



ENVIRONMENTAL REPORT

2004

Hitachi Air Conditioning Systems Co., Ltd.



CONTENTS

Message from the President2

Message from the General Manager
of the Environmental Division3

Life Cycle of Products4

Report on the IVX
Development Story5

Environmental Protection Action
Guidelines7

“ Environmental Activity Concept ”
“ Environmental Activity Guidelines ”

Environmental Action Plan8

Eco-Management10

Environmental Management Structure
Environmental Management System
Acquisition of ISO 14001 Certification
Members of the Internal Environmental Audit
“ GREEN21 Version 2 ”
Environmental Accounting

Eco-Mind14

Environmental Education
Environment-Related License Holders
e-Learning (Environmental Education System)

Nature-Friendly Products 15

Switch to New Refrigerant
Eco-Products
Reduction of Chemical Substances Used in Products

Eco-Factories 18

Energy Conservation
Zero-Emission
Chemical Substance Management
Pollution Control Measures
GLOBAL ECO

Stakeholder Collaboration 26

Awards History 27

Introduction of Offices and Factories
..... 28

【Editorial Policy of This Report】

This report was drawn up in order to report the results and the contents of the environmental activities of Hitachi Air Conditioning Systems Co., Ltd. and the future activity plans. This report contains the following

- (1) Added the results of two overseas factories
- (2) Report on the environmental action plan of FY2003
- (3) Report the results of environmental accounting
- (4) Describe the results and the plans about the switch to a new refrigerant
- (5) Increased the contents of eco-factories

Report Period

FY2003 (1 April 2003 to 31 March 2004)

Scope of Report

We investigated the activities of four factories (Shimizu Works, Ibaraki Works, Taiwan Hitachi and Hitachi Air

Conditioning Products Europe) that have the largest environmental impact in Hitachi Air Conditioning Systems and the affiliated and subsidiary companies. Ibaraki Works was integrated with Shimizu Works in August 2003. Large Tonnage Chiller Sales Division (Tsuchiura Works) was integrated with Hitachi Air Conditioning Systems in April 2004.

Reference Indicators

“ Environmental Report Guideline ” (Ministry for the Environment)

Next Issue Around June in 2005

Our Web Page

<http://www.hitachiacs.co.jp/>

Contact of This Report

Hitachi Air Conditioning Systems Co., Ltd. Corporate Environmental Policy Division
390 Shimizu Muramatsu, Shizuoka 424-0926 TEL 81-543-35-4265 FAX 81-543-35-4287
E-mail ecology@cm.shimizu.hitachiacs.co.jp

Message from the President

Hitachi Air Conditioning Systems Group as the Global Citizen

The expansion of economic activities that far exceed the restorative capabilities of the natural environment cause problems such as global warming, atmospheric and water pollution, and waste disposal, all of which are global environmental issues. To resolve these issues, we need to work in cooperation with the local government, corporations and citizens.

Our company, Hitachi Air Conditioning Systems is a company that makes comfortable environments for its customers.

And the slogan “ To take harmony with the environment into consideration in all fields, and promote activities which look ahead for the future of the globe. ” is applied to everything we do.

This means that we are manufacturing efficient eco-friendly products using safer and cleaner materials, quickly with less energy. We hope that the products can be used for a long time but when they reach the end of their life span that they can be recycled. We have every confidence in our ability to meet the challenge to provide consistent support throughout manufacture, sales, installation and service.

As of April 2004 our company has two domestic manufacturing sites and seven overseas manufacturing sites and we promote our corporate activities globally as a global citizen. It is important however, to promote supporting activities in local areas, so we always contribute to social and community activities. We focus on both the “ Global ” and “ Local ” stance, we continue to promote environmental activities in a way that we like to call “ Glocal ”.

We have positive roles in saving the natural environment and building of the sustainable society as one member of Hitachi Group. However, we at Hitachi Air Conditioning Systems are not only members of a business, but also members of a society, and we are striving to foster global citizens on which the future will rest.



Yoshihiko Nakayama
President and Director

Message from the General Manager of the Environmental Division

Reduce the Environmental Impact and Contribute to Environmental Preservation

We manufacture and sell eco-products that are popular with our customers because they provide more comfortable living environments and storage environments for their day-to-day life.

However, we have to consider the fact that there is some environmental impact caused by the manufacture and lifecycle of our products.

We recognize this and as a global citizen we strive to reduce the environmental impact by developing new technology and reforming our business.

To reduce the environmental impact of our products in manufacture, we are working for energy conservation, zero-emission of waste and proper management of chemical substances both locally and globally.

As for the reduction of the environmental impact in usage, we have developed products that use the highest level of technology, the most efficient and quietest in the industry. We are also trying to develop a range of eco-products that use a refrigerant with no impact on the Ozone layer and materials that do not contain toxic substances.

Furthermore, we are pursuing the reduction of environmental impact in logistics and disposal, as a design consideration in the lifecycle of our products through every stage of development through to manufacture. This includes the review of packaging, reducing the overall size, the use of recyclable materials and the indication and labeling of plastic materials, amongst others.

We feel, it is important to construct good relationships with stakeholders and the local communities around our company through environmental preservation activities and communication with our neighbors.

We always promote environmental activities under strong leadership as a member of the Hitachi Group. We hope to have good understanding and cooperation with you.

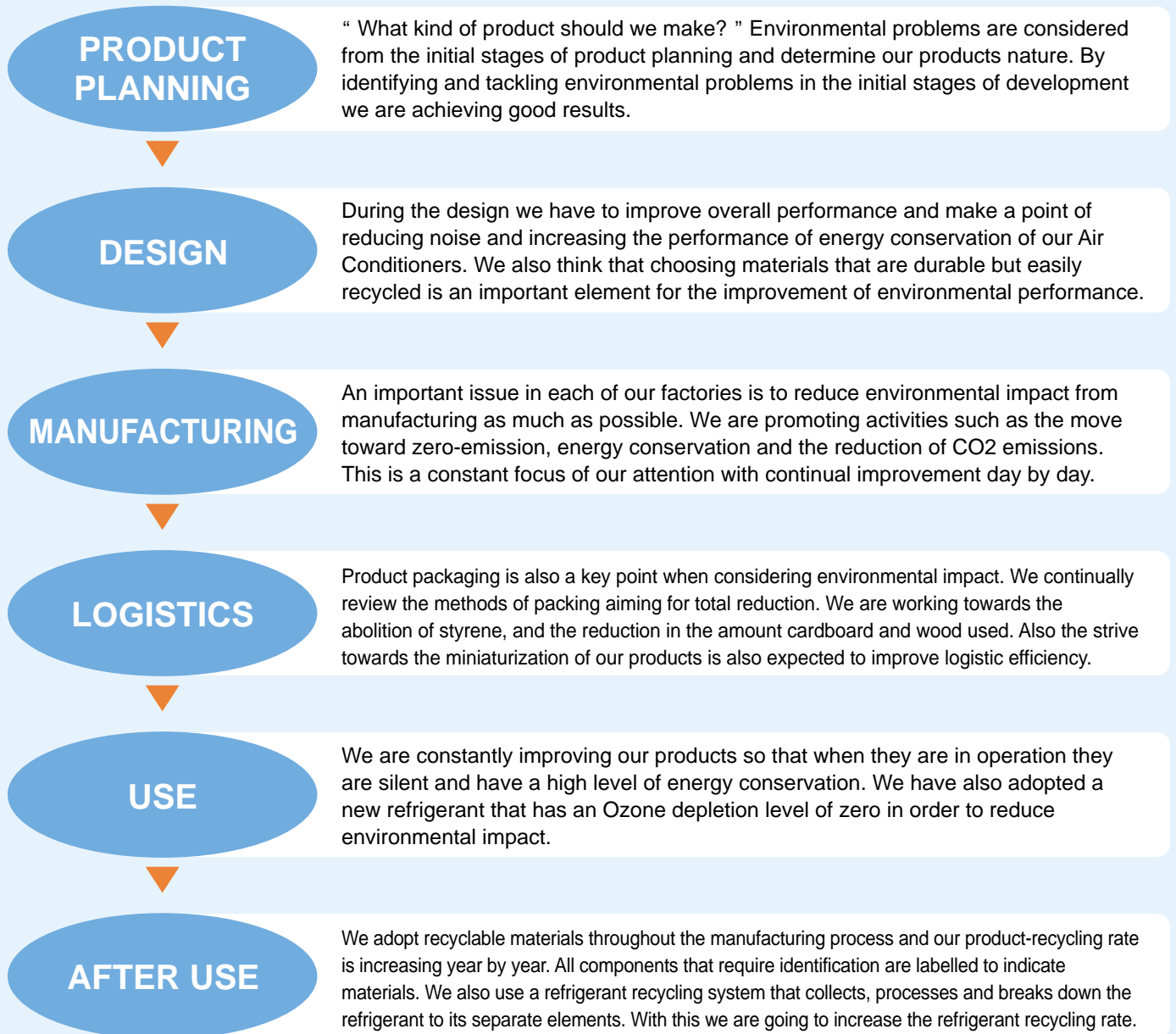


Takeshi Fukuyo
Corporate Director

Life Cycle of Products

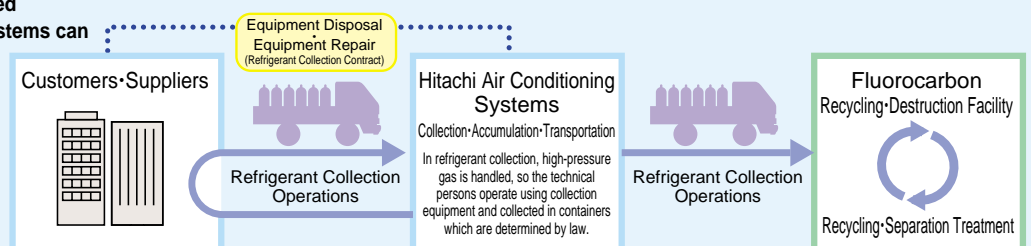
Hitachi Air Conditioning Systems considers the environment through all stages of product development and manufacture to after sales service.

Hitachi Air Conditioning Systems feels it is the responsibility of the manufacturer to promote the reduction of environmental impact through all stages of the manufacturing process. From product planning, the adoption of materials, energy conservation during use to the recycling of used products.



Environmental measures implemented like only Hitachi Air Conditioning Systems can

The Refrigerant Recycling System



A cool gentle breeze to the globe. “ The experts of environment ” who completed the IVX.

The IVX boasts high performance of energy conservation and is one of the quietest units in the industry.

Inside this compact outdoor unit there is a intricate mechanism of parts that has been designed with Hitachi Air Conditioning Systems feelings for the environment in mind.

“ We had two big propositions in the design of the IVX ”, said Hiroshi Takenaka who was responsible for the design. “ These were the protection of the Ozone layer and the prevention of global warming. We had to think about the environment from the first step of design. ”

The use of substitute refrigerant R410A whose Ozone depletion potential is zero was indispensable in order to protect the Ozone layer. Hitachi Air Conditioning Systems has been switching to new refrigerants gradually one after another. The refrigerants were changed to R22, R407C, and then R410A which was adopted by the IVX in a short period of time.

“ This was by no means easy ”, said Takenaka. They had to adopt the new refrigerants while still using the existing parts, so they had to change not only the internal structure of the units but the production lines as well.

Hideki Okuzono, responsible for production and preparation had to mediate between the design section and production section. “ That was a serious thing ”,

he smiled wryly. They couldn't change the refrigerants of all the products simultaneously, so the production lines



Hiroshi Takenaka
Design Division Manager

had to deal with R22, R407C, and R410A. Also they needed investment for new equipment, for example to charge the refrigerant and for testing.

But the designer's aims for the IVX did not remain only in the adoption of the substitute refrigerant R410A. Takenaka said, “ If we wanted to improve the performance of air conditioning while using the substitute refrigerant, the easiest way would have been to enlarge the size of the outdoor units. However, we aimed for miniaturization. ” The smaller the outdoor units are, the less impact on the surrounding environment. Michio Aoki,

responsible for production buried his head in his hands.

“ I was very puzzled how to construct and build them. ” As a result, the parts and piping were intricately stored in a small internal space.

When considering the prevention of global warming, they had to thoroughly improve the performance of the



Michio Aoki
Production Division Manager

units energy conservation. “ The improvement of energy conservation can be interpreted to mean the reduction of the power consumption of society as a whole. We reduce the emission of thermal energy, so that we can prevent global warming ”, said Takenaka. “ Furthermore, it also becomes an advantage for the customers as they can reduce electricity costs ”, he smiled.





Raising the energy conservation performance means high performance using less electricity. For that purpose they had to improve the efficiency of the compressor. The design of the compressor was totally reviewed, and losses were decreased while reliability was improved. Further, Takenaka said, “ We wanted to reduce noise



Hideki Okuzono
Production Division Manager

maximum performance and the production section wanting ease of production. ”

Both sides developed an understanding of each point of view and as a result the IVX boasts high performance of energy conservation while being one of



the quietest and smallest in the industry. However despite being reasonably priced it also had to overcome some lower priced competitors. The development was difficult in all fields.

Aoki said, “ Our employees have a high awareness for the environment. We are working hard to reduce impact on the surrounding environment of our manufacturing sites. ”

Okuzono said, “ We started by reviewing our packaging and actively reducing and collecting our waste paper. ”



in consideration of the surrounding environment. We especially strengthened the new type propeller fan. We devised a new shaped fan, and were able to realize low noise performance whilst raising efficiency. ”

Actually, everything was under constant improvement with many additions being made throughout the design process. Okuzono said, “ I had many difficulties between the design section demanding



“ Although it may be detailed ”, Aoki was smiling. “ Identifying waste is a natural thing. Simple environmental measures such as not using lights which are unnecessary permeate into our employees. ”



IVX is an abbreviation of “ Inspire Verdure eXpert ”. We use the phrase to mean someone who inspires the verdure of the globe. Of course, the word “ expert ” has a double meaning for the IVX, following the corporate ideals of Hitachi Air Conditioning Systems, each of the employees has to be an expert of the environment.

Environmental Protection Action Guidelines

“ Environmental Activity Concept ”

For the future of the globe, we promote activities which are looking ahead into the future and we consider harmony with the environment in everything we do.

“ Environmental Activity Guidelines ”

- 1.** We promote environmental activities which focus on society, considering the health of the population and the preservation and harmony of the global environment, to enable us to pass on the irreplaceable global environment to the next generation.
- 2.** We are conscious of our influence on the global environment and we are trying to provide advanced products, systems, and services.
- 3.** We promote activities that take into consideration recycling, resource conservation, energy conservation, the reduction of waste and polluted substance management. These activities are implemented in every stage of the manufacturing process from research and development, design and manufacture, sales and installation to after sales service.
- 4.** We observe all environmental regulations. In addition, we have self-imposed rules which are looking ahead into the future to minimize environmental impact.
- 5.** We use an environmental management system and promote environmental education in order to implement the continual improvements of the environmental activities.

Environmental Action Plan

Environmental Action Plan FY2003

Activity Evaluation: Achievement Improvement Needs Improvement

Category	Action Plan	Contents	Target Values in FY2003	Activity Evaluation	Final Target Value	Final Target Date	
Eco-Management	Promotion of Environmental Management	Hitachi Air Conditioning Systems and all associated companies shall comprehensively manage business endeavouring to further improve environmental management and to respond to strict environmental regulations			-	-	
					-	-	
					-	-	
	GREEN21 Version 2	Improve green point level	Set measures to achieve the targets by FY2005 which this evaluation system uses	GP426		GP640 FY2005	
Eco-Management	Environmental Management System	Introduce the environmental management system			-	-	
	Environmental Accounting	Establish environmental accounting, actively promote environmental management practices			-	-	
Eco-Mind	Environmental Education	Encourage the attitude of all employees and families to be "eco-minded"			-	-	
			Implement an education system for employees in energy conservation in the home		-	-	
Nature-Friendly Products	Eco-Products	Expanding eco-products	Promote expansion along the development master plan	3 types registration	Application rate: 60%	FY2005	
		Promotion of green procurement	Investigate used chemical substances		-	-	
			Investigate suppliers who use hazardous chemical substances (the PRTR law)		-	-	
		Abolish the use of lead solders in printed circuit board connections	Switch to non-lead solder through our own manufacturing process		-	-	
			Completely phase out lead solder through outside manufacturers		-	-	
	Abolish substances covered by RoHS	Investigate the use of restricted substances in domestically manufactured parts		-	-		
	Investigate ways to substitute restricted substances in domestically manufactured parts		-	-			
	Abolish products that use HCFC Target: domestic: end of 2003, overseas: end of 2006	Follow the plan for switching and abolishment of products that use HCFC	27 types		159 types Dec/2003		
Eco-Management	Promotion of Modal Shift	Promote to reduce the environmental impact (CO ₂ , NO _x , PM (Particulate Substance) and other emissions) from transportation of products	Reduce CO ₂ emissions by the improvement of the efficiency of transportation and fuel consumption		-	-	
			Promote a shift in long-distance transportation from trucking to shipping		-	-	
Eco-Factories	Prevention of Global Warming	Continue the reduction of the amount of energy per unit of sales by 1%	Continue the activities based on the energy conservation plan until 2010	Reduce by 1%	Reduce by 5%	FY2003	
		Reduce CO ₂ emissions per unit		-	25%	FY2010	
		Reduce the emissions of greenhouse gases other than CO ₂	Continue to promote the reduction of the refrigerant emissions	Reduce the results in FY2002 by 10%		Abolish the emissions of Freon to the air	-
	Waste Reduction	Achieve zero-emission factories	Bring forward the achievement of a zero-emission factory	Final disposal volume: 7.8t Final disposal rate: 0.1%		Final disposal volume: less than 5t Final disposal rate: under 1%	FY2004
	Chemical Substance Management	Strengthen chemical substance management and reduce the amount of emissions "Prohibited substances": abolishment by FY2005 "Substances for reduction": 15% reduction by FY2003, 30% reduction by FY2005	Steadily promote the reduction according to the plan of substances for reduction		-		Abolish prohibited substances FY2005
				Reduce the use of substances for reduction by 15% (based on FY2000 standard)			Reduce the substances for reduction by 30% FY2005
	PCB Management	Strict storage management of electrical devices that use PCBs, such as transformers and capacitors	Change the jurisdiction over devices that have PCBs from Ibaraki Works to Shimizu Works Continue the proper storage and management and compile a report			-	-
	Industrial Waste Water and Water Quality Management	Strengthen the prevention against the accidents in the facilities of waste water treatment Respond to the regulations against soil pollution	Renew the control board in the waste water plant			-	-

Environmental Action Plan

Environmental Action Plan FY2003

Activity Evaluation: Achievement Improvement Needs Improvement

Category	Action Plan	Activity Evaluation	Final Target Value	Final Target Date
Stakeholder Collaboration	Environmental Communication	Information disclosure and communication with stakeholders (customers, the administration, shareholders, suppliers, and general citizens)		
		Information disclosure through PR and advertising activities	-	-
		Periodic release of information about production sites through the publication of environmental reports and our web site	-	-
		Active participation in a variety of environmental activities outside the company, from presentations and lectures, to regional activities	-	-
		Conduct meetings with stakeholders and local communities	-	-
		Opinion exchanges through questionnaires, surveys, and study tours	-	-
	Global Citizen Activities	Become involved in activities that contribute to society by planning of volunteer activities and by encouraging employees to actively participate		
		Raise environmental awareness in local communities by providing information about environmental activities, and by opening Hitachi facilities to the public	-	-
		Conduct activities in cooperation with local NGOs	-	-
		Conduct tree-planting and of cleanup activities at a local level	-	-
Sustainable Business Models	Create structure to respond to WEEE regulation (domestic, EU)	-	-	
	Active development of the eco-products	-	-	



Eco-Management

Our feeling to environment will only be realized through the use of a proper management system. In Hitachi Air Conditioning Systems, we have organized the effective eco-management system to implement environmental activities more positively and smoothly for the achievement of specific results.

Environmental Management Structure

We have established an Environmental Specialties Committee led by the General Manager of the Environmental Division who was appointed by the President. As a whole Hitachi Air Conditioning Systems Group, positively promotes broad environmental activities based on the policies and measures decided by the committee.

Environmental Management System

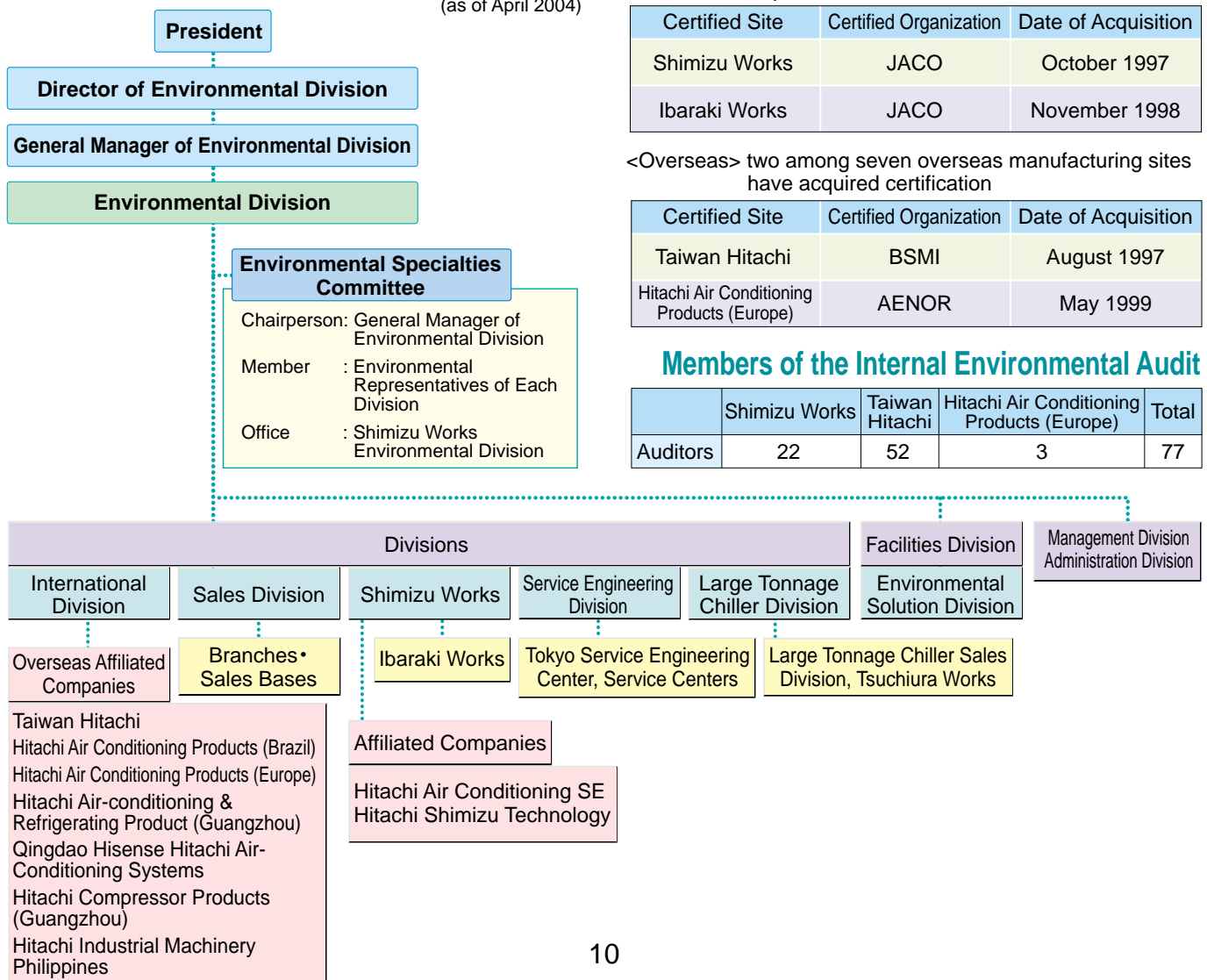
We have organized an environmental management system based on ISO 14001 as one of our environmental activities. We acquired ISO 14001 Certification for both our domestic sites and two of the seven overseas sites. To confirm the implementation of

the environmental management system and the results of the environmental performance based on ISO 14001, every year we are assessed by an accredited organization outside of the company. Furthermore, twice a year an environmental audit is carried out by internal auditors who are certified both inside and outside the company.

In FY2003, Shimizu Works and Taiwan Hitachi had an environmental audit by a certified organization and the status of the factory was renewed. Also Hitachi Air Conditioning Products (Europe) had an inspection to monitor the status of the factory and no problems were found.

Environmental Management Structure in Hitachi Air Conditioning Systems

(as of April 2004)



Acquisition of ISO 14001 Certification

<Domestic> both our domestic manufacturing sites have acquired certification

Certified Site	Certified Organization	Date of Acquisition
Shimizu Works	JACO	October 1997
Ibaraki Works	JACO	November 1998

<Overseas> two among seven overseas manufacturing sites have acquired certification

Certified Site	Certified Organization	Date of Acquisition
Taiwan Hitachi	BSMI	August 1997
Hitachi Air Conditioning Products (Europe)	AENOR	May 1999

Members of the Internal Environmental Audit

	Shimizu Works	Taiwan Hitachi	Hitachi Air Conditioning Products (Europe)	Total
Auditors	22	52	3	77

Eco-Management

“ GREEN21 Version 2 ”

This year we enforced the evaluation of “ GREEN21 Version 2 ” which was newly introduced last year. The evaluation criteria of “ GREEN21 Version 2 ” are Eco-Management & Eco-Mind, Eco-Products, Eco-Factories, Stakeholder Collaboration and Sustainable Business Models. We classified the criteria into categories in which the activity levels are evaluated from 0 to 5 levels. Level 2 is the current activity level, level 4 is the target achievement level (specified in the environmental action plan of Hitachi Group in FY2005) and level 5 is the activity level exceeding the action plan.

In FY2003, we held a training session for environmental personnel from four of our overseas factories in order to improve the whole activity level of Hitachi Air Conditioning Systems. This will allow us have a better understanding of the national regulations and exchange information with each of our overseas sites. In FY2003, we achieved the fiscal year target of 426 green points. However, we had differences between each category, so we are working to improve the areas that received lower evaluations.

“ GREEN21 Version 2 ” Activities

Activity Period: FY2002 to FY2005
(based on FY2002 standard)

Targets and Results in Green Points (GP)

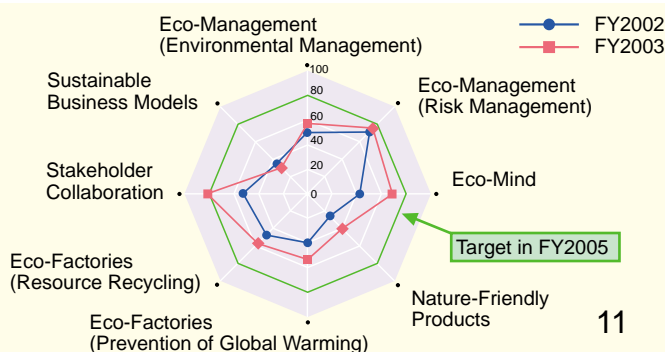
Fiscal Year	2002	2003	2004	2005
Target GP	320	426	533	640
Result GP	363	461		

Evaluation Criteria (8 categories / 53 performance indicators)

Category	Main Contents of Evaluation	Shimizu Works	Ibaraki Works	Domestic Average	Taiwan Hitachi	Hitachi Air Conditioning Products (Europe)	Overseas Average	Average
Eco-Management -Environmental Management	Environmental Management Action Plan Environmental Accounting	60	68	64	54	46	50	57
Eco-Management -Risk Management	Set Own Standard Statute Compliance	80	88	84	88	44	66	75
Eco-Mind	Education for Employees	79	79	79	62	56	59	69
Nature-Friendly Products	Products・Service Assessment Green Purchasing Measure for Logistics	40	33	37	48	38	43	40
Eco-Factories-Prevention of Global Warming	Energy Conservation in Offices and Factories	60	91	76	34	26	30	53
Eco-Factories -Resource Recycling	Waste Reduction Chemical Substance Management	83	73	78	46	25	36	57
Stakeholder Collaboration	Information Disclosure Communication Activities Community Activities	94	86	90	90	54	72	81
Sustainable Business Models	Promotion of Sustainable Business Models	34	15	25	43	28	36	30
Total		530	533	532	465	317	391	461

GP Results in FY2003

Data from Shimizu, Ibaraki, Taiwan, HAPE



Eco-Management

Environmental Accounting

As a key element of our management system we introduced an environmental accounting system as one of our environmental activities. We disclose the cost of environmental preservation activities, the economic effect and the distribution effect. We aim to let others have an understanding of our posture towards the environment.

In FY2003, we continued investments for the recycling of products, the collection of refrigerant (Freon) and the prevention of Ozone layer depletion. Furthermore, we carried out a report on our two domestic sites and two overseas sites (Taiwan Hitachi, Hitachi Air Conditioning Products (Europe)).

Hitachi Air Conditioning Systems Environmental Accounting Standard

Cost of Environmental Preservation Activities

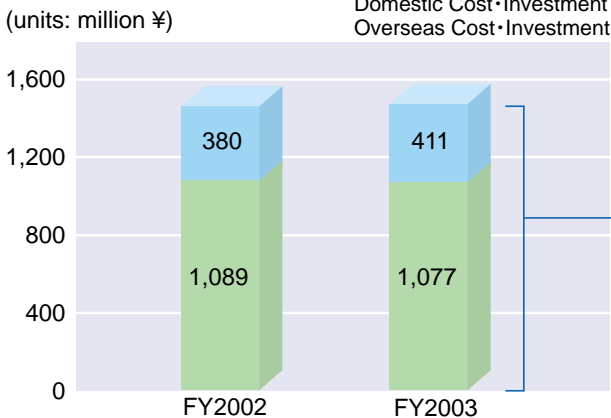
Environmental preservation accompanied with business activity, expense to outlay for the reduction of environmental impact (personnel expense, material cost, depreciation charge, expense) and investment value (such as fixed assets as facilities, equipment)

- Equipment investment for the reduction of environmental impact
- Development cost of eco-products (except subsidy income, sales income)

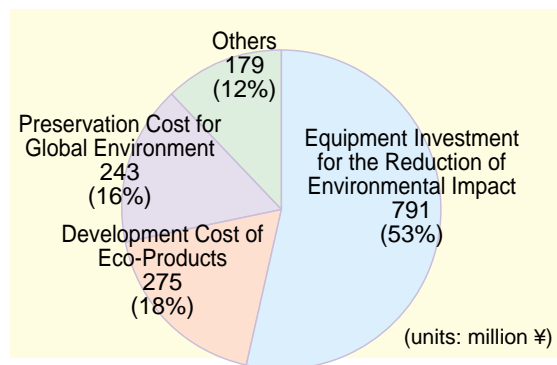
Environmental Preservation Effect Economic Effect

- Real income effect: profit from classification and recycling of valuable materials
- Cost reduction effect (curtailment of expenditure effect): reduction of the amount of component cost from changing manufacturing process, profit by using substitute substances

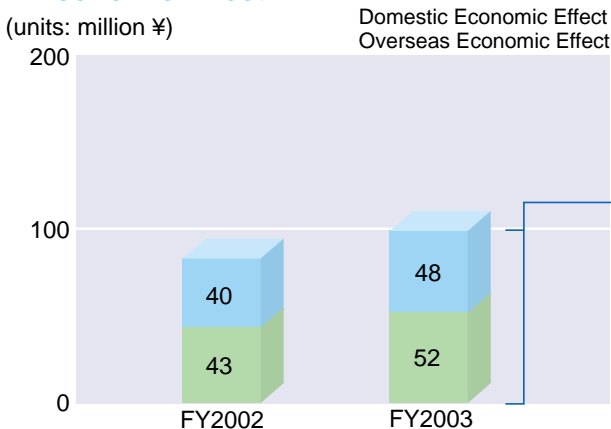
Cost



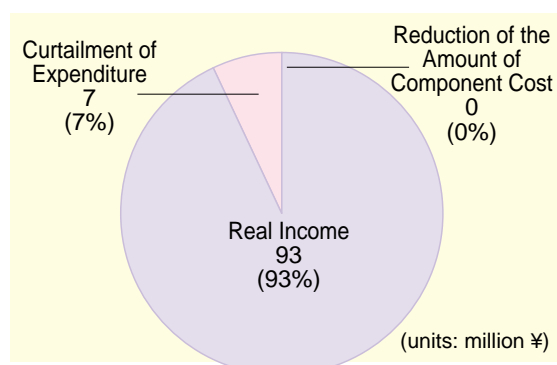
Details of Cost·Investment in FY2003



Economic Effect



Details of Economic Effect in FY2003



Eco-Management

Distribution Effect

- Calculate the amount of reduction from the activities (measures) of the reduction of environmental impact in manufacturing
- Calculate the reduction of the amount of environmental impact by the number of annual sales based on the standard operating condition of our eco-products

Distribution Effect (amount of reduction)

Distribution Effect (Domestic, Overseas)	FY2002	FY2003	Main Contents
1.Reduction of the Amount of Energy Used in Manufacturing	372 MWh	107 MWh	Reduction of the Amount of Energy Used by the Adoption of Energy Conservation Transformer
2.Reduction of the Final Disposal Volume of Waste in Manufacturing	115 t	77 t	Reduction of the Final Disposal Volume by the Management of the Classification of Waste, Improvement in Practice
3.Reduction of HCFC in Manufacturing	21 t	2 t	Reduction by Switching to Substitute Refrigerants
4.Reduction of Energy Consumption in Product Use	60,312 MWh	30,557 MWh	Customers Reduction in Energy Consumption from Using Our Products



Eco-Mind

We provide environmental education for all our employees. We hope that our passion and ideas will lead to specific action from our employees. We also provide high level professional programs for environmental-related workers, and training for emergencies.

Environmental Education

The awareness and practice of every employee is important in order to promote environmental preservation for the workplace and local area. Therefore, we are strengthening the education within the environmental management program. We also hold environmental lectures when required and distribute the latest information. Furthermore, we register employees who are engaged in work that may influence the environment as an “ Environmental-Related Worker ”. We are striving for the reduction of environmental impact and are promoting specific education for these employees to include training for emergencies in their work areas.

Environment-Related License Holders

We nurture and educate environment-related license holders like Pollution Control Managers who have highly specialized knowledge. Our domestic sites have the required number of environment-related license holders started by law.

e-Learning (Environmental Education System)

We have an e-learning environmental education system providing a wide range of education materials, from general to more advanced and specific subjects. It differs from our previous system and allows the education materials to be available to the employees at anytime.

Training Programs and Target Employees

No.	Program	Target Employees
1	General Employee's Program	All Employees, New Employees (Include Transfers and Loan Employees)
2	Manager's Program	More than General Managers
3	Administrator's Program	Managers, Chiefs, Each Site Leaders
4	Environmental-Related Worker's Program	Environmental-Related Workers (Design, Production Engineering, Direct Operation, Analysis)
5	Environment-Related License Holder's Program	Environment-Related License Holders, Employees who Schedule License Acquisitions
6	Auditor's Program	Internal Environmental Auditors
7	Affiliated Companies Employee's Program	Affiliated Companies Employees in Each Site

e-Learning



Conditions of Environment-Related License Holders

License	Number of Holders	License	Number of Holders	License	Number of Holders
Pollution Control Manager (Air)	5	Environmental Management System Jury (JAB Recognition Jury)	3	Specific Chemical Substances Operation Manager	22
Pollution Control Manager (Water)	9	Sanitary Manager in Sanitary Engineering	3	Poisonous Deleterious Substances Operation Manager	1
Pollution Control Manager (Noise)	6	Sanitary Manager	28	Working Environment Measurement Manager (Type1)	2
Pollution Control Manager (Vibration)	6	Boiler Engineer (Advanced)	3	Working Environment Measurement Manager (Type2)	2
Energy Manager (Electricity Type1)	2	Boiler Engineer (Intermediate)	8	Hazardous Materials Chief Officer	65
Energy Manager (Heat Type2)	1	Boiler Equipment Specialist	2	High-Pressure Gas Safety Production Supervisor (Class A Mechanical)	8
Electrical Management Engineer (Type2)	2	Drying Equipment Operation Manager	49	High-Pressure Gas Safety Production Supervisor (Class B Chemical)	26
Electrical Management Engineer (Type3)	2	Radioactive Materials Manager (Type2)	1	High-Pressure Gas Safety Production Supervisor (Class 1 Refrigeration)	7
Waste Disposal Facilities Supervisor (Intermediate Treatment Facilities)	1	Organic Solvent Operation Manager	55	High-Pressure Gas Safety Production Supervisor (Class 2 Refrigeration)	24
Waste Disposal Facilities Supervisor (Incineration Facilities)	1	Oxygen Depletion Hazardous Job Manager (Type1)	1	High-Pressure Gas Safety Production Supervisor (Class 3 Refrigeration)	25
Industrial Waste Special Manager	3	Oxygen Depletion Hazardous Job Manager (Type2)	5		

Data from Shimizu

Nature-Friendly Products

We have switched to a new refrigerant whose Ozone depletion potential is zero, and in our design and manufacturing process we have increased the use of design for the environment.

We are also promoting the reduction of environmental impact by resource conservation, energy conservation, the ease of processing and the reduction of chemical substances.

Switch to New Refrigerant

We are switching from HCFC refrigerant which destroys the Ozone layer to HFC refrigerants whose Ozone depletion potential is zero. In FY2003 we completed 93% of the change over and we will finish by FY2005.

HCFC refrigerant (R22)

HFC refrigerant (R134A, R407C, R410A, R404A)

Eco-Products

Our company has introduced a design for environment assessment system based on the design for environment concept. The principle of this system is to minimize the environmental impact at every stage of a products life cycle. We define products as eco-products by an accreditation criteria.

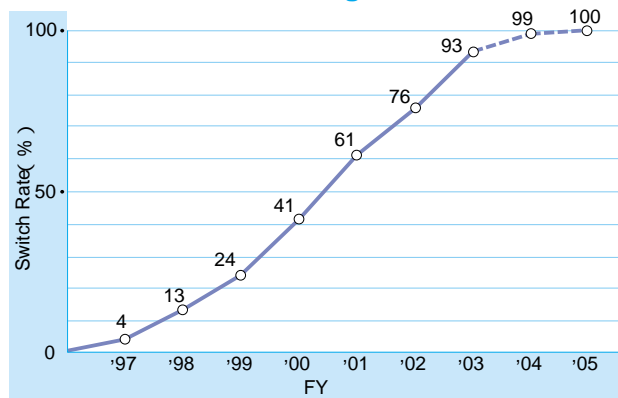
At present, we have developed 63 products which are

classified as eco-products and we are making efforts to further increase this figure.

Reduction of Chemical Substances Used in Products

We do not use any chemical substances prohibited by domestic law. Furthermore, we have started investigations into the use of chemical substances such as hexavalent chromium, lead, mercury, cadmium, and bromine-based flame retardants (PBB, PBDE) of which there is a movement towards prohibition in Europe. We are working for abolition in FY2005. Additionally, in FY 2003 we switched to non-lead solder and introduced non-lead soldering equipment for all electrical circuit boards that are manufactured in our factories.

Plan of Switch to New Refrigerant



Design for Environment Assessment System Criteria

No.	Category	Life Cycle Stage	Assessment Criteria
1	Resource Reduction	Selection of Component Materials, Production, Distribution	Resource Conservation, Compactness, Lightweight, Conformity, High Yield, Standardization
2	Product Longevity	Usage	Ease of Upgrade, Ease of Repair and Maintenance, Durability, Reliability
3	Resource Recycling	Reuse, Recycle, Distribution	Reusability, Conformity of Component Materials, Use of Recycled Materials, Promotion of Resource Recycling, Labelling of Materials
4	Ease of Disassembly	Disassembly	Ease of Disassembly, Selection of Component Materials, Ease of Sorting, Labelling of Materials
5	Ease of Processing	Production, Distribution, Disassembly	Crumbing, Fragmentation, Disassemble and Separation, Ease of Processing
6	Environmental Preservation	Selection of Component Materials, Production, Distribution, Usage, Disassembly, Disposal	Potential Toxicity, Potential Harmfulness, Explosiveness, Potential for Implosion, Potential Hazard
7	Energy Conservation	Usage, Production	Energy Conservation, Longer Durability, Energy Efficiency
8	Provision of Information	Usage, Disassembly	Provision of Information Regarding Processing, Provision of Information Regarding Product Disposal

Nature-Friendly Products

Development of Eco-Products

1 .Inverter-Driven Outdoor Units (Hi-Inverter IVX 15 models registered)

We adopted the new refrigerant R410A and continue to consider energy conservation performance

We adopted the new refrigerant whose Ozone depletion potential is zero. The Hi-Inverter raises air conditioning performance and reduces power consumption. It leads to a saving in electricity costs.



RAS-NP50HVR registered in 2003 as eco-product

Energy Conservation

Achieved COP4.85 (2 horse power) of industry top class

Resource Conservation

One of the smallest and most lightweight in the industry
 Weight 69kg (conventional model) 47kg
 Volume 0.214m³ (conventional model) 0.142m³

Recycling Ability

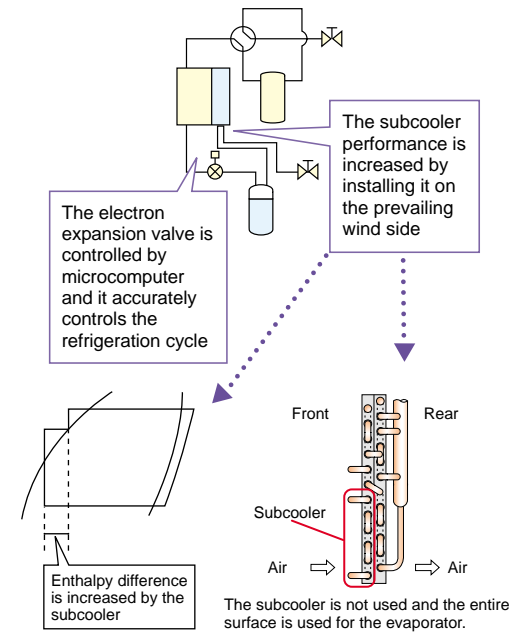
- Styrene foam-less packing
- Reduce corrugated cardboard used for packing
- Adopt recyclable PP plastic
- Indicate and label plastic materials

Environmental Preservation

- Reduce the amount of refrigerant Styrene foam-less packing
- Adopt substitute refrigerant R410A

New CBC Control

The Hi-Inverter attains high performance and high effect at every turn such as heat exchanger and electron expansion valve.



2 .Chiller Units (High Performance (AH) Series)

We aim for miniaturization but with high performance and high energy conservation

We have sharply improved the energy conservation of chiller units that are used as heat source machines throughout industry and in air conditioning. We have adopted the new refrigerant R407C that does not destroy the Ozone layer, and reduced of CO2 emissions, we take environmental performance into full consideration.



RHUP1800AHZ will be registered in 2004 as eco-product

Energy Conservation

Achieved the worlds highest level COP4.1 / 3.7 for full air cooling (60 horse power, 50 / 60HZ, at the time of rated cooling operation) investigation carried out by our company (at the end of Dec / 2003)

Outstanding partial load characterization

- Exercise the high efficiency COP5.1 ~ 4.6 (50HZ) in the partial load range of 50% ~ 70% which is considered normal operation
- Efficiency is increased by 26% when the compressor is run at a load of 50% compared with the 100% load

Installation of high performance screw compressor

- Internal leakage is reduced by using a high precision rotor and efficiency is improved by matching the internal volumetric ratio
- Develop the Inverness fan and the long duct bell mouth
- Realize the miniaturization, high air capacity and reduced power consumption with the adoption of the new developed two sheet wings propeller fan

Response to the Environment

Reduce CO2 emissions 14%, high energy conservation
 Adopt R407C which does not destroy the Ozone layer, and reduce the amount of filling by 15%

Resource Conservation

More compact by use of a better layout of heat exchanger and refrigerant cycle parts, installation space reduced by 25%

Nature-Friendly Products

Eco-Products List

No.	Registered Products	Number of Registered Products	Note
1	Inverter-Driven Outdoor Units (use R410A)	15 models	Hi-Inverter IVX
2	4-Way Cassette System Indoor Units	13 models	for Substitute Refrigerant
3	Hi-Inverter Series Outdoor Units (use R407C)	11 models	Hi-Inverter RZ
4	Constant Speed Type Outdoor Units for Shops	3 models	Highly Efficient Type
5	4-Way Cassette Type Indoor Units	3 models	Highly Efficient Type
6	Ceiling Type Indoor Units	3 models	Highly Efficient Type
7	Spot Cooler	3 models	Floor-Mounted Type
8	Electric Hot Water Heater	1 model	Semi-Automatic Type
9	Electric Hot Water Heater	1 model	Full-Automatic Type
10	Electric Hot Water Heater	1 model	Equipped Inside Square Type
11	Electric Hot Water Heater	1 model	Round Type
12	Ice Storage Type Multi Packaged Air Conditioner for Building Outdoor Units	4 models	High Peakshift Type
13	Ice Storage Type Multi Packaged Air Conditioner for Building Storage Units	4 models	High Peakshift Type

Total 63 models

Registration Example of Eco-Products

1 .Inverter-Driven Outdoor Units

(Hi-Inverter IVX 15 models registered)



RAS-NP50HVR registered in 2003 as eco-product

Energy Conservation	Achieved COP4.85 (2 horse power) of industry top class
Resource Conservation	One of the smallest and most lightweight in the industry Weight 69kg 47kg Volume 0.214m ³ 0.142m ³
Recycling Ability	Styrene foam-less packing Reduce corrugated cardboard used for packing Adopt recyclable PP plastic Indicate and label plastic materials
Environmental Preservation	Reduce the amount of refrigerant Styrene foam-less packing Adopt substitute refrigerant R410A

4. Constant Speed Type Outdoor Units for Shops

(Highly Efficient Type 3 models registered)



RAS-P140HGR registered in 2002 as eco-product

Energy Conservation	Exceeded the reference value of green purchasing law COP2.43 (conventional model) 3.12 (60HZ)
Resource Conservation	One of most compact units in the industry
Recycling Ability	Styrene foam-less packing Reduce corrugated cardboard used for packing Adopt recyclable PP plastic Indicate and label plastic materials
Environmental Preservation	Styrene foam-less packing Adopt substitute refrigerant R407C

7 .Spot Cooler (Floor-Mounted Type 3 models registered)



SR-20YE1 registered in 2002 as eco-product

Energy Conservation	Reduce power consumption by 30% (conventional model)
Resource Conservation	Reduce product mass by 20% (achieved the lightest in the industry)
Recycling Ability	Recyclable ratio is 88%
Environmental Preservation	Styrene foam-less packing

9 .Electric Hot Water Heater

(Full-Automatic Type 1 model registered)



BEB-4670BFAWU registered in 2002 as eco-product

Energy Conservation	Reduce power consumption of re-heating bath by 40% (by equipping re-heating heat exchanger)
Resource Conservation	Saving additional hot water for bath by 1200liters / month (by re-heating function)
Recycling Ability	Recyclable ratio is 82%
Environmental Preservation	Styrene foam-less packing Supply hot water by electricity without exhausting dirty air

Eco-Factories

We supply eco-products from factories that consider environmental preservation to the maximum extent. This is the concept of Hitachi Air Conditioning Systems. We promote activities that pursue movements in society in relation to the environment such as monitoring of global warming, energy conservation and zero-emission.

Energy Conservation (Prevention of Global Warming)

For the prevention of global warming, in accordance with the target set by the Kyoto Protocol of Japan we have to conserve energy and reduce emissions of greenhouse gases by 6%. In Shimizu Works, all employees actively promote energy conservation using guidelines set by the Energy Conservation Measuring Group. The guidelines are (1) Rationalization of energy

usage, (2) Introduction of new energy conservation systems, and (3) Changing manufacturing process to conserve energy.

In FY2003, we switched the paint line pump to one controlled by an inverter and improved the control system of machine tools to reduce wasted energy.

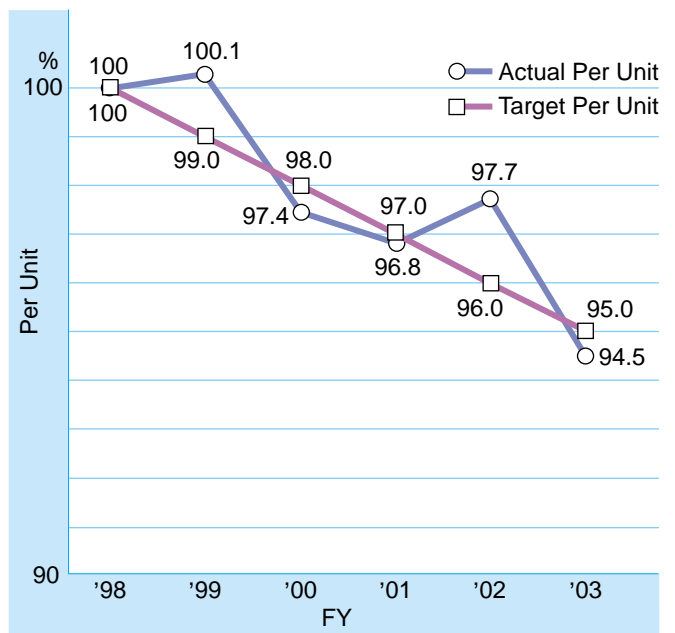
Target of Energy Conservation

- Amount of energy per unit of sales:
Based on FY1998 standard 5% reduction in FY2003
- CO2 emissions per unit of sales:
Based on FY1990 standard 25% reduction in FY2010

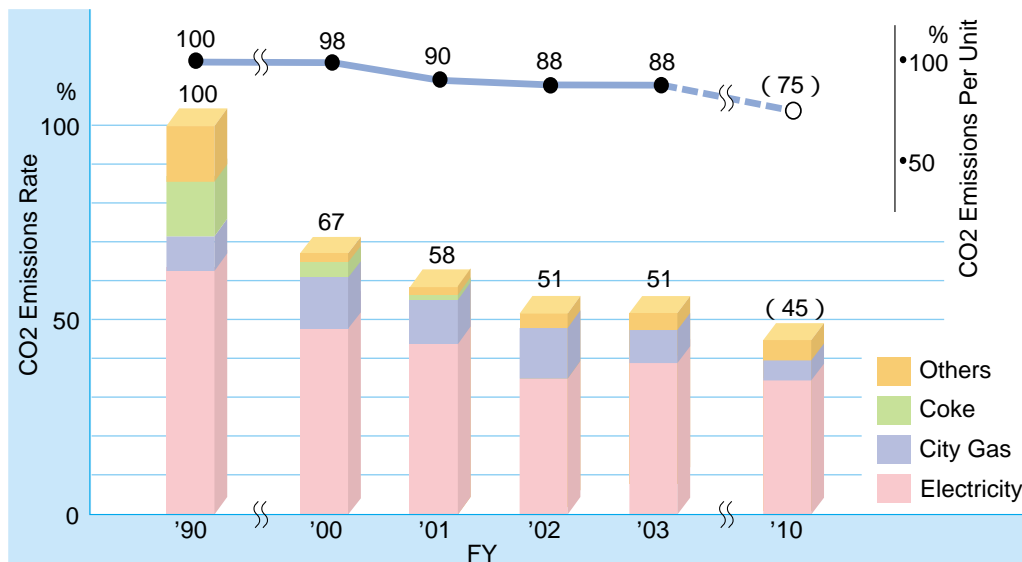
Main Measures for Energy Conservation

Category	Main Measures for Energy Conservation
Transformer	Centralization of Transformer Introduction of Energy Conservation Type Amorphous Transformer
Machine Tool	Improvement of Linked Operation with Dust Catcher Machines Improve the Control System of Machine Tools to Reduce Wasted Energy
Lightning	Set Up Detection of Human Presence Sensor Lights Switch to Inverter Lightning in the Offices
Compressor	Control the Number of Air Compressors Prevent Air Blow and Air Leakage
Pump	Switch Fan Pump to Inverter
Others	Cut the Use of Unnecessary Electricity

Plan and Result of Energy / Reduction Per Unit of Sales



Plan and Result of CO2 Emissions / Reduction of the Amount Per Unit of Sales



Eco-Factories

Zero-Emission

When we received ISO 14001 Certification, we set the environmental guideline “ For the reduction of industrial waste, we promote recycling and zero-emission factories ”. We worked to the target set by Hitachi Group, of zero-emission by FY2004. However, Shimizu Works achieved this zero-emission target in FY2002, two years in advance. However, in FY2003 products such as the electric hot water heater were

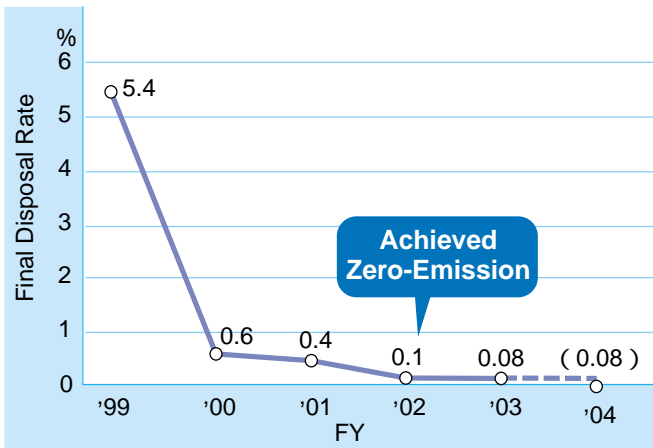
transferred to Shimizu Works increasing the amount of industrial waste emissions to over 300t / year. Some of this waste was reprocessed and reused. For example waste rubber is processed into an alternative for coal and chloride material have been produced from waste plastics. As a result, we reduced the final disposal volume to 4.1t / year which was less than FY2002, enabling us to maintain ourselves as a zero-emission factory.

Definition of Zero-Emission of Hitachi Group

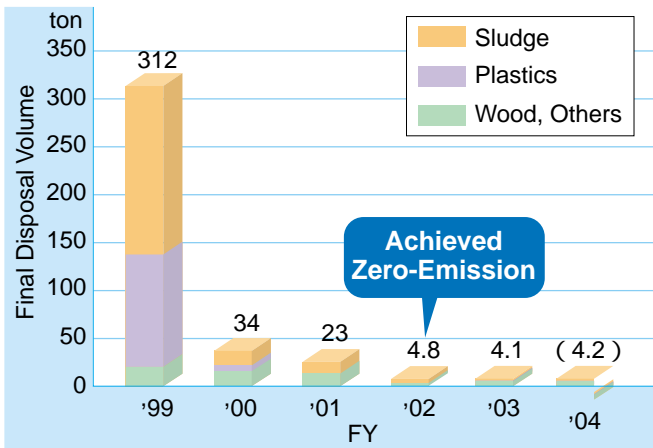
Final disposal rate is under 1% and final disposal volume is less than 5t / year

- Final disposal rate = Final disposal volume / Amount of emissions
- Final disposal volume = Disposal without treatment + Disposal with after intermediate treatment

Final Disposal Rate



Final Disposal Volume



Main Measures for Reduction of Industrial Wastes

Category	Main Measures for Reduction of Industrial Wastes
Sludge	Formation of Cement Materials from Waste Water Treatment Sludge, Formation of Roadbed
Oil	Reuse as Reclaimed Oil
Plastic	Use in the Recycling Process at the Steel Works Blast Furnaces Coal Alternative from Cement Calcination, (Coal Alternative from Waste Rubber) Waste Plastic Refined and Reused as Reclaimed Oil Chloride Materials from Vinyl Chloride System Waste Plastic
Paper	Improvement of Recycling Rate by Thorough of Classification of Waste Emissions Controlled by Computer Insulation Material Exfoliate Paper Recycled Paper Materials
Wood	Recycled to Paper Materials, Formation of Plywood Control Use in the Factories Waste Oil, Paint Adherence Wood Chip Thermal Recycling Wood Cuttings in the Factories Used for Fertilizer
Glass	Formation of Glass Cullet Materials
Slag	Formation of Cement Materials (until Feb / 2002)

is implemented items in FY2003

Eco-Factories

Chemical Substances Management

Hitachi's chemical substances management system CEGNET is responsible for monitoring and also trying to reduce the use of chemical substances used in the

manufacturing process and that could possibly effect the environment and human health.

Prohibited Chemical Substances - 134 substances specified by Hitachi Group

We do not use any prohibited chemical substances in the process of production.

Specified Chemical Substances for Reduction - 258 substances specified by Hitachi Group

15% reduction until in FY2003 (based on FY2000 standard)

30% reduction until in FY2005 (based on FY2000 standard)

Shimizu Works uses 12 of the chemical substances specified for reduction.

We use (Xylene, HCFC-22, HFC-134a, Toluene, and others)

Report to PRTR (units: kg)

Contents of Report in FY2001 and FY2002 (above 5t)

		Xylene		HCFC-22	
		2001	2002	2001	2002
	Volume Handled	8,344	8,746	505,873	89,357
Emission	to Air	8,344	8,746	22,854	2,935
	to Public Areas and Sewers	0	0	0	0
Transfer	as Waste	0	0	0	0
	to Outside	0	0	3,371	0
Others	Amount of Consumption (as Products)	0	0	477,820	83,710
	Reprocessed and Eliminated	0	0	0	2,310
	Recycled	0	0	1,833	402

Data from Shimizu

Contents of Report in FY2003 (above 1t)

		Toluene	Xylene	HCFC-22
	Volume Handled	2,144	6,633	54,824
Emission	to Air	2,114	6,547	880
	to Public Areas and Sewers	0	0	0
Transfer	as Waste	0	0	0
	to Outside	30	30	81
Others	Amount of Consumption (as Products)	0	56	53,863
	Reprocessed and Eliminated	0	0	0
	Recycled	0	0	0

Data from Shimizu

By law the target of the report was changed from 5t / year to 1t / year as stated by the PRTR in FY2003

Eco-Factories

Pollution Control Measures

In our domestic manufacturing sites, to reduce environmental impact we have a self-imposed standard stricter than Japanese national regulations.

We regularly monitor water, air, noise, vibration and smells to promote a nature-friendly factory.

Water Pollution Prevention

There are 21 water-related law notification facilities.
Implementation of drainage analysis every 2 week (twice a month)

Results of Measurement in FY2003 (the water pollution control law)

	PH	COD	SS	Copper	Iron
Regulation	5.8 ~ 8.6	25	70	3.0	10.0
Self-Imposed Standard	6.2 ~ 8.2	15	30	0.9	2.45
Result (maximum)	8.14	8.6	12.0	0.07	0.91

Data from Shimizu

Air Pollution Prevention

There are 10 air pollution control law notification facilities.
Implementation of smoke analysis every 6 month (twice a year)

Measures for Reduction of Air Pollution

- Change boiler fuel (refined kerosene city gas)
- Exclusion of energy loss by recorded operation of boilers

Results of Measurement in FY2003

		A Section	B Section	C Section
Dust	Regulation	0.10	0.10	N/A
	Self-Imposed Standard	0.01	0.05	0.15
	Result (maximum)	ND*1	ND*2	ND*2
NOX	Regulation	150	150	N/A
	Self-Imposed Standard	75	75	90
	Result (maximum)	67	79*3	82

Data from Shimizu

ND*1 : less than detection limit (0.05)

ND*2 : less than detection limit (0.03)

*3 : exceed reference value by soot of combustion part

Noise Pollution Prevention

There are 364 noise-related facilities.
Implementation of noise measurement at 12 points on the factory boundary (twice a year)
One point exceeded the self-imposed standard due to motor sound (Jun / 2003)
Worked to reduce this value and satisfied the test in December 2003

Vibration Pollution Prevention

There are 123 vibration-related facilities.
Implementation of vibration measurement at 12 points on the factory boundary (once a year)
Under the self-imposed standard (less than detection limit)

Smell Pollution Prevention

Implementation of periodical measurement at 7 points on the factory boundary (once a year)
Under the self-imposed standard (less than detection limit)



Eco-Factories

GLOBAL ECO

Environmental problems are a key issue which must be tackled with a global perspective. Hitachi Air Conditioning Systems has factories in many parts of the world which all have a common awareness of environmental measures. We promote activities that are directed towards the regional situation of each factory. For the future and protection of the globe, we always consider and act on things that we should do now.

Taiwan Hitachi Co., Ltd.



Profile

Corporate Name : 台湾日立股份有限公司
 Head Office : 桃園縣蘆竹鄉內厝村內溪路29號
 Incorporated : April 19, 1965
 Representative : Tsuneharu Takagi
 Net Sales : 7,679.9 Million Yuan (FY2003)
 Number of Employees : 1,207 (Touen Works 830)
 Main Products : Room Air Conditioning,
 Package Air Conditioning,
 Chiller Units, Compressor,
 Refrigerator, Fan Filter Units,
 Dehumidifier, Air Cleaner

History

- 1986 Established Touen Works
 - 1992 Acquired The First Corporate Environmental Protection Prize *
 - 1994 Established the compressor factory of Touen Works
 - 1995 Acquired ISO 9001 Certification
 - 1995 Acquired Excellence in Health and Safety Five Star Prize *
 - 1997 Acquired ISO 14001 Certification
 - 2001 Acquired Pollution Prevention Equipment Operation and Maintenance Excellent Factory Prize *
 - 2002 Acquired Environmental Design Model Factory Prize *
 - 2002 Acquired Environmental Efficiency Target Model Factory Prize *
 - 2003 Acquired Industrial Waste Treatment and Recycling Excellent Factory Grand Prize
 - 2004 Prohibited using incinerators by government regulation
 - 2004 Acquired " GREEN21 Grand Prix " Encouragement Prize from Hitachi
- * awarded by the Taiwanese Government

Business Profile

Manufacturing of Air Conditioning and Air Conditioning Relevant Apparatus, Sales, Service

Green Action - Action for Environmental Problems

In January 2004, the Taiwanese government issued regulations on dioxin, and the government prohibited the use of small and medium size incinerators. Following this we tightened the classification of waste for the reduction of the amount of waste emissions, and promoted the thorough collection of recyclable resources. This data is monitored and compiled into statistical reports. As a result, we can reduce the emissions from our factory by ten percent.

We will pursue further improvement such as the adoption of environmental protection materials in order to reduce the amount of packaging.

Message from Taiwan Hitachi

The Taiwanese are characterized by having a very high awareness about environmental protection. Specifically, they actively recycle and classify waste in detail. In our company, the employee's awareness about environmental protection has increased year after year. Environmental protection is something which must be tackled worldwide. Our company regards environmental protection measures as the most important issue to be actively pursued.

Hitachi Air Conditioning Products Brazil S.A.



Profile

Corporate Name : Hitachi Ar Condicionado do Brasil S.A.
 Head Office : São José dos Campos City - São Paulo State - Brasil
 Incorporated : April 1, 1972
 Representative : Shigekichi Kochiyama
 Net Sales : 90 Million R\$ (FY2003)
 Number of Employees : 325
 Main Products : Air Conditioning for Business, Chiller Units

History

1972 Established the factory
 1980 Started manufacturing of Large Chiller
 1988 Maintained waste place
 1994 Maintained waste water facility and emissions pollution prevention facility
 1996 Acquired ISO 9002 Certification
 2001 Started electric energy conservation activity
 2002 Improved the measure about chemical substance waste for expectable accidents
 Installed natural gas network to supply powder coating line
 2003 Extended waste water treatment facility
 Switched boiler fuel (heavy oil natural gas)

Business Profile

Manufacturing of Air Conditioning for Business and Chiller Units

Green Action - Action for Environmental Problems

Brazil has three major problems, water pollution, air pollution and energy shortages. Our company took some measures against these problems. Such as, conservation of water by the circulation of condenser water, the reduction in emissions of Sox and Nox by converting energy from heavy oil to natural gas and by changing the process, a reduction in waste during painting. Also we are paying careful attention to energy conservation activities including the education of our employees. We are working on each of these activities for the acquisition of ISO 14001 Certification of environmental management systems.

Message from Hitachi Air Conditioning Products (Brazil)

Environmental activities have a vital importance to our survival. Unfortunately, the Brazilian population still has a low awareness about environmental problems. A key concern of our company is raise the moral of our company and to reform this lack of awareness for environmental problems. We will strengthen the education of our employees, so that they can be more sensitive towards the environment and implement this attitude in their daily work.

Hitachi Air Conditioning Products Europe S.A.



Profile

Corporate Name : Hitachi Air Conditioning Products Europe, S.A.
 Head Office : RONDA SHIMIZU, 1-Polig. Ind. Can Torrella, 08233 Vacarisses (Barcelona), Espana
 Incorporated : November 1991
 Representative : Masamichi Hanada
 Net Sales : 63.1 Million € (FY2003)
 Number of Employees : 328
 Main Products : Air Conditioning for Business, Chiller Units

History

1991	Established the company
1992	Established the factory
1993	Started manufacturing of Outdoor Units for Shops
1996	Acquired ISO 9001 Certification
1997	Started manufacturing of R407C type (HFC refrigerant)
1999	Acquired ISO 14001 Certification
2001	Maintained the water proofing treatment of oil warehouse
2002	Strengthened the activity of classification of waste
2003	Started measuring for EU regulations (WEEE, RoHS)
2003	Improved recycling by the activity of classification of waste
2003	Strengthened the reduction of the amount of waste
2003	Finished manufacturing of HCFC22 used in products

Business Profile

Manufacturing of Various Water Cooling and Air Cooling Chiller and Package Air Conditioning, Sales, Service

Green Action - Action for Environmental Problems

In our company, we consider the environmental awareness of our employees to be an important issue therefore we are reviewing and improving our environmental education plans. We are also tightening the classification of waste throughout our factory. As a result, we have improved the recycling rate of industrial waste, reduced failures in the manufacturing process and maintained zero-emission of refrigerant gasses to air. Furthermore, we are promoting the development of high efficiency energy conserving air conditioners. We are also reducing the amount of packaging, adopting materials which do not include detrimental hazardous substances and the organizing a product recycling system in preparation for EU regulations.

Message from Hitachi Air Conditioning Products (Europe)

Education policy concerning environmental protection was based on the concept of saving the environment for everyone. However, this was slow to penetrate the workers attitudes. So we changed our concept to environmental measures being useful for ourselves. The Spanish have a disposition that cherishes their processions so with this our employees can relate this directly to themselves. Therefore, the awareness of the environment will improve and we will get good results.

Eco-Factories GLOBAL ECO

Hitachi Air-conditioning & Refrigerating Product (Guangzhou) Co., Ltd.

Profile

Corporate Name : 広州日立冷機有限公司
 Head Office : 広東省広州従化市鰲頭鎮棋杆
 Incorporated : March 1, 1998
 Representative : Hitoshi Nakatsuka
 Net Sales : 205 Million RMB (FY2003)
 Number of Employees : 365
 Main Products : Water Cooling Chiller, Air Cooling Chiller, Package Air Conditioning

History

1998 Established the company
 Acquired Operation License
 1999 Acquired Pressure Vessel Manufacturing License
 1999 Started manufacturing and sales of Water Cooling Chiller
 2000 Acquired ISO 9001 Certification
 2002 Started manufacturing and sales of Water Cooling and Water Cooling Heat Pump Chiller
 2002 Started manufacturing and sales of Utopia Package
 Started manufacturing of Screw Compressor for Chiller
 2004 Started manufacturing and sales of Set Free Lancer Indoor Units
 2004 Acquired ISO 9000, 14000, 18000 Integrated System Certification

Business Profile

Manufacturing of Various Water Cooling and Air Cooling Chiller and Package Air Conditioning, Sales, Service

Green Action - Action for Environmental Problems

From now, laws on energy conservation and material conservation are being introduced in China. The first issue of our company is to get a general grasp on environmental problems in China and to make a system in order to solve the problems. Our first real action for the environmental problems was to establish a commission for the acquisition of ISO Certification in 2003. We also tackled the arrangement, sanitation, and attitudes in our company as part of environmental improvement activities, and we are going to improve the whole of our company's awareness about the environment.

Message from Hitachi Air-conditioning & Refrigerating Product (Guangzhou)

The realization of problems of awareness towards the environment is rising little by little in the affiliated companies. Each of the companies is working for the acquisition of ISO Certification. However, environmental problems such as air and waste water pollution, the destruction of nature are becoming a very serious problem in China. Every employee's environmental awareness has been improved because it has been ignited by the establishment of the commission for the acquisition of ISO Certification. We will continue to strive to raise the level of awareness in our company.

Qingdao Hisense Hitachi Air-Conditioning Systems Co., Ltd.

2003 Established the company

Hitachi Compressor Products (Guangzhou) Co., Ltd.

2003 Established the company

Hitachi Industrial Machinery Philippines

1995 Established the company
 2004 Transferred Large Tonnage Chiller Division from Hitachi Industries to Hitachi Air Conditioning Systems

Stakeholder Collaboration

We give maximum consideration for the environmental preservation of surrounding offices and manufacturing sites. This is the policy of Hitachi Air Conditioning Systems and we are actively promoting environmental preservation activities with the community.

We hold information exchange meetings every year with the neighboring student council to let them understand about our environmental preservation activities. In these meetings, we explain about our environmental preservation activities such as cleaning around factories, tree planting, and disclose air and

water measurement data.

In Taiwan Hitachi, our environmental activity does not remain in the factories. We promote exchanges with the local communities and local administration, leading us to receive many commendations.

Enforcement of Environmental Town Meeting with Student Council and Association



Environmental information exchange meeting with neighboring student council



Explain our environmental activities for environmental preservation governing association

Environmental Activities in Taiwan Hitachi



Environmental preservation education activity at regional elementary school



Acquired Industrial Waste Treatment and Recycling Excellent Factory Grand Prize

Distribution of Flower Seed



Distributed flower seed of Baby's Breath - Gypsophila Elegans (Kasumisou) in environmental month of June

Continuous Enforcement of Cleaning Activities in the Local Area



Join in the volunteer cleaning of Miho beach with Shimizu Environmental Preservation Association



Cleaning activity around Shimizu Works



Cleaning activity around local area of Taiwan Hitachi

Awards History

Our environmental activities are evaluated in various ways.

We encourage these evaluations, and we are endeavoring to be a company which harmonizes with the environment.

Awards History of Hitachi Air Conditioning Systems

August 1997	Acquired ISO Certification in Taiwan Hitachi Co., Ltd.
October 1997	Acquired ISO Certification in Shimizu Works
May 1998	Technology Prize from JSRAE* ¹ (Air Conditioning for Cold Regions)
November 1998	Acquired ISO Certification in Ibaraki Works
February 1999	Nikkei Excellent Product and Service Prize (ECO-ICE mini)
May 1999	Acquired ISO Certification in Hitachi Air Conditioning Products Europe S.A.
May 1999	Technology Prize from JSRAE* ¹ (All-Year-Around Cooling Air Conditioning)
May 1999	Prize from the Shizuoka Prefecture Governor (Proper Treatment of Industrial Waste)
May 1999	Agency for Natural Resource and Energy Director General's Prize (ECO-ICE mini)
May 1999	Shimizu City Environmental Preservation Cooperation Society Contributor
May 2000	Technology Prize from JSRAE* ¹ (Inverter-Driven Scroll Type Refrigerating Machine)
May 2000	Special Prize from Shizuoka Prefecture CFC Recovering Business Association
June 2000	HPTCJ* ² Chairperson's Prize (Gas Absorption Type Large Temperature Difference System)
June 2000	Contribution Prize from Shimizu City Environmental Preservation Cooperation Society
June 2000	Shimizu City Environmental Preservation Cooperation Society Contributor
June 2000	Contributor Prize from Shizuoka Prefecture Appropriate Disposal of Industrial Waste
October 2000	Recycling Promotion Council Chairperson's Prize
February 2001	Chairperson's Prize from Energy Conservation Center, Japan (Gas Absorption Type Large Temperature Difference System)
May 2001	Technology Prize from SHASE* ³ (All-Year-Around Cooling Air Conditioning)
May 2001	Shimizu City Environmental Preservation Cooperation Society Contributor
June 2001	HPTCJ* ² Promoter Prize (Packaged Air Conditioning for Cold Regions " System Free SAMUSASHIRAZU ")
June 2001	Contributor Prize from Shizuoka Prefecture Appropriate Disposal of Industrial Waste
January 2002	Minister of Economy, Trade and Industry Prize (CO ₂ Heat Pump Hot Water Supply Machine)
June 2002	Agency for Natural Resource and Energy Director General's Prize (CO ₂ Heat Pump Hot Water Supply Machine)
February 2003	Japan Association of Refrigerating and Air Conditioning Facilities Chairperson's Prize (Energy Saving by Renewal)
May 2003	Contribution Prize from Shimizu Environmental Preservation Cooperation Society
May 2003	Technology Prize from JSRAE* ¹ (Energy Conservation and Low-Noise Inverter Package)
October 2003	Contribution Prize from Reduce Reuse Recycling Promotion Council
December 2003	Industrial Waste Treatment and Recycling Excellent Factory Grand Prize in Taiwan Hitachi
February 2004	Excellent Energy Conservation Chairperson's Prize from Japan Machine Industry Union

■ Systems
 ■ Products
 ■ Activities

*1 JSRAE: Japan Society of Refrigerating and Air Conditioning Engineers

*2 HPTCJ: Heat Pump and Thermal Storage Technology Center of Japan

*3 SHASE: Society of Heating, Air-Conditioning and Sanitary Engineers of Japan

Introduction of Offices and Factories

We have established business and service bases all around Japan so that we can handle all our customers' requests and problems with care and attention to detail at anytime. We also currently carry out international activities in various fields through seven affiliated companies in Taiwan, China, Europe and Brazil.

Company Profile	Corporate Name	: Hitachi Air Conditioning Systems Co., Ltd.
	Head Office	: Oki Sudacho Building, 23-2 1-chome Kanda Suda-cho Chiyoda-ku, Tokyo
	Incorporated	: November 26, 1998
	Capital	: 10 Billion Yen (as of March 31, 2004)
	Representative	: Yoshihiko Nakayama, President and Director
	Number of Offices and Factories	: Domestic Offices and Factories: 31 / Domestic Affiliated Companies: 7 / Overseas Affiliated Companies: 7
	Main Products	: Air Conditioning Control System, Freezing and Refrigerating Control System, Clean Air System, Biological Control System, Environmental Test Equipment, House Use Cooling, Heating and Hot Water System
	Net Sales	: 86.3 Billion Yen (FY2003)
	Number of Employees	: 1,613 (as of March 31, 2004)

Headquarters, Sales Divisions, Branches, Marketing Offices

Headquarters	Tel : 81-3-3255-7201 23-2 1-chome Kanda Suda-cho Chiyoda-ku, Tokyo 101-0041
Hokkaido Branch Office	Tel : 81-11-717-5301 3-chome Kita Kujo Nishi Kita-ku, Sapporo 060-0809
Tohoku Branch Office	Tel : 81-22-266-1321 9-7 Futsukamachi Aoba-ku, Sendai 980-0802
Fukushima Marketing Branch	Tel : 81-24-921-5550 5-15 Midorimachi, Koriyama 963-8023
Kanto Branch Office	Tel : 81-3-3255-7179 23-2 1-chome Kanda Suda-cho Chiyoda-ku, Tokyo 101-0041
Large Tonnage Chiller Sales Division	Tel : 81-3-3255-7240 23-2 1-chome Kanda Suda-cho Chiyoda-ku, Tokyo 101-0041
Kanagawa Marketing Branch	Tel : 81-45-337-6422 105-1 Okazawa-cho Hodogaya-ku, Yokohama 240-0062
Hokuriku Branch Office	Tel : 81-76-429-4051 627-3 Kurosaki, Toyama 939-8214
Chubu Branch Office	Tel : 81-52-251-0371 13-20 3-chome Sakae Naka-ku, Nagoya 460-0008
Kansai Branch Office	Tel : 81-6-6531-9111 10-10 1-chome Nishihonmachi Nishi-ku, Osaka 550-0005
Chushikoku Branch Office	Tel : 81-82-240-6151 2-31 3-chome Ootemachi Naka-ku, Hiroshima 730-0051
Shikoku Marketing Branch	Tel : 81-87-833-8701 1-5 1-chome Hanazono-cho, Takamatsu 760-0072
Kyushu Branch Office	Tel : 81-92-561-4851 9-17 4-chome Shimizu Minami-ku, Fukuoka 815-0031

Factories

Shimizu Works	Tel : 81-543-34-2081 390 Shimizu Muramatsu, Shizuoka 424-0926
Tsuchiura Works	Tel : 81-29-832-5840 603 kandatsu-cho, Tsuchiura 300-0031

Affiliated Companies

Tokyo Hitachi Air Conditioning and Refrigeration Co., Ltd.
Osaka Hitachi Air Conditioning and Refrigeration Co., Ltd.
Kyushu Hitachi Air Conditioning Co., Ltd.
Kitakanto Hitachi Air Conditioning Co., Ltd.
Niigata Hitachi Co., Ltd.
Reinetsu Engineering Co., Ltd.
Hitachi Air Conditioning SE Co., Ltd.

Training Centers

Shimizu Training Center
Kyushu Training Center

Service Engineering Centers

Hokkaido Service Engineering Center Tel : 81-11-611-5146
Tohoku Service Engineering Center Tel : 81-22-225-5972
Fukushima Service Engineering Center Tel : 81-24-921-5553
Tokyo Service Engineering Center Tel : 81-3-3649-3811
Nishitokyo Service Engineering Center Tel : 81-42-328-3611
Yokohama Service Engineering Center Tel : 81-45-337-6400
Saitama Service Engineering Center Tel : 81-48-652-9767
Oyama Service Center Tel : 81-285-31-6571
Jousou Service Engineering Center Tel : 81-4-7167-4330
Numazu Service Center Tel : 81-559-29-7676
Hokuriku Service Engineering Center Tel : 81-76-429-6861

Chubu Service Engineering Center Tel : 81-568-72-0131
Toyohashi Service Center Tel : 81-532-33-5668
Kansai Service Engineering Center Tel : 81-6-6303-6159
Kyoto Service Engineering Center Tel : 81-75-315-4115
Hyogo Service Engineering Center Tel : 81-78-575-8431
Chushikoku Service Engineering Center Tel : 81-82-283-9374
Yamaguchi Service Center Tel : 81-836-84-0964
Shikoku Service Engineering Center Tel : 81-87-833-8701
Kyushu Service Engineering Center Tel : 81-92-561-4854

Our Network is Capable of Responding to Worldwide Needs

Taiwan Hitachi Co., Ltd
Hitachi Air-conditioning & Refrigerating Product (Guangzhou) Co., Ltd.
Hitachi Air Conditioning Products Europe S.A.
Hitachi Air Conditioning Products Brazil S.A.
Hitachi Compressor Products (Guangzhou) Co., Ltd.
Qingdao Hisense Hitachi Air-Conditioning Systems Co., Ltd.
Hitachi Air-Conditioning Systems (Shanghai) Co., Ltd.
HITACHI AIR-CONDITIONING SYSTEMS (HONG KONG) CO., LTD.
Hitachi Industrial Machinery Philippines