary benefits)

#### **Read more** (Page 147)

- Environmental Education
- FY2012 Environmental Education (All Daikin Group Companies in Japan)

# Environmental Management Environmental Management System ©

# **Environmental Management System**

# Building a Group-Wide Environmental Management Promotion System

The diagram below shows the organization for the Daikin Group's environmental management system (EMS).

Overseas, environmental meetings are held once a year in each of four regions (Europe, North America, China, and Asia/ Oceania). Besides sharing Group policy and medium and long-term targets, these meetings allow attendees to share a variety of information with the aim of achieving an integrated group environmental management system.

The creation of environmental management systems is also proceeding at companies in the OYL Group, which joined the Daikin Group in 2006. By fiscal 2016, we aim to to have all Daikin bases certified for ISO 14001. In the meantime, we are building an environmental management promotion system that includes the Goodman Global Group, Inc., which Daikin acquired in fiscal 2012.

## System Driving Environmental Management



Ratio of Employees Belonging to Facilities That Obtained ISO 14001 Certification (FY2012)



# Building an Integrated EMS and Taking Environmental Action in Japan

In 1996, individual production bases in the Daikin Group in Japan began creating and operating their own EMS for the sake of environmental protection.

In 2004, based on a policy that advocated the integration of environmental and business activities and the full-fledged pursuit of environmental management, all bases and subsidiaries (including non-production bases) in Japan received integrated certification for ISO 14001, and this gave us a system for conducting environmental management across the entire group in Japan, including non-production bases such as sales companies. Each company division conducted business in its own environment-friendly way; for example, sales divisions carried out environmentally conscious marketing and design divisions designed products for minimal environmental impact.

# **Global Environmental Meetings**

# Boosting Environmental Action by Sharing Information and Discussing Challenges

To ensure the continuous improvement of the Daikin Group's environmental management, environmental meetings are held once a year in four regions (Europe, North America, China, and Asia/ Oceania). At the meetings, the environmental heads and environmental managers in each division at worldwide bases, along with the environmental managers in each division in Japan, share Group policy and medium and long-term targets.

In future, environmental meetings will include factory visits and case-study-sharing sessions.



An environmental meeting in Europe

# Daikin Bases Certified for ISO 14001 (Japan, Overseas)

#### Daikin Bases Certified for ISO 14001 (Japan)

Japan

1996: Daikin Industries Group in Japan\*

\* Sakai Plant certified in October 1996. Certification followed at Daikin Industries' bases and domestic manufacturing subsidiaries. In March 2004, certification for the Daikin Industries Group in Japan was upgraded to integrated certification.

# ■ ISO 14001 Certification for Overseas Subsidiaries (as of March 2013)

Date	Subsidiary certified		
Sep. 1997	Daikin America, Inc.		
Feb. 1998	Daikin Industries (Thailand) Ltd.		
Feb. 1998	Daikin Europe N.V.		
Nov. 2001	Xi'an Daikin Qing'an Compressor Co., Ltd.		
Nov. 2001	Daikin Air-Conditioning (Shanghai) Co., Ltd.		
Jun. 2002	Daikin Fluoro Coatings (Shanghai) Co., Ltd.		
Nov. 2002	Daikin Air-Conditioning (Shanghai) Co., Ltd., Huizhou Branch		
Jan. 2004	Daikin Airconditioning (Thailand ) Ltd.		
Jan. 2004	Daikin Chemical Netherlands B.V.		
Jan. 2004	Daikin Airconditioning Germany GmbH		
Jun. 2004	Daikin Airconditioning Spain S.A.		
Nov. 2004	Shenzhen McQuay Air Conditioning Co., Ltd.		
Dec. 2004	Daikin Airconditioning France S.A.S.		
Dec. 2004	Daikin Compressor Industries Ltd.		
Jan. 2005	Siam Daikin Sales Co., Ltd.		
Jan. 2005	Daikin Airconditioning Central Europe		
Feb. 2005	Daikin Airconditioning Poland Sp. zo.o		
Feb. 2005	Daikin Airconditioning Italy S.p.A		
Mar. 2005	Daikin Trading (Thailand) Ltd.		
Mar. 2005	Daikin Airconditioning (Singapore) Pte. Ltd.		
Apr. 2005	Daikin Asia Servicing Pte. Ltd.		
Apr. 2005	Daikin Airconditioning Belgium N.V.		
Dec. 2005	Daikin Airconditioning U.K., Ltd.		
Dec. 2005	Daikin Device (Suzhou) Co., Ltd.		
Jan. 2006	Daikin Chemical France S.A.S.		
Jun. 2006	Daikin Industries Czech Republic s.r.o.		
Jul. 2006	Daikin Fluorochemicals (China) Co., Ltd.		
Sep. 2006	Daikin Motor (Suzhou) Co., Ltd.		
Oct. 2006	Daikin Australia Pty., Ltd.		
Dec. 2006	Daikin Airconditioning India Pvt. Ltd.		
Mar. 2007	O.Y.L. Technology Sdn. Bhd.		
May 2007	McQuay Air Conditioning & Refrigeration (Wuhan) Co., Ltd.		
May 2007	Daikin (China) Investment Co., Ltd.		
Jul. 2007	PT. O.Y.L. Sentra Manufacturing		
Aug. 2007	Daikin Airconditioning (Malaysia) Sdn., Bhd.		
Aug. 2007	Daikin Airconditioning (Hong Kong) Ltd.		
Nov. 2007	Daikin Air-Conditioning Technology (Shanghai), Ltd.		

Date	Subsidiary certified		
Dec. 2007	Daikin Air-Conditioning Technology (Beijing), Ltd.		
Dec. 2007	Daikin Air-Conditioning Technology (Guanghou), Ltd.		
Dec. 2007	O.Y.L. Manufacturing Company Sdn. Bhd.		
Jan. 2008	Cri-Tech Inc.		
Jan. 2008	AAF (Shenzhen) Co., Ltd.		
Jan. 2008	AAF (Suzhou) Co., Ltd.		
Feb. 2008	Daikin Fluorochemicals (China) Co., Ltd., Shanghai Branch		
Feb. 2008	Daikin Fluorochemicals (China) Co., Ltd., Beijing Branch		
Feb. 2008	Daikin Fluorochemicals (China) Co., Ltd., Guangzhou Branch		
Mar. 2008	Daikin America, Inc. (Orangeburg)		
Jun. 2008	Daikin Chemical Europe GmbH		
Jun. 2008	Mcquay Air Conditioning & Refrigeration (Suzhou) Co., Ltd.		
Jul. 2008	Daikin Device Czech Republic s.r.o.		
Sep. 2008	Daikin Airconditioning Portugal S.A.		
Nov. 2008	O.Y.L. Research & Development Centre Sdn. Bhd.		
Jan. 2009	Daikin Airconditioning Greece S.A.		
Jan. 2009	American Air Filter Manufacturing Sdn. Bhd.		
Mar. 2009	O.Y.L. Steel Centre Sdn. Bhd.		
Jun. 2009	O.Y.L. Condair Industries Sdn. Bhd.		
Aug. 2009	J & E Hall Refrigeration Sdn. Bhd.		
Apr. 2009	Daikin Air Conditioning South Africa		
Dec. 2009	Daikin Turkey A.S.		
Jan. 2010	J & E Hall Limited (United Kingdom)		
Jan. 2010	McQuay Italia S.p.A.(Italy)		
Jan. 2010	McQuay (Faribault)		
Jan. 2010	McQuay (Owatonna)		
Jan. 2010	AAF-Limited (United Kingdom)		
May 2010	McQuay (Dayton)		
Jul. 2010	Daikin Refrigeration (Suzhou) Co., Ltd.		
Oct. 2010	AAF International s.r.o. (Slovakia)		
Nov. 2010	McQuay (Auburn)		
Jan. 2011	AAF International B.V. (The Netherlands)		
Mar. 2011	Daikin Airconditioning Netherlands B.V.		
Mar. 2011	AAF (Wuhan) Co., Ltd.		
Mar. 2011	AAF (Columbia)		
Mar. 2012	AAF S.A. (Spain)		
Jun. 2012	AAF International (Louisville)		
Jun. 2012	McQuay Technology		
Aug. 2012	Daikin Airconditioning India Pvt. Ltd. (Neemrana Plant)		

# ■ ISO 14001 Certification at Goodman Global Group, Inc.

Date	Division certified		
Mar. 2010	Goodman Global Group, Inc (Cooling)		
Mar. 2010	Goodman Global Group, Inc (Furnace)		
Mar. 2010	Goodman Global Group, Inc (Fayetteville)		
Mar. 2010	Goodman Global Group, Inc (Dayton)		

# **Environmental Audits**

# Audit by Internal Auditors and Third-Party Institutes

Daikin Group companies in Japan certified for the integrated EMS undergo annual internal audits performed by third-party certification institutes based on ISO 14001.

In fiscal 2012, internal audits were performed by 74 auditors, who checked for EMS inadequacies and ensured performance was up to standards.

#### Report from Audits (FY2012)

	Problems found from internal environmental audits	Problems found by third-party certification institutes
Major non-conformance	5	0
Minor non-conformance	43	0
Items improved	229	6

# **Training Internal Auditors**

There are currently 81 internal auditors undergoing training and skills improvement at the Daikin Group in Japan. New and experienced auditors work in pairs so as to pass on skills from one generation to the next. As well, new auditors work as assistants to Auditing Committee members. Internal auditors also take annual training to improve their skills and ensure standards are being thoroughly met.

We will continue to hold training in the internal auditor program, as well as have auditors experience efforts in other company divisions so as to improve the level of their own division's auditing.

# **Environmental Risk Management**

# Auditing and Improving Compliance with Environmental Laws and Regulations

Once a year, the Daikin Group in Japan has company-wide environmental auditing teams conduct audits to check for legal compliance and ensure there are no environmental risks.

We have systems in place that allow us to minimize environmental damage if there should be an accident or calamity at the production site of Daikin or a subsidiary.

We also maintain close relations with neighborhood associations through factory tours and other activities so that we can have a joint system of emergency measures with local communities.

Report by Business Site (http://www.daikin.com/csr/environment/site\_data/index.html)

# **Drills Held to Prepare Chemical Plants for Accidents**

We have systems in place that allow us to minimize environmental damage if there should be an accident or calamity at Daikin production sites around the world. The Chemicals Division and machinery divisions created the Disaster Prevention Manual, which details how to deal with emergencies like chemical and oil leaks and spills. The manual is the basis for regular emergency drills.

In fiscal 2012, we held drills that assumed an accident at night, and we clarified issues particularly relevant to this situation, such as insufficient lighting and the minimum number of personnel required.

# Close Communication with Communities to Prepare for Emergencies

We place the utmost priority on ensuring the safety of residents living near our plants. Particularly with regards to facilities like our Yodogawa Plant, which is located in a residential area, we use risk assessment to eliminate as much risk as possible.

We also strive to keep the public informed and communicate with government organs based on the principles of responsible care\*.

In recent years, we have conducted regular exchanges with the public through neighborhood community association gatherings and plant tours, and we are working to establish systems of communication with these bodies so that both Daikin and the surrounding communities are prepared for emergencies.



Daikin Fluorochemicals (China) held joint firefighting drills



Daikin Fluorochemicals (China) installed breathing apparatus

- \* Responsible care: An initiative by the chemical industry in which companies strive to improve their environmental, safety and health performance in all stages from development and production to distribution, use, and final consumption of chemicals. It also covers disclosure of the results of these efforts in order to keep the public informed.
- For details on Daikin's efforts to create a relationship of trust with communities, see A Good Corporate Citizen in the Responsibility to Local Communities section of the website. (Page 240)

# To Totally Eliminate PFOA Emissions in Fluorochemical Products by 2012, We are Accelerating the Switch to Substitutes

The Daikin Group is working towards its target of totally eliminating the use of PFOA (a fluorine compound that persists indefinitely in the environment) by 2012. PFOA is used in the production of fluorochemical products and is present in minute quantities in some products.

For details, see Reducing PFOA Emissions (Page 95)

# Monitoring Environmental Standards

# Strict Management at Manufacturing Bases Exceeds Legal Restrictions

The Daikin Group controls air and water pollution, as well as noise and vibration, using voluntary standards that are stricter than national environmental standards and local government by-laws. We regularly measure our various environmental impacts and work to either prevent or decrease them.

Monitored environmental data for Daikin Industries' four manufacturing bases is on the Daikin Web site.

Report by Business Site (http://www.daikin.com/csr/environment/site\_data/index.html)

# Measures for Soil and Groundwater Pollution

# Dealing with Soil Pollution at the Yodogawa Plant

Following preparatory work on construction of R&D facilities, soil pollution testing was carried out, and it revealed that some parts of the site exceeded standard values for fluoride, lead, and mercury. The site was paved, and since there is no effect on groundwater, it is believed that there is no danger to nearby residents and employees.

In May 2013, the site was designated as an Area for which Changes to Form or Nature Require Notification. As was required, Daikin made a public announcement and held an explanation for the residents' association. The cause was determined to be residue from chemicals used in the past that had mixed with the soil. Steps were taken during construction to ensure that the polluted soil did not disperse or leak outside the site.

## Groundwater Cleanup Continues at Kashima Plant

In 2000, the concentration of organic chlorine-based compounds in groundwater at the Kashima Plant was found to exceed environmental standards. We therefore removed and cleaned the contaminated soil, pumped out and cleaned the groundwater, and took precautions to prevent pollution from spreading to outside the plant and to remediate all types of pollution.

Thanks to continuous cleaning of the groundwater, the concentration of pollutants decreased. We will continue these cleanup efforts to bring the levels down to within environmental standard values.

Report by Business Site (http://www.daikin.com/csr/environment/site\_data/index.html)

# Storage and Treatment of PCBs

# Implementing Strict Management and Disposal of Equipment Containing PCBs

Daikin abides by national laws in properly managing equipment containing PCBs (polychlorinated biphenyls). We have already begun disposing of some of this equipment through early registration with the Japan Environmental Safety Corporation (JESCO) and based on a JESCO PCB disposal plan.

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In fiscal 2009, the Sakai Plant completed disposal of all of its condensers (two only). In fiscal 2011, the Shiga Plant disposed of three of its five high-voltage condensers. We are currently looking for a disposal company, and we are planning for the remaining two condensers registered with JESCO to be disposed of in fiscal 2014 or later.

Because JESCO does not yet have a disposal plan for ballasts, the remaining two will be disposed of sometime after fiscal 2013.

#### Daikin's Storage of PCBs

Plants and products stored	Items dispose	d of (item and cost*)	Disposal plan (cost is approximated)	
	FY2009	FY2011	FY2013 and on	
<b>Shiga Plant:</b> 5 condensers, 126 fluorescent ballasts		3 high-voltage condensers (approx. 1.8 million yen)	2 condensers, 126 ballasts (approx. 5 million yen)	
<b>Sakai Plant:</b> 2 condensers, 4 ballasts, 36 liters of additional insulating oil	2 condensers (1.16 million yen)		4 ballasts, 36 liters of insulating oil (approx.100,000 yen)	
<b>Yodogawa Plant:</b> 6 transformers, 12 condensers, 476 ballasts			12 condensers (approx. 17 million yen), 6 transformers (approx. 16 million yen), 448 ballasts (approx. 15 million yen)	

\* Cost is approximated, includes costs to recover, transport, and dispose of PCBs.
#### **Environmental Accounting**

#### FY2012 Environmental Accounting Figures

Total environmental protection costs in FY2012 were ¥20.7 billion (investment in equipment: ¥2.5 billion; expenses: ¥18.2 billion), down 3% over the previous year. Research and development costs accounted for 62% of this.

For the air-conditioner business, we focused our R&D efforts on developing technologies for energy efficiency and refrigerants. Amidst rising concern about global warming, we have been developing basic technologies and equipment in a number of areas including inverters for improving air conditioner energy efficiency and heat pumps for use in space and water heating.

#### Accounting Method

The costs and effects of Daikin's environmental efforts were calculated based on the Environmental Accounting Guideline 2005 released by Japan's Ministry of the Environment.

#### **Costs of Environmental Conservation**

Expenses include labor costs but not depreciation expenses for investment in facilities. The expenses not full allocated to environmental protection were proportionally divided and totaled according to a relevant Daikin standard.

#### **Effects of Environmental Conservation**

Please see the relevant page for details of each item.

#### **Economic Benefits of Environmental Conservation Efforts**

The environmental conservation effects and economic benefits were calculated by comparing the adjusted output to the previous fiscal year.

#### Breakdown of Environmental Conservation Costs (% of total)



#### FY2012 Environmental Costs

Cost of environmental conservation					
		FY2011 FY2012			12
Category	Major activities	Amount of equipment invested	Expenses	Amount of equipment invested	Expenses
Cost in business area		955	3,678	2,016	4,580
1. Pollution prevention	Introduction, maintenance, and management of pollution prevention facilities/equipment, expenses for measurement/analysis of air pollution control, water pollution control, vibration, and noise.	170	959	367	1,093
2. Global environmental conservation	Introduction of energy efficient facilities/equipment, reduction of fluorocarbon emissions in the production process, and recovery of fluorocarbons.	727	619	1,361	1,565
3. Resource circulation	Reduction or recycling of waste, subcontracting of waste disposal, and resource conservation activities.	59	2,100	287	1,922
Upstream/downstream	Recycling of used products, and recovery, recycling, and destruction of fluorocarbons in used products or products still in service.	1	263	4	260
Management activities	Running of company organization for environmental matters, environmental education, environmental information disclosure, and establishment/maintenance of environmental management systems.	13	1,096	7	885
Research and development	Work on three major tasks for air conditioners, and development of fluorochemical products with minimized environmental impact.	3,107	12,083	530	12,229
Social activities	Provision of personnel and monetary aid to environment-related organizations, and environmental protection activities in local communities.	0	126	1	143
Environmental damage	Costs for purification of polluted groundwater and soil.	2	81	0	77
Total		4,078	17,326	2,558	18,174
Total of investment in fa	cilities within the period		48,300		54,300
Total of investment in R&D activities within the period			33,000		33,600

Effects of environmental conservation				
Effects			FY2011 figures	FY2012 figures
	1. Effects of the	Energy consumption	34,203 tons-CO2	4,821 tons-CO2
Effects	business activities	Reduction in water consumption	573,664m <sup>3</sup>	-88,638m <sup>3</sup>
corresponding with costs within business area	2. Effects against environmental impacts and waste resulting from business activities	Reduction in fluorocarbon emissions	6 tons	91 tons
		Reduction in waste materials	-47 tons	179 tons
Effects to upstream/ downstream costs	Effects associated with benefits and services that are calculated and based on business activities	Number of residential air conditioners collected Amount of fluorocarbons recovered Amount of packaging material recycled	203,000 units 353 tons 134.8 tons	217,000 units 376 tons 156.9 tons

			(¥ million)
Economic benefits of environmental conservation efforts (monetary benefits)			
	Effects	FY2011	FY2012
Profit	Profit from sale of recycled waste	1,426	1,650
Reduction in	Reduction in energy expenses resulting from energy conservation efforts	366	-287
expenses	Reduction in waste disposal expenses resulting from resource conservation or recycling resources	-22	9

#### **Environmental Education**

#### **Environmental Education that Leads to Employee Awareness and Action**

Be it through educational or on-the-job opportunities, the Daikin Group promotes employee awareness of how our business affects the environment to encourage employees to take positive action for its preservation.

In Japan, we hold e-learning on the intranet once a year in order to enhance employees' understanding about the environmental issues most important to Daikin. We have an in-house environmental newsletter that introduces actions that each company division are taking. The intranet and Daikin newsletter also provide the useful tips to reduce the environmental impact at home such as how to save electricity and water usage.

At overseas bases certified for ISO 14001, we hold environmental education for employees geared to the needs of each base.

#### **Employees Take Eco-Action for World Environment Day**

To coincide with World Environment Day on June 5, since fiscal 2008, Daikin divisions in Japan have conducted a range of environmental activities at the company and employees' homes.

In fiscal 2012, one of our activities for Environmental Month was an event, held at bases and in areas where employees live, in which participants searched for butterflies and recorded and reported on their findings. Other efforts included energy saving initiatives and the turning off of all unnecessary appliances when leaving the company each day.







E-learning textbook

In-house environmental newsletter

#### FY2012 Environmental Education (All Daikin Group Companies in Japan)

The Daikin Group in Japan conducted the following company-wide education. Individual company divisions also conducted their own educational activities.

Name of activity	Personnel involved	No. of times held	
Environmental e-learning	All employees	Once	
With the goal of raising environmental awareness and knowledge, participants learn about a wide range of environmental issues, especially those directly related to Daikin's business, such as global warming and ozone layer depletion, as well as new environmental topics each year that are relevant and current. Topics taken up in fiscal 2012 included refrigerants and waste.			
Environmental managers education	Managers and other heads of relevant work areas	Held once	
<ul> <li>(1) Specifying environment-related laws, etc.</li> <li>(2) Periodic assessment of legal compliance</li> <li>(3) Work related to legal compliance (managing waste disposal, fluorocarbon recovery roadmap, and recycling of appliances)</li> <li>(4) Thorough education for environmental strategists</li> </ul>			



Environment Environmental Communication

The Daikin Group holds environmental seminars and education for children on a regular basis. This allows us to reflect what our stakeholders are saying in our business activities and to expand green hearts (think of the Earth and take care of the environment).

#### **Environmental Forums and Exhibits**

#### **Daikin Joins Environmental Exhibits**

Daikin strives to educate the public by holding environmental seminars on energy, climate, and other issues closely tied to our business, and by taking part in exhibits of environmentally conscious products. We also release information to the community on the environmental impact of our business activities.

#### Read more (Page 150)

- **Environmental Forums and Exhibits**
- Daikin Cooperates in Formation of Environmental Policy
- Daikin Environmental Report
- Environmental Ads

#### **Environmental Education and Awareness Activities**

#### Daikin Holds Circle of Life Environmental Education Program for Elementary Schools in Fiscal 2010

The Daikin Group conducts environmental education and awareness activities around the world with the aim of helping children develop better understanding about environmental issues and thus better able to lead future generations.

#### **Read more** (Page 153)

- Efforts Overseas
- Efforts in Japan

#### **Environmental Forums and Exhibits**

#### Exchanging Opinions with Experts on Key Issues at Air Conditioner Forum

Since 1995, the Daikin Group has held air conditioner forums in Japan where Daikin and noted names in the field exchange opinions on the future of air conditioning. With Daikin's rapid business expansion worldwide, since fiscal 2007 we have held forums in Europe, China, North America, Asia, and Oceania that have given us ideas to use in our product and business development.

At air conditioner forums in fiscal 2012, we discussed net zero energy buildings in Europe, business expansion of Goodman Global Group, Inc. and energy-saving measures in the U.S., and next-generation refrigerants and state-of-the-art energy-saving case studies in Singapore.



Air conditioner forum for the Asian and Oceanian regions (Singapore)



Daikin displayed air conditioners using a new type of refrigerant at an international trade show

#### Daikin Cooperates in Formation of Environmental Policy

#### Daikin Calls on All Concerned Parties to Participate in Selection of Next-Generation Refrigerants

Emerging nations are studying which refrigerants should replace HCFC in accordance with the Montreal Protocol's restrictions on ozone-depleting substances.

Daikin Industries is the only air conditioner manufacturer that also makes refrigerant, and we aid in the selection of appropriate refrigerants by creating opportunities for academic societies and industry organizations to gather and exchange ideas and opinions.

In fiscal 2012, we did all we could to provide countries with information that would aid them in selecting a next-generation refrigerant. In China, India, the Middle-East, the U.S., Europe, and Asia, at international conferences and exhibitions, we spoke with representatives of U.N. organs and environmental ministries of national governments, discussing a wide range of issues including refrigerant trends and efforts to phase out certain refrigerants, regulations and standards, and how to select and put into practical use new refrigerants.

We plan to continue releasing information on refrigerant technology to the relevant people around the world.

Japan's Ministry of Economy, Trade and Industry had Daikin carry out a survey, under the Global Warming Mitigation Technology Promotion Project, aimed at finding ways to spread the use of air conditioners using R32 in India. The survey showed that adoption of R32 could result in CO2 reductions of up to 17.45 million tons-CO2 in 2020.

For details, see Key Activities of Fiscal 2012: Practical Application of Next-Generation Refrigerant (Page 52)

#### HCFC Refrigerant Substitute Technology Introduced to Emerging County Trainees

In March 2012, Daikin hosted trainee groups from India and six other Asian countries under a joint program with Japan's Ministry of Economy, Trade and Industry and the Japan International Cooperation Agency (JICA). On March 13 and 14, Daikin Industries and nine other group companies held training that taught participants about technologies to reduce HCFC, an ozone-depleting refrigerant, with a technology seminar featuring discussions with Daikin executives at the head office, and a tour of the Shiga Plant. Participants heard an explanation of Daikin's refrigerant strategy, saw a prototype of an R32 refrigerant air conditioner, and visited the Daikin product development divisions.

In March 2013, Daikin hosted trainee groups from Thailand and eight other countries.

Here, too, participants heard about environmental technologies to reduce the use of HCFC and discussed possibilities for introducing these technologies.

#### Daikin Environmental Report

#### **Reports Published in Japan and Other World Regions**

Since 1998, Daikin Industries has published an environmental report (now called the Corporate Social Responsibility Report) to inform all stakeholders of the Daikin Group's environmental philosophy and eco-actions. We supplement these reports with more detailed information on our Web site.

Our overseas Group companies also publish environmental reports once a year. There are versions for Asia and Oceania, Europe, and China.



Asia and Oceania







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China

#### **Environmental Ads**

#### **Environmental Protection Information through Ads on Trains and in Newspapers**

Daikin Industries has ads on public transport and in newspapers dealing not just with products but also reporting on world topics like environmental protection and air conditioning trends.

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#### Series of Daikin Environmental Ads above Doors of Trains

The theme of Daikin's fiscal 2012 ads inside trains was 'balancing electricity savings and comfort'. The ads told about ways to save electricity without sacrificing comfort and how Daikin, as an air specialist, offers products giving optimal control over temperature, humidity, and airflow.



#### Environmental Communication Environmental Education and Awareness Activities

### **Efforts Overseas**

#### **Employees at China Bases Hold Children's Environmental Seminars**

The Daikin Group in China runs environmental seminars for elementary school students. Acting as instructors, Daikin employees use original teaching materials and games to help children learn the importance of the environment and what they can do every day to protect it.

After these seminars were started by Daikin Air-Conditioning Technology (Beijing) Co., Ltd. in fiscal 2005, they spread to sites in Shanghai and Hangzhou in fiscal 2006. In fiscal 2009, we used our product showrooms to hold seminars on Daikin's energy-efficient technologies and products, and approximately 700 elementary school students attended.



Seminar for elementary school children at a showroom in Hangzhou

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#### Daikin in China and Singapore Provides the Public with Environmental Information

Daikin provides the general public with information on the environment and air conditioners. On World Environment Day (June 5), Daikin (China) Investment Co., Ltd. hands out leaflets to raise environmental awareness. Daikin Air-Conditioning Technology (Shanghai), Ltd. held quizzes and awarded the winners with reusable tote bags.

In January 2013, Daikin Airconditioning (Singapore) Pte. Ltd. held lectures for the general public at the National Library on energy-efficient air conditioners and how to choose the best one.



Raising environmental awareness on the streets (China)



Lecture for the general public (Singapore)

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#### Efforts in Japan

#### Daikin Develops Circle of Life Program to Teach Elementary Students About Biodiversity

Daikin and international NGO Conservation International have developed a biodiversity education program for elementary schools called Circle of Life. Conservation International is also Daikin's partner in a reforestation project in Indonesia.

In the program, children use worksheets that prompt them to think for themselves about the environment, and they carry out role-plays on deforestation in which they take the roles of the various people with conflicting views on the forest and its uses.

Teachers at the schools taking part in the program gave glowing reports: "We became more familiar with the problem of deforestation in Indonesia and the students are more aware of



Students role-play in a forestry issues discussion

what they can do," "The program taught us much about Indonesia, and it allowed us to see the problems from the point of view of people living there. Now I want to help the students to think about what they can do."

Since April 2010, Daikin has been providing schools all over Japan with free teaching materials. In fiscal 2012, 1,074 students from 16 schools took part in the program, and 9 of these welcomed Daikin employees to lead the lessons.

See The Circle Of Life (available in Japanese only) (http://www.daikin.co.jp/csr/edu/index.html)

#### Daikin Website Offers Enjoyable Way to Raise Environmental Awareness

The Daikin Industries website shows visitors how to use air conditioning in an economical, environmental friendly way, and teaches about the environmental issues Daikin faces. The site offers an enjoyable way for people of all ages to learn about the relation between air conditioners and the environment. Daikin plans to continue providing information on topics such as air and environmental problems and how to save electricity.



Biodiversity is the source of so many of the good things in our life. For example, our rich forests provide us with oxygen through photosynthesis, and they act as natural air conditioners by giving off water vapor that keeps atmospheric temperature from rising. As a company whose job it is to provide comfortable air environments, Daikin likes to call forests "nature's air conditioners". That's why we do all we can to protect the world's forests.

#### **Protecting Biodiversity**

## Maintaining and Rejuvenating Ecosystem Balance

The Daikin Group works to maintain balance in the world's valuable nature and ecosystems so that we can help bring back the abundance of the natural world.

The Daikin Group's laboratories and recreational facilities contain areas for growing rare plants, and we work with botanists in protecting these. We also work to protect biodiversity in the forests of Indonesia and in Shiretoko, a World Nature Heritage site in Japan.

#### **Biodiversity Awareness**

## Teaching Children the Importance of Biodiversity

Besides supporting employees in their volunteer work to protect biodiversity, the Daikin Group places great importance on providing information and education to the general public.

Daikin Industries developed the Circle of Life environmental education program for elementary school students, which focuses on biodiversity based on Daikin's reforestation efforts in Indonesia. In April 2010, we began providing schools around Japan with teaching materials free of charge.

#### Read more (Page 156)

- Basic Policy of Protecting Biodiversity
   Daikin's Philosophy for Biodiversity Protection A
- Efforts in Nature Preservation Areas
- Projects in Surrounding Neighborhoods
- Efforts at Bases

#### Read more (Page 162)

- Supporting Children's Education
- Raising Employee Awareness

#### **Basic Policy of Protecting Biodiversity**

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#### Protect and Rejuvenate the Gifts of Nature

Human society is made possible thanks to the many blessings of biodiversity. For example, our rich forests provide us with oxygen through photosynthesis, they act as natural air conditioners by giving off water vapor that keeps atmospheric temperature from rising, and they act as air purifiers by removing pollutants from the atmosphere. As a company whose job it is to provide comfortable air environments, Daikin likes to call forests 'nature's air conditioners.' That's why we do all we can to protect the world's forests.

In the countries and regions in which we do business, we work with governments, residents groups, NGOs, and NPOs in efforts including the protection and rejuvenation of nature and the creation of new forests on our premises. We offer support to the employees who are conducting these activities, and we strive to provide information and education to the general public.

The ideas stated here form our Basic Philosophy on Protecting Biodiversity, which we established in September 2010.

#### Basic Policy of Protecting Biodiversity

#### We act for the sake of abundant greenery and fresh air.

#### Thinking Behind Our Basic Philosophy (established September 2010)

Our society is built upon the many blessing that nature gives us. The source of these blessings is biodiversity. The loss of this biodiversity would hurt our water, food, and other aspects of our life.

Daikin's business also has a major effect on biodiversity through our contribution to global warming.

To contribute to a sustainable society, we strive to reduce our contribution to global warming throughout our business activities, and to maintain balance in ecosystems so that we can help bring back the abundance of the natural world.

#### Main Efforts

#### In Business

- Reduction of Greenhouse Gas Emissions throughout Our Business Activities
- Reduce greenhouse gas emissions throughout our entire business activities, including product development and production, transportation, sales, service, and the supply chain.

#### **Outside of Business**

Protection and Rejuvenation of the Blessings of Nature

- 1. In the countries and regions in which we do business, we work with governments, residents groups, NGOs, and NPOs in efforts including the protection and rejuvenation of nature.
- 2. We create new forests on our premises.
- 3. We support employees in their volunteer work.
- 4. We provide the public with information and education.

#### Daikin's Philosophy for Biodiversity Protection



#### **Efforts in Nature Preservation Areas**

#### Daikin Supports Environmental Protection on the Shiretoko Peninsula

In July 2011, Daikin Industries, the Shiretoko Nature Foundation, and the towns of Shari and Rausu signed an agreement to protect the wilderness of the Shiretoko Peninsula, a UNESCO World Heritage Site. Under this agreement, for five years until the end of March 2016, Daikin will provide financial support and provide employee volunteers in efforts to restore forest and river ecosystems, and support efforts to ensure that the human and bear populations live in harmony.

In fiscal 2012, a total of 23 employees volunteered during activities in May and October to harvest Judas tree seedlings and extend a fence to keep out Sika deer (to prevent them from eating seedlings).



Employee volunteers

#### Wild animals in Shiretoko



Brown bears



Yezo deer



Steller's sea eagle



Trout

Dilapidated riparian forest (Iwaobetsu River Basin, Hokkaido)



Protecting the Natural Environment of Shiretoko: People and Nature Living in Harmony (http://www.daikin.com/csr/shiretoko/index.html)

#### Working to Rejuvenate Forests in Indonesia

Since June 2008, Daikin Industries has been working with international NGO Conservation International (CI) on a reforestation project in Gunung Gede Pangrango National Park in Java Island to rejuvenate the forest and its ecosystems.

This national park is covered with valuable tropical forests that are home to many unique species designated as endangered. But in the last several decades, it has suffered serious damage as land is cleared for agriculture and people cut down trees to support their lifestyle. The aim of this project is to protect the remaining forest by planting local species of trees, supporting farming that utilizes the replanted areas (agroforestry), and providing residents with environmental education, thus contributing to the rejuvenation of forests that benefit both people and the environment.

In the three years up to June 2011, about 80,000 trees (local species) were planted on 200 hectares with the help of 551 local farmers and 20 national park rangers. And under a three-year agreement between Daikin Industries and CI, the project will continue with the rejuvenation of 100 hectares of forest by 2014.

The reforestation project is an effort conducted in unison with Daikin customers. For details of this project, called Daikin Re: Air Conditioner Project, see the following websites.

The Daikin Japanese website describing this forest rejuvenation effort received a fiscal 2012 Environmental Goo Award in the biodiversity category.



The seedlings planted have grown into trees (c) Conservation International, Photo by Anton Ario



Helping create a livelihood for local farmers:Preparing cucumbers grown in the planted forest to be sold in the market(c) Conservation International, Photo by Anton Ario

#### The reforestation project is a joint effort between Daikin and customers who use our products



The reforestation project allows Daikin customers to contribute to reforestation while they enjoy operating their air conditioners in an environmentally friendly way.

When the illustration of a tree on the customer's remote control becomes full grown (when 10 points are accumulated), the customer's name is listed as one of the supporters at a site of a reforestation project. In fiscal 2012, 510 customers were registered as project supporters.

See Reforestation in Indonesia (http://www.daikin.com /csr/environment/reforestation/index.html)



The board shows the names of Daikin customers who support reforestation

#### **Projects in Surrounding Neighborhoods**

#### **Daikin Begins Rejuvenating Community Forests**

Daikin strives to protect forests near its bases. One of these efforts is an agreement between Daikin, Osaka Prefecture, Takatsuki City, and forest owners to protect a community forest area. The agreement was signed at a ceremony in May 2012 at the Osaka Prefectural office. Under the agreement, the prefectural government uses the "Adopt a Forest" system to mediate companies' purchases from private land owners so that forest land is preserved.

This agreement covers the Harashiroyama forest in Takatsuki City, which traditionally was used to harvest bamboo, and to obtain wood for firewood and making charcoal. In recent years though, there are not enough people to manage it and so it has



Adopt a Forest signing ceremony

fallen into disrepair due to problems that include overgrowth of bamboo. To return the bamboo forests back to productivity, Daikin is working with local residents to thin out the woods and rejuvenate this local forest.

Daikin employees can also go to Harashiroyama anytime they wish to work up a sweat and contribute to the rejuvenation of community forests. In fiscal 2012, a total of 97 employees and their family members volunteered.

## Efforts at Bases

#### Daikin Ales Aoya Training Center Works to Protect and Rejuvenate Natural Forests on Coastal Dunes and Beaches

Daikin Ales Aoya in Tottori Prefecture, Japan is a center for the training of employees who will be active on the world stage.

The facility is located at Idegahama, a beach known for its 'whistling sand'. The area is home to a typical coastal vegetation ecosystem: starting from the beach, one can see annual grass give way to perennial grass, and short trees gradually give way to taller trees. However, this coastal vegetation has been rapidly disappearing in the last decade or two.

When Daikin Industries built this facility here, it began to not just protect these rare beaches and dunes, but also bring back the nature that had been lost so that this coastal ecosystem could once again return to its natural state. We began by surveying the region's vegetation to get a detailed understanding of the geography. Based on this, we made a proposal to plant vegetation. After implementation, we had advice from experts in the monitoring and fostering of the vegetation.

For these efforts, in October 2010, Daikin was selected for inclusion in the list of 100 top companies contributing to biodiversity, sponsored by the Organization for Landscape and Urban Green Architecture. In December 2011, Daikin Ales Aoya was given Excellent Stage 2 ranking under the Social and Environmental Green Evaluation System (SEGES).

Daikin Ales Aoya also acts as a multi-purpose training facility, and this project will serve to raise environmental awareness of employees coming here.



Certificate showing that Daikin M is one of 100 top companies S

contributing to biodiversity



Mark of certification for the SEGES (Social and Environmental Green Evaluation System)



Bird's-eye view of Daikin Ales Aoya



Monitoring vegetation



To restore coastal forests, a fence was constructed to protect the seedlings from salt air and sand

#### Species on the endangered lists of Tottori Prefecture and the national government



Beachwort



Siberian sea rosemary





Scutellaria strigillosa

Heteropappus hispidus

These species are effective at resisting invasive species and are important to protecting beach vegetation

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#### **Rejuvenating a Community Forest at the Shiga Plant**

The Shiga Plant of Daikin Industries has begun work to rejuvenate a community forest on its premises.

Part of this was a fiscal 2012 survey of plants and animals on the premises. Results revealed numerous plant and animal species, including some designated by Shiga Prefecture as endangered.

With the knowledge gained from this survey, Daikin will enlist the advice of experts in efforts to foster a natural environment where plants and animals can grow in good health.



A year-long survey was conducted to determine the success of efforts



Pond on the premises of the Shiga Plant

#### Supporting Children's Education

#### Daikin Develops Circle of Life Program to Teach Elementary Students About Biodiversity

Daikin and international NGO Conservation International have developed a biodiversity education program for elementary schools called Circle of Life. Conservation International is also Daikin's partner in a reforestation project in Indonesia.

The program focuses on Daikin's reforestation efforts in Indonesia. The lessons keep children interested and eager as they take part in role-playing and other activities that teach them how changes in ecosystems affect their lives and how their lives in Japan are related to the world's environmental problems.

The course covers four lessons in the classroom, and schools can request to have extra lessons taught by Daikin employees.

Since April 2010, Daikin has been providing schools all over Japan with free teaching materials. In fiscal 2012, 1,074 students from 16 schools took part in the program, and 9 of these welcomed Daikin employees to lead the lessons.

Daikin hopes that this program provides an opportunity for young people, the environmental protectors of tomorrow, to act to solve environmental problems with the realization that the Earth is theirs to protect.

For details on the Circle of Life environmental education program, see the following website.

See The Circle Of Life (available in Japanese only) (http://www.daikin.co.jp/csr/edu/index.html)
 Reforestation in Indonesia (http://www.daikin.com/csr/environment/reforestation/index.html)

#### **Raising Employee Awareness**

#### **Employee Volunteers Help Protect Biodiversity**

We provide employees with opportunities to gain a greater awareness of the value of nature through activities like nature tours and forestry volunteering events.

In fiscal 2012, a total of 93 people joined activities held four times in Harashiroyama forest in Osaka Prefecture, and 23 took part in activities held twice at Shiretoko.

As well, Daikin provided environmental volunteer information through media including its website and an in-house environmental newsletter.



Employee volunteers

#### **Raising Employee Awareness About the Nature Around Them**

To raise biodiversity awareness among employees of the Daikin Group in Japan, during Environmental Month (June 2012), an event was held in which employees observe butterflies and record and report their findings.

More than 250 employees reported 748 instances of butterfly sightings. Participants provided numerous opinions on this activity; including, for example, how their children enjoyed searching for butterflies, and how the activity made them realize how much wildlife had disappeared compared to when they were younger.



A butterfly photographed by a Daikin employee

## History of Environmental Activities

	Daikin Group	Air Condtioning Divisions(Japan)	Chemicals Division(Japan)
1970s	<ul> <li>Environmental Pollution Control System established</li> <li>Environmental Pollution Control</li> <li>Committee established</li> <li>Environmental Pollution Control</li> <li>Regulations enacted</li> <li>Environmental Month started</li> </ul>		
1980s	<ul> <li>Daikin Group Environmental Control Committee established</li> <li>Daikin Group Environmental Management Regulations enacted</li> <li>Began dealing with fluorocarbon problem</li> </ul>		
1991			Began HFC     mass-production
1992	• Director responsible for environmental protection and Global Environment Dept.established		
1993	<ul> <li>Actions Principles on Environmental Protection enacted</li> <li>Environmental Action Plan enacted</li> </ul>		
1994	<ul> <li>Began building environmental management system</li> </ul>		
1995	Environmental audits launched	<ul> <li>Released chiller using HFC refrigerant</li> <li>Started air conditioner forums</li> </ul>	<ul> <li>Ceased production of CFC</li> </ul>
1996	<ul> <li>Acquired ISO 14001 certification in all Daikin Industries production bases in Japan</li> </ul>		
1997	<ul> <li>Began working towards ISO 14001 certification in overseas production bases</li> </ul>		

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	Daikin Group	Air Condtioning Divisions(Japan)	Chemicals Division(Japan)
1998	• First Environmental Report published	<ul> <li>Released Super Inverter 60 ultra-energy-efficient commercial air conditioner</li> <li>Released HFC multi-purpose air conditioner for buildings, HFC residential air conditioners</li> </ul>	
1999	• Environmental accounting introduced, Environmental Meetings launched		• Established fluorocarbon destruction facilities
2000	• Start of green procurement	<ul> <li>Released Super Inverter ZEAS ultra-energy-efficient HFC air conditioner</li> </ul>	
2001	<ul> <li>Environmental Action Plan 2005 enacted</li> <li>Achieved zero waste emissions in Daikin Industries production bases in Japan (machinery divisions)</li> <li>Regional Environmental Meetings launched Environmental meetings started in each of four regions (Europe, North America, China, and Asia/Oceania)</li> </ul>		
2002	• Basic Environmental Policy of the Daikin Group enacted	<ul> <li>Began fluorocarbon recovery and destruction business</li> <li>Completed Conversion to HFC refrigerant for all major products (in Japan)</li> </ul>	
2003	• Aquired integrated ISO 14001 certification in Daikin Group in Japan		
2004	<ul> <li>Achieved zero waste emissions in all Daikin Industries production bases in Japan</li> </ul>		
2006	• Environmental Action Plan 2010 enacted	<ul> <li>Released heat pump-type hot water heaters and heating systems in 2006 in Europe</li> </ul>	
2007		• Held air conditioner forums in Europe and the U.S.	

	Daikin Group	Air Condtioning Divisions(Japan)	Chemicals Division(Japan)
2008	• Formulated the latter half of the Fusion 10 strategic management plan, which stresses proactive contribution to solving environmental problems, as well as business expansion	<ul> <li>Started Re: AIRCON Project for reforestation in Indonesia</li> <li>Released world's first VRV system using CO2 refrigerant</li> <li>Held air conditioner forums worldwide (Europe, U.S., Japan)</li> </ul>	
2009		• Held air conditioner forums in China	
2010	• The Daikin Group worldwide achieved its targets for greenhouse gas emissions by a wide margin	• Held air conditioner forums in Asia/Oceania	
2011	<ul> <li>Formulated Environmental Action Plan 2015</li> </ul>		
2011	<ul> <li>Started environmental protection activities in Shiretoko</li> </ul>		
2012		• Released Urusara 7 residential air conditioner, world's first air conditioner to use the new R32 refrigerant	



# **Responsibility to Stakeholders**

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#### **Responsibility to Stakeholders**



#### **Responsibility to Stakeholders INDEX**

#### Customers

- Product Quality and Safety
- Customer Satisfaction
- Protecting Customer Information

#### Daikin's main responsibilities

Daikin products such as air conditioners, fluorochemical products, and hydraulic equipment are used by families and industries around the world. We provide products and services that anticipate society's needs.

We believe these products must satisfy customers with safety and high quality.

#### Opportunities to express opinions and make requests

- Daikin Contact Center
- Customer satisfaction questionnaires
- Support seminars for dealers
- Service engineer offers helpful extra information during maintenance calls (the "five-minutes of extra care standard")
- Daikin Showrooms
- Community sites

#### Employees

- Employee Evaluation and Treatment
- Workplace Diversity
- Work-Life Balance
- Labor Management Relations
- Occupational Safety and Health
- Fostering Human Resources
- Respect for Human Rights

#### Daikin's main responsibilities

Approximately 50,000 employees work at Daikin bases around the world. The growth of our employees—who sustain our business—is the growth of the Daikin Group. We stress fairness of opportunity and reward for all employees, regardless of age, sex, or nationality in order to make the most of their diverse abilities. We create an environment where they can work in safety and health, and consider their work-life balance.

#### Opportunities to express opinions and make requests

- Interviews based on employee self-assessments
- Labor-management council meetings, labor union council meetings
- Group Management Meeting

#### Business Partners

#### Philosophy on Suppliers

- Working Closely with Suppliers
- Green Procurement Guidelines

#### Daikin's main responsibilities

The supply chain is made up of not only suppliers from whom we directly procure raw materials and parts but also those suppliers further upstream. We build a relationship of mutual growth and prosperity by communicating frequently and continuously with suppliers in order to ensure product quality and safety. A prerequisite to this is fair and honest business dealings.

#### Opportunities to express opinions and make requests

- Meetings for suppliers
- Award ceremonies for suppliers
- Technology discussions, quality and safety gatherings
- Quality and environmental audits
- Green procurement briefings

#### Shareholders and Investors

For Shareholders

Information Disclosure Policy

#### Daikin's main responsibilities

We operate on capital provided by approximately 40,000 shareholders. We make the best use of capital to achieve solid profitability and a firm financial base to maximize corporate value and meet shareholder and investor expectations with stable dividends. We provide the necessary information promptly and continuously interact with shareholders and investors.

#### Opportunities to express opinions and make requests

- Ordinary General Meeting of Shareholders
- Briefings on financial results, briefings for investors
- Annual Report, business reports
- Information on Website
- Inquiries by telephone and Internet

#### Communities

- Promoting Art and Culture
- Promoting Sports
- Contributing to Education
- Environmental Contributions to Society
- A Good Corporate Citizen
   —Activities in Each
   Community

#### Daikin's main responsibilities

At bases in more than 38 countries, we have a strong desire to form lasting bonds with local communities and economies and make a positive contribution as good corporate citizens.

We contribute to regional industry and economy through our business, and ensure that our bases are safe and open to local communities. We encourage each Daikin base to think and take action that contributes to the community.

#### Opportunities to express opinions and make requests

- Public liaison person at each Daikin base
- Informing local community of emergency disaster drills
- Factory tours for local citizens
- Participation in local groups
- Involvement in local events

#### Daikin's main responsibilities

We strive to reduce greenhouse gas emissions in all business activities to achieve our most important mission: curbing global warming. We are also promoting our "green heart" philosophy to communities and to future generations through environmental protection activities.

#### **Opportunities to express opinions and make requests**

- Environmental forums, environmental exhibitions
- Various forms of environmental PR
- Environmental education

#### Environment



Responsibility to : Customers

With the world's leading technologies in air conditioning and fluorochemicals, the Daikin Group meets society's needs for safe products that offer peace of mind. We also ensure customer satisfaction with advanced support systems.

#### **Product Quality and Safety**

## Strict Design Review Ensures Safety: Our Top Priority for Customers

Our responsibility goes beyond simply satisfying customers; we believe that we also have a duty to society to offer products and services that are safe, high quality, and environmentally conscious.

Quality is a top priority during the development and production stages in our Air Conditioning Manufacturing Division and Chemicals Division, both of which have obtained the ISO 9001 (quality management system) certification. We also provide customers with the information they need to use our products safely.

And we continue to gather information on products in use in the market so we can improve their quality.

#### **Read more** (Page 173)

- Product Quality and Safety Policy
- Product Quality Management Structure
  - Quality Control System
  - Quality Control Process
- Cooperation with Suppliers
- Employee Education
- Improving Quality During Development
   Development Process Raises Quality A
- Handling Product Accidents
- Product Safety Voluntary Action Guidelines
- Disclosing Product Information
- Universal Design in Product Development
   Example of Universal Design A

#### "Giving the Best Possible After Sales Service (Speed, Accuracy, and Friendliness)" is Our Basic Policy to Pursue Customer Satisfaction

The Daikin Contact Center is open 24 hours a day, every day of the year to take repair requests and offer technical advice. We are also rapidly working on further enhancement of after sales service around the world for handling customer inquiries and thus achieve a service system geared to customer needs.

The many opinions and requests received by the center are reflected in our product development and service so that we can stay one step ahead of customer needs.

#### Protecting Customer Information

#### Protecting Customer Information in Every Way

The Daikin Group stores a range of personal information from customers, such as repair request data. With the conviction that properly managing such information is an important social responsibility, we have a Personal Information Protection Policy and system for managing information, and we conduct personal information education and audits, all with the goal of effectively managing the information in our possession. Read more (Page 180)

- Customer Satisfaction Policy
- Customer Response and Support System
   Daikin Contact Centers
- Understanding and Reflecting Customer Needs
- Using Customer Opinions
  - Number of Inquiries to the Contact Center (Japan) III
- Employee Education
- Support for Distributors
- Training for Distributors

Read more (Page 186)

#### Product Quality and Safety Policy

#### We Operate under the Belief that Customers Are Buying Quality

With this in mind, we strive to stay ahead of customer needs by providing high-quality products and services based on our corporate policies of "Absolute Credibility", "Enterprising Management", and "Harmonious Personal Relations".

Our quality control is based on the idea that the added value we give to products is quality, and that this quality is what customers are buying. And each Daikin employee constantly puts quality ahead of everything else.

#### Daikin Group service quality policy

#### The ultimate in quality service through speed, accuracy, and good manners

- 1. Offer service that meets customer needs while complying with laws
- 2. Establish quality targets and revise these as necessary
- 3. Continuously improve the effectiveness of our quality management system

#### **Product Quality Management Structure**

#### Thorough Management in Development, Procurement, and Production

All major manufacturing bases in the Daikin Group are ISO 9001-compliant and have quality assurance systems conforming to this international standard. Company divisions maintain high levels of product quality and ensure proper management of each department, such as development, materials and parts procurement, and production. We are also improving quality at our contract manufacturers.

Each division undergoes an internal audit so that we can assess our quality situation and if necessary further improve it.

Based on our annual Daikin Group policy, each division formulates its key quality measures and targets, which are used to create a detailed quality program (fiscal year action plan) for all stages including design and development, materials and parts procurement, and production.

In fiscal 2012, we adopted a thorough "front loading" philosophy under which we sought to boost development quality by early on determining problems that may arise in the latter processes.



Efforts with Suppliers to Raise Product Quality and Safety (Responsibility to Business Partners) (Page 217)

#### **Employee Education**

#### We Hold Daily Meetings to Raise Quality Awareness

Every division in the Daikin Group has numerous quality education activities so that employees can continue to raise their quality awareness.

Since 2004, the 19th of every month has been quality day in the air conditioning division, when each division holds discussions on ways to improve quality. Since November 2008, each division has held 10-minute daily quality meetings. These meetings are now an established way of keeping employees thinking of new ways to pursue quality and sharing up-to-date information of quality matters.

In the Chemicals Division, new employees are taught the philosophy of quality assurance as part of their orientation. This education is for all new employees doing work related to sales, research, and production.



#### Only Those Products That Pass Our Strict Design Review for Product Safety Manufactured

In fiscal 2005, the air conditioning manufacturing division reformed its development process with a stricter, more segmented design review (DR)\*. First, the personnel in charge of the relevant divisions inspect the proposed products for conformity to Daikin standards using the four criteria of an individual design review (DR): product quality, monotsukuri (the art of manufacturing), cost-effectiveness, and compliance. Products that pass the individual DR are then subject to a gate DR: six stages of design reviews and to-market reviews by top management. Only those that pass all standards make it to market.

In August 2006, we further raised our product safety standards by building a design review system to ensure that products are absolutely safe to use and that problems with previous models have been fixed. In fiscal 2011, we established development process management guidelines in the advanced product development stage, which allowed us to make the design review even stricter.

Since fiscal 2008 in the Chemicals Division, we have been conducting reviews based on a four-level management system consisting of development theme verification, technology establishment, business-viability establishment, and mass-productivity. As key review standards we added the four criteria of product quality monotsukuri (the art of manufacturing) cost-effectiveness, and compliance, as well as the chemical substance criteria of safety and environmental friendliness.

We will continue to make even safer and higher quality products by ensuring that our development process detects problems and solutions early on and helps us predict potential problems during product use.

\* Design review: In a process involving the entire Daikin organization, products under development are assessed for quality of design and all other processes leading up to product realization. Only those that pass each stage can move forward.



Only products passing all review stages make it to market

To-market

#### Handling Product Accidents

#### **Protocol for Promptly Handling Product Accidents**

Daikin products are designed based on quality standards and design standards that ensure that, even if users err in operating the machinery or use it beyond recommended limits, there is no danger for the users; and even if there is a product accident, the danger to the user is minimized.

In case of a product accident, we have systems in place that allow us to quickly relay the necessary information and handle the problem, and minimize the impact on the product users and the general public.

We also place top priority on detecting product problems before they lead to a major accident. When the cause of a minor accident is discovered, we determine whether this could also cause a major accident and we reflect this into the development of future products.

In fiscal 2012, there were no cases of product recalls.

#### Clear Force Dehumidifying/Humidifying Air Purifier for Japanese Market Recalled, Replaced Free of Charge

It was discovered that there was a danger of heat from the dehumidifying element causing smoke or fire on Clear Force dehumidifying/humidifying air purifiers for the Japanese market produced between September 2009 and August 2011. For the sake of customer safety and peace-of-mind, Daikin gathered these products and replaced them free of charge with a Clear Force model released in November 2011.

To ensure a smooth recall and replacement, Daikin put out reports in various media and put an explanation of the recall process in writing and on video on its website.

#### Free Inspection and Repair

Customers owning the models in question should phone this number. **0120-330-696** (24 hours a day, every day; toll free in Japan only)

For details on free inspections and repairs, see (available in Japanese only) (http://www.daikin.co.jp/taisetsu/2012/120203/index.html)

#### **Product Safety Voluntary Action Guidelines**

The Daikin Group (hereinafter, "the Group") believes that its most important management task is to provide products that satisfy customers from the standpoint of our customer when designing and making products that have a high level of safety and quality. To this end, we have formulated the following basic policies on product safety in efforts to provide ever-greater levels of safety and quality in products.

#### 1. Legal Compliance

The Group shall observe the Consumer Product Safety Law and other product-related laws and safety standards.

#### 2. Ensuring Product Safety

The Group shall establish a quality management system and execute measures to maintain product safety in all processes extending from product design to production, sales, and after sales service. And the Group shall display appropriate, easy-to-understand instructions and warnings on products and in instruction manuals to ensure the safe use of our products by our customers.

#### 3. Collecting and Providing Product Accident Information

The Group shall actively collect information from our customers concerning accidents involving Daikin products and quickly report this information to our executive management while providing customers with suitable information.

#### 4. Immediate and Appropriate Response to Product Accidents

In the unlikely event of a safety problem occurring in the use our product, our first and primary concern shall be for the safety of our customers, and we shall take immediate actions to minimize and prevent the occurrence of a serious accident. Actions to be taken immediately shall include repairing or replacing the product in question, publicizing the problem through the appropriate media, and submitting a statutory report on the problem to the relevant authorities. All relevant people outside the company, including sales personnel, will be informed of the situation.

#### 5. Product Safety Promotion

The Group shall establish a quality assurance system that it uses to ensure product safety and quality. We shall ascertain information related to the safety and quality in the marketplace and provide accurate feedback to personnel within our company in order to reflect it into future product design and manufacture.

#### 6. Education, Training, and Monitoring

The Group shall constantly make every effort to promote the safety and quality of our product through widespread education and training in laws and regulations within the company on product safety. We also shall regularly monitor work to ensure product safety is being achieved.

(Formulated in June 2007)

#### **Disclosing Product Information**

#### Air Conditioning Division: Clear and Concise Product Use Instructions

The Consumer Product Safety Law obligates companies to design products for safety and provide consumers with information and warnings so that household product accidents can be avoided.

Based on the failsafe\* philosophy, Daikin's system of checks ensures that customer safety is the top priority in design and that design review (DR) leads to safe products.

Our home page also provides consumers with information including product model numbers and year of products already on the market. In April 2009, the Ministerial Ordinance of technical standards for the Electrical Appliance and Material Safety Law went into effect. We abide by this ordinance by placing labels on our residential air conditioners and ventilation fans (which are covered by this law) that state the duration of product use.

In Japan, about one-third of the product accidents are the result of improper product operation. Therefore, to prevent accidents, we believe it is important to provide customers with accurate, easy-to-understand information on using products. The air conditioning division conducts product labeling in compliance with industry guidelines, such as the Guidelines for Labeling Household Products for Safe Use (4th edition, revised March 2009), published by the Association for Electric Home Appliances, and the Revisions Labeling Procedures (March 2010), published by the Japan Refrigeration and Air Conditioning Industry Association.

When we make product user manuals, we make sure they are readable, easy to understand, and easily searchable. This ensures that customers can use products with peace of mind. We work with our design, quality control, service, and sales departments to improve areas of customer confusion in order to make manuals with which customers can get the answers they need quickly.

\* Failsafe: Checks and measures are in place to ensure safety in case of a breakdown of mechanisms or systems.

#### **Chemicals Division: Holding Workshops on Fluorochemical products**

While the fluorochemical products produced by the Chemicals Division are highly advanced and highly functional materials, pressing them can sometimes require specialized methods. Not only do representatives of the Technical Service Department visit our customers to explain about our products, but we also conduct customer-oriented training seminars, titled "the Fluorine Classroom," to explain about the special properties of fluorine materials and the guide them on the manufacturing process using the facilities and equipment available to the company. In fiscal 2012, we promoted better understanding among customers with four workshops on the topics of plastics, rubber, and paint.

Our website includes the material safety data sheet (MSDS) and technical documents, as well as information on how to spot imitation products and precautions regarding the return of high-pressure gas cylinders.

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#### Universal Design in Product Development

#### **Developing Products that Anyone Can Use Easily**

Daikin incorporates universal design (UD) into product development to enable even the elderly and physically disabled to operate products with ease.

Universal design is central to the concept of monotsukuri (the art of manufacturing), because it involves designing a product so that everyone, no matter what their age or physique, can use it with ease. We are continuing steady efforts in universal design training so that the concept becomes second nature to all engineers.

#### Guidelines for Universal Design of Smartphone Software

In December 2012, Daikin began providing an application that allows users to control air conditioning using a smartphone. The application allows control not just from within the room; users can also easily check air conditioner operation, turn it on or off, and switch modes from an outside location.

We also created universal design guidelines to ensure applications were easy for anyone to use. Through a usability test, we sought the optimal button size and layout for preventing operation errors. This allows anyone to use the product intuitively and stress-free.

#### Improved Remote Controller Display for Easy Power Savings

In fiscal 2012, some users said they couldn't use the power saving function because the set-up was too confusing. In response, we put a power saving button on the remote controller. Creating a large, easy-to-see button made it easy for anyone to use the power saving function.



The button sizes and layout make it easy to use



Newly added power saving button The large power saving button makes accessing this function easy
# **Customer Satisfaction Policy**

### **Creating New Value by Anticipating the Future Needs of Customers**

Our group philosophy states that our mission, and the essence of our existence, is to identify and realize our customers' future needs and dreams, even those that they themselves may not yet be aware of. By providing high quality products, materials, and service, as well as earnestly proposing new products, we want to not only improve convenience and comfort for customers, but also increase the level of customer satisfaction.

Based on these principles, each division of Daikin Group formulates its policies according to the particular needs and circumstances of customers in order to improve customer satisfaction.

The air conditioning division's customers are end users and distributors. The division's basic policies for ensuring customer satisfaction are "stay ahead of customers' needs and present new products suggested by the sales division" for end user satisfaction, and "stay ahead of the times and one step ahead of our competitors by offering a tailored solution" for the satisfaction of distributors.

The After Sales Service Division of the air conditioning division, which bears responsibility for product maintenance, has the basic policy of "the ultimate in quality service through speed, accuracy, and good manners" and is working to increase the skills of its service engineers and raise the level of their response to customers.

The Chemicals Division has identified "improvement of quality," "stable supply," "appropriate cost," and "response to needs (development of new products)" as the main points to increase customer satisfaction, and aims to gain greater trust and satisfaction from customers by continually assessing information regarding the level of customer satisfaction and making improvements accordingly.

## **Customer Response and Support System**

#### Air Conditioning Division: Building a Worldwide Customer Service System

The Daikin Contact Center is open 24 hours a day, every day of the year to take repair requests and offer technical advice to customers around the world. We are striving to enhance its service quality to ensure customers are satisfied with the responses they get from the Contact Center.

With more and more of Daikin's product sales occurring outside of Japan, we must offer top after-sales service capable of meeting the increasing demands of an ever widening customer base. That's why we are building up our after-sales service system overseas so that customers can get the service they need for their particular country based on Daikin's service policy of speed, accuracy, and good manners.



Shanghai Service Center

We will continue to enhance customer satisfaction in after sales service by establishing customer contact centers at all service bases and offering local language support.

#### Daikin Contact Centers



#### **Chemicals Division: Providing Information Through Various Forums**

In the Chemicals Division, many of the inquiries are requests to survey the chemicals in products and to provide technical data. Sales representatives of Daikin Industries act as contacts and respond to inquiries in cooperation with the divisions of technical service, research and development, quality assurance, environment, and safety.

To further strengthen trust between our company and customer businesses, we hold yearly exchange meetings between top-level personnel, such as the "Difreon Gas Meeting" and the "Gratitudeto-Customers Meeting". At the fiscal 2012 "Difreon Gas Meeting," 30 companies took part in discussions on the development of next-generation refrigerants with low global warming potential.



The Difreon Gas Meeting

Also, to help our customers benefit more from the products and technology of Daikin Industries, we hold a twice-yearly study seminar on fluorochemical products directed toward media outlets, by which we provide information to our customers. In fiscal 2012, we held a study seminar that gave an overview of our business for electrolyte solution for lithium-ion batteries.

## Understanding and Reflecting Customer Needs

#### Strengthening the Global Development System to Meet Regional Needs

With the Daikin Group rapidly accelerating business expansion around the world, it is important that we raise customer satisfaction by accurately and promptly grasping customer needs in each world region and reflecting these in our products. To this end, we have stepped up marketing research functions in key world regions (Europe, China, ASEAN & Oceania, India, North America, Latin America, the Middle East & Africa, and Japan). We also conduct customer satisfaction surveys and use results to improve products and services.

To quickly develop products that meet the needs of specific regions, we have switched from a system centered in Japan to one with stronger development functions at bases in key regions. For example, we make effective use of the locally hired talent at our production base in Thailand to develop small-sized inverter products for the Indonesian market.

#### **Customer Surveys Go Towards Improving Products and Services**

Daikin Group divisions conduct customer surveys to enhance customer satisfaction. By constantly surveying and analyzing the voice of customers, we can further boost the quality of our service.

#### Air Conditioing Division: Questionnaire on Products

The Air Conditioning Sales Division includes a questionnaire with products that allows us to determine customer needs and levels of satisfaction, and also includes a questionnaire on its home page to collect user opinions about our products.

In fiscal 2012, we received approximately 400 replies to the home page questionnaire, included approximately 3,000 questionnairs with Urusara 7 air conditioners, and conducted interviews with visitors to stores in 10 locations around Japan. Released in November 2012, the Urusara 7 was created in response to customer requestss for energy savings and energy efficiency, qualities that earned Daikin honors in the Grand Prize for Excellence in Energy Efficiency and Conservation. In response to customer requests for a timer, Daikin gave the RAKUAIR air conditioner a wealth of timer functions.

#### Air Conditioning Division: Questionnaire on After-Sales Service

The After Sales Service Division strives to determine the level of customer satisfaction with after-sales service by every year sending surveys to a random sampling of customers within two weeks after a Daikin product is fixed. This has resulted in better service for customers each year since fiscal 2007, with the fiscal 2012 overall satisfaction\* figure reaching 4.07, slightly up over 2011. We believe this is a result of efforts to complete repairs in a single visit, improve repair techniques through training, get better at dealing with customers and make other such improvements, all under our slogan of "Customer first."

\*Overall satisfaction: A weighted average of a five-stage assessment

#### Chemicals Division: Customer Questionnaire

In the Chemicals Division, we distribute questionnaires once a year that help us boost customer satisfaction.

The fiscal 2012 questionnaire results showed that customers were more satisfied with the speed of product delivery, an issue they pointed out in last year's survey. At the same time, customers expressed a desire to increase the amount of helpful information we provide.

In fiscal 2013, we will continue to do all we can to improve the level of communication with customers.

## Using Customer Opinions

## **Customer Inquiries Used in Improving Products and Developing New Ones**

Requests, complaints, and other information obtained by the Contact Centers is recorded in a database. Information regarding the opinions and requests that sales representatives obtain from customers is shared among the Quality Division and relevant departments, who investigate causes and establish countermeasures to improve products and services.

In the technical questions that account for about 40% of the information gathered by the Contact Centers, we find ideas that help us improve quality; for example, the information enables us to make early detection of issues we face in the market. The information obtained from customer inquiries, including common key words and their frequency, are stored in a database that is shared with the relevant Daikin divisions and used to solve potential quality problems.

In order to continue creating products that anticipate future customer needs, we will use customer opinions as a guide to new product concepts.



#### Number of Inquiries to the Contact Center (Japan)

**Employee Education** 

#### Year-Long Training and Service Awards Among Daikin Bases

The Daikin Group strives to improve the quality of service by teaching employees the necessary knowledge and techniques.

Besides basic training in service quality, a variety of training courses and license-certification course are offered to each management level and job description.

The After Sales Service Division has the year-long "Service University" training program. Just like in university, participants can choose the courses right for their job. They also have regular tests to ensure they are retaining what they have learned.

At service bases across Japan, teams are created that compete against each other in the annual Service Awards tournament. There, teams are quantitatively judged and awarded for their level of service in five stages including the criteria of our after sales service policy: speed, accuracy, and good manners. This makes for a fun way to raise our ability to offer customer satisfaction.

#### **Skills and Customer-interaction Training for Service Engineers**

Service engineers' individual technical expertise is crucial to providing quality service.

Since fiscal 2006, we have been holding workshops and giving technical assessment tests to all service engineers. Our rule is that service engineers must be certified with a minimum level of skill before they can do repair work alone. To further improve their abilities, since fiscal 2008 we have been holding training for chief engineers. As of March 2013, a total of 981 (cumulative total: 1,665) had passed the chief engineer test, and our goal is to raise this number to 1,200 by fiscal 2015. We also provide similar training for engineers at dealerships.

To help service engineers better deal with customers, since fiscal 2007 we have been working with outside experts to hold service etiquette classes. We will continue to give our service engineers the technical skills and people skills they need to make Daikin No. 1 in service in the eyes of customers.

Training for Distributors (Page 185)

# The Chemicals Division: Sharing Broad Knowledge About Product Features and Their Target Fields, Etc.

The sales representatives of the Chemicals Division need to listen to researchers and product developers of customer businesses about the product functions they seek and offer them the ideal products for their needs. In order to optimize product functions in accordance with the circumstances of customer businesses, it is essential to have diverse knowledge of such things as processing methods, amount of additives, and temperatures.

For this purpose, once a month the Chemicals Division holds meetings covering business, research, and manufacturing to share not only business information, but also knowledge regarding products. By giving concrete examples of product applications and use, as well as relaying customer needs, these meetings aid in the development of new products and applications, and they give customers a deeper understanding of product features. Customers thus leave with new ideas for product application. The Division also makes opportunities for the sharing of superior business skills within the Division, and makes use of the "Fluorine Classroom" customer education program as an opportunity for personnel to educate themselves and deepen their knowledge.

The Chemicals Division will continue to train personnel so that they acquire a deep knowledge on the use fluorine in various business situations.

## Support for Distributors

#### Providing Information for Distributors on the Daikin Website

The air conditioning division provides distributors with solution sales support. Since June 2011, distributors can use the website's D-SEARCH and D-PORTAL functions. D-SEARCH is public access and allows anyone to use information from the past 10 years related to technical data, specifications, blueprints, user manuals, installation manuals, CAD symbols, and image data.

D-PORTAL is a members-only service with numerous useful functions; for example, online support that includes quotation software and tools to help customers save energy and thus reduce CO<sub>2</sub> emissions, and a portal site with member information related to the environment and renewable energy like solar power.

The site is also optimized for use with a mobile phone, so distributors can access it while they are out visiting a customer. They can also create proposals easily with their mobile phones. As well, starting in fiscal 2011 distributors can use tablets with software that provides information such as delivery examples, thus making it possible to provide them with ideas to help their business wherever they are.

We encourage distributors acquire the Eco Test certification (Certification Test for Environmental Specialist), as do members of Daikin's sales divisions. In this way, we help them become more eco-wise and strengthen their consulting ability.

## **Training for Distributors**

#### Start of Certification Course on Installing Solar Power Systems

Daikin Industries has five training centers around Japan where we hold a variety of courses so that distributors can learn design, installation, and service techniques. The Tsukuba Training Center in Tsukuba City, Ibaraki Prefecture, also contains the Solution Plaza where distributors can first observe the latest models before undergoing the relevant training. With the goal of offering customers service that is practical, easy to understand, pleasant, and immediately applicable to their business, the center uses the latest simulation machinery to offer realistic practice, as well as electronic blackboards and videos teaching materials, along with a range of other state-of-the-art teaching aids.

Training for distributors includes systematic step-up training to improve trainees' levels, solution training that helps distributors meet their customers' needs, and certification classes. There are a total of 51 courses.

In fiscal 2012, we added a new proprietary certification course on installing Daikin's solar power generation system, with a cumulative total of 1,933 people receiving certification.

In fiscal 2013, we have three new courses: Introduction to Residential Energy Solutions, Basic Installation Techniques, and Cerfication for Leakage Inspection.

#### **Environmental Solutions Training**

To promote efforts in solving environmental problems, we are conducting five courses in environmental solutions.

Starting in fiscal 2008, we have been distributing eco-booklets to trainees in all courses. The eco-booklets contain general knowledge on global warming and ozone layer destruction, handling fluorocarbons, and steps to preventing global warming, which is expanded on in the courses to raise awareness of the importance of environmental protection.



eco-booklet

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#### Technical Training for Distributors of Overseas Group Companies

Daikin's overseas Group companies also hold technical training for their distributors to raise customer satisfaction and ensure their employees can work in safety.



Technical training for distributors provided by Siam Daikin Sales Co., Ltd.

## **Protecting Customer Information**

#### Personal Information Managers and Thorough Employee Education

To properly protect the range of customer information entrusted to us, the Daikin Group has a Personal Information Protection Policy, as well as various in-house rules for information protection. Personal information managers in each division follow these in-house rules in leading employees in the strict protection of personal information.

Particularly in divisions that handle data repair information from customers on a daily basis, we do everything possible to keep this information secure. To continually monitor and improve on our information security system, employees conduct their own self assessments, the Legal Affairs, Compliance and Intellectual Property Department conducts legal audits, and the Internal Auditing Department conducts audits.

Information Security (CSR Management) (Page 28)



Responsibility to : Employees

The Daikin Group's management is people-centered in the belief that people are the source of a company's competitiveness. We believe in the unlimited potential of every person and that the sum of the potential and talent of our diverse people forms the pillars of our company operations. By integrating the characteristics and ideas of our diverse range of employees, we can energize our company and strengthen our competitiveness. The Daikin Group is striving to build new corporate value through a strategy of management diversity.

Please refer to collected performance data related to responsibility to employees.

Data (Page 261)

## **Employee Evaluation and Treatment**

#### Fairness of Opportunity and Reward

The Daikin Group offers "fairness of opportunity and reward": a workplace where employees are rewarded for putting their motivation to work and taking every opportunity for success.

## Workplace Diversity

## A Workplace Where Everyone Can Shine

The Daikin Group believes it is our people who make us competitive. A company can only grow stronger by having a diverse range of employees—men and women of all ages, nationalities, races, and levels of occupational experience—working within an organization that is conducive to mutual understanding of one another's distinct values and that allows everyone to shoot for a lofty goal.

Our Group Compliance Guidelines state that while respecting diverse values and approaches to work, we shall mutually accept our respective differences, act in harmony, gather the abilities we possess, and strive to be a Group in which each member expresses his or her ambitions and then takes bold actions with great passion and perseverance to realize those ambitions.

#### **Read more** (Page 190)

- Employee Evaluation and Treatment Policy
- Employee Evaluation and Treatment
- Job Placement

#### **Read more** (Page 192)

- Workplace Diversity Policy
- Employee Composition (Data for Daikin Industries)
- Putting More Women into Management Positions
- Hiring Women
  - Number of Women Periodically Hired; Percentage of All Employees (Daikin Industries only) Int
- Re-employment of Retired Employees
  Number of Re-employed Workers & Rate of Re-employment (Daikin Industries only) III
- Employment of People with Disabilities
  Number of People with Disabilities Employed Rate (Group companies in Japan) III
  - External Awards
- Promotion of Local Personnel at Overseas Bases
- Diversity Education for Employees

## Work-Life Balance

# Full Range of Childcare Leave and Childcare Support Systems

Daikin Industries stresses a work life balance for employees. We have a range of work systems that allow employees to work flexible duties and flexible schedules.

The company has established an action plan for helping employees with children continue both work and home duties with peace of mind and has been certified as a company complying with the Law for Measures to Support the Development of the Next Generation. We have been particularly active in urging male employees to take advantage of our systems for childcare leave and childcare support.

#### Read more (Page 198)

- Work-Life Balance Policy
- Helping Employees Match Work Schedule with Lifestyle
  - Number of Employees Leaving, Employee Turnover (Daikin Industries only)
- Support for Childcare
  - Number of Employees Taking Leave Before and After Child Birth and Number Taking Childcare Leave (Daikin Industries only) III
- Support for Family Care
  - Number Taking Family Care Leave (Daikin Industries only) In
  - Other employee benefit systems (some are abridged) a

## Labor Management Relations

#### Frank Exchanges of Opinion Create Favorable Labor-Management Relations

Daikin Industries believes that cooperative labor management relations are the foundation of company management. We therefore place the utmost emphasis on equality of labor and management as well as mutual trust between both sides.

## **Occupational Safety and Health**

## Keeping the Workplace Safe and Employees Physically and Mentally Fit

The Daikin Group's Group Compliance Guidelines state our top priority of ensuring a safe, healthy workplace where employees can work in peace of mind. To achieve this, we constantly strive to create a "zero accident" workplace where Daikin employees and subcontract employees work safely, both for their own sake and to instill a feeling of safety in the minds of residents around our factories.

#### Read more (Page 201)

- Labor Management Relations Policy
- Respecting the Rights of Workers
- Dialogue with Employees

#### Read more (Page 202)

- Occupational Safety and Health Policy
  - Frequency Rate, Severity Rate (Daikin Industries only) International
  - Number of Accidents Resulting in Time off Work (Daikin Industries only)
- Occupational Safety and Health Management Structure
  - System for Occupational Safety and Health
- Employee Education and Training
- Employee Health Management
- Mental Health
- Shortening Working Hours
  - Percentage of Employees Taking All Paid Leave (Daikin Industries only) In
  - Average Hours of Overtime per Employee (Daikin Industries only)

#### Training Employees to Take the World Stage

The Daikin Group philosophy states that the cumulative growth of all group members, regardless of nationality or company, serves the foundation for the group's development. Based on the belief that people grow through work experience, the Daikin Group develops employee capabilities through on-the-job training (OJT)\*1. We also supplement this with off-the-job training (Off JT)\*2, such as the Daikin Leadership Development Program for next generation executives, the Daikin Business School (D-BS) for executive management candidates of overseas bases. We also provide opportunities for independent learning through language training and correspondence courses.

- \*1 OJT: Employees learn and acquire the skills, knowledge, and degree of commitment required of their positions while performing their jobs.
- \*2 Off JT: Employees study outside of their workplaces in order to acquire the knowledge and skills needed for their jobs.

## **Respect for Human Rights**

## Basic Policy of Respect for Human Rights and Diversity, and Compliance with Labor Laws

The Daikin Group does all it can in educating employees about human rights so that we can establish a corporate group free of discrimination where everyone's rights are respected.

#### Read more (Page 207)

- Philosophy
- Education Systems
  Education System A
- Passing on Skills
- Fostering Young Engineers and Technicians
- Spurring the Creation of Intellectual Property
  Number of Patent Applications (Daikin Industries only)

**Read more** (Page 31)

# **Employee Evaluation and Treatment Policy**

The Daikin Group offers "fairness of opportunity and reward": a workplace where employees are rewarded for putting their motivation to work and taking every opportunity for success.

## **Employee Evaluation and Treatment**

#### **Pursuing Fairness of Opportunity and Reward**

In fiscal 2001, we eliminated standardized wage scales based on age and seniority, along with uniform pay raises. Instead, we switched to a compensation system that rewards performance, not age or seniority.

Our performance evaluation focuses on how well employees improve their abilities. This evaluation also looks at job results in three categories called achievements, challenging spirit, and growth. To ensure even greater fairness of evaluation, managers evaluate their staff only after consulting with other managers. Employees are also evaluated based on their level of contribution to company successes and to the organization as a whole.

In 2002, this compensation system was extended to include Daikin Group companies in Japan. In fiscal 2011, be began formulating unified worldwide guidelines that cover our philosophy of performance-based pay and detail how job results should be reflected in pay. This will give the entire Group a fair, credible compensation system.

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#### Daikin Europe Selected as a Top Employer

In fiscal 2012, Daikin Europe N.V. was once again chosen one of the Top Employers\* for its outstanding human resource systems. Recognized for its working conditions, evaluation systems, and programs for employee education and training, Daikin Europe received its eighth selection in a row.



Top Employers

\* Top Employer: An award sponsored by CRF International, a company conducting research into the best practices in human resources around the world.

#### Daikin (China) Investment Co., Ltd. Chosen one of Top 100 Companies in China

Daikin (China) Investment Co., Ltd. was chosen a 100 Best HRM Company, which honors exemplary cases of human resources management among companies in China.



## **Job Placement**

#### **Creating Opportunities to Understand Employee Circumstances**

Whenever possible, Daikin Industries asks employees where they want to work and if possible assigns them to the departments and sections of their choice. If new employees cannot be placed in the department or section of their desire due to personal aptitude and company needs, we do all we can to gain their understanding.

Every year, employees fill out their own record of work, which includes a column for free comments about health, family, and job positions desired. When we consider transferring an employee, we look at these comments and talk to them in efforts to ensure, whenever possible, that their job desires and spirit of challenge is reflected in the posts they are assigned to. For employees who wish to work overseas, we have established a practical training system to support employees in foreign positions.

We will continue to build rewarding workplaces for our employees by matching their dreams and goals with those of Daikin.

## Workplace Diversity Policy

The Daikin Group believes it is our people who make us competitive. A company can only grow stronger by having a diverse range of employees—men and women of all ages, nationalities, years of experience in the company, temporary or full-time—working within an organization that is conducive to mutual understanding of one another's distinct values and that allows everyone to shoot for a lofty goal.

Our Group Compliance Guidelines state our aim of becoming a group is passionate, strong, and forward-thinking and in which there is respect for a diverse range of values and work philosophies, and in which employees respect their differences and cooperate to pool their strengths so that each person can achieve his or her dream.

The Daikin Group's employee make-up is becoming increasingly diverse, with a greater number of non-Japanese and women in our ranks. Since introducing our rehiring system in 1991, we have been making greater use of Daikin's experienced retirees.

	The o March	end of n 2009	The end of March 2010		The end of March 2011		The end of March 2012		The end of March 2013	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Number of employees	6,452	868	6,558	897	6,717	961	6,705	974	6,774	1,025
Average range of services (years)	18.9	12.0	17.9	10.8	17.1	9.96	16.8	10.5	16.5	10.4
Average age	41.6	32.8	41.8	33.6	41.8	34.2	41.8	34.9	41.7	35.1
Number of managers	925	13	886	14	936	16	933	21	939	21
Number of board members	47	1	45	1	44	1	45	1	47	1
Number of foreign nationals	28	12	27	16	30	21	34	21	38	20

#### Employee Composition (Data for Daikin Industries)

Note: Number currently employed

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## Daikin Honored for Promoting Employee Diversity

In May 2012, Daikin won the Employee Diversity category of the 5th Diversity Management Awards, sponsored by the Weekly Toyo Keizai.

This honor recognizes the company's success at implementing a clear policy of fostering and hiring internationally minded employees in response to the globalization of its business.

## **Putting More Women into Management Positions**

#### **Seminars Help Women Advance Their Careers**

Daikin Industries strives to create identical working conditions for men and women because our goal is to use the talents of both sexes to the fullest. In 2001, we eliminated the barrier between general clerical work and management track jobs so that female employees have more career possibilities. We have also systematically increased the number of female managers from two in fiscal 2001 to 21 in fiscal 2012. However, the percentage of managers who are female is still below the average for the manufacturing industry.



Brand designation

We therefore launched a project in fiscal 2011 to maximize women's talents, and we are positioning this as one of Daikin's key initiatives as we seek to foster valuable employees from a long-term point of view. In fiscal 2012, we held career design seminars and skill-building training to raise awareness among women of the importance of making a career at Daikin.

In February 2013, Daikin was one of just 17 companies granted the "Nadeshiko Brand," a designation by Japan's Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) for companies that are exceptional in encouraging women's success in the workplace and having a high percentage of female managers.

## Hiring Women

#### **Increasing Percentage of Female Employees**

As of March 2013, women accounted for 13.1% of all employees of Daikin Industries, an increase of 0.4% over 2012.

In the past, job applicants for technical and skills positions were mostly men, which kept the ratio of female employees low. We therefore established a policy of hiring more women for technical and skills positions, and based on this we hired 32 more women for temporary positions in fiscal 2013 than in the previous year.





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#### Number of Women Periodically Hired; Percentage of All Employees (Daikin Industries only)



Note: Figures are for April of each year

## **Re-employment of Retired Employees**

#### **Re-employment System Makes the Most of Experienced Employees**

In 2001, Daikin became one of the first companies in Japan to introduce a re-employment system. Retirees wishing to continue working at Daikin following retirement can use their skill and knowledge in a flexible employment system that allows them to work reduced hours and on call. Since introducing this system, over 100 have been re-employed each year. In fiscal 2012, there were 666 retirees working under this system at Daikin. Twelve of these re-employed veterans have been assigned to overseas posts so that they can impart their superior skills and know-how to our bases in other countries. We are working to raise motivation among these re-employed veterans by giving fixed pay increases to those demonstrating outstanding contribution to company performance.

In fiscal 2006, all group companies in Japan introduced this re-employment system to comply with Japan's Revised Law Concerning Stabilization of Employment of Older Persons. Those applying for this system may work until they are 65, with their working hours and pay scale decided on by labor and management.

The contribution of these experienced workers is becoming more important with Japan's declining birthrate and aging population. We plan to place these workers in positions that are best for them by considering their requests and expertise and by having them consult with their superiors.

#### 💋 Number of retirees: men Number of retirees: women 💐 Number of re-employed workers: men Number of re-employed workers: women (%) Percentage re-employed after retiring 92.1 90.6 88.1 (84.1) 83.4 (FY)

#### Number of Re-employed Workers & Rate of Re-employment (Daikin Industries only)

#### History of Daikin's Re-employment System

1979	Retirement age extended from 55 to 60.
1991	Introduction of re-employment system for employees up to 63.
2001	Age raised from 63 to 65.
2004	Senior Skill Specialist contract employee system introduced.
2005	Experience worker revitalization project started.
2006	System introduced at Daikin Group companies in Japan in 2006.

## **Employment of People with Disabilities**

#### Hiring More People with Disabilities across the Entire Group

The Daikin Group strives to hire the disabled based on its policy of providing opportunities for disabled people to grow personally and make contributions to society through production activities.

In 1993, based on the Act on Employment Promotion etc. of Persons with Disabilities, Daikin Industries established Daikin Sunrise Settsu Co., Ltd., a cooperative venture with the Osaka Prefecture and Settsu City governments.

This venture gives people with disabilities greater opportunity to make the most of their skills at workplaces designed specifically with employment of the disabled in mind. Including the employment of disabled persons at many group companies and expanding employment of disabled persons at special subsidiary companies, we are increasing the disabled employment ratio for Daikin Group as a whole. In June 2009, Daikin Sunrise Settsu's new plant was established as another step in hiring more disabled. The duties of these employees have also expanded from the processing and assembly of machine parts and the manufacture of chemicals, to computer assisted design and the publication of documents.

As of March 2013, 2.34% of workers in the Daikin Group are disabled, a percentage above the legal requirement.



Daikin Sunrise Settsu (Japan)



New plant of Daikin Sunrise Settsu

#### Number of People with Disabilities Employed Rate (Group companies in Japan)



\*1 Legally, one severely disabled person employed is counted as two people with disabilities.

\*2 Employment rate = number of people with disabilities employed / number of people employed.

#### The Slogans of Daikin Sunrise Settsu

- 1. Creating economic independence through individual effort and teamwork
- 2. Contributing to personal growth and community development through manufacturing
- 3. Creating a company in which employees, their families, and the region can take pride

#### External Awards

- "Model Improved Workplace Employing People with Disabilities," sponsored by the Japan Organization for Employment of Persons with Disabilities with the support of the Ministry of Health Labour and Welfare First Place Award (Labour Minister's Award, 1998) Outstanding Achievement Award (2002, 2003) Encouragement Prize (2005)
- First Asahi Corporate Citizenship Award (2004)
- "Businesses and Individuals that Provide Employment Opportunities for People with Disabilities" Ministry of Health, Labour and Welfare Award (2009, 2010)

#### **Daikin Overseas Bases Hire Disabled Workers**

Using the experience of Daikin Sunrise Settsu Co., Ltd. in Japan, Daikin Air Conditioning Systems (Shanghai) Co., Ltd. has been doing all it can to hire the disabled. Companies in Shanghai must have disabled account for at least 1.6% of their workforce. As of the end of March 2013, Daikin Shanghai had 65 disabled employees working on lines and in offices, accounting for 2.1% of all employees.

Daikin Industries (Thailand) Ltd. has 13 disabled employees and has modified work benches and other equipment to accommodate their skills contribution to the company.



Disabled worker at Daikin Industries (Thailand) Ltd.

## Promotion of Local Personnel at Overseas Bases

#### Making Local Employees Leaders at Overseas Bases

Daikin Group is striving to localize overseas bases by promoting more local employees to managerial positions.

In 2004, we started the Daikin Business School (D-BS), a training seminar for cultivating personnel to take on the tasks of local management. As of fiscal 2011, 57 employees had taken this seminar.

As of the end of fiscal 2012, about 40% of the presidents at overseas Daikin bases were local nationals and about 45% were directors. Of Daikin's 15 European sales bases, 13 of them had local nationals as presidents.

See Key Activities of Fiscal 2012: Global Perssonel Development (Page 61)

## **Diversity Education for Employees**

#### Training Japanese Employees for Work at Overseas Bases

Daikin Industries has a variety of training for Japanese employees who will be working at overseas bases so that they are able to respect the values of local employees and communicate with them properly.

This training has two goals. One is to improve understanding of the situation in the appointed region or country, the thinking and values of the people there, and the main considerations when doing business there. And because the Japanese employee will often be a manager, the other goal is to teach that person about Daikin's basic stance on personnel and labor matters, particularly cultural differences that could be important when evaluating employees.

## Work-Life Balance Policy

Daikin Industries stresses a work life balance for employees. We have a range of work systems that allow employees to work flexible duties and flexible schedules. The company has established an action plan for helping employees with children continue both work and home duties with peace of mind and has been certified as a company complying with the Law for Measures to Support the Development of the Next Generation. We have been particularly active in urging male employees to take advantage of our systems for childcare leave and childcare support.

## Helping Employees Match Work Schedule with Lifestyle

#### Flex Time and Discretionary Work System Allow Employees to Continue Working

To allow this diverse range of employees to work under flexible conditions and working hours, we introduced the flex time system in 1991. In 2001, we introduced a discretionary work system in use in the R&D department and other company departments to accommodate the needs of employees with specialized duties such as those involved in planning, proposals, and surveys related to company operations.

Thanks to these efforts to give employees flexible working conditions and working hours, Daikin has an employee turnover of just 4.0% (including mandatory retirement age employees) in fiscal 2012: this is far below the average of 14.4% for all industries in Japan (according to a 2011 survey by Japan's Ministry of Health, Labour and Welfare).



#### Number of Employees Leaving, Employee Turnover (Daikin Industries only)

#### Increasing Number of Employees Taking Childcare Leave

Daikin Industries strives to create an environment where employees can continue their jobs even after having children.

We established action plans based on the Law for Measures to Support the Development of the Next Generation. In March 2007, we achieved the targets of our first action plan and in March 2012 we achieved the targets of our second action plan. For these successes we were certified by the Osaka Labour Bureau (Ministry of Health, Labour, and Welfare). Our third action plan got underway in April 2012 with a number of support efforts. One of these was improving the childcare support cafeteria plan\* by offering more support options and increasing subsidies to employees returning early from childcare leave.

In July and October 2012, we held seminars on returning to the workplace for employees coming back to work from childcare leave and their bosses. Besides discussions on how employees could continue to advance in their jobs while balancing a family life, managers got together to talk about how to foster and manage returning employees.

\* Childcare support cafeteria plan: A system under which Daikin provides subsidies for childcare service fees incurred by employees with children whose spouse is also working. Fees may be daycare fees incurred when the employee is working overtime or on a business trip, or hospital bills when the child is sick.

#### 93 Male Employees Take Childcare Leave

Daikin Industries encourages male employees to take extended leave for childcare and aims to create a work environment in which male employees feel comfortable taking childcare leave. We have revised our childcare leave systems so that more men could take childcare leave. This was an important part of the company's efforts to stay ahead of legal requirements through revisions to its second action plan based on the Law for Measures to Support the Development of the Next Generation. (Revisions: Eliminate restrictions on childcare leave for men with at-home spouses; and allow employees to take childcare leave twice as compared to only once previously).

As a result of our efforts to promote awareness and use of the childcare leave system among our employees, 93 men took childcare leave in fiscal 2012.





Daikin Industries achieved the targets of its first action plan based on the Law for Measures to Support the Development of the Next Generation. For this, the company was certified by the Osaka Labour Bureau (Ministry of Health, Labour, and Welfare).



Symbol Showing Certification as a Company Supporting Employees Childcare Efforts

#### Support Systems for the Balance of Work and Family

1992	Introduction of childcare leave system and shortened working hours for parents.
2005	First action plan based on the Law for Measures to Support the Development of the Next Generation.
2007	Achievement of goals of first action plan. Creation of second action plan. Introduction of childcare cafeteria plan.
2010	Reassessment of childcare leave and family care leave in accordance with the revised Child Care and Family Care Leave Act.
2012	Achievement of goals of second action plan. Creation of third action plan (implementation period: April 2012 to March 2014). Revision of childcare cafeteria plan.

## Support for Family Care

#### Family Care Leave and Shortened Working Hours

Daikin Industries is doing all it can so that employees can take leave to care for their family when necessary, with minimal stress, and therefore create an environment in which employees can continue working for Daikin under these circumstances.

Under our family care leave system, employees can take leave up to a maximum of 365 days for each family member who requires care, once for each time that member's condition becomes such as to require care. Under our system for adjustment of working hours for family care, employees can opt to work a staggered or flexible work schedule or shorter hours (six hours per day) up to a maximum of 365 days for each family member who requires care.

Number Taking Family Care Leave (Daikin Industries only)



In fiscal 2010, we reappraised the policy on child and family care leave in response to the revision of the Child Care and Family Care Leave Act in June, and included short-term care leave, whereby employees may take up to 5 days leave each year if needed to care for 1 family member, or up to 10 days leave for 2 or more family members.

#### Other Employee Benefit Systems (some are abridged)

Pension	Defined contribution pension		
Paid leave	Seniors' leaves system	The employee gets three days of paid leave between the month the employee turns 55 and retirement age.	
	Participation in Japan Overseas Cooperation Volunteers	Employees may be allowed to take time off work for this.	

## Labor Management Relations Policy

Daikin Industries believes that cooperative labor management relations are the foundation of company management. We therefore place the utmost emphasis on equality of labor and management, as well as mutual trust between both sides. Our stance has, and always will be, to face the truth in solving all problems, and to speak frankly and draw clear lines between what is and what is not possible.

Except for managers and some contract employees, everyone at Daikin Industries is a union member. The company holds frank discussions with the labor union. As soon as business plans are clarified, management holds a meeting where it explains these plans to the labor union.

In fiscal 2012, there were 27 such meetings held at the head office, where participants discussed important business plans such as acquisitions of the American company, the establishment of a joint venture, and the establishment of a Technology and Innovation Center. Branch office meetings are also held when necessary. Employee working conditions and status are matters discussed between labor and management, with results of these discussions promptly reported to employees of the various divisions.

## **Respecting the Rights of Workers**

#### Specification in Work Regulations and Agreements and Publicizing of Respect for Workers Rights

At Daikin Industries, we believe that the company should respect its employees as individuals and strive to improve their welfare, and that employees should fulfill their duties as workers. The principle of respect for the rights of the worker is specified in work regulations and labor agreements.

To ensure understanding of workers' rights, we give a thorough explanation of the work regulations and labor agreement to new employees when they join the company, and the labor union also conducts similar education of employees.

## **Dialogue with Employees**

#### Hearings for Employees to Improve Working Conditions

Daikin Industries has about 10 hearings a year with at least 2% of its employees (approximately 160 employees). Salary negotiations are held between labor and management with consideration for factors including company performance, operational issues, world trends, and the work of the labor union. Interviewing each employee based on these factors results in that person receiving a salary that both sides agree is fair under the circumstances.

Besides salary, employees are also given hearings when there are matters to report from the company, such as new fiscal year policies, budget and performance reports, and a message from the president at bonus time. Other ways that we hold dialogue with employees include meetings between managers and their workers during announcement of annual targets and employee evaluations. Listening to frank employee opinions ensures that we can continuously improve labor-management relations.

## Employees Occupational Safety and Health

## **Occupational Safety and Health Policy**

The Daikin Group's Group Compliance Guidelines state our top priority of ensuring a safe, healthy workplace where employees can work in peace of mind. To achieve this, we constantly strive to create a "zero accident" workplace where Daikin employees and subcontract employees work safely, both for their own sake and to instill a feeling of safety in the minds of residents around our factories.



\*1: This shows the frequency of work-related calamities, expressed in number of casualties for every 1,000,000 working hours.





\*2: This shows the severity of the calamity, expressed in man-days lost per 1,000 hours worked.

#### Number of Accidents Resulting in Time off Work (Daikin Industries only)



## **Occupational Safety and Health Management Structure**

## Occupational Safety and Health Committee at Each Daikin Site Leads Safety and Accident-Prevention Efforts

The chart below shows the Daikin Group's system for occupational safety and health and security. An Occupational Safety and Health Committee at each Daikin site leads efforts through the creation of voluntary annual slogans, policies, and proposals.

These committees also ensure the safety of facilities and prevent accidents through risk assessments. They also raise employee receptiveness to and awareness of workplace safety through activities including site patrols to make sure rules are being followed and hands-on workshops. The committees also send members to other sites to exchange safety information with committee members there.



#### System for Occupational Safety and Health

## **Employee Education and Training**

#### Hands-On Training Raises Safety Awareness at Daikin Worldwide

Each site of Daikin Industries conducts courses and training in occupational safety and health.

An important focus in recent years has been hands-on training that simulates situations where certain actions or situations could invite danger. Using specially made devices and machines, employees take part in hands-on training in which they experience what it is like to caught in or trapped by machinery in the equipment manufacturing industry, where such accidents are common; and where they see firsthand the danger of fire and pressure caused by chemical reactions common in the chemicals manufacturing industry. Combined with theoretical learning in the classroom, the hands-on training makes for an effective program.



Employees take part in hands-on training at Daikin Fluorochemicals (China) Co., Ltd.

Ensuring Plant Safety for Business Partners (Responsibility to Business Partners) (Page 219)

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# Daikin Airconditioning Singapore Given High Appraisal for Occupational Health and Safety Activities

In fiscal 2012, Daikin Airconditioning (Singapore) Pte. Ltd. was once again awarded a Level Star rating, the highest possible, in the Singapore government's BizSAFE program for promoting health and safety in the workplace. Under this program, a business must first obtain approval according to both the local safety standards (SS506) and the international standards (ISO 18001) and is then ranked according to the level of implementation of occupational health and safety measures and risk management.





Daikin Airconditioning (Singapore) Pte. Ltd. organized a safety committee that meets monthly to discuss and solve occupational health and safety issues. In fiscal 2010, the company held its first safety exhibition, which was attended by approximately 90 employees and 58 subcontracting service companies.

## **Employee Health Management**

## Supporting Employee Health through Checkups and Counseling

Daikin Industries strives to maintain employees' health by providing all employees with semi-annual health checkups, as well as semi-annual special checkups for those engaged in specialized work, as required by health and safety laws.

Employees who are found to have problems are put under the direct guidance of the company health clinic, while employees with lifestyle-related diseases are taken care of by a public health nurse and nutritionist. We are trying to provide more opportunities for the employees themselves to use this health and nutrition advice for their own self improvement.

Employees working excessive hours are checked by an industrial physician, and if the employee needs special attention, he or she and his or her superior will receive guidance from the physician.

We also work to increase employees' health awareness by holding seminars on preventing metabolic syndrome and lifestyle-related diseases, and providing information designed to reduce smoking among employees.

## **Mental Health**

# Awareness of Individuals and Organizations Dealing with Mental Health Issues and Provision of Specialist Care

Daikin Industries strives to maintain the physical and mental health of employees.

Based on guidelines from the Ministry of Health, Labour and Welfare, four types of mental health care measures, such as self-care and care by dedicated outside staff, are planned and implemented at all bases.

For example, Industrial physicians provide mental health checkups to employees who are transferred and to newly hired employees after three months, as well as to employees who questionnaires have showed are facing problems. There are also mental health lectures.

At Daikin bases in countries like the U.S., Thailand, and Australia, there are mental health counselors and help lines to ensure that employees enjoy a pleasant workplace.

## **Shortening Working Hours**

# Shortening Work Hours by Obligating Employees to Leave at Closing Time and by Boosting Work Efficiency

Since fiscal 2003, as an initiative to eliminate long working hours, Daikin Industries has obligated employees to leave the office at closing time once a week and prohibited employees from coming to work on their days off (unless absolutely necessary and approved by the department head).

In this way, we are making a concerted effort to improve both work rule compliance and work efficiency. Yearly plans are made for each employee's duties and working hours, and to ensure that work and personnel management are in line with the plans, checklists are filled out to manage daily work.

Furthermore, by implementing a planned 5-day paid work leave system and establishing 3 days of general paid leave, we aim to promote respect for work-life balance and a more vibrant work environment.

In fiscal 2009, we introduced a work attendance tracking system that enables us to easily comprehend the day-to-day circumstances of employee overtime and paid leave use. This system has advanced employee workload control by managers and boosted the use of paid leave among employees.

We will continue to do everything we can to shorten working hours and boost work efficiency.



#### Average Hours of Overtime per Employee (Daikin Industries only)



#### Measures to reduce working hours

1. Daily management of operations

Self-checks and mutual-checks using checklists.

#### 2. Raising awareness and changing company culture

Managers lead the way by not working on days off or late at night. Change from calculating working hours by month to calculating by week in order to more quickly adjust work plans and work load. Workplaces voluntarily establish their own rules regarding working for especially long hours.

#### 3. The 5 Rules

Ensure that employees leave work at closing time once a week. Nobody works on days off. Do not allow employees to work excess hours. Do not make employees do unpaid overtime. Late night work is prohibited. Each department sets its own maximum permitted work time.

- 4. **Clarify management of operations** Implement a work attendance system.
- 5. Set goals to improve productivity and work efficiency in each division

## Employees Fostering Human Resources



# Philosophy

The Daikin Group believes that practicing the principle of Our Group Philosophy and "People-Centered Management" is essential to the growth of the group. Our philosophy states that the cumulative growth of all group members, regardless of nationality or company, serves as the foundation for the group's development. Based on the belief that people grow through work experience, the Daikin Group develops employee capabilities through on-the-job training (OJT)\*<sup>1</sup> in which each person is given the job most suitable to using unique talent and fostering individual growth.

We also supplement this with off-the-job training (Off JT)\*<sup>2</sup>, such as the Daikin Leadership Development Program for training executives who can work at the front line of global business operations, the Daikin Business School for executive management of overseas bases. We offer provide opportunities for independent learning through language training and correspondence courses.

- \*1 OJT: Employees learn and acquire the skills, knowledge, and degree of commitment required of their positions while performing their jobs.
- \*2 Off-JT: Employees study outside of their workplaces in order to acquire the knowledge and skills needed for their jobs.

## **Education Systems**

#### Raising up Personnel through Work Experience to Take the World Stage

With the Group's business spreading worldwide, it is crucial that we train people to be leaders with the management skills to guide employees with a diverse range of values in a common direction.

To this end, in May 2008, we established the Daikin Ales Aoya Global Training Center in Tottori Prefecture, Japan. Here, new intensive courses for all worldwide Daikin employees are geared to the changing needs of the times, such as Skills Leader Training for people leading our overseas production bases. In fiscal 2012, over 13,000 employees made use of the training center.



Daikin Ales Aoya Global Training Center

We will continue to implement a variety of measures to boost human resources and facilitate mutual communications between

the headquarters and branch offices; these include boosting global recruitment, increasing the number of interregional and international deployments, and creating competitive assessment and reward systems.

See Key Activities of Fiscal 2012: Global Perssonel Development. (Page 61)

#### Education System



#### **New Employee Training**

The goal of new employee training is to foster business people capable of frankly expressing their own opinions and communicating with people with differing opinions. Trainees learn what it takes to be a company employee, and about the past, present, and future direction of the Daikin Group. There are also five days of English-language training as part of efforts to help new employees become global citizens and understand other cultures.

New employees also spend five nights and six days at the Daikin Ales Aoya global training center in Tottori Prefecture, Japan. There, hands-on, participatory training has new employees holding discussions and practicing concepts focusing on Daikin's People-Centered Management and how to become an ideal employee.

#### **Overseas Base Practical Training**

To ensure we have internationally minded employees who can lead our global business in future, we send young employees (ages from mid-20s to late 30s) to work at overseas bases for one year. Unlike other Daikin employees working overseas, these people take on practical work projects as they cooperate with local dealers, suppliers, business partners, and universities, striving to think outside the box, take on new challenges, and improve their abilities to communicate within foreign cultures.

In fiscal 2012, 30 young employees took part in this training. Since the program started in fiscal 1999, a total of 146 employees have participated. Starting this year, Daikin will send 40 employees a year to newly emerging and other countries.

#### Study Trips in Japan

Daikin sends young employees in Japan to universities such as Toyota Technological Institute and the International University of Japan in order to improve their technological skills, acquire MBAs, widen their perspective, and build human resource networks. As of fiscal 2012, there are eight Daikin employees studying at Toyota Technological Institute and the International University of Japan.

#### Daikin Leadership Development Program, Daikin Business School

Daikin fosters the next generation of leaders through the Daikin Leadership Development Program, which trains Daikin Industries' executives, and the Daikin Business School, which is for local nationals who are managers at Daikin's overseas bases. Centered on Our Group Philosophy and our "People-Centered Management," the program turns out executives who can lead and manage their company for the common good of the entire Daikin Group.

In fiscal 2012, there were 136 people studying in the Daikin Leadership Program and 57 at the Daikin Business School.

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#### International Trainee System Turns Out Human Resources Who Transcend Borders

In September 2012, Daikin Europe N.V. and Daikin Klima Pazarlama Co., Ltd. established the International Trainee System. The program welcomes those who want to work at Daikin worldwide bases. Participants train in numerous countries and divisions to get the knowledge and experience they need to become global human resources. From the over 700 applicants, two Belgians and two Turks were hired.



A trainee at Daikin Europe N.V.

## Passing on Skills

#### Focus on Trainers Conveying Techniques to Overseas Bases

In 2001, Daikin Industries introduced a system to pass on advanced skills to young workers. This system ensures that we give the next generation of technical leaders the advanced skills that form the foundation of manufacturing.

In the air conditioning manufacturing divisions, workers with advanced skills are designated as "Meisters" after demonstrating their mastery in the areas of brazing, lathing, sheet metal working, arc welding, die making, and tooling. The Chemicals Division has since fiscal 2006 had a system to designate Experts, who pass their advanced skills on to others. These Meisters and Experts teach their skills at Daikin bases worldwide, thus fostering future engineers and technical leaders.



A course for overseas skills trainers

In April 2010, we established a new trainer system to foster future Meisters and Experts and thus make up for a shortage of their numbers. These Meisters, Experts, and Trainers go on to become instructors who teach selected employees in periodic skills training held at production bases around the world.

As of the end of fiscal 2012, there were 31 Meisters and Experts, and 39 Trainers (16 in Japan, 23 at overseas bases). Daikin plans to have 34 Meisters and Experts and 132 Trainers by fiscal 2015. This will raise the skills level at overseas bases and allow Daikin to respond to base expansion resulting from the construction of new plants and the acquisition of other companies.

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#### **Daikin Global Skills Competition**

In fiscal 2003, Daikin began a techniques competition to boost the skills level at its production bases in Japan. The next year, overseas bases were included in a new biannual event called the Global Skills Competition.

In October 2012, the fifth competition, 138 people (61 from outside Japan) from 27 bases in 11 countries took part, the largest number so far. Participants battled it out in a total of nine skills categories, up from the previous three.



The Daikin Global Skills Competition

## Fostering Young Engineers and Technicians

#### **Experienced Workers Pass On Techniques and Skills**

Since 1994, the Shiga Plant of Daikin Industries has worked to boost the level of its manufacturing by having a Kaizen Team of experienced workers lead training for young employees in the production division.

During the four-to-six-month training, each young employee is led by two or three experienced workers. Participants get practical work in the main aims of the particular session, taking classroom lectures in subjects like electrical circuitry, as well as applied learning in sheet metal working, arc welding, and circuitry.

The system began with training for mid-level employees but now focuses on passing on skills and techniques to young employees. As of fiscal 2012, a total of 102 employees have taken this training.

## Spurring the Creation of Intellectual Property

#### **Two Systems Stimulate Creation of Intellectual Property**

Daikin Industries has two systems for stimulating employees' motivation to invent and for spurring the creation of intellectual property.

The first is the Compensation System for Employee Inventions, a system in which Daikin pays employees for inventions created on the job that result in patent applications as well as successful uses of the patent. In fiscal 2012, Daikin compensated employees for 1,179 patent applications and 538 successful uses of the patent.

The second is the Incentive System for Valuable Patents, which gives employees incentive bonuses for valuable patents. In fiscal 2012, we awarded incentive bonuses to the creators of 88 patents.



Awarding incentive bonuses to inventor group representatives

While these systems are aimed at stepping up Daikin's intellectual creativity, they also represent an effort to promptly tackle pressing issues, such as increasing the quality and quantity of patents in competitive fields, and increasing the number of patents in our key technological fields, in particular in emerging countries.

In fiscal 2012 in the air conditioning divisions, we set key patent themes in which we didn't just pursue patents related to our own technological strengths; rather, we sought to protect our business by also applying for patents that would prevent other companies from coming out with products similar to our own.

In the Chemicals Division, in order to acquire and strengthen effective patents that we could use to boost our business advantages, we continued to apply for patents for technologies that set us apart and for advance usage patents. Last year we completed a proprietary database that gave us a tool for keeping abreast of the patent race, and this is being made available to the entire Daikin Group so that we avoid the risk of infringing on other companies' patents.

We will also continue to conduct thorough advance patent surveys so that we can deal with problem patents early on and thus ensure that we eliminate patents that could hinder our development.







Responsibility to : Business Partners

The Daikin Group strives to build a relationship of trust with its suppliers. Through a synergistic relationship, both sides seek to meet each other's expectations for the sake of mutual growth and progress. To achieve this, we do our utmost to conduct fair and open dealings, and we constantly communicate with suppliers to ensure ever-improved quality and safety.

## **Philosophy on Suppliers**

## Open to All Suppliers of Any Nationality, Size, and Experience

In choosing our suppliers, we have an open-door policy, based on our Purchasing Policy, in which potential business partners, whatever their nationality, can view our requirements for quality, cost, and delivery on our website before submitting a bid.

## Working Closely with Suppliers

#### Growing and Evolving with Suppliers

We take every opportunity for communicating with suppliers so that we can develop a relationship of mutual understanding and trust.

In order to grow and evolve with suppliers, we help them build management systems offering better product quality and safety, hold meetings jointly with suppliers where both sides can solve key problems, and offer training for employees of distributors.

#### Read more (Page 214)

- Philosophy on Fair Dealings
  Purchasing Philosophy and Purchasing Policy A
- Fair Dealings Management Structure

#### **Read more** (Page 216)

- Ensuring Legal Compliance in the Entire Supply Chain
- Helping Suppliers Build Quality Management Systems
- Raising Product Quality and Ensuring Safety Together with Suppliers
  - Helping Suppliers Improve Quality
  - ZD Activities with Suppliers A
- Business Partners Contribute to Plant Safety
- Building a Relationship of Growth

## Guidelines Require Suppliers to Carry Out Environmental Management and Chemical Substances Management

Daikin's Green Procurement Guidelines went into effect in fiscal 2000 to help our suppliers procure green parts and materials. These guidelines are consulted during the procurement stage in Japan, China and Southeast Asia, and the EU. **Read more** (Page 220)

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## Business Partners Philosophy on Suppliers

## Philosophy on Fair Dealings

#### **Dealings Based on Our Purchasing Policy**

The Daikin Group formulated a Purchasing Policy in 1992 that is the basis for fair dealings with suppliers.

#### Purchasing Philosophy and Purchasing Policy

#### **Purchasing Philosophy:**

"Respect Independence" and "Cooperation and Competition"

#### **Purchasing Policy:**

- Fair relations based on an open-door policy Provide open, equal, and fair opportunities for all companies, regardless of their locality, size, and sales results.
- **Mutual growth through mutual trust** Create open conditions for business dealings and respect free competition.
- Look for good partners In procuring from overseas, look for companies to share common profit and offer society useful products.
- **Observe laws, and maintain confidentiality** Observe laws on business dealings and respect the spirit of these laws.

## Fair Dealings Management Structure

#### Giving All Suppliers an Equal Opportunity through an Open Door Policy

The Daikin Group has an open door policy on choosing suppliers in which we welcome bids from any company, regardless of nationality, size, or years in business.

In our air conditioning divisions, information on product specs, desired quality and cost, and delivery times is posted on our website in order to achieve equality of opportunity. All companies satisfying our criteria become eligible to do business with us.

In our Chemicals Division as well, we do business with any supplier meeting our criteria for quality, price, and delivery time.

#### **Regular Assessment of Suppliers to Review Business Relationship**

Before starting business dealings in the Daikin Group, we ensure potential partners understand our Purchasing Policy, and we assess them on consistent standards. After business dealings begin, we conduct assessments based on ISO 9001 and then review the business relationship accordingly.

In the air conditioning divisions, before we start transactions with new suppliers, we use the Supplier Assessment Standard Sheet to judge companies based on their administration, quality, price, delivery, and environmental measures. Besides ensuring that suppliers are in compliance with laws, we assess them in CSR aspects such as voluntary efforts to improve labor and environmental matters. In fiscal 2012, such assessments resulted in Daikin bringing on two new suppliers. Suppliers continue to be assessed every year based on our Assessment System for Continuation of Business. Companies that do not meet our assessment standards are required to make improvement plans that Daikin follows up on.

In the Chemicals Division, we assess new and existing suppliers based on ISO 9001 from the perspective of five criteria: management control, safety control, quality control, environmental control, and supply capability. We strive to fairly assess suppliers from multiple perspectives, having numerous Daikin representatives negotiate with them and making regular visits to their companies.

## Awards System for Suppliers

The Daikin Group recognizes the ongoing contribution suppliers make through annual awards: the CEO Award, the COO Award, and the Special Award.

Every fiscal year in each division, the supplier demonstrating the most outstanding contribution to development, production, quality, price, delivery, environment, and globalization receives the Special Award. From among the Special Award winners, all Daikin divisions get together to choose exemplary contribution and present the COO (chief operating officer) Award and the CEO (chief executive officer) Award. As well, every 10 years, suppliers who achieve a certain average level of sales volume over five years and are poised to continue this level are rewarded for their years of service with the Long-Term Suppliers Award.
## **Ensuring Legal Compliance in the Entire Supply Chain**

#### Doing Everything Possible to Help Suppliers Achieve Compliance

The Daikin Group strives to achieve legal compliance throughout the supply chain by doing everything possible to help suppliers abide by laws.

In the air conditioning divisions, we raise supplier awareness through written requests for legal compliance and meetings five times a year at which we introduce case studies. When renewing agreements with suppliers, those that fail to meet our standards are asked to write up plans for improvement, which we follow up on. We are looking into conducting such follow-ups throughout the year, not just once a year, so that we can help suppliers raise their standards.

We also provide information on compliance with environment-related laws on a special website for suppliers.

In the chemicals business, we carry out surprise spot audits. Starting in April 2011, we have had suppliers fill out supplier self-diagnosis sheets during on-going assessments. So that we can judge their progress, these sheets contain check items related to eliminating excessive and unfair labor, and the respect of human rights at supplier companies.

#### **Ensuring Compliance with the Subcontract Act**

Japan's Subcontract Act covers several thousand Daikin Industries' suppliers and subcontractors.

There are several thousand Daikin suppliers and subcontractors covered by the Subcontract Act. Our Subcontract Act Compliance Guidelines ensure that all Daikin divisions are in compliance with the Act in respect to matters such as prompt payment. We constantly strive to raise awareness among employees in relevant divisions of the importance of compliance through both in-house and third-party seminars.

Comprehensive compliance inspections ensure that appropriate payment methods are being followed.

We also constantly check the financial situation of subcontractor suppliers and production outsource suppliers and, if necessary, implement assistance measures such as relaxation of payment methods.

### Helping Suppliers Build Quality Management Systems

#### Supporting Suppliers in Creating Complete Management Systems

Daikin Industries' Green Procurement Guidelines state that suppliers must be ISO 14001 certified. And to promote more complete quality management systems, we provide the latest information on environment-related laws, and we request our primary suppliers, as well as their suppliers, to conduct green procurement and build a chemical management system.

The Chemicals Division requests that its suppliers obtain ISO 14001 certification, and it offers a range of advice on building quality management systems, improving production processes, and streamlining the organization so that suppliers can also obtain ISO 9001 certification.

- See Green Procurement (Low-Impact Production) (Page 120)
- See Green Procurement Guidelines (Page 220)

## **Raising Product Quality and Ensuring Safety Together with Suppliers**

#### Suppliers Take Part in Quality Improvement Conferences, Receive Quality Guidance

Suppliers are indispensable to our goal of providing customers with reliable products. Daikin strives to raise quality by working closely with its suppliers.

In our air conditioning divisions, we hold briefings to enlist the help of suppliers in improving quality and achieving zero defects. As well, we hold the monthly Supplier Quality Conference as a focus on quality for specific Daikin suppliers. If a supplier delivers defective parts, we assess and analyze the quality of the parts we purchase and, in serious cases, request that suppliers report on improvement efforts at quality improvement announcement meetings and quality improvement proposal meetings. Other measures we take include going to visit suppliers' factories to offer assistance.

In our Chemicals Division, we hold an annual quality forum for sharing Daikin quality policies and giving suppliers a chance to report on their quality improvement activities. We also conduct quality audits at suppliers to ensure they are conducting measures to maintain and improve quality. And we hold technical exchange meetings, where Daikin and engineers at our suppliers work to jointly solve quality issues.

As well, all group companies around the world conduct regular quality audits.



Supplier Quality Conference



Annual Quality Forum

We will continue to strengthen communication with suppliers to ensure our products are of the highest quality.

#### Helping Suppliers Improve Quality

#### **Air Conditioning Division**

Supplier meetings	Daikin Industries' policy and progress are explained and legal compliance is stressed through model examples. (4-5 times/year, 125 companies took part in fiscal 2012)
Supplier Quality Conference	Parts we purchased are inspected each month for defects and quality improvement measures carried out. (Each month)
Quality improvement announcement meetings, quality improvement proposal meetings	Suppliers with quality problems must report on improvement measures. (In fiscal 2012, five quality improvement announcement meetings were held for a total of 99 companies and 220 quality improvement proposal meetings were held for 38 companies.)
Quality audits	Auditing institution conducts regular external audit, and internal audit are conducted jointly in the Air Conditioning Manufacturing Division and at suppliers.
Visits to suppliers	Purchasing managers and officers, and executives visit suppliers.

#### **Chemicals Division**

Quality Forum	Introduction of Daikin Industries' quality policy, defect rate and quality cost of purchased goods, quality differences among companies, and activities aimed at improving quality. (Once a year, approx. 60 companies took part.)
Technical exchange meeting	Daikin Industries and engineers at suppliers work together to solve quality issues. (Four times a year, two companies took part in fiscal 2012.)
Quality audits	Suppliers who provided defective products underwent audits based on ISO 9001. (Conducted at 18 companies.)

#### Aiming for Zero Defects through ZD Activities at Bases Worldwide

Since fiscal 2007, the air conditioning division has been working with suppliers taking part in the Supplier Quality Conference in an initiative called ZD (zero defect) activities. The goal is to achieve zero defects through 3S (visual checks), preventative measures (look for potential problems in production processes), and prevention of reoccurring problems (through regular maintenance).

As of fiscal 2012, 20 suppliers in Japan and three outside Japan take part. Semiannual announcement meetings and visits to suppliers allow for the exchange of information on best practices.



## Providing Business Partners Working in Daikin Plants with Safety Information and Conducting On-Site Patrols

Daikin Industries asks for business partners' cooperation in making plants safer.

There are many employees of business partners working in Daikin plants, so it is essential we provide them with information and guidance on safe work practices and conduct safety patrols of the plants.

With so many vehicles entering and exiting plants, safe driving is crucial. That's why we hold regular driving safety seminars for delivery vehicle drivers to teach them traffic rules and promote safe driving.

In the Chemicals Division, where the majority of the plants are staffed by partner companies, major safety inspection and maintenance work is conducted once a year. We have numerous measures to ensure the safety of all workers; for example, we hold practice sessions and other advance preparation, and we provide workers with information on chemical substance toxicity with SDS (safety data sheets).

In fiscal 2012, the Chemicals Division held four safety workshops with participation by approximately 400 drivers.

#### See Occupational Safety and Health (Responsibility to Employees) (Page 202)

### **Building a Relationship of Growth**

#### **Communication is Key to Building Understanding and Trust**

The Daikin Group takes every possible opportunity to communicate with suppliers and promote mutual understanding and trust.

In the air conditioning division, global purchasing officers, the head of the Global Procurement Division, and managers regularly visit suppliers for exchanges with their counterparts. Other ways we promote communication include supplier meetings, goodwill gatherings, and award ceremonies to recognize supplier achievements. In fiscal 2012, we held four supplier meetings; there, Daikin and participants shared production information, and suppliers who were considering starting operations overseas got information from Daikin on their particular country of interest.

The Chemicals Division fosters good relations through the Quality Forum. As well, purchasing managers keep in close contact with suppliers to gather and exchange information in areas such as technology, quality, and prices. Any problems that come up are solved through extraordinary or emergency support requests to relevant divisions.



Workshop for dealers of the Oil Hydraulics Division



Quality Forum sponsored by the Chemicals Division

## Green Procurement Guidelines

#### Helping Suppliers be Legally Compliant

In fiscal 2000, the Daikin Group established the Green Procurement Guidelines, and it has been promoting environmental management throughout the entire supply chain in order to provide more environmentally responsible products.

At our major manufacturing bases in Japan, China, and Southeast Asia, we help suppliers abide by the Green Procurement Guidelines and inspect products from our suppliers to determine the chemical substances they contain.

To help suppliers comply with laws and regulations, we hold meetings to explain environmentally related laws and how the Daikin Group abides by these, and release information on our Web site.

#### **Overview of the Green Procurement Guidelines (PDF file)**

- Guidelines PDF Data (265KB 2)(Jan.2012 revised) (http://www.daikin.com/csr/social/supplier/guidelines.pdf)
- Green Procurement Inspection List PDF Data (605KB ) (http://www.daikin.com/csr/social/supplier/inspection.pdf)



You need the Adobe Reader application, offered by Adobe Systems Incorporated, to read PDF files. If it is not installed in your computer, please download an appropriate version of the application according to the model and specifications of your computer.



Responsibility to : Shareholders and Investors

Besides stressing CSR as part of its management, the Daikin Group strives to improve financial performance to maximize corporate value. Raising corporate value helps us meet shareholder and investor expectations and leads to further growth for our company.

### **For Shareholders**

#### DOE of Plus 2.0% Means Stable Dividends

To offer shareholders and investors higher stock prices and stable dividends, we strive to make the best use of capital to achieve solid profitability and a firm financial base.

#### **Read more** (Page 222)

- Maximizing Corporate Value
  - Fiscal Year End Stock Prices III
  - Operating Income Margin III
- Distribution of Profit
  - Dividends III
  - Dividends to Shareholders Equity III
- Respect for Exercising Voting Rights
- Voting Rights Exercised A
- Breakdown of Shareholders III

## Information Disclosure Policy

#### Constant Efforts to Disclose Information, Including 300 Seminars a Year

The Daikin Group takes increasing responsibility to release information on its business situation promptly and properly. We are particularly diligent about being transparent with our shareholders and investors.

#### Read more (Page 224)

- Philosophy
- **Disclosing Information in a Fair and Timely Manner**

## Maximizing Corporate Value

#### Step Up Environmental Business and Business in Mass Consumer Markets in Emerging Countries to Increase Income and Profit

The Daikin Group works to boost business performance and raise corporate value in order to meet the expectations of shareholders, investors, and other stakeholders. To this end, we stress free cash flow (a management indicator that can be said to be the source of corporate value), boost earnings, and reduce accounts receivable and inventory.

Despite the difficult year of business in fiscal 2012, with a stagnant European economy and a slowdown in economic expansion in newly emerging countries, Daikin proceeded with the growth strategies of its Fusion 15 strategic management plan. In countries where growing awareness of saving energy is creating demand for energy-efficient air conditioners, the market has wholly embraced Daikin's Urusara 7 residential air conditioner, which boasts outstanding environmental performance thanks to the new R32 refrigerant. We also stepped up our offensive in newly emerging markets such as India and Turkey. As a result, net sales were 1.291 trillion yen, up 5.9%, and operating income was 88.6 billion, up 9.2%.

In fiscal 2013, we will continue with efforts on several fronts: expand the synergistic relationship with Goodman Global Group, Inc., which we acquired last year, expand business aimed at tapping the middle class, boost solutions for saving energy, and step up environmental innovations.



#### Deciding Dividends according to Profits Based on Stability

By setting a target of maintaining at least a 2.0% ratio of dividends to shareholders equity, we strive to pay stable dividends that take into account a range of factors including consolidated performance, financial situations, and capital needs. The dividend for fiscal 2013 was 36 yen.

With regard to fiscal 2012 internal reserves, we will allot them to strategic investments aimed at strengthening the management structure, accelerating the development of global business, promoting the development of environmentally conscious products, achieving business expansion, and improving competitiveness.



#### Helping More Shareholders Exercise Voting Rights

To ensure that shareholders have more time to consider new proposals before voting at the Ordinary General Meeting of Shareholders, we send announcements of the meeting at least a week earlier than is legally required. To remedy the discrepancy in information available in Japan and other countries, we translate announcements of shareholder meetings into English and send these to overseas institutional investors, and we have an English version of our website.

Since fiscal 2003, we have striven to get as many shareholders as possible to exercise their voting rights by allowing voting over the Internet. This means that those who cannot attend meetings in person can still exercise their voting rights by personal computer or mobile phone. In fiscal 2006, we adopted a platform for exercising voting rights, which made it even easier for institutional investors to vote.

As a result of these efforts, the percentage of voting rights exercised reached 81.55% in fiscal 2012. The number of votes cast over the Internet also increased to 1,244,629 in fiscal 2012 (900 shareholders).

	Voting rights exercised	Votes cast over the Internet	Shareholders voting online
Fiscal 2008	85.43	864,879	926
Fiscal 2009	81.50	897,490	779
Fiscal 2010	79.49	1,012,927	998
Fiscal 2011	78.18	1,056,103	1,115
Fiscal 2012	81.55	1,244,629	900

#### Voting Rights Exercised

#### Breakdown of Shareholders (March 31, 2013)



#### Shareholders and Investors Information Disclosure Policy

## Philosophy

Daikin Industries places the utmost importance on its responsibility of providing stakeholders with timely, proper information disclosure. In particular, we believe it is our duty to raise management transparency by disclosing information to shareholders and investors in every possible way. To this end, we have a Disclosure Policy that stipulates standards and methods for information disclosure.

In accordance with our Disclosure Policy (formulated in fiscal 2004) and the Tokyo Stock Exchange's standards for timely information disclosure, we use our website, news organizations, and the TD-NET online system provided by the Tokyo Stock Exchange to disclose information on recalls, the occurrence of loss on valuation of securities, and decisions such as the establishment of sales companies. As well, for product, technical, and other information that we decide must be made public, we do so after consultation between the relevant company divisions.

## Disclosing Information in a Fair and Timely Manner

#### Maximizing Information Disclosure through Briefings and Our Website

Daikin Industries conducts a range of IR activities aimed at improving understanding in areas like our company's current state and management philosophy for shareholders and investors.

For analysts and institutional investors, we hold interim and end-of-year financial performance briefings, and conference calls every first and third financial quarter. As well, we visit and hold talks with institutional investors in Japan and other countries. In fiscal 2010, we spoke with investors on nearly 300 occasions through business briefings, factory tours, and face-to-face meetings.

We try to provide a wealth of information on the IR site of our



End-of-year financial performance briefing for analysts and institutional investors

home page and disclose information—including documents required by law such as securities reports and documents related to our business performance—in a prompt, fair, and timely manner. Our top executives also strive to relay firsthand company philosophy and direction in as many ways as possible.

The opinions from shareholders and investors are reflected in our management.

Since fiscal 2010, the Tokyo Branch has had an IR manager in charge of media relations, and this has allowed us to better meet the information needs of institutional investors.

We will continue to stress dialogue with all investors and do everything we can to disclose information through a range of media.



Responsibility to : Communities

Employees are front and center in community service through which we strive to be a locally rooted company dedicated to protecting the environment, supporting education, and promoting arts and culture.

## **Promoting Art and Culture**

#### **Daikin Supports National Museum of Art**

Established to promote art and culture, the Daikin Foundation for Contemporary Arts supports a wide range of activities including exhibitions by the National Museum of Art, lectures, academic research, and publications. Overseas as well, we support local culture through the sponsorship of music festivals and other events.

#### Read more (Page 227)

- Policy on Contributing to Furthering Art and Culture
- Supporting Art and Music
  - The Daikin Foundation for Contemporary Arts
  - Daikin Supports the Kansai Philharmonic Orchestra
  - Other Organizations Supported by Daikin Industries

## Promoting Sports

#### Daikin Employees Run Golf Tournament and Foster Future Golfers

With the aim of deepening relations between Okinawa and mainland Japan, every spring we sponsor the Daikin Orchid Ladies Golf Tournament, the opening event of the Japan Ladies' Pro Golf Tour.

Held in conjunction with the tournament is the Orchid Bounty Foundation, which collects donations to support local arts, culture, and education.

#### **Read more** (Page 229)

- Policy on Promoting Sports
- Daikin Orchid Ladies Golf Tournament

## **Contributing to Education**

#### **Support Education for Youth**

The Daikin Group, through its local companies, supports education for youth by donating financial aid and offering technical courses.

#### Read more (Page 231)

- Policy on Contributing to Education
- Efforts in Japan
- Other Educational Support in Japan A
- Efforts Overseas
  - Other Educational Support Overseas A

### **Environmental Contributions to Society**

#### Employees Worldwide Volunteer to Plant Trees

Daikin Industries works to protect and rejuvenate forests in Indonesia and on Japan's Shiretoko. Daikin overseas group companies also conduct activities such as tree-planting activities and nature preservation.

#### Read more (Page 236)

- Policy on Environmental Protection
- Efforts in Japan
- **Efforts Overseas**

#### A Good Corporate Citizen—Activities in Each Community

#### Employees Will Continue to Be Front and Center by Listening to the Needs of the Community

We want to be a good corporate citizen by being keen to the problems of the communities we operate in and conducting activities that lead to solutions.

Employees at regional Daikin bases have planned ways to interact with local communities. Employees will continue to be front and center by listening to the needs of the community: this will make Daikin a known and trusted member of local society.

#### See Key Activities of Fiscal 2012: Social Contributions with Strong Community Ties (Page 64)

#### Read more (Page 239)

- Philosophy
- Helping Solve Social Issues
- Supporting Employment of People with Disabilities
- Building Trust with Communities
  - Correspondence between Company Sites and Local Community Members A
  - Safety and Disaster Prevention at Plants (Japan)
  - Contributing to Local Safety (Japan)
- Interactions with Local Communities (Japan)
   Local Cleanup Activities (Japan)
- Interactions with Local Communities (Overseas)
  - Regional independent activities (Overseas)
- Charitable Activities
- Donations in FY2012 (Daikin Industries only) III
- Daikin Aids Victims of Natural Disaster



## Policy on Contributing to Furthering Art and Culture

Established to promote art and culture, the Daikin Foundation for Contemporary Arts supports a wide range of activities including exhibitions by the National Museum of Art, lectures, academic research, and publications. Overseas as well, we support local culture through the sponsorship of music festivals and other events.

## Supporting Art and Music

#### The Daikin Foundation for Contemporary Arts

The world's outstanding artistic and cultural works transcend national borders. Daikin is committed to bringing the joy of these works, and the creativity they inspire, to a wider audience. This desire has compelled Daikin to focus on promoting art and music.

In March 1996, Daikin Industries established the Daikin Foundation for Contemporary Arts to mark the company's 70th anniversary on October 25, 1994. In the foundation's first year, Daikin Industries donated ¥200 million for the basic fund, followed by another ¥200 million after three years. With another donation of ¥100 million in 2004, Daikin's 80th anniversary, total founding so far amounts to ¥500 million.

The foundation supports a wide range of projects designed to teach art appreciation, such as exhibitions at the National Museum of Art, Osaka (NMAO), lectures, publications, surveys, and research. In April 2013, the foundation became a public interest incorporated foundation, after which we stepped up efforts to contribute to the revitalization of culture and art in our home territory of Osaka by promoting museum activities.

#### National Museum of Art, Osaka (4 Nakanoshima, Kita-ku, Osaka, Japan Museum director: Toshio Yamanashi)

Established in 1977 in Expo Park, Suita, NMAO was established to collect, preserve, and research works of art in order to contribute to Japanese art and spotlight its relationship to art worldwide.

Beloved as Osaka's only national museum, the NMAO was relocated to Nakanoshima in November 2004 due to aging of its former facilities. All the exhibition halls are located below ground in a temperature- and humidity-controlled environment. The new museum contains 13,487 square meters of floor space.

The museum strives to represent new artistic trends by presenting exhibits focusing on modern art. In recent years, it has hosted a wide range of educational projects for both adults and children. It clearly plays an important role in promoting the Japanese art world.





#### Daikin Supports the Kansai Philharmonic Orchestra

Daikin Industries supports the Osaka-based Kansai Philharmonic Orchestra. Formed in 1970, it became a specified nonprofit corporation in 2003. The orchestra is an integral member of local society, giving community concerts at its practice hall and hiring as many local musicians as possible.

Daikin has supported the Kansai Philharmonic Orchestra through paid advertising and since 2004 Daikin CEO Noriyuki Inoue has been a director on the orchestra's committee.



Kansai Philharmonic Orchestra

#### Other Organizations Supported by Daikin Industries

- New National Theatre, Tokyo
- Kaitokudo
- EU-Japan Fest
- Japanese Red Cross Society, Osaka Chapter
- Osaka Philharmonic Orchestra
- Osaka Nohgaku Youseikai Kouenkai
- Kamigata Entertainment Culture Society
- Royal Chamber Orchestra
- Living & Design 2012

- National Museum of Ethnology
- Osaka Wasso Cultural Exchange Association
- Exhibition of Shosoin Treasures
- Midosuji Illumination
- New Japan Philharmonic
- Takarazuka Review Supporters
- HOME AGAIN-10 Artists who have experienced Japan
- Art Stream 2012
- Print Art Triennale in Kyoto

#### Communities Promoting Sports

## Policy on Promoting Sports

With the aim of deepening relations between Okinawa and mainland Japan, every spring we sponsor the Daikin Orchid Ladies Golf Tournament, the opening event of the Japan Ladies' Pro Golf Tour.

### Daikin Orchid Ladies Golf Tournament

# Daikin Hosts the "Ever Onward With Okinawa" Tournament with the Vision of Boldly Taking on the Future, Together With Okinawa

In order to expand the circle of interaction among people through sports, Daikin Industries sponsors the Daikin Orchid Ladies Golf Tournament, a pro event. Our hope is that our promotion of sports will contribute to the advancement of life in Okinawa.

The Daikin Orchid Ladies Golf Tournament was inaugurated in 1988 as the opening round of the Japan Ladies' Pro Golf Tour. As its sponsor, Daikin contributed the slogan "Ever Onward With Okinawa," indicating our desire to join with Okinawa in boldly addressing the challenges of the future.



A number of participants in the amateur tournament have gone on to take part in the pro tour

#### Local Amateur Golfers Invited to Participate in Daikin Orchid Ladies Golf Tournament

The Daikin Orchid Ladies Golf Tournament was created to help develop and revitalize the Okinawa golf scene. It has been an open tournament since 1997, giving Okinawa's amateur golfers the chance to compete with top professional players. Those aspiring to play in the tournament proper must first qualify in the Daikin Orchid Ladies' Amateur Golf Championship, which has been the proving ground for many professional female golfers active today such as Ai Miyazato, Shinobu Moromizato (Daikin Industries' pro), and Mika Miyazato.



Rikako Morita was the winner of the tournament's 26th edition

#### Bridging Okinawa and the Mainland

The pro and amateur tournaments and the pre-tournament festival enable representatives of local and mainland businesses to interact in an informal setting and gain a better understanding of each other's perspectives. This has led to the emergence of the Okinawa Konwakai, an organization created to consider future development in Okinawa. The association, whose members include the presidents of major corporations and other experienced business personalities, organizes a variety of vibrant activities that include forums and presentations on how to promote and develop Okinawa.

#### Local Volunteers Contribute to a Successful Tournament

Local volunteers from the city of Nanjo can be counted on to provide their invaluable time and labor to help run the tournament. The volunteer program was launched in 1997, and in fiscal 2012, 500 volunteers took part in making the event a success. In appreciation of their efforts, Daikin donates books to the local Tamashiro Junior High School every year.

#### The Orchid Bounty Foundation Supports the Culture and Sports of Okinawa

All competitors in the professional and amateur tournaments provide their assistance by raising money through the "Orchid Bounty" fundraiser. These funds, augmented by donations from the sponsors, are used to aid the development of Okinawa prefecture, the tournament venue. Specifically, funding is provided to public organizations and individuals promoting artistic, cultural, sporting, and educational activities.

In 2013, Orchid Bounty donated ¥6.7 million to a total of 14 organizations and individuals, bringing the total contributions since 1995 to ¥111.0 million.

#### Local Junior High School Students Invited to Watch Tournament

Every year, first and second year students from the local Tamashiro Junior High School are invited to watch the tournament. This gives the students a valuable opportunity to learn about and experience the joy of golf. In fiscal 2012, 145 first-year students were invited.

Not only do the students get to see the women's pro golfers battle it out on the course, they also get a comprehensive look behind the scenes of the tournament as they observe the work of groups like the greens-keepers, mass media, and tournament organizers.

## Policy on Contributing to Education

The Daikin Group, through its local companies, supports education for youth. By donating financial aid, offering technical courses, and conducting grass-roots activities, we seek to cooperate with and gain the trust of local communities.

## Efforts in Japan

#### **Participation in Local Education Programs**

Following a request from the Kamisu Municipal Board of Education, the Daikin Industries Kashima plant has been conducting educational presentations at local elementary schools since 2010 to get children interested in science. Members of the company's Security Control Department take the role of instructors and give upper-class students hands-on lessons. Daikin brought enough teaching materials and equipment for all students to observe and take part in experiments and thus ensure that each and every student experienced firsthand the joy of science. The program is improved each year by having students write their feelings and opinions following the classes.



A Daikin-led lesson at an elementary school

In fiscal 2012, presentations were held at two elementary schools with a total of 107 students taking part.

Environmental Education and Awareness Activities (Page 153)

#### Hands-On Event Fosters Interest in Technology

In August 2012, Daikin held a hands-on learning event at Solution Plaza fuha:TOKYO (opened in December 2011) to get children interested in technology. Visitors learned how cooling works by taking apart an air conditioner and about saving electricity in a product-dismantling workshop.



A summer hands-on event called "Become an Air Professor!" at fuha:TOKYO

# Daikin Develops the "Circle of Life" Free Environmental Education Program on Biodiversity for Elementary School Children

Daikin Industries, in cooperation with NGO Conservation International, our partner in reforestation activities in Indonesia, has developed an environmental education program called "Circle of Life," to teach elementary school children about biodiversity.

Circle of Life is a partner program to the Children's Eco-Club, an initiative of Japan's Ministry of the Environment. The basic program consists of four lessons given by a school teacher, but if the school desires, Daikin also sends one of its employees to provide additional education.



A Daikin Industries employee leads an environmental lesson at a school

Since April 2010, elementary schools across Japan have been receiving free learning materials for this program. In fiscal 2012,

1,074 students from 16 schools took part in the program, and 9 of these welcomed Daikin employees to lead the lessons.

#### "Circle of Life" Environmental Education program (Japanese version only)

(http://www.daikin.co.jp/csr/edu/index.html)

#### Other Educational Support in Japan

Site	Activity	Overview, results	
Sakai Plant	Support for the Sakai Rugby School	<ul> <li>The Kanaoka Factory lends its field three times a month to the Sakai Rugby School.</li> <li>In fiscal 2012, about 130 elementary and junior high school rugby players took part.</li> <li>For details, see Support for Rugby School in Interactions with Local Communities (Japan) (Page 243)</li> </ul>	
	Factory tours to educate local elementary school students about working society	In fiscal 2012, 362 students from three schools took tours.	
Shiga Plant	Factory tours to educate elementary schools in the city about local industry	Factory tours were offered for elementary school students in the city as part of social studies lessons on local industry.	
	Daikin field opened to the public	Daikin opened up its field to the public to use for baseball, pitch-and-putt golf, softball, and other activities.	
	Others	Daikin invited children from day care centers to see the cherry blossoms in the plant's front garden. The tennis courts and other facilities were opened to the public.	
Yodogawa Plant	Kendo Training Hall for Children	<ul> <li>Classes were held three times a week, with 10 students each time.</li> <li>For details, see Kendo Training Hall for Children (Page 243)</li> </ul>	
	Factory tours for local elementary schools	In fiscal 2012, 121 students from two schools took tours.	

Site	Activity	Overview, results
Yodogawa Plant	Experience work days for local junior and senior high school students	In fiscal 2012, three second-year junior high students from No. 4 Junior High School in Settsu City took part.
	Yodogawa Plant field opened to the public (Contract with governments of Osaka Prefecture and Settsu City)	On weekends, the field was opened for the general public to use. The new field was open for use by the sports clubs of Osaka Prefectural Settsu High School.
Kashima Plant	Daikin employees give lessons at local elementary schools	In fiscal 2012, 107 students from two elementary schools took part.
Soka Station	Activities plaza of the field opened to the public	On weekends and holidays, children and teenagers used the field for sports, while the activities plaza was used for pitch-and-putt golf.



Elementary school students take a factory tour (Sakai Plant)



Elementary school students take a factory tour (Shiga Plant)



Elementary school students take a factory tour (Yodogawa Plant)

## Efforts Overseas

#### **Training Technical School Students in Emerging Countries**

Daikin focuses its educational efforts on training technical school students in emerging countries. We offer scholarships to support tuition fees and give students better employment opportunities, and we have internship programs as well.

#### Daikin Supports Air Conditioner Technical Training in Singapore

Daikin Air Conditioning (Singapore) Pte. and the Singapore government jointly developed a training program for the air conditioning industry and has been certified by the government as the training institute at which the program will be run.

Because Singapore previously had no government-certified, licensed programs for the air conditioning industry, Daikin Industries developed and implemented the framework and training program for such certification, in the process helping both the government and industry.

And in June 2011, the company signed an agreement with ITE (Institute of Technical Education) College West, a public industrial and vocational high school, to further expand a joint air conditioning education program.

In 2012, Daikin gave scholarships to outstanding students majoring in the air conditioning program at ITE. Two scholarship winners graduated and in January 2013 became employees of Daikin Air Conditioning (Singapore) Pte.



Explanatory pamphlet for government-approved courses

#### Providing Thai Students with Education and Job Prospects

Daikin Industries (Thailand) Ltd. runs a program in which outstanding students from impoverished regions who cannot afford to attend university receive two years of education at a junior college of technology and, for those interested, a guaranteed job with Daikin upon completion.

Also under this program, young employees of Daikin Industries (Thailand) Ltd. eager to gain new knowledge are given the chance to take two years off work to get an education.







Lecture for students

Practicing on a production line

Graduation ceremony

#### Co-sponsorship of Air Conditioning Technology Contest in China

Since fiscal 2010, Daikin (China) Investment Co., Ltd. has been co-sponsoring the "Daikin Air Conditioning Cup" Chinese Air Conditioning University Student Contest. The purpose of the contest is to foster the human resources who will carry the future of the air conditioning industry in China.



University students who participated

#### In Belgium, Daikin Cooperates in Event to Foster Children's Interest in Technology

Daikin Europe cooperated in an event sponsored by local groups like a technology center at which about 40 grade 6 students and their parents toured the company's plant and testing facilities.



Plant tour at Daikin Europe

#### Other Educational Support Overseas

Site	Overview/details				
Internships	Internships				
Daikin Europe N.V.	Hosted internships for university students, made donations to schools, gave lectures at universities.				
Daikin Device Czech Republic s.r.o.	Hosted visits by fiv Accepted two stud engineering division	re schools including a technical university and junior high schools. lent trainees: one in the maintenance division and one in the n.			
Daikin Industries Czech Republic s.r.o.	Cooperated with un design divisions.	niversities in taking on students in the production technology and			
Daikin Chemical France S.A.S.	Accepted one stud	lent between September 2010 and July 2012.			
Rotex Heating Systems GmbH	Accepted internshi	p students.			
Daikin Chemical Europe GmbH	Took in students as	s interns and trainees.			
Daikin Turkey A.S.	Took in technical high school students as trainees for three days a week between September and May, and took in university students as trainees for period of one month.				
Xi'an Daikin Qing'an Compressor Co., Ltd.	Took in one or two students studying Japanese as interns.				
O.Y.L. Manufacturing Company Sdn. Bhd.	Hosted internship of 22 local university students and Malaysian students studying overseas for a three-to-six-month period.				
Daikin Airconditioning (Singapore) Pte. Ltd.	In 2012, began internship jointly with regional technical organizations. Accepted six students.				
Siam Daikin Sales Co., Ltd.	From March 2011 to May 2012, accepted students from technical universities and general studies universities to help them acquire technical knowledge and gain practical experience.				
Daikin Australia Pty., Ltd.	Hosted internship for two students at head office and one student in IT division.				
McQuay International	Held internships for	r engineers at all plants.			
Other educational suppo	rt activities				
Daikin Air-Conditioning (Shanghai) Co., Ltd.					
Daikin Device (Suzhou) Co., Ltd.	Scholarships	Awarded scholarships totaling approximately 90,300 CNY (approx. \$14,740) to 178 trade school students.			
Daikin Motor (Suzhou) Co., Ltd.					
Daikin (China) Investment Co., Ltd.	Lecture at university Worked with eight universities to offer lectures on air conditioning technology and design. In fiscal 2012, 810 students took these lectures.				
Daikin Fluorochemicals (China) Co., Ltd.	Scholarships	Awarded scholarships to local elementary school.			
Daikin Fluoro Coatings (Shanghai) Co., Ltd.	Donated teaching materials, etc.	In June 2012, donations from employees and the union were used to purchase items such as textbooks, reference books, and school bags, which were given to students in outlying areas.			

## **Policy on Environmental Protection**

Daikin Industries works with a range of groups, including governments, local citizens, and NGOs/NPOs to protect and rejuvenate forests in Indonesia and in Japan's Shiretoko.

Daikin overseas group companies also conduct their own environmental conservation activities including tree-planting and ocean and river cleanups.

## **Efforts in Japan**

#### Daikin Supports Environmental Protection in Shiretoko, a UNESCO World Heritage Site

In July 2011, Daikin Industries, the Shiretoko Nature Foundation, and the towns of Shari and Rausu signed an agreement to protect the wilderness of Shiretoko, a UNESCO World Heritage Site. Under the agreement, which runs for five years until March 2016, the company is providing financial support and employee volunteers to restore the forest and river ecosystems so that humans and nature can once again exist in harmony.

#### Protecting the Natural Environment of Shiretoko: People and Nature Living in Harmony

(http://www.daikin.com/csr/shiretoko/index.html)

## **Efforts Overseas**

#### Indonesia: Promoting Reforestation (Re: AIRCON Project)

Daikin Industries works with the Indonesia Ministry of Forestry and the NGO Conservation International in a reforestation project in which seedlings are raised and planted in a national park in Indonesia.

Daikin Air Conditioning Reforestation Project (Re: AIRCON Project) (http://www.daikin.com/csr/environment/reforestation/index.html)

#### **Daikin Plants Trees on International Day of Forests**

On March 21, International Day of Forests, Daikin Airconditioning Portugal S.A. invited customers and their families to a tree-planting event.



Participants planted pine trees suitable for a Mediterranean climate



Participants were given tee-shirts with a design drawn by Daikin employees' children

#### Italy, U.K.: Tree-Planting to Absorb CO2 from Business Activities

Daikin Airconditioning Italy S.p.A (DACI) has taken part in the Impatto Zero Project since 2005. The project calls on Italian companies and organizations (over 500 are taking part so far) to plant enough trees to absorb the CO<sub>2</sub> that they emit through their business activities. Under this project, since 2005 DACI has planted trees in national parks in Costa Rica and Italy over an area of approximately 2.3 km<sup>2</sup>.

Daikin Airconditioning U.K., Ltd. has been conducting a similar initiative since 2010: it plants trees in a protected forest in Scotland. In fiscal 2012, it planted 2,200 trees that offset 2,200 tons of CO2.



DACI supports tree-planting in Costa Rica (Daikin Airconditioning Italy S.p.A.)

#### **Thailand: Planting Mangrove Trees**

Daikin Compressor Industries Ltd. (DCI) plants mangrove trees. Mangroves prevent seaside damage such as erosion and flooding, maintain the quality of the seawater, and support ocean biodiversity by providing shelter for a variety of marine life. But mangroves around the world have been cut down in recent years to make way for human development.

DCI has been planting mangroves since 2007.



#### **Thailand: Planting Endangered Tree Species**

Since fiscal 2009, Daikin Industries (Thailand) Ltd. has been planting endangered species of trees on the grounds of the Kaset Suwan Temple (Wat Kaset Suwan) about 100 km away from the company plant. In fiscal 2012, it planted 860 trees, bringing the total planted to about 3,500 trees.

This new forest will be used as a nature classroom for children and as a meditation spot for the monks.



Planting endangered species of trees

Communities A Good Corporate Citizen —Activities in Each Community



## Philosophy

We want to be a good corporate citizen by being keen to the problems of the communities we operate in and conducting activities that lead to solutions.

Employees at regional Daikin bases have planned ways to interact with local communities. Employees will continue to be front and center by listening to the needs of the community: this will make Daikin a known and trusted member of local society.

## **Helping Solve Social Issues**

#### New Research Institute Deepens Industry-Academia Dialogue

In October 2012, Daikin Industries and the Nara Institute of Science and Technology (NAISt) established the Future Joint Research Laboratories. In conventional agreements between industry and academia, the parties focus on their areas of specialty, but this new institute will instead start by conducting dialogue and studies to decide which social issues require their assistance in solving. It is from this direction that new products will be developed and new research begun. The first two research projects focus on intelligent vegetable growth to produce affordable bio-based medicine, and clean innovations aimed at high-level anti-fouling. Besides these, every two months meetings are held to discuss the next projects to embark upon.

In November 2012, Daikin signed an agreement with Kansai University to collaborate fully on ways to contribute to communities in education, research, and human resource development. Through this collaboration, we are offering free lectures on fluorine and helping accelerate joint research.

## Supporting Employment of People with Disabilities

#### Promoting Employment of People with Disabilities across the Entire Group

The Daikin Group strives to hire the disabled based on its policy of providing opportunities for disabled people to grow personally and make contributions to society through production activities.

In 1993, Daikin Industries established Daikin Sunrise Settsu Co., Ltd., a cooperative venture with the Osaka Prefecture and Settsu City governments. Disabled persons form the nucleus of the workforce and the company has operated profitably.

#### For more information, please see Employment of People with Disabilities (Responsibility to Employees) (Page 195)

## **Building Trust with Communities**

#### **Responding Sincerely to Opinions from Local Communities**

Each company site has an office or representative assigned to promote communication with local communities. Assigned personnel hold regular meetings with local community representatives and take other measures to proactively promote company-community interactions and receive any community complaints.

Designees at each company site look into complaints and suggestions from local community members and, if necessary, discuss them to the relevant departments of the Headquarters, and then make a sincere effort to respond.

Site	Type of Correspondence
Sakai Plant	<ul> <li>Group meeting with local community association (once yearly)</li> <li>Community interactions via municipal government, police, fire departments, and labor standards office</li> <li>Participation in the Sakai City environmental executive committee</li> <li>Hosting "Senboku Shodo Network" ("Shodo Osaka" regional division) community cleanup projects and co-sponsoring area-adoption 10th anniversary event</li> </ul>
Shiga Plant	<ul> <li>Local community association board factory tour</li> <li>Visits to local businesses and neighboring community association boards</li> <li>Interactions with relevant public offices and affiliated organizations (attendance at general meetings and board meetings with the municipal office, police, fire departments, and other related departments)</li> </ul>
Yodogawa Plant	<ul> <li>Local community association board factory tour and group meeting (once yearly)</li> <li>Exchange with local community association (4 times a year)</li> <li>Topic-based group meetings with municipal government, police, fire departments, and labor standards office, etc.</li> <li>Providing human resources and other assistance for various local community activities</li> </ul>
Kashima Plant	<ul> <li>Community residents &amp; administrative board factory tour</li> <li>Attendance at enterprise association administrative board meetings</li> <li>Attendance at regional meetings of the Japan Responsible Care Council</li> </ul>
Soka Station	<ul> <li>Meetings and talks with municipal government and nearby neighborhood associations</li> <li>Participation in the Soka City Environmental Committee</li> <li>Participation in fire department, police, and industry associations</li> </ul>

#### Correspondence between Company Sites and Local Community Members

#### A Safe Plant Open to the Community

The Daikin Group does all it can to make its plants safe so that nearby residents can live in peace of mind. When there is noise or vibration from operations of a plant, we set up a number that residents can call so that we can quickly deal with any complaints.

In particular, we make safety a top priority at the Yodogawa Plant, a chemical production facility located in a residential area. Through efforts such as risk assessment, near-miss training, and inspections related to past accidents, we strive to eliminate the potential causes of disasters and accidents. We do all we can to stay in close contact with the local community. For example, we hold disaster prevention drills three times a year, and we show local residents where we store disaster safety equipment and how to properly use it.

At the Sakai Plant, in addition to talks with the local community association once a year, we are in close contact with the municipal government, police, fire fighting bureau, and labor standards office to maintain interactions with the local community and establish the Sakai Plant as a safe factory.

At the Kashima Plant, which is located within an industrial complex, we engage in emergency drills and disaster prevention workshops together with other companies within the industrial complex.

At the Soka Station, Daikin works towards safety and peace of mind for residents through activities with the local traffic safety association and the fire prevention association.

The Shiga Plant conducts regular emergency drills within the plant and also participates in the regional Fire-fighting Games and Comprehensive Disaster Management Training Corporate Games.

#### Occupational Safety and Health (Responsibility to Employees) (Page 202)

#### **Disaster Preparedness and Disaster Prevention Drills**

The Daikin Group has measures in place at all sites should there ever be a natural disaster. Besides providing its factories as evacuation shelters in the event of a disaster, Daikin companies have supplies of food, water, and emergency equipment.

In August 2012, Japan's Central Disaster Management Council announced the damage estimated in case of the possible future major earthquake along the Nankai trough. In case of such an earthquake, all relevant Daikin bases are ready to use their experience from the Great East Japan Earthquake of March 2011, and they have revised measures based on the predictions of the Central Disaster Management Council.

At the Sakai Plant, buildings No. 1 and 2 of the Kanaoka factory have been reinforced against earthquakes, and similar work is underway on the No. 3 plant in fiscal 2013. On the assumption that the site could be struck by a tsunami due to its seaside location, we have mapped out evacuation routes and we carry out safety assurance measures and evacuation drills (four times a year).

The Shiga Plant has entered an agreement with the local government to provide aid such as participating in fire-fighting operations should a disaster occur. In the event of a disaster, the plant will dispatch its industrial medics and its fire brigade and will open its factory grounds as evacuation sites. In fiscal 2012, earthquake reinforcement was completed on the No. 1 plant and cafeteria building, with plans for gradual reinforcement of other buildings.

At the Yodogawa Plant, after the Settsu City government raised its predictions to an earthquake with a seismic intensity of 6 and a 2-meter tsunami, Daikin boosted measures against water inundation. The plant has prepared by including high-elevation shelters in its evacuation drills, earthquake-reinforcing major facilities, and ensuring that infrastructure such as electricity does not fail during water inundation. As well, the plant has created hazard maps and emergency measure manuals, and has secured employee safety confirmation plans.

At the Kashima Plant, we established two tsunami evacuation shelters in high locations to use in case of a large tsunami warning, and we held evacuation drills using these shelters.

The Soka Station, Soka City, and five neighboring communities signed an agreement to cooperate in preparing for natural disasters. Based on this agreement, in May 2013 about 736 people, including local residents, took part in comprehensive disaster drills in cooperation with the neighboring communities and the fire department. The Soka Station also used the lessons it learned from the Great East Japan Earthquake to revise its rules on product storage and to change evacuation routes.

The Tokyo Head Office is looking into measures to help employees who would not be able to return home following a natural disaster; possible measures include stocking up on emergency food and water, and installing portable toilets.

## Participation in Volunteer Fire Fighting and Organizing a Regional Emergency Response Fire Brigade to Respond to Disasters by (Yodogawa Plant)

Thirteen employees at the Yodogawa Plant are taking part in fire-fighting activities as volunteer fire fighters for Settsu City, comprising a "special firefighting team".

Unlike regular local volunteer firefighters, this special firefighting team is made up of people who work at companies in the city who can drive their companies' fire engines to a fire and provide assistance under the guidance of the Settsu City Fire Department. Recently more and more volunteer fire brigades are made up of company workers who often cannot get away from their day jobs to fight fires. In response, Settsu City introduced this special firefighting team so that more personnel would be available on weekdays. Daikin and two other companies in Settsu with fire engines are taking part.

This is the first time in Japan that a corporate fire fighting unit is using its fire engines to help fight fires nearby, and it is drawing the attention of other local governments around the country.

Also, Daikin has organized a regional emergency response fire brigade to be ready to respond in the event of a disaster. There are 110 local employees enrolled in this volunteer fire brigade, and in the event of an emergency, those who are at their residences or at work or otherwise available can form a response team as occasion demands.

Safety and Disaster Prevention at Plants (Japan) (Page 247)
 Contributing to Local Safety (Japan) (Page 253)

## Interactions with Local Communities (Japan)

#### **Deepening Interactions with Local Communities**

Daikin realizes the importance of interacting with local residents as a member of the community. In 1973, Daikin became one of the first companies to create a Local Community Section within its organization, through which it has been deepening interactions with local communities. The Local Community Section has now been constructively dissolved, and instead, each company plant makes efforts to interact directly with local communities.

Daikin's goal is to be a good corporate citizen that creates closeness among all people and works with communities in order to enrich lives and lifestyles. We will continue to value our relationship with nearby citizens and strive to be a company known and loved for its contributions to society.



Also as part of efforts to be a trusted and valuable member of society, we hold factory tours, summer festivals, and other events to promote communication and understanding between Daikin and communities.

#### Deepening Community Relations around the World at Summer Bon Dance Festivals

The Daikin-sponsored traditional Bon dance festival is a major event attracting large crowds of locals every summer. Employees make the most of this chance to bring joy to citizens in this corporate-sponsored traditional Japanese event. It has become such a successful example of corporate citizenship that it has been reported in news around the world.

The Bon dance festival began in 1971 as a social gathering for young employees of our Yodogawa Plant, and later expanded into a program open to the community and eventually grew to encompass the entire area. The event has evolved into one of Japan's largest corporate-sponsored Bon dances and is now



Daikin Festival (Daikin America)

established as a much-anticipated major summer event in the region. The fiscal 2012 employees strove to entertain the approximately 23,000 who came to the Yodogawa Plant Bon Dance to enjoy fireworks displays and other events.

Bon dance community festivals are held at all Daikin bases in Japan. The fiscal 2012 event at the Sakai Plant was a summer festival enjoyed by the approximately 13,000 who came: participants joined the large circular bon dance, employees and local citizens' groups ran stalls selling food and other goods, and elementary school students performed traditional dances and showed posters they had made. The Daikin Head Office offered its support to the Yodogawa and Sakai bon dances in a successful cooperative effort. The bon dance at the Shiga Plant welcomed 7,800 from the community.

Bon dances are held at Daikin's overseas bases as well: in the United States (Daikin America), China (Daikin Shanghai), and Belgium (Daikin Europe).

#### Support for Rugby School

"All for one, and one for all." This indomitable spirit, typical of rugby players, carries lessons that Daikin seeks to impart to children. With this in mind, Daikin, the City of Sakai, the Sakai Higashi Police Department, Seikeikai Hospital, and Nippon Steel collaborated in 1987 to launch Sakai Rugby School. Daikin Industries supports the rugby school's activities through provision of a playing field and other means.

At the three monthly practices at the Kanaoka playing field, the children's cheering reflects discipline combined with fun. In September 2012 at the 3rd annual national junior high school



rugby tournament, the Sakai Rugby School had excellent results as it placed third overall.

#### Reaching Out to the Community through the Kendo Training Hall for Children

The Kendo Training Hall for Children opened in 1975 for elementary school children living near the Yodogawa Plant. The goal of the school is to promote health through the martial art of kendo. Daikin employees who hold kendo rankings (dan) provide the instruction. When the school opened, expectations were exceeded when 108 children applied. Clearly, the school has been well received by local residents.

In 1983, a new school —more than double the size of the original— was completed. Named "Yushinkan" by then-president Minoru Yamada, the school has since helped many young local kendo enthusiasts gain skills in this outstanding sport. Excited young voices can often be heard within its walls.

In fiscal 2012, students in both the upper and lower grades placed third, while the school placed third in the team event at the Suita City kendo spring tournament. The Daikin Cup Kendo Tournament is held in July, and is followed by a barbecue welcoming coaches, players, and parents. In January is the Yushinkan Kendo Tournament, where exhibition matches and other events help further strengthen the bonds between Daikin and the community.

#### **Conducting Neighborhood Cleanup and Tree-planting Activities**

Employees at the Daikin plants in Yodogawa, Shiga, Sakai, and Kashima regularly pick up litter and pull up weeds in the surrounding areas.

At the Yodogawa Plant, regular cleanups were held and total participation came to 1,453 employees (cumulative total) for the year. In June, 606 employees held a comprehensive cleanup of the area surrounding the Yodogawa Plant. As well, 25 employees joined a local association dedicated to maintaining waterways in a cleaup aimed at ensuring wastewater would be available in case of fire.



Yodogawa Plant employees pick up litter

Once a month at the Sakai Plant, employees take turns joining a

Sakai City beautification program to pick up litter and create an esthetically pleasing local environment. At the Kanaoka Plant, employees plant vegetation and clean up around the plant; and at the Rinkai Factory, employees pick up litter around the factory and along the median of the road. About 50 employees take part in each activity.

At the Shiga Plant in fiscal 2012, a cumulative total of 1,500 employees took part in three cleanups of the surrounding area.

#### Local Cleanup Activities (Japan) (Page 256)

#### **Conducting Factory tours**

We open our plants to the community by conducting tours for the local community association and elementary and junior high school children.

In fiscal 2012, the Yodogawa plant held factory tours for 121 grade 3 students of two nearby elementary schools. The students observed the Eco-Cute storage tank line and the oil hydraulic equipment line, took part in fluorochemical experiments, and joined in electricity, chemistry, and machinery hands-on experiments. The factory also invited nearby junior high school students to experience a workday in the industry, with three second year students seeing firsthand things like nameplate making and the operation of plant utilities such as steam and electricity.



A factory tour at the Yodogawa Plant

The Sakai Plant invited 362 students from three elementary schools for factory tours. The Shiga Plant, meanwhile, hosted about 3,000 students for tours in fiscal 2012.

Students expressed their opinions of the plant tours and work experience tours in letters to Daikin and all spoke highly of the Daikin work places. Daikin will use the opinions expressed by students in these letters to make fiscal 2013 factory tours even more fulfilling and further strengthen the open relationship with the community.

#### Contributing to Communities Around the World

Daikin strives to meet the unique needs of each of the communities it is located in.

Daikin Industries (Thailand) Ltd., for example, celebrates Thailand National Children's Day every January by hosting an event that includes environmental education through painting, puzzles, and quizzes.

Daikin Turkey A.S. makes donations to a disabled association in Turkey so that disabled children can receive toys. Employees also visit senior citizens homes on Mother's Day and Father's Day.

See Key Activities of Fiscal 2012: Social Contributions with Strong Community Ties (Examples in the U.S.) (Page 64)



Daikin Industries (Thailand) Ltd.,



Daikin Turkey A.S.

#### **Daikin Factory Tours Around the World**

Daikin bases overseas also provide locals with factory tours whenever possible in order to gain citizens' understanding and be a company truly rooted in the community.



A factory tour at Daikin Industries (Thailand) Ltd.

#### **Overseas Bases Hold Cleanup Activities in the Community**

Employees at Daikin's worldwide bases take part in cleanups of surrounding areas and scenic spots.

Every year in June, employees of Daikin Industries (Thailand) Ltd. help clean up the seaside near the company plant. In June 2012, 77 employees and family members of O.Y.L. Manufacturing Company Sdn. Bhd. joined in a cleanup of the Ulu Yam River, which is famous for its waterfall, and picked up 486 kilograms of litter. In June and December 2012, employees of the Plymouth Office of McQuay International cleaned up trails in Three River Park.



Cleaning up the beach (Daikin Industries (Thailand) Ltd.)



Cleaning up a river (O.Y.L. Manufacturing Company Sdn. Bhd.)

Regional independent activities (Overseas) (Page 258)

## **Charitable Activities**

#### Donating to a Range of Causes: Art, Culture, Sport, Education, Etc.

The Daikin Group donates money to numerous arts, culture, sports, and educational programs as part of its social contribution efforts. Besides donating on a regular basis for the promotion of culture and sports in Okinawa and the Daikin Foundation for Contemporary Arts, we have in recent years been giving more to international exchange and cooperation causes as we strive to contribute to societies around the world.



#### **Daikin Aids Victims of Natural Disaster**

Daikin Group gives donations to help victims and contribute to restoration following earthquakes and other natural disasters.

In August 2012, the Daikin Shiga Plant collected donations from visitors to its bon dance festival and made a donation via the Japan Red Cross to victims of the March 2011 Great East Japan Earthquake. In November 2012, McQuay International donated blankets to victims of Hurricane Sandy, which hit the east coast of the U.S.

	Site	Activity	Overview, results
Support for firefighting	Sakai Plant	Formation of in-house firefighting unit	The plants formed an in-house firefighting division, and in each division a firefighting unit was formed.
	Shiga Plant	Formation of in-house firefighting unit	The plants formed an in-house firefighting division, and in each division a firefighting unit was formed.
	Yodogawa Plant	Joined the special firefighting team of Settsu City	Thirteen employees from the Yodogawa Plant joined the special firefighting team of Settsu City, which is the first of its kind in Japan. Since January 2010, in the case of a large fire in the Settsu area, the Yodogawa Plant firefighters drive their fire engine to the scene and help under the guidance of the Settsu City Fire Department.
	Kashima Plant	Formation of disaster task force system	An organization was set up with separate units to handle firefighting, guidance, rescue, and information provision in case of a fire. The firefighting units keep the fire in check until the local fire department arrives.
	Soka Station	Formation of in-house firefighting unit	<ul> <li>Each division formed its own in-house firefighting unit.</li> <li>At site disaster drills (November each year), the unit conducts firefighting drills with the fire department.</li> </ul>
	Tsukuba Training Center	Formation of in-house firefighting unit	Members in all divisions of Tsukuba site.
	Head Office	Formation of in-house firefighting unit	Units formed in the Head Office and Esaka site. Periodic firefighting drills held.
	Tokyo Office	Formation of in-house firefighting unit	A firefighting unit was formed in each division, and these are overseen by the Health and Safety Committee.
Communication with neighboring	Sakai Plant	Cooperation with neighboring companies	The Sakai Plant is a member of an association of 17 companies in the Sakai and Senboku waterfront areas for disaster prevention. The association has an emergency communication network and meets regularly for various drills.
companies and residents		ant Formation of a rescue support system for local disaster victims	Daikin helps the local government to rescue disaster victims.
	Shiga Plant		The plant is provided for use as an emergency shelter for nearby residents (for example, the field is opened up to the public).

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	Site	Activity	Overview, results
	Yodogawa Plant	An emergency rescue team was formed	<ul> <li>There are 110 employees living nearby who are registered. When necessary, a team is gathered by rounding up employees either from their homes or workplace.</li> <li>For details, see Building Trust with Communities (Page 240)</li> </ul>
	Kashima Plant	Communication with neighboring companies	To administrate local matters, Daikin joins with local companies to be the contact point for local government and citizens.
Communication with neighboring companies and residents	Soka Station	Agreement signed for regional disaster cooperation	In 2000, Soka Station, Soka City, and five neighboring communities signed an agreement to cooperate in preparing for natural disasters. These three groups have agreed to work together regularly on plans to implement after major earthquakes occur. An expert panel of the Central Disaster Management Council of the Cabinet Office recognized the Soka Station as an outstanding example of a corporation acting as a bridge between local citizens and local government in supporting disaster relief.
		Regional joint disaster training	Under the disaster agreement, firefighting drills are held with neighboring town associations. In May 2013, 736 took part.
	Tsukuba Training Center	Cooperation with neighboring companies	The center is a member of an association of companies in the local industrial park, which shares information on topics like environmental promotion, fire prevention, and blood donation activities.
	Tokyo Office	Cooperation with neighboring companies	Joined as an observer in the tenant association of the JR Shinagawa East Building, and in firefighting drills of the building's restaurants. This helped confirm the firefighting system of the building.
Use equipment during disasters, and secure supplies for emergencies		Secure supplies for emergencies	Secured emergency supplies such as water, food, and fire prevention equipment.
	Sakai Plant	Lend equipment to disaster relief	Daikin is registered as a corporate supporter of firefighting activities. (In emergencies, Daikin lends equipment like forklifts.)
		Evacuation training drills	Conducted periodic drills in preparation for earthquake and tsunami (measures for initial response, evacuation, and for cases of late-night disaster and cut-off lifelines, early fire response, rescue)

	Site	Activity	Overview, results
Use equipment during disasters, and secure supplies for emergencies	Yodogawa Plant	Use of equipment during disasters, and secure supplies for residents for emergencies.	<ul> <li>The plant makes effective use of site equipment (fire engines, firefighting equipment; sends employees as well).</li> <li>Sufficient supplies have been set aside for all local residents in case of a major earthquake.</li> <li>Emergency materials and equipment are placed in all major buildings.</li> </ul>
	Shiga Plant	Secure supplies for emergencies	Emergency supplies are stocked (megaphones, flashlights, emergency food and water, etc.).
	Kashima Plant	Secure emergency equipment and food	Stored emergency supplies (gas marks, flashlights, megaphones) and emergency necessities to last employees 3 days (food, water, portable toilets, blankets, etc.)
	Soka Station	<ul> <li>Secure supplies for emergencies</li> <li>Joint regional disaster training held</li> </ul>	<ul> <li>Stored water, food, firefighting equipment, etc.</li> <li>Exhibit and disaster drills were held with the surrounding community.</li> </ul>
	Tsukuba Training Center	Secure supplies for employees who cannot return home during a disaster	Stored emergency supplies (hand-held microphones, flashlights, water, manual rechargers, blankets, gas burners, gas tanks, kettles).
	Head Office	Secure supplies for emergencies	Purchased and stored emergency supplies for the Head Office and Esaka Building. During fire drills, confirmed how to use these supplies (particularly rescue-related supplies).
		Place AEDs at Head Office, Esaka, Fukuoka, Nagoya, and Hiroshima	Health and Safety Committee and Human Resources oversee the placement of AEDs in all bases under Head Office jurisdiction.
	Tokyo Office	Secure emergency supplies, hold evacuation training drills	Emergency supplies are stocked (megaphones, flashlights, food and water, portable toilets, etc.); these are inspected regularly.

	Site	Activity	Overview, results
Earthquake measures	Sakai Plant	Measures against tidal wave and tsunami Earthquake reinforcement and evacuation training drills	<ul> <li>Established code of conduct for tsunami disaster response, and secured emergency supplies.</li> <li>All buildings on-site have been inspected for earthquake resistance.</li> <li>Reinforcement work is proceeding as planned.</li> <li>Evacuation training drills were held.</li> <li>Conducted periodic drills in preparation for earthquake and tsunami (measures for initial response, evacuation, and for cases of late-night disaster and cut-off lifelines, early fire response, rescue)</li> </ul>
	Shiga Plant	Make buildings earthquake-proof, hold evacuation drills	<ul> <li>All buildings on-site have been inspected for earthquake resistance. Building structures are being reinforced. (Cafeteria and No. 1 plant completed.)</li> <li>Evacuation training drills were also held.</li> </ul>
	Yodogawa Plant	Revise earthquake scale assumptions and conduct Earthquake reinforcement Infrastructure loss measures Evacuation and emergency measures	<ul> <li>Basic earthquake measures policy: Save people above all, ensure safety Measures for an earthquake with a seismic intensity of 6: Reinforcement work completed on main buildings under current earthquake-resistance standard (fiscal 2009) Measures for 2-meter tsunami: Measures for loss of infrastructure such as power.</li> <li>Complete emergency measures before tsunami arrives (within 2 hours), ensure the chemical plant is safe, and evacuate employees to a high, safe place.</li> <li>Use secured emergency power, close up dangerous chemicals to render them harmless, and safely shut down plant (turn off, cool down, close).</li> <li>Disaster drills (3 times a year)</li> <li>Evacuation drills held at all locations (evacuation shelters in high places) <ul> <li>Unified evacuation time and safety confirmation.</li> <li>Verify that disaster materials and equipment are usable and can be accessed quickly.</li> </ul> </li> </ul>

	Site	Activity	Overview, results
Earthquake measures		Revise earthquake scale assumptions and conduct Earthquake reinforcement Infrastructure loss measures Evacuation and emergency measures	<ul> <li>Simultaneously hold drills following emergency measures manual.</li> <li>Emergency stoppage of equipment and machinery, drills for measures.</li> </ul>
	Yodogawa Plant		<ul> <li>Measures to prevent equipment and machinery from falling over</li> <li>Formulate unified standards (guidelines) (implement at all bases).</li> <li>Pick up relevant items in each division, formulate execution plan.</li> <li>Create hazard map (danger sources, evacuation)</li> <li>Revise evacuation routes, evacuation shelters, sources of danger.</li> <li>Revise all evacuation routes and evacuation shelters.</li> <li>Emergency measures manual Secure communication protocol</li> <li>Install satellite phones (communication among work sites)</li> <li>Use walkie-talkies (one for each division, one for division headquarters)</li> </ul>
	Kashima Plant	Tsunami measures	Established two new tsunami evacuation shelters in high locations to use in case of a large tsunami warning, and held evacuation drills using these shelters.
	Soka Station	<ul> <li>Revision of disaster drills at bases</li> <li>Revision of product storage rules</li> <li>Measures to prevent falling over of fixtures</li> </ul>	<ul> <li>Revised disaster drills at bases (based on past earthquake experience, changed evacuation routes etc.). Held specialized earthquake evacuation drills (April, November)</li> <li>Revised product storage rules based on past earthquake experience.</li> <li>Took measures to prevent falling over of fixtures and other equipment in offices.</li> </ul>
	Tsukuba Training Center	Earthquake reinforcement and disaster drills	Took measures to prevent equipment from falling over. Carried out comprehensive disaster drills in preparation for large-scale earthquake (a seismic intensity of 6)
	Site	Activity	Overview, results
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	Head Office	Improve earthquake risk measures	To further earthquake risk measures, a memorandum (measures for transfer of building functions in case of earthquake, tsunami measures, and risk management measures) was sent to bases and affiliates.
Earthquake measures	Tokyo Office	Earthquake reinforcement, evacuation drills, measures for employees who cannot return home	<ul> <li>Fixtures and equipment on the site were reinforced.</li> <li>Joined in planning and implementation of disaster training sponsored by the fire and disaster prevention association of the JR Shinagawa East Building.</li> <li>For employees who cannot return home in a disaster, plans are being made to stock more emergency supplies (food, water, portable toilets, etc.) based on a new Tokyo by-law enacted in April 2013.</li> </ul>
Typhoon measures	Kashima Plant	Meeting on typhoon measures	A meeting was held to examine measures to take in case of a typhoon. Preventative measures were drawn up for safe operation or stoppage of machinery.
	Yodogawa Plant	Safety confirmation system	A system was established that can confirm the safety of employees approximately 20 minutes after a disaster occurs.
			Emergency materials and equipment for searching and restoration are placed in all major buildings.
	Kashima Plant	Safety confirmation system	Established a system for confirming the safety of employees after a disaster occurs.
	Soka Station	Safety confirmation system	Drills held in replying to this system (twice a year).
Safety confirmation system	Tsukuba Training Center	Safety confirmation system	Drills held in replying to this system (once a year).
	Head Office	Safety confirmation system	Established a system for confirming the safety of employees after a disaster occurs. The system is currently being strengthened.
	Tokyo Office	Safety confirmation system	Held communication drills to confirm a system for contacting employees to ensure they are safe following a disaster (once a year). Established a system for confirming the safety of employees after a disaster occurs.

# Contributing to Local Safety (Japan)

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Site	Activity	Overview, results	
Head Office	Support for local safety activities	Daikin worked with the Kinki Regional Police Bureau in a safety patrol campaign. Took part in the Sonezaki traffic safety association.	
	Support for local safety activities	Daikin took part in the North Sakai Police Crime Prevention Committee and the North/West Sakai Traffic Safety Association.	
Sakai Plant	Children's protection shelter	The Sakai Plant is registered as a place children can take sanctuary from threats.	
	Disaster training	Took part in disaster prevention drills sponsored by an association of companies in the Sakai and Senboku waterfront areas for disaster prevention.	
	Disaster training	Disaster training was held once a year for the plant grounds and employee dormitory; fire hydrant usage competition held (July); plant disaster training held (June, November); evacuation training for earthquakes held.	
	Participation in the Fire Prevention Association	The Shiga Plant took part in a disaster prevention training convention in unison with the fire department.	
Shiga Plant	Participation in local safety activities	Konan Fire Department: Took part in joint disaster training.	
	Letter of agreement signed for support of fire prevention in case of disaster	Under this agreement, the Shiga Plant will dispatch industrial physicians and its in-house fire-fighting unit, and offer the plant as an evacuation shelter.	
Yodogawa Plant	Special firefighting team of Settsu City	Thirteen employees from the Yodogawa Plant joined the special firefighting team of Settsu City, which is the first of its kind in Japan. Since January 2010, in the case of a large fire in the Settsu area, the Yodogawa Plant firefighters drive their fire engine to the scene and help under the guidance of the Settsu City Fire Department.	

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Site	Activity	Overview, results		
	Joint disaster training held (with participation of local fire and police departments)	Control damage, confirm people's safety (evacuation), hold earthquake training, hold disaster training (3 times a year) Installed breathing apparatus, held fire hydrant usage competition (once a year).		
Yodogawa Plant	Participation in local safety activities	Participated in disaster training held by Osaka Prefecture and Settsu City (once a year). Took part in nighttime patrols. Took part in nationwide awareness activities for fire prevention (in spring and autumn). Took part in nationwide traffic safety campaign.		
	Held safety seminars	Held driving safety seminars for suppliers (stresse on-site road safety; twice a year). Invited police officer to give employees driving safety seminar (once a year)		
	Children's protection shelter	The Yodogawa Plant is registered as a place children can take sanctuary from threats.		
	Disaster training	Held disaster training (twice a year), joined fire hydrant usage training (once a year)		
Kashima Plant	Participation in local safety events	Joint disaster training was held with the fire department as part of cooperation among companies in the industrial park (once a year). As part of cooperation among companies, once-a-year training was held with firefighters, labor board personnel, and police officers as instructors. The goal was to raise safety and disaster awareness.		
	Safe driving course held	Police officers were invited to be instructors at a traffic safety training conference (once a year) to help drivers improve their road manners.		

Site	Activity	Overview, results
Kashima Plant	Campaign to stop drunk driving over the winter season.	Traffic safety committee members handed out drunk driving leaflets urging people to follow the rules.
Saka Station	Contest to prevent accidents and abide by rules of the road	The Soka Plant took part in a rules-of-the-road contest held annually by the Police Department.
Soka Station	Regional joint disaster training	Held disaster training with five neighborhood associations. (May 2013; 736 participants)
Toluce Office	Participation in meeting of Tokyo Metropolitan Police Department to prevent organized crime.	The Tokyo Office took part in scheduled meetings and training sessions, as well as responded to various requests.
Tokyo Office	Participation in local disaster training	Joined in planning and implementation of disaster training sponsored by the fire and disaster prevention association of the JR Shinagawa East Building.

Site	Activity	Overview, results		
Sakai Plant	Continued participation in "Adopt a Road" cleanup initiative	Under Sakai City's public cleanup campaign, employees took turns cleaning up the streets once a month. The area around the plant and nearby sidewalks were cleaned. At the Kanaoka Plant, employees planted greenery nearby and cleaned up the streets, and employees of the waterfront plants picked up litter on the median dividing the main street.		
	Anti-noise measures	Employees patrolled the plant at night to ensure there was no disturbing noise or vibration that would disturb nearby residents. When the sound-proof wall was erected, to make the structure less imposing, a sound-proof glass wall was put up at strategic points, and trees were planted.		
	Aesthetic measures	To improve the view from the adjacent high-rise apartment building, the plant roof had its rust removed and was painted.		
	Weeding and cleanup	Employees removed weeds that had spread to adjoining public roads and picked up litter.		
Shiga Plant	Cleanup	Litter was picked up around the plant (4 times a year)		
	Greenery enhancement	Weeding, flower planting, and care for the cherry trees was carried out.		
		To mark the Shiga Plant's 40th anniversary, in fiscal 2010, 40 cherry trees were planted on the premises and cherry trees were donated to Kusatsu City.		

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Site	Activity	Overview, results
Yodogawa Plant	Cleanup	<ul> <li>Areas around the site cleaned up (once a month).</li> <li>Employees took part in cleanup of local waterways (once a year).</li> <li>Area around main and west gates (near bus stops) was cleaned up (everyday).</li> </ul>
	Aesthetic improvement of urban area	Sponsored a 'tulip art' event in Settsu. Won award of excellence in corporate category of Settsu City environmental festival.
Kashima Plant	Cleanup around the plant	Cleanup staff were sent out (twice a month), cleanup days of plant held (once a month), meeting of activity managers held (once a year).
	Took part in cleanup of industrial park along with other companies	The association of 24 companies in the industrial park held a cleanup twice a year.
Soka Station	Was Yashio Industry Association representative at Soka City environmental conference	Represented Yashio Industry Association at Soka City environmental conferences (held 3 times a year).

# **Regional Independent Activities (Overseas)**

Overseas bases in the United States, China (Shanghai), and Belgium are carrying on the tradition of Daikin in Japan by holding a bon dance festival. Employees plan and run the entire event, and participants include not only employees and their families but customers of affiliates and local residents. Besides strengthening bonds among employees, the bon dance festival brings Daikin closer to its affiliates and the local community.

#### For details, see Interactions with Local Communities (Japan). (Page 242)

Each Daikin base also conducts its own unique social contribution activities and community exchange initiatives.

Site	Activity	Overview, results	
Daikin Device Czech Republic,	Donation of used PCs	Donated used PCs to schools, youth centers, and health facilities.	
s.r.o.	Sponsorship of cultural events	Made donations to cultural events such as an outdoor concert and a folk festival.	
Daikin Industrias Czach	Support for earthquake victims	In December 2012, made 246 origami cranes for victims of the Great East Japan Earthquake.	
Republic s.r.o.	Support for sick children	From September to December 2012, collected 93.8 kg of plastic bottle caps to raise money for medical treatment for disabled children.	
Rotex Heating Systems GmbH	Bone-marrow transplant/donation event	An employee is donating bone marrow, so the company is planning an event to promote bone marrow donations.	
	Support for sports	Supported local sports clubs and a road race.	
Daikin Chemical Europe GmbH	Sponsorship of local event	Sponsored Japan Day 2012, a festival in Dusseldorf, Germany.	
Daikin Chemical Netherlands B.V.	Support for health activities	Sponsored a quarterly publication on rheumatism, donated coloring books to a children's hospital.	
Doikin Turkov A S	Sponsorship of sports team	Sponsored the Galatasaray women's volleyball team, a billiard league, a soccer league, and other sports.	
Daikin Turkey A.S.	Fundraising	Donated money to the Turkish Heart Association and money and toys to a disabled association.	
Daikin Air-conditioning (Shanghai) Co., Ltd.	Pland denotion	202 employees took part in blood donor	
Daikin (China) Investment Co., Ltd.	blood donation	clinics.	
Daikin Air-conditioning (Shanghai) Co., Ltd.			
Daikin (China) Investment Co., Ltd.	Donations to needy children	In January 2013, gave scholarships and daily necessities to needy children.	
Daikin Air-Conditioning Technology, Ltd. (Service)			

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Site	Activity	Overview, results	
Daikin Air-conditioning (Shanghai) Co., Ltd.	Donation of air conditioners	Donated 100,000 yuan (approx. \$74,900) worth of air conditioners to a senior citizens home.	
Daikin (China) Investment Co., Ltd.	Sponsorship of sports team	Sponsored Greentown soccer team (China).	
Daikin Airconditioning (Singapore) Pte. Ltd.	Fundraising	Contributed to donations to a hospital as the main sponsor of the "Making a Difference Campaign," which aims to improve healthcare for needy patients.	
	Donation of air conditioners	Donated air conditioners to the police, local governments, and associations.	
Daikin Industries (Thailand) Ltd.	Fundraising	Supported Thai Industrial Standards Institute with a charity golf tournament, offered financial support to local governments, schools, etc.	
	Blood donation	Joined blood donor clinics for the Thai Red Cross.	
Siam Daikin Sales Co.,	Children's Day event	Made donations to an educational group for Children's Day in January.	
Ltd.	Donation of air conditioners	Donated an air conditioner so that a school could study air conditioning functions.	
	Employee volunteer activities	Employees volunteered for the NSW Rural Fire Service, a firefighting group in New South Wales, Australia.	
	Blood donation	Employees were encouraged to give blood.	
Daikin Australia Pty. Ltd. (DAS)	Sing Christmas carols	Employees and their families held a Christmas carol gathering in the community and the money collected was donated to children's hospital.	

Site	Activity	Overview, results	
	Collecting donations	DAS took part in charity events (Morning Tea, Movember, and Jeans for Genes) supporting cancer and gene research, and patients. Movember is a fund promoting understanding of men's health issues, particularly prostate cancer; DAS, suppliers, and customers have been supporting this since 2008.	
	Sponsorship of groups	Supported sports days, and made donations to Cancer Council Australia and other groups.	
Daikin Australia Pty. Ltd. (DAS)	Cycling festival	iestival       Held a cycling festival on the Gold Coast         for zoo       Donated air conditioners to improve the living environment of animals in the Taronga Zoo and	
	Support for zoo	Donated air conditioners to improve the living environment of animals in the Taronga Zoo and the Taronga Western Plains Zoo.	
McOuay International	Fundraising	The head office and the Plymouth Office made donations to an NPO, Interfaith Outreach & Community Partner, to help reduce the size of landfills by recycling more waste.	
		Donated winter clothes in support of the local community.	
	Took part in blood donor clinic.	Employees donated blood at blood donor clinics.	
	Volunteers help run local event	Employees volunteered to help run the monthly ChemiCollection days, at which local residents can bring things like paint, pesticides, oil, batteries, and lightbulbs for safe disposal; this prevents these daily-use chemicals from going into a landfill.	
Daikin America, Inc.	Support for the disabled	Held a Christmas party for the disabled.	
(DAI)	Fundraising	Since 1994, DAI has been supporting the community through donations to the NPO United Way.	
	Support for art and culture	Made donations towards the Daikin Library bus and theater, supported an art contest at a local elementary school.	



# Data

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## Sustainability Data



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Pages focusing on environmental performance information and social performance indicators can be found here.

Companies covered by data: **D** Daikin Industries **JG** Including group in Japan OG Overseas group companies only OJG Including group companies in Japan and overseas

# **Quality and Customer Satisfaction**

## Number of Inquiries to the Contact Center JG

Number of Inquiries to the Contact Center <b>JG</b> (thousands)						
	2008	2008 2009 2010 2011		2011	2012	
Repair inquiries	794	735	910	796	751	
Technical advice	575	658	813	719	725	
Parts inquiries	323	332	359	325	315	
Others	60	56	58	40	38	

## **Low-Impact Products**

## Materials Used JG

l.					(10113)	
	2008	2009	2010	2011	2012	
Iron	57,512	40,637	49,972	52,349	48,757	
Copper	18,684	15,698	14,766	14,766 6,833 7,13		
Aluminium	13,319	8,962	9,031	8,297	8,043	
Refrigerants	3,711	2,872	3,049	2,999	2,996	
Plastics	13,928	9,147	11,343	11,319	319 11,348	
Chemicals (PRTR- designated)	102,322	92,325	98,198	104,166	95,191	
Packaging	9,644	7,579	10,857	10,990	13,515	

## Recycling of Residential Air Conditioners

			2008	2009	2010	2011	2012
Residential air conditioners collected by 4 major manufacturers (including Daikin) (units: 10,000)		197	215	314	234	236	
Residential air conditioners collected by Daikin only (units: 10,000)		14	17	25	20	21	
	Weight of prod	ucts recycled or reused					8,998
	Amount recycled (tons)		5,294	5,927	8,648	7,776	7,947
	Recycling ratio (%)		85	84	84	86	88
	(Breakdown)	Iron (%)	44	42	43	40	39
		Copper (%)	8	8	8	8	8
		Aluminium (%)	8	7	6	7	7
Res (ind Res 10,		Mixture of non-ferrous and iron composite materials (%)	32	34	34	35	33
		Other valuable materials (%)	8	9	9	10	13
	Fluorocarbons recoverd (tons)		85	100	145	128	135

## **Low-Impact Production**

#### 1) Greenhouse Gas Emissions

Greenhouse Gas Emissions (	Production)	OJG	
----------------------------	-------------	-----	--

Greenhouse Gas	Greenhouse Gas Emissions (Production) <b>OJG</b> (10,000 tons-CO2)								
	2005	2006	2007	2008	2009	2010	2011	2012	
CO2 (Energy)	54	55	55	51	49	58	59	58	
HFC	76	68	50	27	20	12	12	11	
PFC	284	205	177	92	65	94	84	65	
Total	414	328	282	170	134	165	156	134	

## HFC, PFC Emissions and Global Warming Impact OJG

	2005	2006	2007	2008	2009	2010	2011	2012
HFC	210.9	162.8	259.5	125.7	83.2	57.0	69.4	64.3
PFC	329.7	245.1	213.2	108.0	78.5	112.8	100.1	78.0
Global warming impact with FY2005 set as 100% (%)	100	76	63	33	24	30	27	21

(tons)

(%)

# Total CO2 Emissions **OJG**

Total CO2 Emissions OJG (10,000 tons-CO2)								
	2005	2006	2007	2008	2009	2010	2011	2012
Japan	20.4	18.9	17.4	14.7	14.0	16.4	16.7	15.9
Overseas	33.6	36.2	37.4	36.7	35.0	41.6	42.6	42.2
Total	54.0	55.1	54.8	51.4	49.0	58.1	59.3	58.1

# CO2 Emissions per Production Output OJG

CO2 Emissions p	CO2 Emissions per Production Output OJG (%)								
	2005	2006	2007	2008	2009	2010	2011	2012	
CO2 emissions rate for entire Group with FY2005 set as 100%	100	86	80	81	86	83	75	74	

# CO2 Emissions per Sales from Transportation (Air-conditioning)

	2001	2008	2009	2010	2011	2012
CO2 emissions per sales with FY2001 set as 100%	100	74	72	71	69	68

# Recovered Fluorocarbons (at time of repair and at time of disposal)

Recovered Fluorocarbons (at time of repair and at time of disposal)							
	2008	2009	2010	2011	2012		
Recovered fluorocarbons at time of disposal	41.3	34.4	38.8	33.0	30.7		
Recovered fluorocarbons at time of repair	335.0	314.6	306.4	320.2	344.6		

## 2) Energy Consumption

# Energy Consumption D

	2008	2009	2010	2011	2012
Electricity (MWh)	145,850	133,472	141,294	136,997	126,529
City Gas (m <sup>3</sup> )	3,724	3,566	4,071	4,370	3,967
LPG (tons)	0	45	58	55	62
Steam (GJ)	256,617	235,670	269,176	307,709	285,024
Petroleum (kl)	471	547	521	1,442	556

## 3) Green Procurement

# Green Procurement Rate (Japan)

Green Procurement Rate (Japan) JG (%)							
	2008	2009	2010	2011	2012		
Green procurement rate	97	99	99	96	99		

## Green Procurement Rate by Region\* OJG

Green Procurement Rate by Region* OJG (9							
	2008	2009	2010	2011	2012		
Japan	97	99	99	96	99		
Thailand	85	97	97	98	98		
China	79	89	89	91	92		
Europe	69	63	82	81	83		
Other countries in Asia and Oceania	-	85	85	87	90		
North America	-	-	45	3	3		
All regions	89	83	87	84	89		

\* Green procurement rate= Value of goods procured from suppliers who meet our assessment criteria / Value of all goods procured

## 4) Water

# Water Used **OJG**

	2008	2009	2010	2011	2012
Japan	295	302	258	235	262
Overseas	383	365	416	433	409
Total	678	667	674	668	671

(10,000 m<sup>3</sup>)

## Water Use per Unit of Production Output **OJG**

water Use per Unit of Production Output UJG (%)						
	2008	2009	2010	2011	2012	
Overall water used per unit with FY2008 set as 100%	100	111	92	81	82	

## Waste Water **OJG**

(1	0,00	00	m <sup>3</sup> )
----	------	----	------------------

	2008	2009	2010	2011	2012
Japan	219	206	200	225	212
Overseas	268	238	291	269	270
Total	487	444	491	494	482

## 5) Water Pollutant and Air Pollutant Emissions

## Air Pollutant Emissions D

Air Pollutant Emissions D (tons)						
	2008	2009	2010	2011	2012	
NOx	49	63	27	24	39	
SOx	0.4	0.0	0.0	0.0	0.0	
VOC	43	32	56	426*	379	

Note: The number of VOCs covered was increased in fiscal 2011.

## Air Pollutant Emissions

Air Pollutant Emissions JG (tons)						
	2008	2009	2010	2011	2012	
NOx	50	63	27	27	39	
SOx	1.3	0.0	0.0	0.0	0.0	
VOC	48	35	59	427*	380	

Note: The number of VOCs covered was increased in fiscal 2011.

## Air Pollutant Emissions

Air Pollutant Emissions OG (tons)						
	2008	2009	2010	2011	2012	
NOx	78	55	100	75	94	
SOx	10	6	14	30	20	
VOC	184	105	133	114	111	

## 6) Chemical Substance Emissions

Release of Substances Designated by the Pollutant Release and Transfer Register Law D (to					
	2008	2009	2010	2011	2012
Release of substances designated by PRTR Law	201	115	121*	114	108

Note: Under revisions to the Pollutant Release and Transfer Register Law (effective October 1, 2009), the number of designated substances increased from 354 to 462.

Release of Substances Designated by the Pollutant Release and Transfer Register Law JG					(tons)
	2008	2009	2010	2011	2012
Release of substances designated by PRTR Law	206	118	132*	115	111

Note: Under revisions to the Pollutant Release and Transfer Register Law (effective October 1, 2009), the number of designated substances increased from 354 to 462.

## Compilation of PRTR Substances (PRTR substances of which at least 1 ton was handled)

(tons)

2012					
	Amo	Amount trans	ported (tons)		
Substance name	Air	<b>Public</b> waterways	Soil	Waste	Sewage
Chlorodifluoromethane (also called HCFC-22)	52.20	0.00	0.00	3.68	0.00
Chloroform	0.83	0.00	0.00	2.40	0.00
Hydrogen fluoride and other water-soluble salts	0.24	0.00	0.00	3.20	0.00
Dichloromethane (also called methylene chloride)	30.37	0.00	0.00	0.06	0.00
1-chloro-1,1-difluoroethane (also called HCFC-142b)	10.00	0.00	0.00	0.00	0.00
Carbon tetrachloride	0.00	0.00	0.00	0.00	0.00
Acrylic acid and other water-soluble salts	0.00	0.00	0.00	11.00	0.00
Ferric chloride	0.00	0.00	0.00	8.88	0.00
Styrene	0.16	0.00	0.00	0.00	0.00
Allyl alcohol	0.00	0.00	0.00	17.00	0.00
2-Chloro-1,1,1,2-tetrafluoroethane (also called HCFC-124)	1.30	0.00	0.00	0.00	0.00
Xylene	1.22	0.00	0.00	0.02	0.00
N,N-dimethylacetamide	0.01	0.00	0.00	0.01	0.00
Toluene	3.01	0.00	0.00	0.09	0.00
Water soluble lead compounds	0.00	0.00	0.00	1.24	0.30
Tritolyl phosphate	0.00	0.00	0.00	0.05	0.00
Normal hexane	5.66	0.00	0.00	1.10	0.12
N,N-dimethylformamide	0.00	0.00	0.00	31.00	0.00
Ethylbenzene	0.57	0.00	0.00	0.00	0.00
Acetonitrile	0.01	0.00	0.00	1.10	0.04
Water-soluble copper salt (except complex salts)	0.00	0.00	0.00	0.00	0.00
2-aminoethanol	0.00	0.00	0.00	0.00	0.16
Total	105.55	0.00	0.00	80.84	0.62

## 7) Waste

# Amount of Waste and Recycled Materials **OJG**

Amount of Wast	Amount of Waste and Recycled Materials <b>OJG</b> (ton				
	2008	2009	2010	2011	2012
Japan	33,400	21,845	26,701	32,801	30,133
Machinery-related	10,165	8,618	8,904	8,774	6,628
Chemical-related	23,235	13,227	17,797	24,027	20,181
Overseas	52,225	48,819	58,122	59,838	59,081
Machinery-related	37,951	36,612	41,462	40,435	40,184
Chemical-related	14,274	12,207	16,660	19,403	18,897
Total	85,625	70,664	84,823	92,639	89,215

# $\blacksquare$ Amount of Waste and Recycled Materials per Unit of Production Output $\left| \, \textbf{OJG} \right|$

Amount of Waste and Recycled Materials per Unit of Production Output <b>OJG</b> (%)					
	2008	2009	2010	2011	2012
Overall waste generated per unit with FY2008 set as 100%	100	92	91	89	86

# Recycling Ratio **OJG**

Recycling Ratio OJG						
	2008	2009	2010	2011	2012	
Japan	99.5	99.7	99.7	99.8	99.8	
Overseas	79.4	76.1	73.6	72.3	72.6	
Entire Group	87.2	83.4	81.8	82.0	81.8	

# 8) Calculation Standard

#### Calculation Standard

ľ	tem	Indicator	Calculation method
	During       Greenhouse       CO2 emission coefficient for electricities	CO2 emission coefficient for electricity	Japan Eco-Action 21, formulated by Ministry of the Environment in 1998
		use	Overseas Japan Electrical Manufacturers Association.
During		CO2 emission coefficient for energy	Japan Eco-Action 21, formulated by Ministry of the Environment in 1998
production gas emissions	use	Overseas Eco-Action 21, formulated by Ministry of the Environment in 1998	
		CO2 omissions par Production Output	Japan CO2 emissions/Japan consolidated production output
	Coz emissions per riouuction output	Overseas CO2 emissions/overseas consolidated production output	

## **Environmental Management**

## Report from Audits JG

	200	)8		20	09		20	10	
	Problems found from internal environmental audits	Problem by third certific instit	s found l-party cation utes	Problems found from internal environmental audits	Problems found by third-party certification institutes	Problem from ir environ auc	s found Iternal mental lits	Problems found by third-party certification institutes	
Major non-conformance	0		1	3	0		0	0	
Minor non-conformance	31		8	99	1		43	0	
Items improved	111		71	214	10		219	5	
		<b>20</b> 1	1		2012				
	Problems found internal environm audits	from nental	Prob third-p	blems found by Problems found party certification internal environ institutes audits		d from Problem nmental third-par in		ems found by arty certification nstitutes	
Major non-conformance		2		0		5		0	
Minor non-conformance	38			0		43		0	
Items improved		219		5		229		6	

Ratio of Employ	tification <b>OJG</b>	(%)			
	2008	2009	2010	2011	2012
Japan	100	100	100	100	100
Overseas	99	99	96	83	83

Note: Data from O.Y.L. Industries Bhd. and its subsidiaries was added in fiscal 2011.

# **Employees**

## 1) Number of Employees, Hiring, etc.

# Employee Composition (Data for Daikin Industries) (Note: Number currently employed)

	As of end of March 2009		As of end 20	As of end of March 2010		As of end of March 2011		As of end of March 2012		As of end of March 2013	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Number of employees	6,452	868	6,558	897	6,717	961	6,705	974	6,774	1,025	
Average range of services (years)	18.9	12.0	17.9	10.8	17.1	9.96	16.8	10.5	16.5	10.4	
Average age	41.6	32.8	41.8	33.6	41.8	34.2	41.8	34.9	41.7	35.1	
Number of managers	925	13	886	14	936	16	933	21	939	21	
Number of board members	47	1	45	1	44	1	45	1	47	1	
Number of foreign nationals	28	12	27	16	30	21	34	21	38	20	

## Employee Make-up by Region **OJG**

	20	08	2009		20	10	20	11	2012	
	Number of companies	Number of employees								
Daikin Industries (Only)	1	6,186	1	6,379	1	6,553	1	6,550	1	6,668
Domestic Group (Excluding Daikin Industries)	40	4,432	42	4,665	40	4,593	29	4,594	28	4,673
China	31	10,551	31	10,072	30	11,434	32	12,471	34	13,824
Southeast Asia, Oceania	41	8,298	40	7,968	37	8,714	37	9,377	39	10,149
Europe, Middle East, Africa	61	6,006	58	5,654	54	5,798	59	6,466	58	6,476
North America, Latin America	29	4,423	27	4,136	30	4,477	25	4,652	48	9,608
Total	203	39,896	199	38,874	192	41,569	183	44,110	208	51,398

# Number of Employees Leaving, Employee Turnover

	2008	2009	2010	2011	2012
Men	241	225	223	204	266
Women	48	36	41	42	49
Employee turnover	3.9%	3.5%	3.4%	3.9%	4.0%

# Number of Women Periodically Hired; Percentage of All Employees D

	2009	2010	2011	2012	2013
Men	242	159	172	215	170
Women	52	37	42	60	92
Total	294	196	214	275	262
Women as % of all employees	17.7%	18.9%	19.6%	21.8%	35.1%

Note: Figures are those during April of each year.

## 2) Occupational Safety and Health

# Frequency Rate\* D

	2008	2009	2010	2011	2012
Daikin Industries	0.13	0.06	0.73	0.20	0.32
National average for all industries	1.75	1.62	1.61	1.62	1.59
National average for manufacturing industry	1.12	0.99	0.98	1.05	1.00

**Note**: This shows the frequency of work-related calamities, expressed in number of calamities for every 1,000,000 working hours. Frequency rate = Number of calamities by industrial injuries / Total actual working hours × 1,000,000

### Severity Rate\* D

	2008	2009	2010	2011	2012
Daikin Industries	0.06	0.00	0.52	0.00	0.01
National average for all industries	0.10	0.09	0.09	0.11	0.10
National average for manufacturing industry	0.10	0.08	0.09	0.08	0.10

Note: This shows the severity of the calamity, expressed in man-days lost per 1,000 hours worked.

Severity rate = Total number of working days lost / Total actual working hours  $\times$  1,000

## 3) Re-employed Workers

## Number of Re-employed Workers **D**

2008		2008	2009		2010		2011		2012	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Number of retirees	139	6	141	4	132	7	187	2	170	7
Number of re-employed workers	117	5	118	3	122	4	173	1	150	6
Percentage re-employed after retiring		84.1%		83.4%		90.6%		92.1%		88.1%

## 4) Disabled People Employed

## Number of People with Disabilities Employed JG

	2008	2009	2010	2011	2012	
Number of people with disabilities employed*1	248	264	284	301	287	
Employment rate*2	2.17	2.27	2.34	2.49	2.34	

\*1 Legally, one severely disabled person employed is counted as two people with disabilities.

\*2 Employment rate = number of people with disabilities employed / number of people employed

## 5) Work-Life Balance

# Number Taking Leave Before and After Child Birth and Employees Taking Childcare Leave D

-				-		
		2008	2009	2010	2011	2012
Number taking leave before and after child birth	Women	20	30	27	33	48
Number taking childcare leave	Men	89	75	68	93	93
	Women	35	49	54	58	68

## Number Taking Family Care Leave D

		2008	2009	2010	2011	2012
Number taking family care leave	Men	0	0	4	1	2
	Women	0	0	0	0	1

# Number of Accidents Resulting in Time Off Work

		2008	2009	2010	2011	2012
Number of	Accidents resulting in time off work	13	6	17	15	5
accidents resulting in time off work	Commuting accidents resulting in time off work	18	4	4	6	3
Frequency rate		0.13	0.06	0.73	0.20	0.32
Severity rate		0.06	0.00	0.52	0.00	0.01

# Percentage of Employees Taking All Paid Leave

Percentage of Employees Taking All Paid Leave D (%)									
	2008	2009	2010	2011	2012				
Percentage of Daikin Industries employees	92.4	90.6	92.8	93.4	92.9				
Percentage of Japanese workers in the manufacturing industry (according to Ministry of Health, Labour and Welfare)	54.0	54.5	51.6	55.3	56.5				

## 6) Patent Applications

### Number of Patent Applications

	2008	2009	2010	2011	2012
Japanese applications	1,698	1,069	948	1,197	1,207
Overaseas applications	451	309	242	202	378

# Shareholders and Investors

#### Consolidated Sales by Business Segments

Consolidated Sales by Business Segments (%)									
	2008	2009	2010	2011	2012				
Air Conditioning/Refrigeration Equipment	88.1	88.7	86.6	85.5	86.8				
Chemicals	8.5	8.4	9.9	10.9	9.6				
Oil Hydraulics, Defense Systems, and Electronics	3.4	2.9	3.5	3.6	3.6				

#### Consolidated Sales by Region

Consolidated Sa	Consolidated Sales by Region (%)									
	2008	2009	2010	2011	2012					
Japan	37.3	37.6	38.5	38.9	38.3					
China	25.1	F 1 20 0	15.7	17.7	18.2					
Asia and Oceania	25.1	20.9	14.0	13.4	14.4					
Europe, Middle East, and Africa	26.4	24.9	21.5	19.5	18.4					
North America, Latin America	11.2	10.6	10.3	10.5	10.7					

#### Net Sales

Net Sales (¥								
	2008	2009	2010	2011	2012			
Consolidated	1,202.4	1,024.0	1,160.3	1,218.7	1,290.9			
Non-consolidated	424.9	365.4	426.7	446.6	462.7			

#### Total Assets

Total Assets (¥							
	2008	2009	2010	2011	2012		
Consolidated	1,117.4	1,139.7	1,132.5	1,160.6	1,735.8		
Non-consolidated	766.7	783.2	772.5	797.7	1,140.1		

#### Ordinary Profit

Crdinary Profit (¥ billion								
	2008	2009	2010	2011	2012			
Consolidated	52.0	43.8	74.8	81.8	94.1			
Non-consolidated	(5.2)	15.0	34.2	35.4	35.7			

#### Fiscal Year End Stock Prices

	2008	2009	2010	2011	2012
Fiscal year end stock prices	2,680	3,825	2,491	2,253	3,690

(yen)

### Dividends

Dividends (y								
	2008	2009	2010	2011	2012			
Dividends	38	32	36	36	36			

## Breakdown of Shareholders

	2008			2009			2010		
	Number of voters	Shares held	As % of all shareholders	Number of voters	Shares held	As % of all shareholders	Number of voters	Shares held	As % of all shareholders
Financial institutions	183	149,285,576	50.9%	171	138,391,233	47.2%	167	123,782,330	42.2%
Securities companies	65	4,408,469	1.5%	65	8,358,282	2.9%	98	9,364,720	3.2%
Other corporations	621	43,053,817	14.7%	567	42,336,605	14.4%	638	42,495,914	14.5%
Foreign corporation	479	70,912,586	24.2%	472	79,918,106	27.3%	473	86,060,485	29.4%
Individuals, other	35,580	25,453,525	8.7%	32,513	24,109,747	8.2%	46,815	31,410,524	10.7%
Total	36,928	293,113,973	100.0%	33,788	293,113,973	100.0%	48,191	293,113,973	100.0%

		2011		2012			
	Number of voters	Shares held	As % of all shareholders	Number of voters	Shares held	As % of all shareholders	
Financial institutions	160	135,128,030	46.1%	137	133,897,630	45.7%	
Securities companies	96	11,044,961	3.8%	69	6,489,682	2.2%	
Other corporations	653	34,995,334	11.9%	580	29,567,732	10.1%	
Foreign corporation	476	77,871,495	26.6%	478	94,612,756	32.3%	
Individuals, other	48,782	34,074,153	11.6%	40,398	28,546,173	9.7%	
Total	50,167	293,113,973	100.0%	41,662	293,113,973	100.0%	

### Dividends to Shareholders Equity

Dividends to Shareholders Equity (%)								
	2008	2009	2010	2011	2012			
Dividends to shareholders equity	42.2	43.5	43.1	43.3	35.6			

## Voting Rights Exercised

	2008	2009	2010	2011	2012
Voting rights exercised (%)	85.43	81.50	79.49	78.18	81.55
Votes cast over the Internet	864,879	897,490	1,012,927	1,056,103	1,244,629
Shereholderes voting online	926	779	998	1,115	900

## Business / Financial Data (Consolidated)

	2008	2009	2010	2011	2012	2013
	Years ended March 31, 2009	Years ended March 31, 2010	Years ended March 31, 2011	Years ended March 31, 2012	Years ended March 31, 2013	(Forecast)
Net Sales (¥ billion)	1,202.4	1,024.0	1,160.3	1,218.7	1,290.9	1,760.0
Operating Income (¥ billion)	61.4	44.0	75.5	81.2	88.6	125.0
Ordinary Income (¥ billion)	52.0	43.8	74.8	81.8	94.1	120.0
Net Income (¥ billion)	21.8	19.4	19.9	41.2	43.6	64.0
Earnings Per Share (yen)	74.51	66.44	68.14	141.37	149.73	219.83
Overseas Business Ratio (%)	63	62	62	61	62	-
Free Cash Flow (¥ billion)	(6.6)	80.7	38.2	(35.0)	35.7	-
Return on Assets (%)	1.9	1.7	1.7	3.6	3.5	-
Return on Equity (%)	4.3	4.0	4.0	8.3	7.8	-
Shareholders' Equity Ratio (%)	42.2	43.5	43.1	43.3	35.6	-
Plant- and-Equipment Investment (¥ billion)	63.6	30.5	30.0	48.3	54.3	65.0
Reseach & Development Costs (¥ billion)	30.5	28.2	30.8	33.0	33.6	35.0
Liability with Interest Ratio (%)	37.4	35.0	32.9	33.6	40.7	-

# Donations D

Donations <b>D</b>	Donations (%)								
	2008	2009	2010	2011	2012				
Education	22.9	31.7	22.0	15.6	37.5				
Environmental protection	8.3	14.9	6.0	25.6	21.8				
International exchange and cooperation	18.2	14.9	4.9	10.4	13.3				
Art, culture	11.7	13.5	9.3	10.3	8.6				
Local community and society	10.2	5.8	6.6	3.8	2.3				
Donation of products, etc.	1.9	3.6	4.7	0.1	0.7				
History, traditional culture	1.2	2.9	1.2	1.6	3.1				
Academic research	1.3	2.2	1.2	3.0	2.0				
Disaster relierf	_	-	39.8	24.2	0.0				
Other	24.3	10.5	4.3	5.4	10.6				

## Governance

#### Executive Compensation

		2008	2009	2010	2011	2012
	Number	12	10	13	13	13
Directors	Amount of compensation (¥ million)	748	717	708	801	823
Audit 8	Number	4	5	4	5	4
Supervisory Board Member	Amount of compensation (¥ million)	93	90	90	89	89
	Number	16	15	17	18	17
Total	Amount of compensation (¥ million)	842	808	798	891	913

Note: About compensation amounts

For fiscal 2008, the compensation amount for the term of office of two directors who retired during the period is included; however, the JPY 146 million for retirement benefits is not included.

For fiscal 2009, the compensation amount for the term of office of one auditor who retired is included.

For fiscal 2010, the compensation amount for the term of office of three auditors who retired is included.

For fiscal 2011, the compensation amount for the term of office of one auditor and one director who retired is included.

#### Starting Salary

					(yen)
	2009	2010	2011	2012	2013
University grad	215,000	215,000	215,000	215,000	215,000
Masters	234,800	234,800	234,800	234,800	234,800
PhD	258,800	258,800	258,800	258,800	258,800

(ven)

Note: Figures are those during April of each year.



# **Overview of GRI Guidelines**

GRI Sustainability Reporting Guidelines Version 3.1 (G3.1) ----- 277

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# **GRI Sustainability Reporting Guidelines Version 3.1 (G3.1)**

See Data, environmental performance information and social performance indicators can be found here. (Page 261)

Indicators		GC Principle	ISO 26000 Cor Subjects / Issue	WEB
1.Str	ategy and Analysis			
1.1	Statement from the most senior decision-maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.		6.2 Organizational governance	Chairman's Message
1.2	Description of key impacts, risks, and opportunities.			
2.0rg	ganizational Profile			
2.1	Name of the organization.			_
2.2	Primary brands, products, and/or services.			_
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.		6.2 Organizational governance	
2.4	Location of organization's headquarters.			
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.			
2.6	Nature of ownership and legal form.			Daikin's CSR
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).			-
2.8	Scale of the reporting organization, including: -Number of employees; -Number of operations; -Net sales (for private sector organizations) or net revenues (for public sector organizations); -Total capitalization broken down in terms of debt and equity (for private sector organizations); and -Quantity of products or services provided.			
2.9	Significant changes during the reporting period regarding size, structure, or ownership including:-The location of, or changes in operations, including facility openings, closings, and expansions; and-Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).			Daikin's CSR
2.10	Awards received in the reporting period.			Honors for Daikin

	Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB
3.Re	oort Parameters			
Repo	rt Profile			
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.			
3.2	Date of most recent previous report (if any)			Editorial Policy
3.3	Reporting cycle (annual, biennial, etc.)			
3.4	Contact point for questions regarding the report or its contents.			
Repo	rt Scope and Boundary			
3.5	Process for defining report content, including: -Determining materiality; -Prioritizing topics within the report; and Identifying stakeholders the organization expects to use the report.			
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.			Editorial Policy
3.7	State any specific limitations on the scope or boundary of the report.			
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.			-
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.			Calculation Standard
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods).			-
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.			Editorial Policy
GRI C	ontent Index			
3.12	Table identifying the location of the Standard Disclosures in the report.			This page
Assu	rance			
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).		7.5.3 Communicating about the organization's performance on social responsibility	Independent Opinions

	Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB
4. Go	overnance, Commitments, and Engagement			
Gove	rnance			
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.			
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).			CSR Management
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.			
				Corporate Governance
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to			Responsibility to Shareholders and Investors
	the highest governance body.			Labor Management Relations
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).		6.2 Organizational	-
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.			
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.			CSR Management
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.			CSR Philosophy
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.			CSR Management
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.			-

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB	
Comr	nitme	ents to External Initiatives				
4.11	Expla appro orgai	nation of whether and how the precautionary bach or principle is addressed by the nization.	GC principle 7		<ul> <li>Compliance and Risk Management</li> <li>Environmental Risk Management</li> <li>Product Quality and Safety</li> </ul>	
4.12	Exter socia whicl	rnally developed economic, environmental, and Il charters, principles, or other initiatives to h the organization subscribes or endorses.		6.2 Organizational governance	Participation in the Global Compact	
4.13	Mem asso advo -Has in pro fundi mem	berships in associations (such as industry ciations) and/or national/international cacy organizations in which the organization: positions in governance bodies; -Participates ojects or committees; -Provides substantive ng beyond routine membership dues; or Views bership as strategic.			Daikin Cooperates in Formation of Environmental Policy	
Stake	eholde	er Engagement				
4.14	List o orgai	of stakeholder groups engaged by the nization.				
4.15	Basis stake	for identification and selection of cholders with whom to engage.				
4.16	Appr frequ stake	oaches to stakeholder engagement, including lency of engagement by type and by cholder group.		6.2 Organizational governance	Responsibility to Stakeholders	
4.17	Key t throu organ and c	topics and concerns that have been raised ugh stakeholder engagement, and how the nization has responded to those key topics concerns, including through its reporting.				
5. Ma	inage	ment Approach and Performance Indicators				
Econ	omic					
Mana	geme	nt Approach	ì			
		Goals and Performance	GC principle	6.2 Organizational governance	For Shareholders	
		Policy	1,4,6,7	6.8 Community involvement and	Information Disclosure Policy	
		Additional Contextual Information		development		
Econ	omic	Performance				
Core	EC1.	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.		<ul> <li>6.8 Community <ul> <li>involvement and</li> <li>development</li> </ul> </li> <li>6.8.3 Community <ul> <li>involvement</li> </ul> </li> <li>6.8.7 Wealth and <ul> <li>income creation</li> </ul> </li> <li>6.8.9 Social <ul> <li>investment</li> </ul> </li> </ul>	<ul> <li>For Shareholders</li> <li>Charitable Activities</li> </ul>	
	EC2.	Financial implications and other risks and opportunities for the organization's activities due to climate change.	GC principle 7	6.5.5 Climate change mitigation and adaptation	Environmental Accounting	
	EC3.	Coverage of the organization's defined benefit plan obligations.			-	
	EC4.	Significant financial assistance received from government.			-	

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB
Economic					
Market Pre	esence	8			
Additional	EC5.	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	GC principle 1	<ul> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.4.4 Conditions of work and social protection</li> <li>6.8 Community involvement and development</li> </ul>	_
Core	EC6.	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.		<ul> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> <li>6.8 Community involvement and development</li> <li>6.8.5 Employment creation and skills development</li> <li>6.8.7 Wealth and income creation</li> </ul>	Business Partners
	EC7.	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	GC principle 6	<ul><li>6.8 Community</li><li>involvement and</li><li>development</li><li>6.8.5 Employment</li></ul>	Key Activities (4) Global Personnel Development
				creation and skills development 6.8.7 Wealth and income creation	Promotion of Local Personnel at Overseas Bases
Indirect Ec	onom	nic Impacts			
Core	EC8.	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.		<ul> <li>6.3.9 Economic, social and cultural rights</li> <li>6.8 Community involvement and development</li> <li>6.8.3 Community involvement</li> <li>6.8.4 Education and culture</li> <li>6.8.5 Employment creation and skills development</li> <li>6.8.6 Technology development and access</li> <li>6.8.7 Wealth and income creation</li> <li>6.8.9 Social investment</li> </ul>	Charitable Activities

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB	
Econ	omic					
Indire	ect Ec	onomic Impacts				
Core	EC9.	Understanding and describing significant indirect economic impacts, including the extent of impacts.		<ul> <li>6.3.9 Economic, social and cultural rights</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> <li>6.6.7 Respect for property rights</li> <li>6.7.8 Access to essential services</li> <li>6.8 Community involvement and development</li> <li>6.8.5 Employment creation and skills development</li> <li>6.8.6 Technology development and access</li> <li>6.8.7 Wealth and income creation</li> <li>6.8.9 Social investment</li> </ul>	Environmental Accounting	
Envir	onme	ntal			1	
Mana	ageme	ent Approach				
		Goals and Performance			Environmental Action Plan 2015	
		Policy	_	6.2 Organizational	<ul> <li>Basic Environmental Policy of the Daikin Group</li> </ul>	
		Organizational Responsibility	GC principle 7,8,9	governance 6.5 The Environment	Environmental Management System	
		Training and Awareness			Environmental Education	
		Monitoring and Follow-up			Environmental Audits	
		Additional Contextual Information			-	
Mate	erials					
Coro	EN1.	Materials used by weight or volume.	GC principle 8	6.5 The Environment	Overview of Environmental Impact	
COLE	EN2.	Percentage of materials used that are recycled input materials.	GC principle 8,9	USE	-	
Ener	gу					
Core	EN3.	Direct energy consumption by primary energy source.	GC principle 8	6.5 The Environment	Overview of	
	EN4.	Indirect energy consumption by primary source.	es principie 0	use	Environmental Impact	

Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB		
Environmental							
Energy							
Additional	EN5.	Energy saved due to conservation and efficiency improvements.	GC principle 8,9	6.5 The Environment 6.5.4 Sustainable resource use	Environmentally Conscious Design		
	EN6.	Initiatives to provide energy- efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.			Environmentally Conscious Design		
					Promoting the Use of Inverter Products		
					<ul> <li>Promoting the Use of Heat-Pump Type Space and Hot Water Heaters</li> </ul>		
	EN7.	Initiatives to reduce indirect energy consumption and reductions achieved.			-		
Water							
Core	EN8.	Total water withdrawal by source.	CC principle		Overview of Environmental Impact		
			8	6.5 The Environment	Using Water Resources		
Additional	EN9.	Water sources significantly affected by withdrawal of water.		6.5.4 Sustainable resource use	-		
Additional	EN10.	Percentage and total volume of water recycled and reused.	GC principle 8,9		-		
Biodiversit	.y						
Core	EN11.	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.		6.5 The Environment 6.5.6 Protection of the	-		
	EN12.	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.			biodiversity and restoration of natural habitats	Protecting Biodiversity	
	EN13.	Habitats protected or restored.			Protecting Biodiversity		
Additional	EN14.	Strategies, current actions, and future plans for managing impacts on biodiversity.	GC principle 8	<ul> <li>6.5 The Environment</li> <li>6.5.6 Protection of the environment, biodiversity and restoration of natural habitats</li> <li>6.8.3 Community involvement</li> </ul>	Protecting Biodiversity		
	EN15.	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.		<ul><li>6.5 The Environment</li><li>6.5.6 Protection of the environment, biodiversity and restoration of natural habitats</li></ul>	-		

Indicators		GC Principle	ISO 26000 Core Subjects / Issue	WEB			
Environmental							
Emissions, Effluents, and Waste							
Core	EN16.	Total direct and indirect greenhouse gas emissions by weight.	GC principle 8	6.5 The Environment 6.5.5 Climate change mitigation and adaptation	Overview of Environmental Impact		
					Preventing Global Warming — Production, Transportation		
	EN17.	Other relevant indirect greenhouse gas emissions by weight.			_		
Additional	EN18.	Initiatives to reduce greenhouse gas emissions and reductions achieved.	GC principle 7,8,9		Preventing Global Warming — Production, Transportation		
Core	EN19.	Emissions of ozone-depleting substances by weight.	GC principle	6.5 The Environment 6.5.3 Prevention of pollution	Key Activities (2) Practical Application of Next-Generation Refrigerant		
					Overview of Environmental Impact		
					Low-Impact Refrigerants		
					<ul> <li>Preventing Global</li> <li>Warming — Production,</li> <li>Transportation</li> </ul>		
					<ul> <li>Recovering and Destroying</li> <li>Fluorocarbons from</li> <li>Customers' Air</li> <li>Conditioners</li> </ul>		
	EN20.	NO, SO, and other significant air emissions by type and weight.			Overview of Environmental Impact		
	EN21.	Total water discharge by quality and destination.			Overview of Environmental Impact		
	EN22.	Total weight of waste by type and disposal method.			Overview of Environmental Impact		
					Reducing Waste and Water		
	EN23.	Total number and volume of significant spills.			Environmental Risk Management		
Additional	EN24.	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.			-		

Indicators		GC Principle	ISO 26000 Core Subjects / Issue	WEB			
Environmental							
Emissions,	Effluer	nts, and Waste					
Additional	EN25.	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	GC principle 8	<ul> <li>6.5 The Environment</li> <li>6.5.3 Prevention of pollution</li> <li>6.5.4 Sustainable resource use</li> <li>6.5.6 Protection of the environment, biodiversity and restoration of natural habitats</li> </ul>	-		
Products a	nd Ser	vices					
Core	EN26.	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation. Percentage of products sold and their packaging materials that are reclaimed by category.	GC principle 7,8,9 GC principle 8,9	<ul> <li>6.5 The Environment</li> <li>6.5.4 Sustainable resource use</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> <li>6.7.5 Sustainable consumption</li> <li>6.5 The Environment</li> <li>6.5.3 Prevention of pollution</li> <li>6.5.4 Sustainable resource use</li> <li>6.7.5 Sustainable consumption</li> </ul>	<ul> <li>Key Activities (1) The Embodiment of Daikin CSR</li> <li>Key Activities (2) Practical Application of Next-Generation Refrigerant</li> <li>Low-Impact Products</li> </ul>		
					3R & Repair		
Compliance							
Core	EN28.	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	GC principle 8	6.5 The Environment	No violation		
Transport							
Additional	EN29.	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	GC principle 8	<ul><li>6.5 The Environment</li><li>6.5.4 Sustainable resource use</li><li>6.6.6 Promoting social responsibility in the sphere of influence</li></ul>	<ul> <li>Overview of Environmental Impact</li> <li>Reducing CO2 Emissions during Transportation</li> </ul>		
Overall							
Additional	EN30.	Total environmental protection expenditures and investments by type.	GC principle 7,8,9	6.5 The Environment	Environmental Accounting		

See Data, environmental performance information and social performance indicators can be found here. (Page 261)

Indicators		GC Principle	ISO 26000 Core Subjects / Issue	WEB	
Social					
Labor Prac	tices a	nd Decent Work			
Manageme	ent App	roach			
		Goals and Performance			CSR Targets and Achievements
					Employee Evaluation and Treatment Policy
		Policy	GC principle 1,3,6	<ul><li>6.2 Organizational governance</li><li>6.4 Labour practices</li><li>6.3.10 Fundamental rights at work</li></ul>	Workplace Diversity Policy
					Work-Life Balance Policy
					Labor Management Relations Policy
					Occupational Safety and Health Policy
					<ul> <li>Fostering Human Resources Philosophy</li> </ul>
		Organizational Responsibility	-		-
	Turining and Augure	Fostering Human Resources			
		Training and Awareness			Occupational Safety and Health
		Monitoring and Follow-Up			-
		Additional Contextual Information			-
Employme	nt				
	LA1.	Total workforce by employment type,		6.4 Labour practices 6.4.3 Employment and employment relationships	Daikin's CSR
Coro		broken down by gender.			Workplace Diversity
Core	LA2.	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	GC principle 6		Work-Life Balance
Additional	LA3.	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.		<ul> <li>6.4 Labour practices</li> <li>6.4.3 Employment and employment relationships</li> <li>6.4.4 Conditions of work and social protection</li> </ul>	-
Core	LA15.	Return to work and retention rates after parental leave, by gender.		<ul><li>6.4 Labour practices</li><li>6.4.4 Conditions of work and social protection</li></ul>	-

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB			
Labor Practices and Decent Work								
Labor/Mar	nagem	nent Relations						
Core	LA4.	Percentage of employees covered by collective bargaining agreements.	GC principle 1,3	<ul> <li>6.4 Labour practices</li> <li>6.4.3 Employment and employment relationships</li> <li>6.4.4 Conditions of work and social protection</li> <li>6.4.5 Social dialogue</li> <li>6.3.10 Fundamental rights at work</li> </ul>	Labor Management Relations			
	LA5.	Minimum notice period (s) regarding operational changes, including whether it is specified in collective agreements.	GC principle 3	<ul> <li>6.4 Labour practices</li> <li>6.4.3 Employment and employment relationships</li> <li>6.4.4 Conditions of work and social protection</li> <li>6.4.5 Social dialogue</li> </ul>	-			
Occupatio	nal He	alth and Safety						
Additional	LA6.	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.		6.4 Labour practices 6.4.6 Health and	-			
Core	LA7.	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	-	safety at work	<ul> <li>Occupational Safety and Health</li> </ul>			
	LA8.	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	GC principle	<ul> <li>6.4 Labour practices</li> <li>6.4.6 Health and safety at work</li> <li>6.8 Community involvement and development</li> <li>6.8.3 Community involvement</li> <li>6.8.4 Education and culture</li> <li>6.8.8 Health</li> </ul>	Employee Health Management			
Additional	LA9.	Health and safety topics covered in formal agreements with trade unions.		<ul><li>6.4 Labour practices</li><li>6.4.6 Health and safety at work</li></ul>	_			
Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB			
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Labor Prac	Labor Practices and Decent Work							
Training and Education								
Core	LA10.	Average hours of training per year per employee by gender, and by employee category.		<ul><li>6.4 Labour practices</li><li>6.4.7 Human</li><li>development and</li><li>training in the</li><li>workplace</li></ul>	Fostering Human Resources			
Additional	LA11.	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.		<ul> <li>6.4 Labour practices</li> <li>6.4.7 Human <ul> <li>development and</li> <li>training in the</li> <li>workplace</li> </ul> </li> <li>6.8.5 Employment <ul> <li>creation and skills</li> <li>development</li> </ul> </li> </ul>	Fostering Human Resources			
	LA12.	Percentage of employees receiving regular performance and career development reviews, by gender.		<ul><li>6.4 Labour practices</li><li>6.4.7 Human</li><li>development and</li><li>training in the</li><li>workplace</li></ul>	Employee Evaluation and Treatment			
Diversity a	ind Equ	al Opportunity		·				
Coro	LA13.	Composition of governance bodies and breakdown of employees per category A13. according to gender, age group, minority group membership, and other indicators of diversity.	GC principle 1,6	<ul> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.10 Fundamental rights at work</li> <li>6.4 Labour practices</li> <li>6.4.3 Employment and employment relationships</li> </ul>	Corporate Governance			
Core					Workplace Diversity			
Equal Remuneration for Women and Men								
Core	LA14.	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	GC principle 1,6	<ul> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.10 Fundamental rights at work</li> <li>6.4 Labour practices</li> <li>6.4.3 Employment and employment relationships</li> <li>6.4.4 Conditions of work and social protection</li> </ul>	-			

Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB			
Human Rig	Human Rights							
Manageme	Management Approach							
		Goals and Performance			-			
		Policy		<ul> <li>6.2 Organizational governance</li> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.4 Human rights risk situations</li> <li>6.3.6 Resolving</li> </ul>	Respect for Human Rights			
		Organizational Responsibility	GC principle 1,2,3,4,5,6		<ul> <li>Respect for Human Rights</li> <li>Compliance and Risk Management</li> </ul>			
		Training and Awareness			Human Rights Education			
		Monitoring and Follow-Up		grievances 6.6.6 Promoting social responsibility in the sphere of influence	<ul> <li>Compliance and Risk Management</li> <li>Suppliers Must Be in Legal Compliance</li> </ul>			
		Additional Contextual Information			-			
Investmen	t and	Procurement Practices	1	1				
Core	HR1.	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	GC principle 1,2,3,4,5,6	<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.5 Avoidance of complicity</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> </ul>	-			
	HR2.	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.		<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.5 Avoidance of complicity</li> <li>6.4.3 Employment and employment relationships</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> </ul>	Suppliers Must Be in Legal Compliance			
Additional	HR3.	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.		<ul><li>6.3 Human rights</li><li>6.3.5 Avoidance of complicity</li></ul>	Respect for Human Rights			
Non-Discri	Non-Discrimination							
Core	HR4.	Total number of incidents of discrimination and actions taken.	GC principle 1,2,6	<ul> <li>6.3 Human rights</li> <li>6.3.6 Resolving grievances</li> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.10 Fundamental rights at work</li> <li>6.4.3 Employment and employment relationships</li> </ul>	No violation			

Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB			
Human Rights								
Freed	Freedom of Association and Collective Bargaining							
Core	HR5.	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	GC principle 1,2,3	<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.4 Human rights risk situations</li> <li>6.3.5 Avoidance of complicity</li> <li>6.3.8 Civil and political rights</li> <li>6.3.10 Fundamental rights at work</li> <li>6.4.3 Employment and employment relationships</li> <li>6.4.5 Social dialogue</li> </ul>	-			
Child	Labo	r						
Core	HR6.	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	GC principle 1,2,5	<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.4 Human rights risk situations</li> <li>6.3.5 Avoidance of complicity</li> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.10 Fundamental rights at work</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> </ul>	<ul> <li>Compliance and Risk Management</li> <li>Respect for Human Rights</li> </ul>			
Force	ed and	Compulsory Labor						
Core HR7	HR7.	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	GC principle 1,2,4	<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.4 Human rights risk situations</li> <li>6.3.5 Avoidance of complicity</li> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.10 Fundamental rights at work</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> </ul>	Compliance and Risk Management			
					Respect for Human Rights			

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB		
Human Rights							
Security P	ractice	S					
Additional	HR8.	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	GC principle 1,2	<ul> <li>6.3 Human rights</li> <li>6.3.5 Avoidance of complicity</li> <li>6.4.3 Employment and employment relationships</li> <li>6.6.6 Promoting social responsibility in the sphere of influence</li> </ul>	_		
Indigenous	s Rights	3					
Additional	HR9.	Total number of incidents of violations involving rights of indigenous people and actions taken.	GC principle 1,2	<ul> <li>6.3 Human rights</li> <li>6.3.6 Resolving grievances</li> <li>6.3.7 Discrimination and vulnerable groups</li> <li>6.3.8 Civil and political rights</li> <li>6.6.7 Respect for property rights</li> </ul>	_		
Assessme	nt	'		1			
Core	HR10.	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.		<ul> <li>6.3 Human rights</li> <li>6.3.3 Due diligence</li> <li>6.3.4 Human rights risk situations</li> <li>6.3.5 Avoidance of complicity</li> </ul>	-		
Remediatio	on		1		1		
Core	HR11.	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.		<ul><li>6.3 Human rights</li><li>6.3.6 Resolving grievances</li></ul>	-		
Society		·					
Manageme	ent App	proach					
		Goals and Performance			CSR Targets and Achievements		
		Policy	GC principle	<ul><li>6.2 Organizational governance</li><li>6.6 Fair operating practices</li></ul>	<ul> <li>Compliance and Risk Management</li> <li>Group Compliance Guidelines</li> </ul>		
		Organizational Responsibility	10	6.8 Community	Compliance and Risk Management		
		Training and Awareness		development	Education		
		Monitoring and Follow-Up	-	development	Compliance and Risk Management		
		Additional Contextual Information			-		

		Indicators	GC Principle	ISO 26000 Core Subjects / Issue	WEB		
Society							
Communit	у						
Core	SO1.	Percentage of operations with implemented local community engagement, impact assessments, and development programs.		<ul> <li>6.3.9 Economic, social and cultural rights</li> <li>6.8 Community involvement and development</li> <li>6.8.3 Community involvement</li> <li>6.8.9 Social investment</li> </ul>	_		
Core	SO9.	Operations with significant potential or actual negative impacts on local communities.		<ul> <li>6.3.9 Economic, social and cultural rights</li> <li>6.5.3 Prevention of pollution</li> <li>6.5.6 Protection of the environment, biodiversity and restoration of natural habitats</li> <li>6.8 Community involvement and development</li> </ul>	-		
Core	SO10.	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.			Key Activities (5) Social Contributions with Strong Community Ties		
Corruption	1						
	SO2.	Percentage and total number of business units analyzed for risks related to corruption.	GC principle 10	<ul><li>6.6 Fair operating</li><li>practices</li><li>6.6.3 Anti-corruption</li></ul>	<ul> <li>Compliance and Risk Management</li> <li>Prohibiting Bribes</li> </ul>		
Core	SO3.	Percentage of employees trained in organization's anti-corruption policies and procedures.					
	S04.	Actions taken in response to incidents of corruption.					
Public Polic	су						
Core	SO5.	Public policy positions and participation in public policy development and lobbying.	GC principle 1,2,3,4,5,6,7,8,9,10	6.6 Fair operating practices 6.6.4 Responsible	<ul> <li>Key Activities (2) Practical Application of Next-Generation Refrigerant</li> <li>Daikin Cooperates in Formation of</li> </ul>		
				political involvement	Environmental Policy		
Additional	SO6.	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	GC principle 10	6.8.3 Community involvement	-		
Anti-Comp	Anti-Competitive Behavior						
Additional	S07.	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.		<ul><li>6.6 Fair operating practices</li><li>6.6.5 Fair competition</li><li>6.6.7 Respect for property rights</li></ul>	<ul> <li>Compliance and Risk Management</li> <li>Free Competition and Fair Business Dealings</li> </ul>		

Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB
Society					
Complianc	е				
Core	SO8.	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.		<ul> <li>6.6 Fair operating practices</li> <li>6.6.3 Anti-corruption</li> <li>6.6.7 Respect for property rights</li> <li>6.8.7 Wealth and income creation</li> </ul>	No violation
Product					
Manageme	ent Ap	proach			
		Goals and Performance			CSR Targets and Achievements
		Policy	GC principle 1,8	<ul> <li>6.2 Organizational governance</li> <li>6.6 Fair operating practices</li> <li>6.7 Consumer issues</li> </ul>	<ul> <li>Product Quality and Safety</li> <li>Product Safety Voluntary Action Guidelines</li> </ul>
		Organizational Responsibility			<ul> <li>Product Quality Management Structure</li> </ul>
		Training and Awareness			Employee Education
		Monitoring and Follow-Up			Product Quality and Safety
		Additional Contextual Information			-
Customer	Healt	n and Safety			
	PR1.	<ul> <li>Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.</li> </ul>	GC principle	<ul><li>6.3.9 Economic, social and cultural rights</li><li>6.6.6 Promoting social responsibility in the sphere of influence</li></ul>	Customers
Core					Product Quality and Safety
Additional	PR2.	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	1	<ul><li>6.7.4 Protecting consumers' health and safety</li><li>6.7.5 Sustainable consumption</li></ul>	Product Quality and Safety

Indicators			GC Principle	ISO 26000 Core Subjects / Issue	WEB		
Product							
Product and Service Labeling							
Core	PR3.	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.		<ul> <li>6.7 Consumer issues</li> <li>6.7.3 Fair marketing, factual and unbiased information and fair contractual practices</li> <li>6.7.4 Protecting</li> </ul>	Disclosing Product Information		
Additional	PR4.	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	GC principle 8	<ul> <li>safety</li> <li>6.7.5 Sustainable consumption</li> <li>6.7.6 Consumer service, support, and dispute resolution</li> <li>6.7.9 Education and awareness</li> </ul>	Product Quality and Safety		
	PR5.	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.		<ul> <li>6.7 Consumer issues</li> <li>6.7.4 Protecting <ul> <li>consumers' health and</li> <li>safety</li> </ul> </li> <li>6.7.5 Sustainable <ul> <li>consumption</li> </ul> </li> <li>6.7.6 Consumer service, <ul> <li>support, and dispute</li> <li>resolution</li> </ul></li></ul>	Key Activities (3) Quality Assurance in Emerging Countries		
				<ul><li>6.7.8 Access to essential services</li><li>6.7.9 Education and awareness</li></ul>	Customer Satisfaction		
Marketing	Comr	nunications					
Core	PR6.	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.		<ul><li>6.7 Consumer issues</li><li>6.7.3 Fair marketing,</li><li>factual and unbiased</li><li>information and fair</li></ul>	-		
Additional	PR7.	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.		contractual practices 6.7.6 Consumer service, support, and dispute resolution 6.7.9 Education and awareness	Product Quality and Safety		
Customer Privacy							
Additional	PR8.	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	GC principle 1	<ul><li>6.7 Consumer issues</li><li>6.7.7 Consumer data protection and privacy</li></ul>	<ul> <li>Protecting Customer Information</li> </ul>		
Compliance							
Core	PR9.	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.		<ul><li>6.7 Consumer issues</li><li>6.7.6 Consumer service, support, and dispute resolution</li></ul>	Product Quality and Safety		

See Data, environmental performance information and social performance indicators can be found here. (Page 261)