ENVIRONMENTAL REPORT

YKK Group Environmental Report 2001

Seeking harmonization between abundant and healthy lives for all humankind and the environment

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This report was created based on the results of activities of fiscal 2000 (April 1, 2000 to March 31, 2001). The next publication is scheduled for September 2002.

Message

Conservation of the global environment is currently the most important theme for mankind. Efforts are being made in various countries to help realize both economic development and environmental conservation.

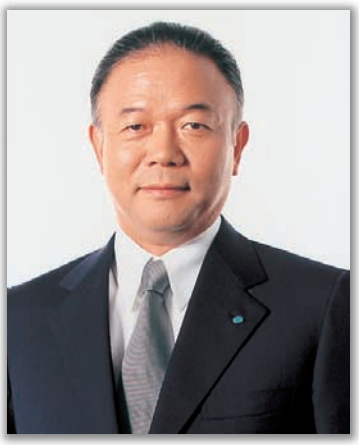
With the environmental charter being enacted in 1992, the year "The Rio Declaration (on Environment and Development)" was announced at the Earth Summit, the YKK Group declared that we would "do everything we could to make activities in harmony with the environment our top priority theme" in 1994.

Taking up environmental problems on a global scale, YKK Group decided to adopt "sustainable development" as our keyword. Settling upon action targets, we decided to work to preserve and improve the environment in all of our activities, not just in area of countermeasures against pollution and ways to conserve energy. Since then, every year we review our basic environmental policy and apply to our business activities, which is yielding prodigious results.

One of the biggest themes for companies in the 21st century is to what degree we can implement the practice of recycling in industry. "Environmental problems" must be incorporated into future management ideas. By combining what we call our "artery and vein system" in all fields of our business activities, the YKK Group hopes to help build a recycling-oriented society by establishing an environmental management system through systematic and strategic promotion of our environmental policy. With "helping to build a recycling-oriented society" as the intermediate environmental management policy, we are carrying out our activities with the specific goals of providing goods and services that facilitate recycling, making our operations even more efficient to reduce stress on the environment, building and using a global environmental management system, and publishing environmental data.

Sustained improvement in environmental conservation will continue to be one of the most important themes for management in the future as well. We are currently doing our best to enhance our corporate value. We hope this report will serve to enlighten you concerning our activities and philosophy toward environmental conservation. If you have any opinions or advice, we'd love to hear from you.

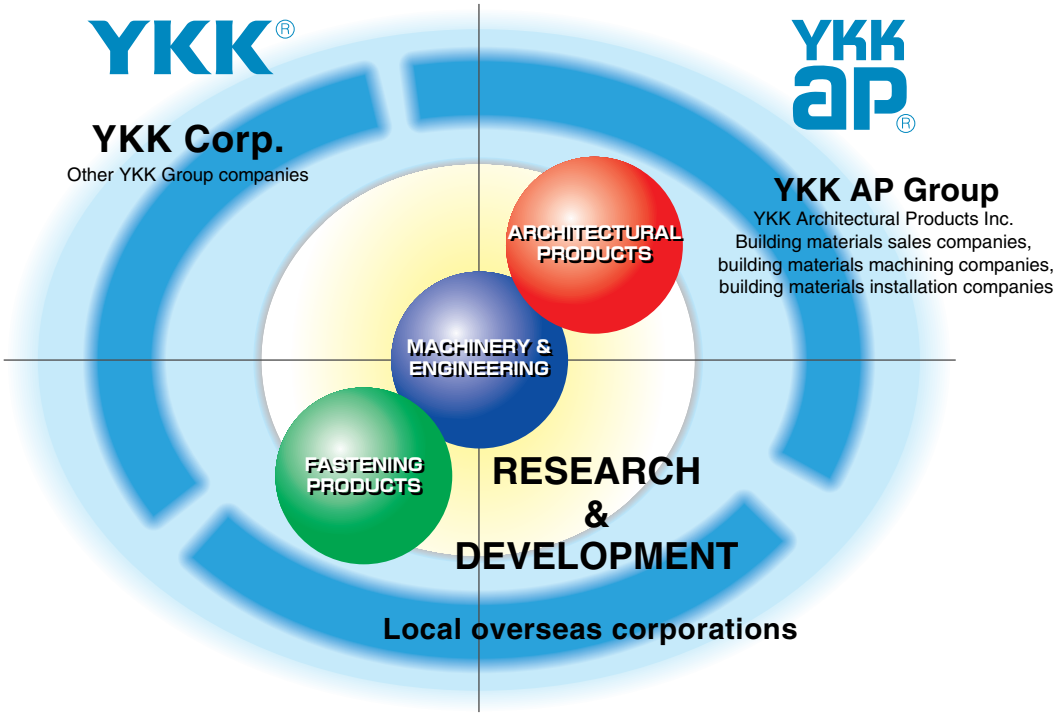
August 2001



Tadahiro Yoshida
YKK Group

I. YKK Group overview

With YKK Corporation as its parent company, the YKK Group's worldwide operation are based on the twin pillars of fastening products and architectural products. YKK Architectural Products lnc. performs architectural work under the brand name "YKKap", in close partnership with other YKK AP Group companies. Representing the core of YKK Group technologies, Machinery and Engineering division support the vertically integrated production system for our fastening and architectural products. The Research and Development division conducts advanced research into materials and technologies closely tied to these operations.



YKK GROUP

◆Member companies (As of April 1, 2001)

		No. of companies	Capital (unit: ¥100 million)	No. of employees
Domestic	YKK Corp.	1	107	10,294
	YKK AP Group *1	11	29	7,057
	Other YKK Group companies	16	4	911
Overseas corporations *2		93	613	18,898
Total		121	753	37,160

◆Group outlet sales (for fiscal 2000) (Unit: ¥100 million)

	Domestic	Overseas	Total
Fastening	406	1,430	1,836
Building materials	3,220	220	3,440
Machinery	383	——	383
Others	47	17	64
Total	4,056	1,667	5,723

*1 YKK AP Group
YKK Architectural Products Inc.
2 building materials companies
7 building materials machining companies,
building materials installation companies
1 design support company

*2 overseas corporations
(58 countries, 93 companies, 248 bases)
67 fastening product companies
7 building materials companies
19 others

II. Environmental pledge and Action guideline

YKK Group environmental pledge

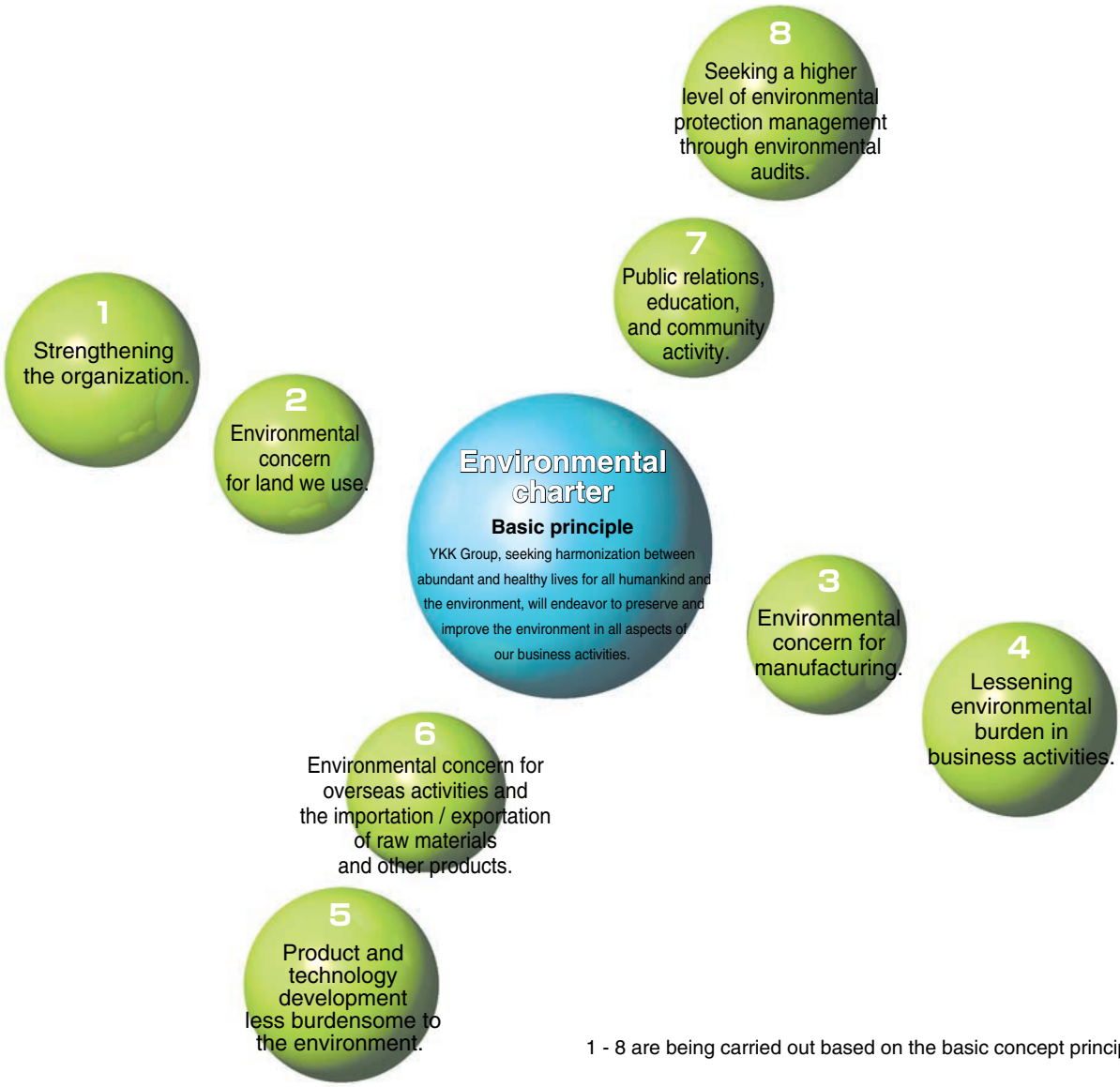
Our fundamental understanding of the global environmental issue

It is recognized today as being a most important duty for all humankind that we preserve the abundantly endowed global environment and that we transfer it to the next generation in sound condition.

Striving to be an earth friendly company, YKK Group proclaims that we will address and promote "harmony with the environment" as the highest priority of our business activity.

September 20, 1994

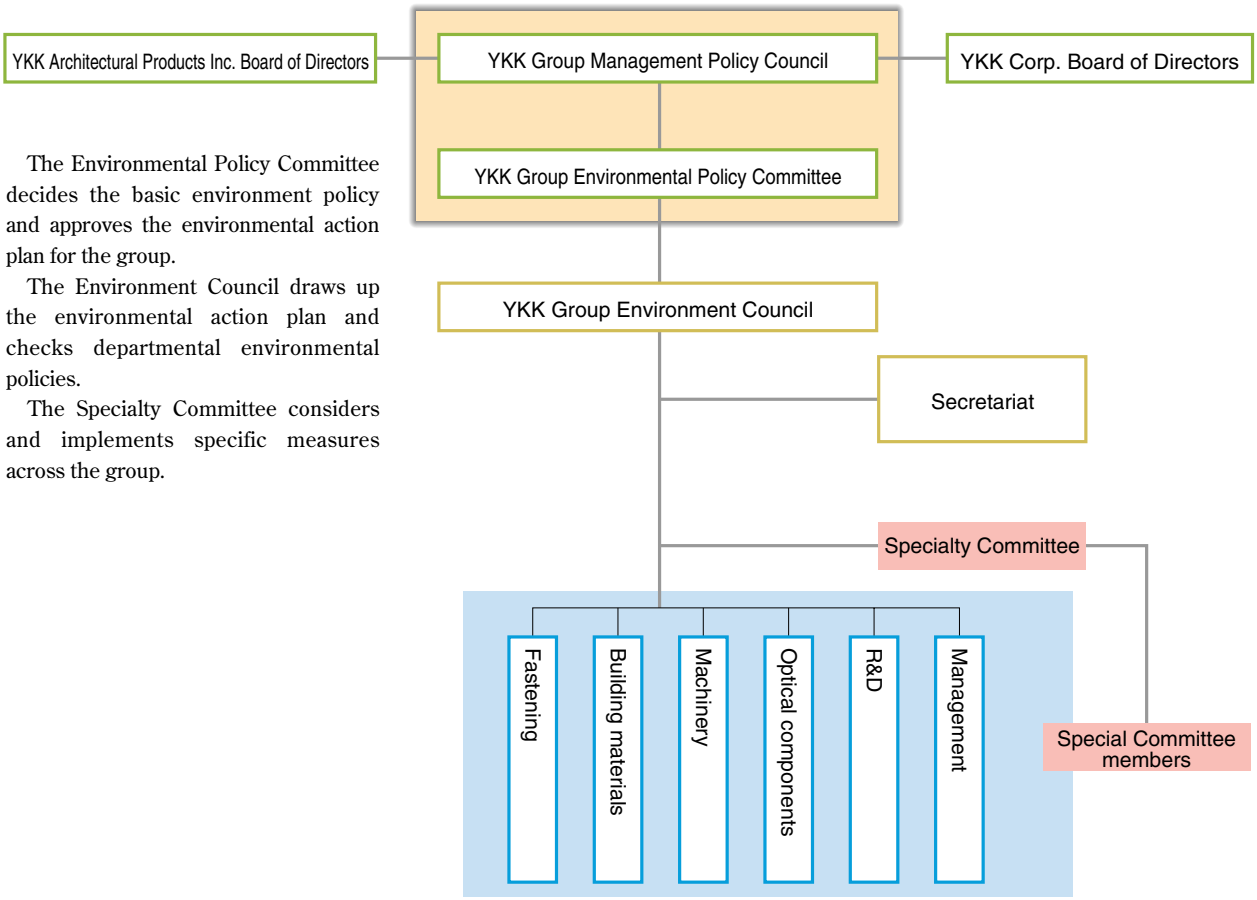
Tadahiro Yoshida,YKK Group



1 - 8 are being carried out based on the basic concept principle.

System

Organizational chart for YKK Group Environmental Policy Committee



The Environmental Policy Committee decides the basic environment policy and approves the environmental action plan for the group.

The Environment Council draws up the environmental action plan and checks departmental environmental policies.

The Specialty Committee considers and implements specific measures across the group.

History of environmental conservation efforts

YKK Group

1970 Pollution Council established

1972 Introduction of low-sulfur content fuel started
Alkaline recovery equipment goes into operation

1974 Sulfuric acid recovery equipment goes into operation
Production of sulfuric acid banned from aluminum sludge started

1978 Energy conservation measures started

1984 Award for plant with best energy management (Kurobe plant)

1988 Co-generation goes into operation

1991 **Environmental department established**

1992 Used paper collection started
Yoshida Kogyo Co.,Ltd. environmental charter established
Environment Council Seven working group established
Production of PET banned from waste plastic started

1993 YKK environmental action plan study started
Switch from certain CFCs and trichloroethane started
Clean initiative started (cleanup around plant)
YKK Group Environmental Facilities Committee established

1994 YKK Group Environment Council established
YKK Corporation internal environmental inspection started
YKK Group Environmental Declaration (group charter established)
YKK Group environmental action targets set

1996 Voluntary plan submitted to the Ministry of International Trade and Industry

1997 Green purchase started
Recycled slide fastener (NATULON®) "eco mark" acquired

1998 **ISO14001 certification acquired**
●Fastening Kurobe plant (August)
●YKK AP Namerikawa division (December)
Efforts to achieve zero emission
Name changed to YKK Group Environmental Policy Committee

1999 Environmental leaflet published
ISO14001 certification acquired
●Kyushu plant (March)
●Shanghai YKK Zipper Co., Ltd. (April)
●Machinery Engineering Group Totizawa plant (October)

2000 **Recyclable uniform "eco mark" acquired**
Environmental report published
Building Materials Environmental Committee established
ISO 14001 acquired
●Shikoku plant (March)
●Tohoku plant (June)
●Fastening Products Division expansion certified (August)
●YKK Hong Kong companyTuen Mun plant (October)
●YKK AP R&D Center (December)
●Kurobe plant 50 Building, pilot building (December)
Solar products (Street light) "eco mark" acquired
Garbage recycling begun
Start for product assessment
Environmental label established
Environmental accounting system devised and implemented

2001 ISO 14001 certification acquired
●YKK Germany Wenkbach plant (January)
●YKK U.K. Runcorn plant (February)
●YKK Indonesia Cibitung PPD plant (March)

Events

1967 Basic Law Concerning Measures to Cope with Pollution

1971 Environment Agency established

1972 Club of Rome "The limit to point" published
United Nations Conference on the Human Environment held (Stockholm)
Declaration on the Human Environment adopted

1987 Montreal Protocol (on Substances that Deplete the Ozone Layer) adopted

1988 Vienna Convention (for the Protection of the Ozone Layer) goes into effect in Japan

1989 Basel Convention (on the Control of Transboundary Movements of Hazardous Wastes and their Disposal) adopted

1990 Action plan for prevention of global warming settled upon

1991 Keidanren Global Environment Charter settled upon Law for Promotion of Use and Recycling of Resources enacted

1992 The Earth Summit held (Rio de Janeiro)

1993 The Basic Environment Law enacted

1995 Containers and Packaging Recycling Law enacted
The 1st Session of the United Nations Framework Convention on Climate Change Conference of the Parties (COP1, Berlin) held

1996 ISO14000 series issued
JISQ14000 series issued
The 2nd Session of the United Nations Framework Convention on Climate Change Conference of the Parties (COP2, Geneva) held

1997 Waste Management Law revised
The 3rd Session of the United Nations Framework Convention on Climate Change Conference of the Parties (COP3, Kyoto) held

1998 Law Concerning the Rational Use of Energy revised
Law for Recycling of Specified Kinds of Home Appliances enacted
Law Concerning the Promotion of the Measures to Cope with Global Warming enacted
The 4th Session of the United Nations Framework Convention on Climate Change Conference ofthe Parties (COP4, Buenos Aires) held

1999 ISO/TC207 7th Seoul General Assembly
Law Concerning Special Measures against Dioxins enacted
Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements inTheir Management (PRTR Law) enacted
The 5th Session of the United Nations Framework Convention on Climate Change Conference of the Parties (COP5, Bonn) held
Range of application of Law for Promotion of Sorted Collection and Recycling of Containersand Packaging Law on Promoting Green Purchasing enacted

2000 Building Materials Recycling Law enacted
Basic Law for Promoting Formation of Recycling-Oriented Society enacted
Law for Promoting Effective Use of Resources (Revised Recycling Law) enacted
Food Waste Recycling Law enacted
6th session of the United Nations Framework Convention on Climate Change, Conference of the Parties (COP-6, The Hague) held Wastes Disposal Law revised

2001 Ministry of the Environment inaugurated
Sash Industry Voluntary Environmental Action Plan published

III. Relationship of YKK Group business with the environment

Helping to build a recycling-oriented society

In order to contribute to building a recycling-oriented society, the YKK Group is carrying out global activities with the following items as the intermediate environmental management policy:

1. Provide goods and services that facilitate recycling
2. Make operations even more efficient to reduce stress on the environment
3. Build and use a global environmental management system
4. Publish environmental data

In fiscal 2000, we carried out environmental product assessment that incorporates reduced energy consumption, reduced resources consumption, recycling and concern for the ecosystem into product development. By doing so, we were able to provide government, local communities, businesses and consumers with many environment-friendly products using green purchasing. In some areas, our suppliers have begin sorting and recovering the packaging and packaging materials used to ship their products, and we have begun offering recycling service at recycling plants.
Acquisition of ISO 14001 certification has more or less gone according to plan. Activities to reduce stress on the environment based on the ISO 14001 management technique are being conduced at the various sites that have obtained certification.

In addition to providing more environment-friendly products and expanding our service network for sorting, recovering and recycling packaging and packaging materials, we intend to engage in green purchase of materials used by the YKK Group, build an environmental stress information system, acquire ISO 14001 certification for all YKK Group domestic operations, make use of our environmental accounting system, take measures to improve environmental efficiency, publish environmental data and enhance communication with the public.

Examples and results of our initiatives as well as future initiative are provided below. We'd be happy to hear any comments you have. Thank you very much.

YKK Group
Chairman,
Environmental Policy Committee
Director, YKK Corp.
Yasuo Morino

Business activities

Development, design, procurement, manufacture, product distribution, sales, recovery, recycling

◇Consumption of resources
◇Consumption of energy
◇Use of chemicals
◇Production of waste

Effect on environment

●Depletion of resources
●Global warming
●Depletion of the ozone layer
●Air pollution
●Water pollution
●Noise/vibration
●Foul odors
●Soil contamination
●Underground water contamination
●Waste

Efforts to help the environment page

Environmental action targets Helping to build a recycling-oriented society

Keyword "Harmony with the environment"

Provide goods and services that facilitate recycling

①Provide government, local communities, businesses and consumers with products using green purchasing	●Development of environment-friendly products Creation of environmental standards based on Law on Promoting Green Purchasing and Recycling Law Creation of environment-friendly products catalog ●Construction of product recycling system ●LCA implementation
② Procurement of green purchasing products	●Use of green purchasing standards
③Reduction of amount of packaging and packaging materials, facilitation of recycling	●Basic packaging materials unit requirement to be reduced by 7% of fiscal 1998 level by the end of fiscal 2003 ●Recycling of packaging and packaging materials to be achieved by the end of fiscal 2005

Make operations even more efficient to reduce stress on the environment

①Countermeasures against global warming (reduction of greenhouse gases and energy unit requirement)	●At major domestic bases by end of fiscal 2005 Energy unit requirement to be reduced by 10.4% of fiscal 1990 level Energy consumption to be reduced by 10.1% of fiscal 1990 level CO2 discharge to be reduced by 13.8% of fiscal 1990 level ●Major overseas bases also aim to achieve these group targets. ●Introduction of clean energy	
②Promotion of recycling among different industries and Reduce, Reuse, Recycle (3R) for zero emission	●Achievement of general waste zero emission at major domestic bases by the end of fiscal 2002 ●Aim to achieve zero emission at major bases of the world by the end of fiscal 2005 ●10% reduction of amount of copy paper purchased in fiscal 1998 by the end of fiscal 2003 ●Promotion of garbage recycling	
③Reduction of usage of toxic chemicals	CFC-11 (for refrigerants)	○Must stop being used by the end of fiscal 2003
	HCFC-141b (for foaming)	○Must stop being used by the end of fiscal 2002
	HCFC-225 (for washing)	○Must stop being used by the end of fiscal 2010
	HCFC-22 (for refrigerants)	○Promotion of recovery of refrigerant when installing new air conditioning eqipment and removing existing air conditioning equipment
	●Continued promotion of reduction in usage of toxic substances at major bases of the world (Fiscal 2001) Start using PRTR system, creation of toxic substances reduction plan ●Environmental impact assessment at site (environmental assessment)	
④Enhancement of transport efficiency	●Promotion of modal shift (modes of transport)	●Promotion of use of regional ports

Build and use a global environmental management system

① Acquisition of ISO 14001 certification at major production bases of the world, and at major sales, service, office and development bases	●Acquisition of ISO 14001 certification at all domestic YKK Group companies by the end of fiscal 2003 ●Acquisition of ISO 14001 certification completed at major production bases of the world by the end of fiscal 2003 ●Implementation of YKK Group domestic environmental auditing at major production bases of the world (Fiscal 2001) Auditing contents/rotation revision
②Implementation of environmental accounting system	●Environmental accounting system application and usage
③Ensure adherence	●Ensure adherence by having assessment system take root in advance ●Preparation of risk management manual

Publish environmental data

①Publication of environmental report	●Continued publication of environmental report
②Disclosure of environmental data	●Application of environmental data collection system
③Enter exhibits in environmental exhibitions	●Enter exhibits in ecological products and environment fairs, etc
④Promotion of social activities	●Cleaning volunteer activities (spring/fall)

IV. Environmental management system

Acquisition and utilization of ISO 14001 certification

Environmental action targets

- Acquisition of ISO 14001 certification at all domestic YKK Group companies by the end of fiscal 2003
- Acquisition of ISO 14001 certification completed at major production bases of the world by the end of fiscal 2003

◆Targets and results for fiscal 2000

Targets		Results (year/month acquired)
Acquisition of certification	●YKK Corporation Tohoku plant	June 2000
	●YKK Corporation Research and Development Dept.	April 2001
	●YKK Corporation Kurobe plant 50 Building, pilot building	December 2000
	●YKK Architectural Products, Inc. R&D Center	December 2000
	●YKK Hong Kong company Tuen Mun plant	October 2000
	●YKK Germany Wenkbach plant	January 2001
	●YKK U.K. Runcorn plant	February 2001
	●YKK Indonesia Cibitung PPD plant	March 2001
	●Indonesia YKK Zipper Co., Ltd.	April 2001
Expanded range of certification acquisition	●YKK Corporation Fastening Kurobe plant	August 2000

◯ Philosophy of ISO 14001 certification acquisition

ISO 14001 (environmental management system) certification is an absolute requirement for global businesses. We are working on acquiring certification to reach our targets through environment improvement activities in our business operations.

◯ Results for fiscal 2000

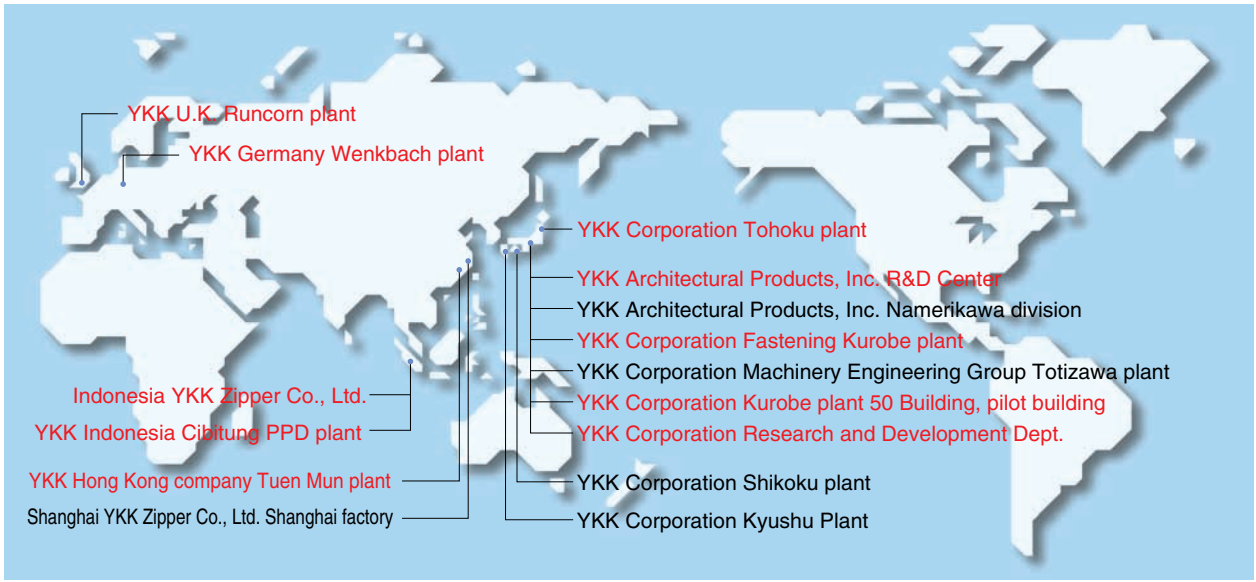
In fiscal 2000, we acquired certification at a further 10 bases (including 5 overseas plants) more or less according to plan, giving a total of 15 bases to date. In that year, we also acquired certification for offices and development bases.

Employee's awareness of the environment was enhanced at the sites acquiring certification, and the environment was improved with the participation of the entire staff.

We were also able to improve communication with the government and our suppliers.

◯ Future initiatives

YKK hopes to acquire certification for all domestic operations in the YKK Group sphere, including sales and service operations, by the end of fiscal 2003. We shall continue to work toward acquiring certification for our overseas operations according to plan.



Sites acquiring certification in fiscal 2000 appear in red.

Group internal environmental inspection

Environmental action targets

●Internal environmental auditing at all major bases the world over

◆Targets and results for fiscal 2000

Targets	Results
Internal environmental auditing	Domestic: Implemented at Fastening Products division of Kurobe plant Overseas: Implemented at plants in Taiwan, Spain and Turkey
Addition of environmental risk to environmental auditing items	Added

◯ Philosophy of internal auditing

Group internal auditing has been conducted since 1994, and is now approaching its seventh year. Conducted by in-house experts, internal environmental auditing is carried out to provide advice, counsel and support to bolster adherence to regulations and improve environmental performance for the group as a whole.

Voluntary internal environmental auditing is conducted at major plants and places of business in accordance with group internal environmental auditing items.

Internal environmental auditing has been conducted at overseas plants as well since 1997. Experts from Japan conduct the same type of auditing as is used in Japan at overseas plants to improve environmental performance of the group as a whole.

◯ Results for fiscal 2000

In fiscal 2000, items for determining and coping with environmental risk were added, and auditing is conducted to prevent accidents involving the environment. The results are reported to the environmental policy committee, and the information is used for reviewing group environmental activities.

◯ Future initiatives

Internal environmental auditing has so far been conducted at 11 plants in 8 countries: Indonesia, Germany, the United States, China, Italy, Taiwan, Spain and Turkey. The company plans to continue to improve the group's environmental performance by carrying out internal auditing at bases all over the world.

Internal auditing at plant in Spain

◆Group internal environmental inspection items

Activities concerning group environmental direction, environmental action targets, and environmental policy	**●Environmental direction** **●Items based on YKK Group environmental action targets** Ozone layer protection Energy conservation Reduction and recycling of industrial waste Reduction and recycling of common waste Reduction of packaging materials Transportation measures		Social activities Environmental conservation Disaster prevention Environmental ISO Environmental business Green purchase
Observation of environmental laws and regulations	Complaints Pollution Makeup Law Water pollution laws /regulations Air pollution laws /regulations Noise regulations	Vibration regulations Foul odor prevention laws/regulations Waste disposal laws Law Concerning the Rational Use of Energy Factory Grounds Law	Septic Tank Law High Pressure Gas Safety Law Fire prevention laws/regulations (dangerous substances) Fire prevention laws/regulations (fire-fighting equipment) Poisonous and Deleterious Substances Control Law
Environmental risk management	Recognition and coping with environmental risk		

Environmental accounting

Environmental action targets

●Environmental accounting system

◆Targets and results for fiscal 2000

Targets	Results
Implementation of environmental accounting	Start determining results of environmental accounting
Construction of environmental accounting system	Construction of environmental accounting system using purchasing system

◯ Significance of implementing environmental accounting

Significance of implementing YKK Group environmental accounting is in the following 2 points:

① Internal function

Functions as environmental management tool for clarifying amount of money invested in environmental activities to make more efficient and effective environmental investments.

② External function

Functions as an environmental communication tool to demonstrate the company's attitude by disclosing environmental accounting data to interested parties.

(From Guidelines for Implementing and Environmental Accounting System [2000 version]).

◯ Results for fiscal 2000

Environmental equipment investment, environmental conservation cost and short-term effect have been calculated. Environmental accounting standards conform to Guidelines for Implementing and Environmental Accounting System [2000 version] put out by the Japanese Ministry of the Environment, May 2000.

We also constructed an environmental accounting system that uses a purchasing system and automatically totals environmental equipment investment and environmental conservation cost.

◯ Results of environmental accounting for fiscal 2000

◆Fiscal 2000 environmental conservation cost (limited to domestic YKK Group)

(Unit: ￥1 million/year)

Item		Equipment investment	Cost
Cost within business area	Prevention of pollution	476	961
	Conservation of the global environment	575	676
	Recycling of resources	158	849
	Subtotal	1,209	2,486
Upstream/downstream cost		136	241
Management activities cost		0	628
R&D cost		0	663
Social activities cost		0	10
Environmental damage cost		0	0
Other costs		0	2
Total		1,345	4,030

Environmental equipment investment			Environmental expenses		Sales (Unit: ￥100 million)	Total equipment-investment (Unit: ￥100 million)
(Unit: ￥100 million)	Sales ratio (%)	Equipment investment ratio (%)	(Unit: ￥100 million)	Sales ratio (%)		
13.5	0.3	4.4	40.3	1.0	4,056	307

◯ Effect

◆Substantial effect of major domestic environmental activities for fiscal 2000

Environmental-investment items	Environmental investment (unit: ￥1 million)	Effective amount (unit: ￥1 million/year)	Description (Countermeasures, comparison with current status, calculated effect, etc.)
Energy conservation	347	109	Production process improvement, introduction of high-efficiency equipment, effect of switching computer server, etc.
Used paper collection	0	18	Effect is calculated from expense of incinerating recovery increase.
Measures for coping with waste	119	8	Effect of thermal recycling of waste plastic for cement.
Transportation measures	0	568	Effect of reducing the amount of trucks used by using regional ports and joint transportation.
Reduction of packaging materials	4	52	No frame packaging

◆Effect of environmental conservation for fiscal 2000

Items	Stress on the environment (tons/year)					Environmental performance improvement rate (EE value) *2 (tons/￥100 million)
	Results for 1999 (tons/year)	2000 conversion *1 (tons/year)	Results for 2000 (tons/year)	Increase/decrease (tons/year)	Increase/decrease rate (%)	
CO_2	321,454	324,154	322,432	-1,722	-0.5	-43.055
NOx	387	390	386	-4	-1.0	-0.100
SOx	160	161	173	+12	+7.5	+0.306
BOD	58	58	50	-8	-13.8	-0.212
COD	20	20	21	+1	+5.0	+0.021
Waste landfill	5,378	5,423	5,297	-126	-2.3	-3.154
Substances applicable to PRTR	2,158	2,176	2,026	-150	-6.9	-3.753

※1. 2000 conversion: Calculated by taking sales results of fiscal 1999 and 2000 into account based on results of stress placed on the environment for fiscal 1999.
2000 conversion = results of stress placed on the environment for fiscal 1999 multiplied by sales results of fiscal 2000 divided by sales results of fiscal 1999.

※2. Environmental performance improvement rate (EE value): Expresses whether or not stress placed on the environment is reduced (or increased) per￥100 million of environmental conservation cost.
EE value = increase/decrease divided by environmental conservation cost (4 billion for fiscal 2000)
The larger the negative number is, the greater environmental performance was improved.

◯ Future initiatives

◆Start using environmental accounting system

We began using the environmental accounting system in April 2001, thus enabling automatic totaling of environmental conservation cost. In the future, we will begin working on a method of totaling personnel cost and depreciation that cannot be automatically totaled by the system..

◆Complete internal function (environmental management tool)

Improved environmental performance rate (EE value) is indicated for several items herein. It cannot be determined whether this is favorable or not by looking at the figures for a single year only, so we must continue to track change over the years in the future as well.

◆Complete external function (communication tool)

According to the Environmental Accounting Guidebook II put out by the Japanese Ministry of the Environment in March 2001, calculating economic effect of environmental investment currently calculated independently by each company (estimated effect of profit contribution, estimated effect of avoiding risk) needs to be changed to a method of calculating effect of a uniform monetary unit from the standpoint of possibility of comparison with other companies.

The YKK Group does not currently calculate these estimated effects, but will begin working on this in order to continue effective environmental activities.

V. Green purchase

Environmental action targets

●Green purchasing

◆Targets and results for fiscal 2000

Targets	Results
Expansion of green purchase items	New registration of 300 items
Determine purchase amount	Begun to determine purchase amount
Improvement of awareness	Started efficiently use surplus materials by company bulletin board

○Basic course of green purchase

Based on the YKK Group environmental charter, the YKK Group seeks to reduce stress placed on the environment of its business activities by purchasing materials and parts that are friendly to the environment from environment-conscious businesses (businesses that are environment-oriented), as well as contributing to building a recycling-oriented society by developing and providing recyclable products.

○Guideline

The guideline applies to products, parts and materials procured by the company.

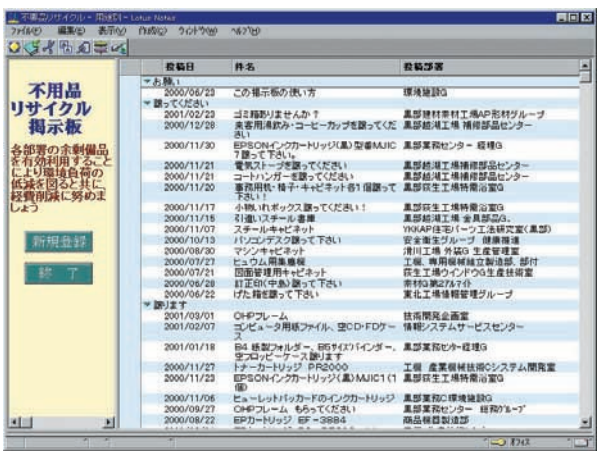
◆Products that take into consideration the following items are considered to be applicable for green purchase.

1. **Conserves resources** — **Uses recyclable materials, has less product weight and volume, and uses less material types.**
2. **Avoids toxic substances** — **Avoids use of substances specified by PRTR Law and Industrial Safety and Health Law.**
3. **Long life** — **Product life is long, part replacement is easy, and function can be expanded.**
4. **Uses less containers and packaging** — **Uses a minimum of packaging and uses materials that are easy to recycle.**
5. **Effect of being used** — **Consumes little energy when standing by or being used.**
6. **Easy to take apart** — **Uses less parts and is easy to separate or take apart after use.**
7. **Can be recycled when disposed of** — **Has established recycling route.**
8. **Data revealed to public** — **Part material labels, environmental compliance mark, method of disposal.**

○Results for fiscal 2000

Based on the fundamental principle of green purchasing not to purchase excess stocks, along with attempting to reduce stress placed on the environment by efficiently using surplus spare parts, a bulletin board was established on the company Web site in an attempt to cut costs.

In fiscal 2000, we succeeded in registering 300 new green purchase items in our purchasing system.



○Future initiatives

About 150 items are scheduled to be newly registered in fiscal 2001 and we will work to improve the green purchase ratio.

We are also considering applying the idea of green purchasing to the terms of business with our suppliers.

In specific terms, assessment is conducted based on the following three standards:

1. Commodity standards: In accordance with guideline.
2. Business standards: Whether or not business is involved in environmental conservation.
3. Cost standard: Competitive price.

Main registered green purchase products

●Scrap aluminum ●Aluminum secondary alloy
●recycled copper ●Mother alloy ●recycled plastic
●Copy paper ●Toilet paper ●Business cards
●Files ●Stationary ●Copiers ●Computers
●Printers ●Lighting, etc.

VI. Production activities that are friendly to the environment

Management of chemicals

Environmental action targets

●We will continue to reduce use of toxic chemicals at our major production bases the world over.

◆Targets and results for fiscal 2000

Targets	Results
Construction of PRTR system	Now being constructed (completion scheduled for October 2001)

◆Breakdown for substances applicable to PRTR (limited to domestic YKK Group plants)

Unit: Tons

Substance	Volume handled	Air	Water	Soil	Sewerage system	Consumption	Disposal	Transport volume	Recycle volume
DOP	1,399.3	0.0	0.0	0.0	0.0	1,345.8	0.0	39.4	14.1
HCFC-141b	45.3	0.9	0.0	0.0	0.0	37.8	0.0	6.6	0.0
HCFC-225	3.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethylene glycol monoethyl ether acetate	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Xylene (mixed isomers)	104.7	97.7	0.0	0.0	0.0	2.7	4.1	0.2	0.0
Cyanide compounds	56.9	0.0	0.0	0.0	0.0	0.0	56.8	0.1	0.0
Dichloromethane	109.3	97.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0
Diphenylmethane diisocyanate	40.2	0.0	0.0	0.0	0.0	27.0	0.0	13.2	0.0
Toluene	129.8	100.5	0.0	0.0	0.0	1.6	11.6	6.2	9.9
Boron	14.7	0.0	10.9	0.0	0.0	0.0	1.2	2.6	0.0
Lead compounds	43.3	0.0	0.0	0.0	0.0	37.2	0.0	6.0	0.1
Tungsten carbide	2.8	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.9
Manganese dioxide	4.4	0.0	0.0	0.0	0.0	4.1	0.0	0.2	0.0
Chromic acid anhydride (IV)	1.6	0.0	0.0	0.0	0.0	0.3	0.3	0.5	0.5
Nickel sulfate (7 hydrate)	41.3	0.0	1.5	0.0	0.0	9.4	0.0	19.6	10.8

※Data is given for substances handled in volume of 1 ton or more per year.

○ Results for fiscal 2000

Organic solvents such as toluene and xylene are used in the painting process. Along with installing efficient painting equipment and to reduce the amount of organic solvents used, recovering/reusing solvents, emission of organic solvent gases into the atmosphere is reduced by thermal decomposition units that break down the gases.

In fiscal 2000, we have worked on developing painting technologies that use water or powder base paints that do not use organic solvents. Although construction of the PRTR system is behind schedule, it is scheduled to be completed in October 2001.

○ Future initiatives

Along with continuing to construct the PRTR system and simultaneously manage use and discharge of chemicals used at out major domestic production bases, we are working on developing technologies that use substances other than toxic chemicals.

Electrostatic powder coating unit

Energy conservation (prevention of global warming)

Environmental action targets

●10.4% reduction in energy unit requirement, 10.1% reduction in energy amount, and 13.8% reduction in CO2 discharge compared with 1990 level at main bases in Japan by the end of 2005.

◆ Targets and results for fiscal 2000

Targets		Results
Energy unit requirement of major plants compared with fiscal 1990	5.0% reduction	2.2% reduction

○ YKK Group energy-saving measures

We began getting involved in energy conservation when the first oil shock occurred and have succeeded in dramatically reducing energy unit requirement. We are doing a variety of things to save energy. For example, we have installed high-efficiency equipment when building new facilities or updating existing ones, we have improved the processes to reduce energy consumption is accordance with production fluctuation, and have prepared management standards so equipment will operate more efficiently.

○ Results for fiscal 2000

Energy unit requirement relative to sales for fiscal 2000 has been reduced by 2.0% compared with the previous fiscal year, but we were unable to achieve our target of 2.2% reduction compared with fiscal 1990.

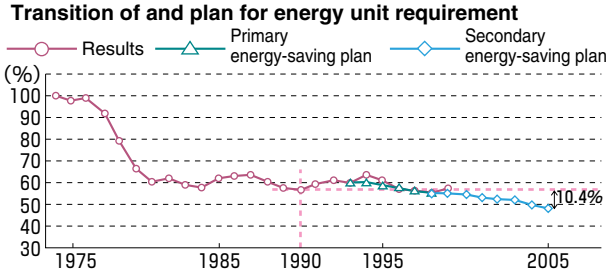
◆Main efforts of fiscal 2000

Production process improvements	Power reduced by abolishing hot rolling process.
	Energy unit requirement reduced by improving precision and multi shot die set.
	Power reduced by concentrating working machinery.
	Cooling/heating rate improved by renovation of facilities (better insulation).
	Energy used for lighting reduced by energy-saving equipment, personnel sensors, daylight sensors, etc.
	Exhaust fans, cooling pumps, etc., changed to inverter type.
Introduction of high-efficiency equipment	Hydraulic injection molding machines replaced with servomotor type.
	Number of finishing machines reduced by switching to new type.
	Power saved by switching computer (server).

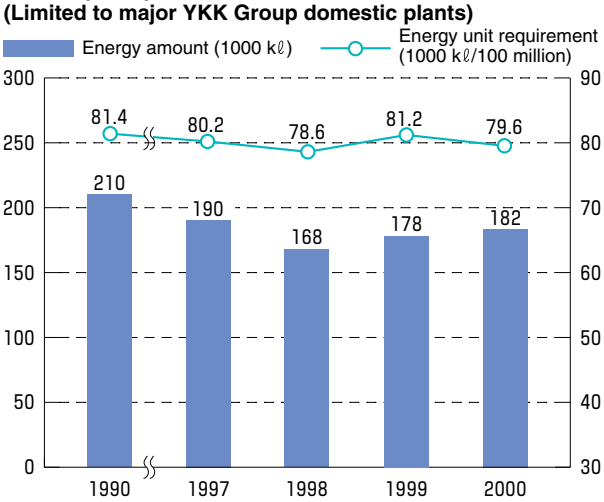
○ Future initiatives

New facilities, introduction of the latest energy-saving equipment when updating and as energy-saving activities based on management techniques of ISO14001 catch-on, will enhance the energy-saving effect for the entire group.

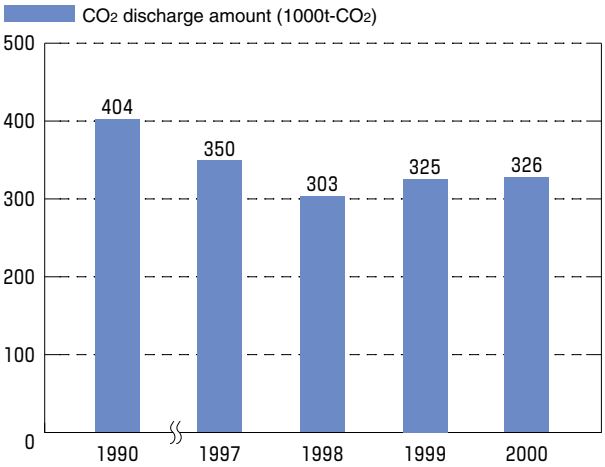
Transition of and plan for energy unit requirement



Transition of amount of energy used and energy consumption per unit of sales (Limited to major YKK Group domestic plants)



Transition of CO_2 discharge (Limited to major YKK Group domestic plants)



The unit and figures CO_2 emission conversion have been changed to figures of the enforcement regulations emission coefficient list (committee for studying the method of measuring output of greenhouse gases), and therefore differ from those of the preceding year.

○ Example

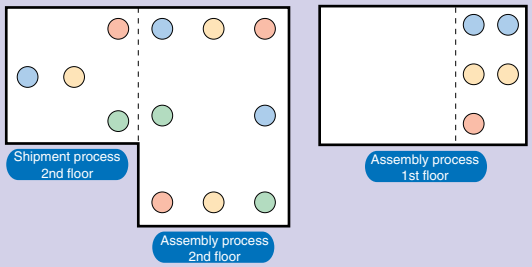
Detailed energy-saving activities based on application of the environmental management system are being carried out in the Fastening Products division.

This paper provides information concerning reception of the Energy Saving Center chairman's award at the National Outstanding Energy Savings Convention.

◆Reduction of electric power consumption for air conditioning

We worked on improving conditions to reduce the amount of power consumed for air conditioning from the perspective of reducing power without sacrificing the comfort of our employees. One of the examples that was particularly effective was an air conditioning control system. The system is able to save power by simultaneously controlling multiple air conditioning units and maintain a comfortable working environment within a certain area by precisely switching between cool and fan.

We were able to cut out three air conditioning units (rated output approx. 10 kw×3) by improving air conditioning efficiency of the plant by large-scale installation of insulation and modification of layout.



The area of each air conditioning unit is divided into groups and the mode is automatically switched between cool and fan every ten minutes by means of a timer. This enables us to save energy while maintaining a comfortable working environment.

◆Reduction of electric power consumption for lighting

The indicator for reduction of electric power consumption for lighting is in omission of unnecessary lighting while maintaining the proper brightness. By establishing the required brightness for each work area, we were able to eliminate unnecessary fluorescent and mercury vapor lamps. By using reflectors and changing the arrangement of fluorescent lights, we succeeded in reducing the amount of fluorescent light in the factory by about 10%.

We are also saving energy by introducing power saving equipment for some lines and cutting surplus power needed for fluorescent lights.

Cutting back on lighting near windows

Power-saving equipment

◆Reduction of electric power consumption for equipment operation

We have introduced a power monitoring system and are effectively using it for equipment improvement by monitoring power usage in real time to clearly know how much power is lost in the various processes.

One example of improvement would be energy savings by switching to intermittent pump operation by linking the pump for circulating liquids with steam for raising temperature because the method of heating plating liquid for the plating line of the surface treatment process was discovered to be wasteful.

Power monitoring system

◆Other

We carried out detailed energy-saving activities such as installing personnel sensors at the entrances to toilets and locker rooms, turning switches on/off diligently, and disconnecting fluorescent lights of vending machines.

Personnel sensor

Extinguished vending machine fluorescent lighting

Reduction and recycling of waste (zero emission)

Environmental action targets

●Aiming to achieve zero emission for world's main bases by the end of 2005.

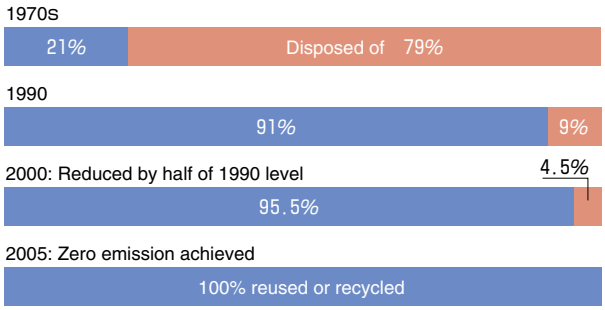
◆Targets and results for fiscal 2000

Targets		Results
Industrial waste energy unit requirement of major domestic plants compared with fiscal 1990	50% reduction	40% reduction
Paper recovery rate of major domestic plants compared with fiscal 1990	87%	85%

○Reduction and recycling of waste

Our efforts to recycle industrial waste began in the 1970s with recovery of aluminum hydroxide from waste alkalis from the alumite process. Since them we have had success with recycling sludge, reducing waste by recovering and recycling acids.

We have cut the amount of industrial waste disposed of (in the form of landfill) in 2000 to half the amount disposed on in 1990. We furthermore hope to be able to recycle 100% by the end of fiscal 2005 to achieve "zero emission."

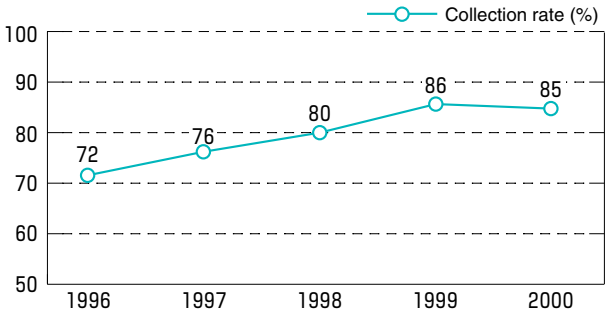


○Results for fiscal 2000

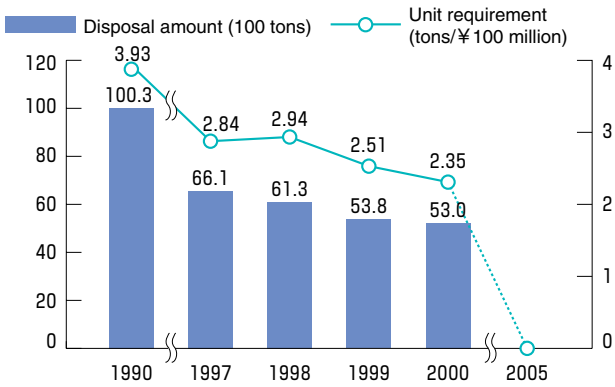
We are attempting to find new ways to recycle industrial waste. We have installed equipment for recycling and granulation of PET scrap produced during the manufacturing process and recycling materials using our own original technology. We have also started thermal recycling of sheet scraps, ejection molding scraps and waste plastic as fuel for making cement. The company has also installed new equipment to treat water pollution from dye, thus realizing dramatic reduction of dye pollution and enabling the waste to be used as raw materials for cement. PVC extrusion scraps are now reused for other products. Wood used for packaging and pallets is now reused as wood chips for fuel.

The sales unit requirement for fiscal 2000 however has been reduced by 6.4% of the previous fiscal year, and we were unable to achieve our target of 40% reduction in comparison with fiscal 1990.

Transition of old paper collection rate
(Limited to major YKK Group domestic plants)



Transition of industrial waste disposal amount and sales unit requirement
(Limited to major YKK Group domestic plants)



○Future initiatives

By converting waste plastic to fuel for cement, thermal recycling with gasification fusion furnaces, converting sludge to raw materials for cement, and recycling multilayer glass scraps, YKK Group hopes to achieve "zero emission" by the end of 2005.

○ Example

We newly established "aim to achieve zero emission at major bases throughout the world by the end of fiscal 2005" in 1999 as an environmental action target. We are proceeding with zero emission in the priority sequence of 1. Reduce, 2. Reuse, and 3. Recycle.

The Fastening Products division recycle waste plastic aiming at zero emission of industrial waste. Here we would like to introduce our recycle workshop that is carrying out the transport work.

With ordinary waste, we are thoroughly sorting old paper that has been recovered, collecting confidential papers, and reducing the amount of waste incinerated. Zero emission of ordinary waste was first achieved at the Shikoku plant in 2000.

◆Recycling of waste plastic

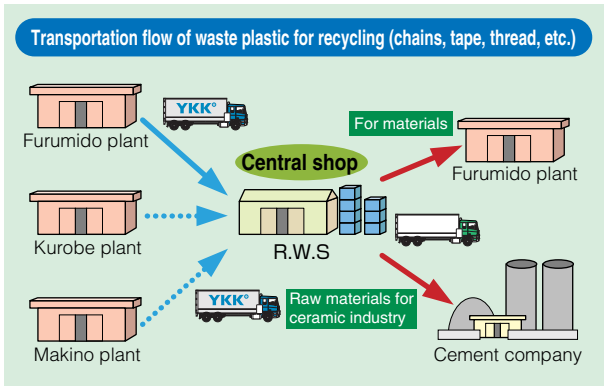
As conventional industrial waste, disposal of waste plastic used to be subcontracted to companies specializing in disposal of industrial waste that incinerated the waste or disposed of it as landfill. Since October of 2000, chain, tape, thread and ejection molding scraps produced during the manufacturing process at the fastening division have been turned over to cement companies to be recycled as fuel.

The recycle workshop (RWS) was established in order to efficiently carry out transportation. Plastic produced during the various processes is collected by the RWS and sorted into material for cement companies and material for in-house recycling, stored and transported in fixed quantities.

The RWS is primarily involved in compression packaging, having given and received slip, loading and unloading waste plastic. The RWS is equipped with a compression packaging machine that reduces volume of plastic to reduce cost of transportation.

The company plans to continue to increase the amount of plastic disposed of in this manner.

Compression packaging



Discharge flow

◆Achievement of zero emission of ordinary waste at Shikoku plant

The Shikoku plant has been involved in attempting to achieve zero emission of ordinary waste produced by business activities, including paper, garbage and other general trash.

The first step was to begin to thoroughly collect and sort used paper and recycle it to paper companies.

The second step was to begin to transport incinerated trash to public thermal recycling facilities in April 2000.

The third step was to install the first garbage disposal unit at YKK to dispose of garbage from the company cafeteria and workplace in order to minimize the amount of garbage incinerated. (July 2000)

Facilities for collected andsorting used paper using a used paper collection box

Reduction-type garbage disposal unit for disposing of garbage from the company cafeteria

Ozone layer protection

Environmental action targets

●CFC-11 (for refrigerants) Must stop being used by the end of fiscal 2003
●HCFC-141b (for foaming) Must stop being used by the end of fiscal 2002
●HCFC-225 (for washing) Must stop being used by the end of fiscal 2010
●HCFC-22 (for refrigerants) Promotion of recovery of refrigerant when installing new air conditioning equipment and removing existing air conditioning equipment

◆Targets and results for fiscal 2000

Targets		Results
Reduction of amount of CFC-141b (for foaming) used	To be banned by the end of fiscal 2002	75% reduction in comparison with fiscal 1996
Use of CFC-11 to be discontinued for 11 refrigerators	Discontinued for 2 units	Discontinued for 2 units
Refrigerant to be recovered when installing new air conditioning equipment and removing existing air conditioning equipment		Refrigerant recovered from 14

◯Results for fiscal 2000

We have constructed a chlorofluorocarbon recovery system for recovering refrigerants from discarded air conditioner units.

◯Future initiatives

We have taken steps to discontinue use of specified chlorofluorocarbons used as refrigerants for air conditioners and intends to completely discontinue use those substances by the end of fiscal 2003.

CFC destruction certificate


回収フルオロカーボン取扱伝票(破壊証明書)

Environmental conservation (prevention of pollution)

Environmental action targets

●More thorough environmental stress reduction management

● Prevention of air pollution

We have established strict voluntary standards and is taking the proper measures to adhere to them.

Low-sulfur fuels such as kerosene and LPG are used in the production process to minimize production of sulfur oxides (SOx). We also use special NOx burners to minimize production of nitrogen oxides.

● Prevention of water pollution

We have established strict voluntary standards and is carrying out advanced wastewater treatment.

New equipment to treat water pollution from dye that offers stability and further enhances quality of treated water began operating In December 2000. This equipment reduces biological oxygen demand (BOD) of the YKK Group's first porous membrane organism treatment and chemical oxygen demand (COD) of multi-stage first porous membrane activated charcoal treatment, and treats dyes and foam as well. The equipment contributes to environmental conservation by reducing stress on the environment by stabilizing and enhancing quality of wastewater. At the same time, the equipment dramatically reduces pollution from dyes and can enable the wastewater to be used in cement. The aim of introducing this equipment is to achieve zero emission.

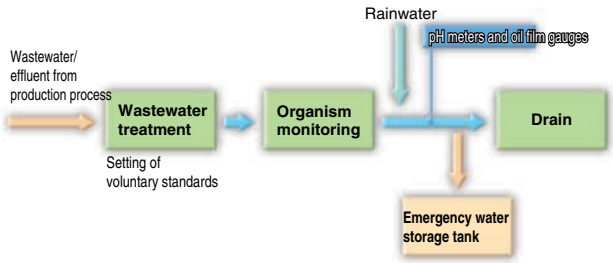
New equipment to treat water pollution caused by dye

Our 21st century wastewater treatment facilities are able to cope with environmental problems more properly. We will continue to install the latest equipment in the future as well.

Wastewater from plants (including rainwater) is constantly monitored by pH meters an oil film gauges at drains.

Drains are equipped with emergency water storage tanks to prevent discharge of water pollutants.

◆Wastewater treatment route



●Underground water conservation

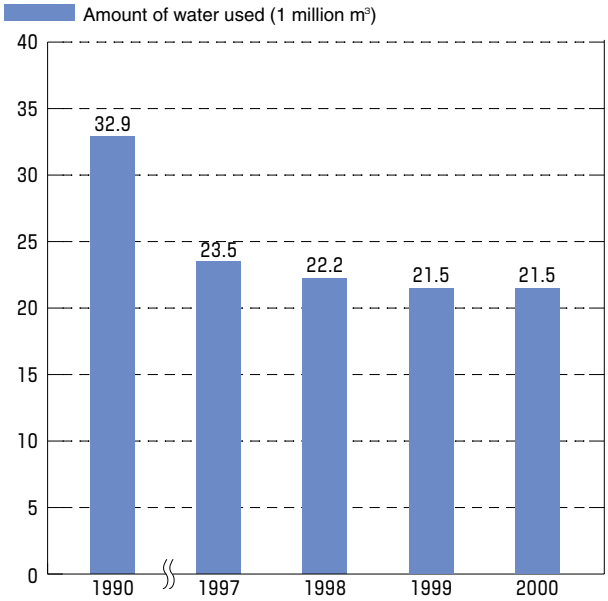
Considering water to be an important resource, along with reducing the amount of water through effective use of cooling water in the manufacturing process, we contribute to underground water conservation by allowing rainwater to gradually seep underground.

In spite of increased production in 2000, the amount of water used is almost the same as for the previous year.

A study of underground water at major domestic plants detected no heavy metals or volatile organic compounds in the water.

We intend to continue to conduct studies of underground water in the future as well.

Transition in amount of water used (limited to domestic YKK Group plants)



●Prevention of chemical pollution

○PCBs

At a Cabinet meeting on November 28, 2000, it was decided that companies were to "complete exchange of used PCB (polychlorobiphenyl) stabilizers of fluorescent lights currently in use by 2001."

The YKK Group conducted a study of stabilizers in lighting equipment manufactured between January 1957 and August 1972 at all domestic plants. As a result, PCB stabilizers were discovered in 51 pieces of equipment. The company completed removal and storage by the end of April 2001.

The company plans to complete disposal including the equipment containing PCBs in storage currently in storage by 2010.

○Dioxin

As a countermeasure against dioxin, the government revealed its "Basic Guidelines for Countermeasures against Dioxin" in March 1999, describing guidelines for reducing dioxin by 90 percent of the fiscal 1997 level by fiscal 2002.

The YKK Group is working to minimize production of dioxins by quick-cooling exhaust and maintaining incineration temperature of incineration furnaces at a minimum of 800℃.

Use of 2 incineration furnaces was discontinued in fiscal 2000, the company plans to further discontinue use in fiscal 2001.

Transportation measures

Environmental action targets

●Enhanced transportation efficiency ●Promotion of modal shift ●Promotion of use of regional ports

◆Targets and results for fiscal 2000

Targets	Results
Joint transportation for plants, distribution and sales bases	Completed for all domestic areas
Expanded use of regional ports	Considering use of regional ports
Improved loading efficiency	Switch from trucks to transport in containers

◯Results for fiscal 2000

In order to minimize the impact of tailpipe gas from transportation by truck on global warming and air pollution, we have started to use railways to ship distances of 800 km or more instead of using trucks. (Transportation by rail produces only 1/6 the CO_2 as transportation by truck.)

In order to raise loading efficiency, the company has prepared a joint transportation system for plants, distribution and sales bases.

◯Future initiatives

The amount of CO_2 emitted from group transportation accounts for 9% of the amount produced in manufacturing. The company plans to further enhance transportation efficiency and switch to clean-burning fuels.

The company plans to reduce tracking distance by selecting the most efficient port for exporting/importing and is planning to enhance loading efficiency.

Reduction of packaging materials

Environmental action targets

●Basic packaging materials unit requirement to be reduced by 7% of fiscal 1998 level by the end of fiscal 2003
●Recycling of packaging and packaging materials to be achieved by the end of fiscal 2005

◆Targets and results for fiscal 2000

Targets		Results
Basic packaging materials unit requirement to be reduced to in comparison to 1998 levels for major domestic plants	2.8% reduction	0.1% reduction
Recovery and recycling of packaging materials	Started in some places	Started at Kagoshima and Kumamoto

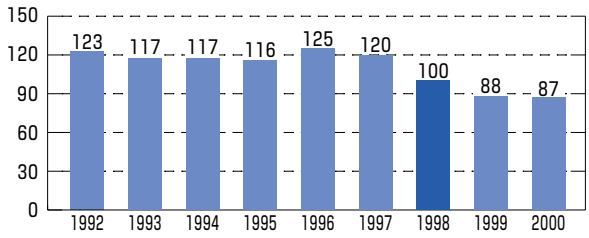
◯Reduction, recovery and recycling of packaging materials

About 80% of packaging materials consist of cardboard, paper and wood. We are reducing the amount of these materials purchased by simplifying packaging materials while maintaining product quality.

We are also involved in recovering and recycling packaging materials discarded by customers.

Cardboard, paper and wood packaging materials purchase results

Purchase amount (unit: %)



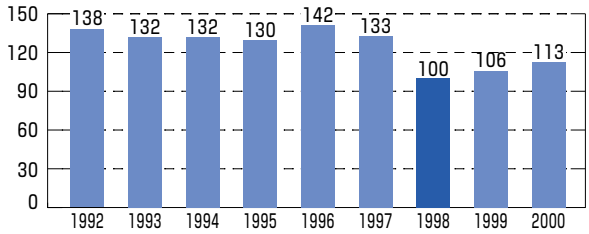
◯Results for fiscal 2000

Packaging materials unit requirement corresponding to sales for fiscal 2000 was reduced 0.1% compared to fiscal 1998. We were unable to achieve or target for the year.

We reconsidered the packaging method and changing the materials, but because of diversification of products and increased cost of purchasing packaging materials for changing the form of packaging, we were unable to achieve the target.

PE, PP foam styrene packaging materials purchase results

Purchase amount (unit: %)



◯ Example

◆Unpackaged delivery of each house unit, returnable packaging and stock packaging

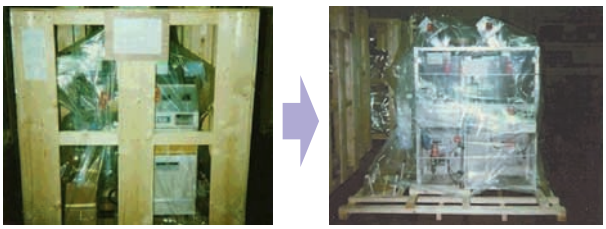
As part or our packaging reform, we have simplified its packaging, made its packing materials uniform, reconsidered the materials, began using recyclable materials and began using insulated sash "Episode" of new products. The company is also using unpackaged delivery of each house unit and returnable packaging.

Our basic consciousness is oriented toward 3R of Reduce, Reuse and Recycle.

<Unpackaged delivery of each house unit>
Sashes are places on pallets for each building and delivered.

<Returnable packaging>
Using cushions for builders as packaging, we ship products on pallets to eliminate packaging.

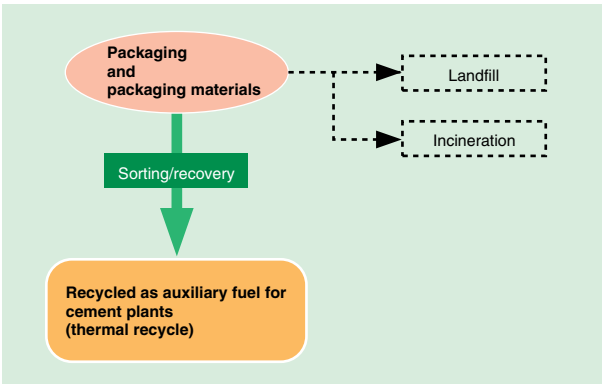
<Wooden crates>
Wooden crates are used only for the base of equipment to reduce the amount of packaging materials.



Before　　After

◆Recycling of packaging and packaging materials

If the customer so desires, we have begun recovering, sorting and sending our product packaging and packaging materials (waste plastic) to our recycling plant. Doing so contributes to reduction of amount of waste disposed of in landfills and by incineration. (Currently undergoing trial operation in Kagoshima and Kumamoto.)

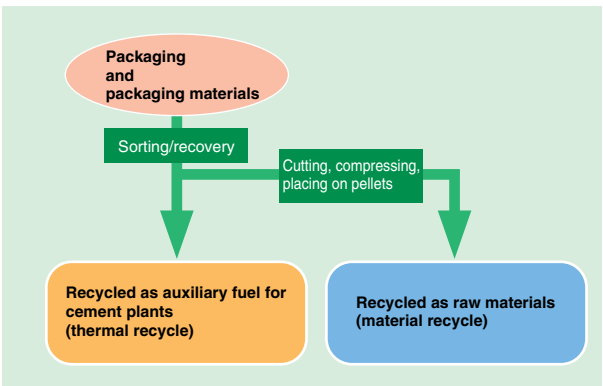


◯ Future initiatives

While maintaining quality of merchandise during transport by preventing scratches and dents, we have simplified our packaging and have begun using pallets and returnable packaging.

Along with expanding recovery and recycling of our own packaging and packaging materials, we are also considering recycling of materials.

At our overseas plants as well, we are considering reuse of packaging materials and returnable boxes in containers using recycled waste plastic.



VII. Development of environment-friendly products

YKK Group's development of environment-friendly products

Environmental action targets

●Develop and provide society with environment-friendly products
●Construction of product recycling system
●Execution of LCA

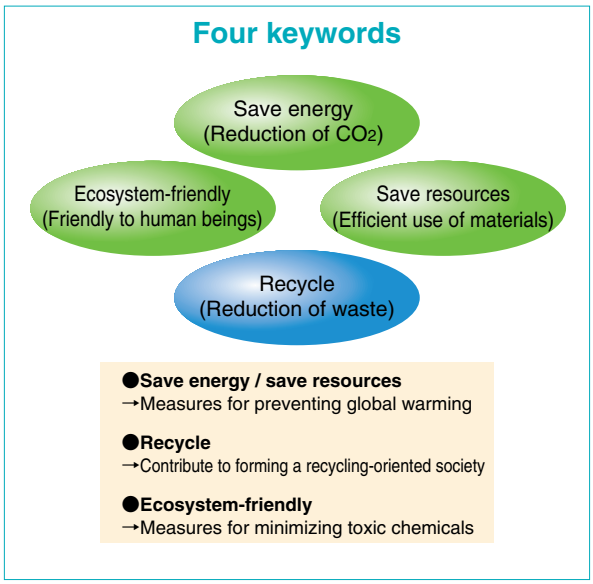
◆Targets and results for fiscal 2000

Targets	Results
Environmental product assessment that takes recyclability into account	Environmental product assessment using checklist
Development of environment-friendly products	Eco mark acquired for scenery products (street lights)
Establishment of environmental label	YKK Group environmental label established

○Philosophy of development of environment-friendly products

In recent years, prevention of global warming has become an international problem, and building a recycling-oriented society has become a theme of greater importance in Japan.

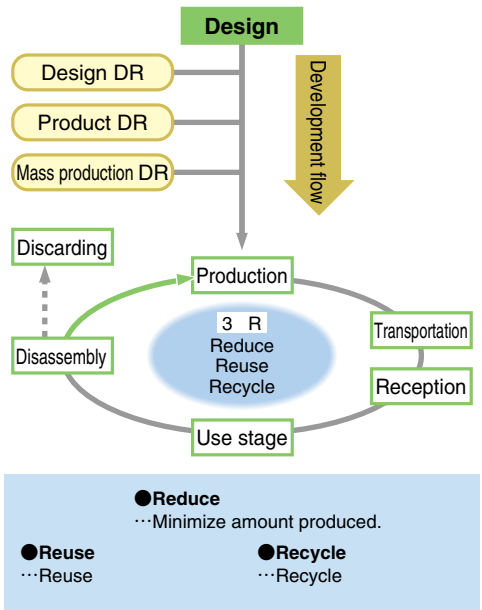
The YKK Group places priority on conservation of the global environment in its product strategy. Incorporating the four keywords of save energy, save resources, recycle and ecosystem-friendly into product development as a basic concept, we hope to contribute to building a recycling-oriented society by connecting to conservation of the global environment by recycling throughout production, distribution, use and discarding.



● Environmental product assessment

The Basic Law for Forming a Recycling-Oriented Society was enacted in June 2000, and the Law for Promoting Efficient Use of Resources started to be applied in full earnest in April 2001.

With the YKK Group, in order to check whether products taker 3R (reduce, reuse, recycle) into account from the stage the product is developed till it is discarded after use, it is obligated to carry out environmental product assessment.

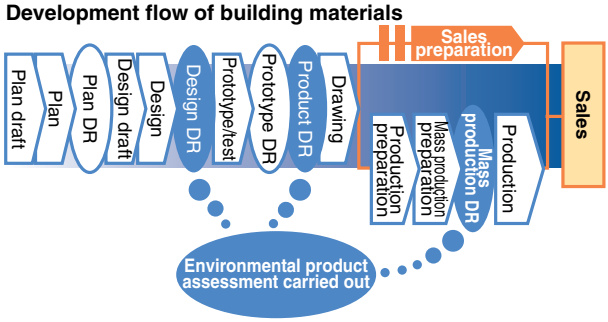


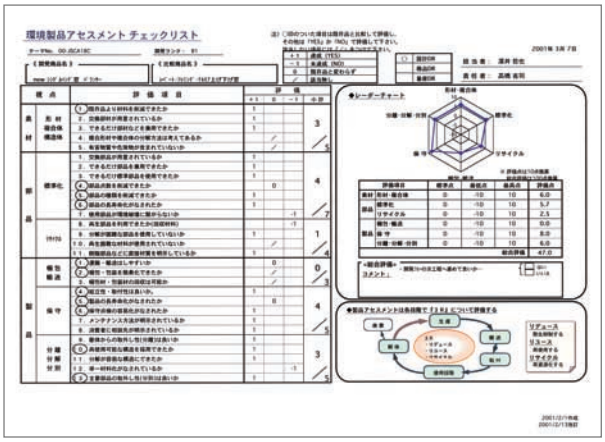
Develop all products taking 3R into account from production to disassembly (discard).

◆Example of using environmental product assessment checklist for building materials

When conducting design review (design DR, product DR, mass production DR) in the development flow, an environmental product assessment checklist is used to determine to what extent product development takes 3R into account.

Development flow of building materials





● Environmental label

The environmental label was established as a tool to aid the consumer in selecting products and services that place little stress on the environment. The International Organization for standardization (ISO) currently divides environmental labels into four types: Ordinary, Type I, Type II and Type III. Standards are currently being established.

○ Type I environmental label (3rd party certification type: in Japan, Japan Environment Association certification eco mark)

With the Type I environmental label, a third party investigative institution determines whether or not established standards are met. The label is granted if the standards are met.

In the YKK Group, an application is made for the applicable eco mark type for environment-friendly products developed. Approval to use the eco mark has been obtained for the following products.

Recycled fasteners

Recycled uniforms

"The IF Ecology Award" and "Best Category Award" were received at environmentally strict Industry Forum Design Hanover in Germany.

Geoscape street light

○ Type II environmental label (self-declared type)

With the Type II environmental label, the company itself declares in what ways its products are environment-friendly. Characteristic of this type is the fact that there are only tow parties involved: the company making the claims and the consumer.

With the YKK Group, standards are established for products developed taking the four keywords of save energy, save resources, recycle and ecosystem-friendly into account. The YKK Group Environmental Label is applied to products meeting those standards and is used for catalogs, advertisements and events.

YKK Group
Type II environmental label (self-declared type)

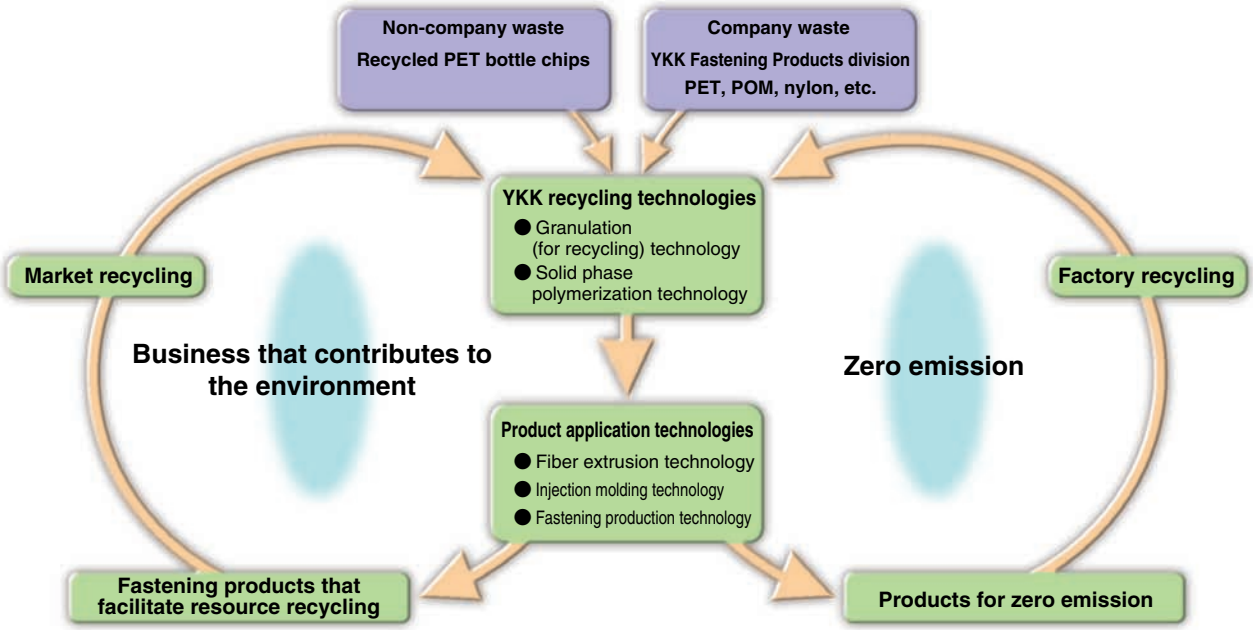
Expresses "eco" and "earth" as motif. Contains image of taking ecology into account, carrying out activities and being friendly to the environment.
Green: Green, nature
Blue: Earth, water, corporate color

● Example of environment-friendly products developed by the Fastening Products division

The Fastening Products division manufactures and sells various metal and plastic products.

Loss and excess material that occurs during production results in massive quantities of industrial waste. Based on the "YKK Group Environmental Charter," the Fastening Products division is working on various ways to recycle waste plastic in order to reduce the amount of industrial waste produced.

Up to now, recyclable products have been developed by promoting material recycling of waste plastic such as fastener thread, tape and chain scraps that used to be disposed of as landfill or incineration.



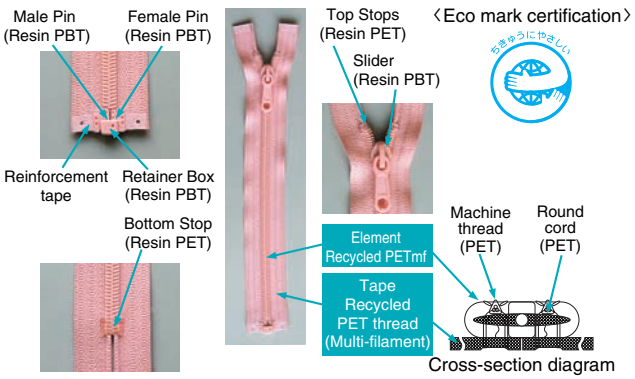
○ Recycled slide fastener (NATULON®)

Recycled slide fasteners using recycled materials, coil fasteners (eco mark acquired in 1997) and "vislon" fasteners (injection molded plastic type) are sold under the trademark "NATULON®."

Because polyester end material produced during the slide fastener manufacturing process is recycled by out own original technology including solid phase polymerization and recycle granulation to maintain same quality as products using virgin materials in terms of strength and function.

Because slide fastener part materials are made of all-polyester so they can be recycled when discarded, the slide fasteners are used for products (apparel, bags, etc.) that conform to the Green Purchasing Law that promotes purchase of environment-friendly products.

◆ Recycled slide fastener coil sketch diagram



Material recycle even more possible for material recycled material

◯ Recyclable uniform

The world's first product made completely of recycled products, this uniform was designed to use polyester for all of its components so that it can be recycled as a whole.

Originally developed for YKK employees, the uniform acquired the eco mark of the Japan Environment Association in November 1999. We hope the uniform contributes to local green procurement.

◆ Main materials of recyclable uniform

Material fabrics	●Uses thread recycled from waste plastic. A small mount of carbon fibers are mixed in to prevent buildup of static electricity.
Fasteners	●Just like material fabrics, uses recycled thread. Uses polyester resin for sliders etc.
Buttons etc.	●Uses newly developed thermoplastic polyester resin.
Front hook	●Uses newly developed polyester resin.

Completely recyclable

◯ Zip pouch

Environment-friendly product made from waste PET material. A simple pouch made from single piece of tape. It can hold small things and has an interesting shape. The pouch has been well received because of the novelty of a bag made of a single fastener and the freedom of pattern afforded by ink jet dying.

Another type is a neck strap for cellular telephones.

● Example of environment-friendly products developed by the Machinery and Engineering division

The Machinery and Engineering division develops and manufactures high-performance machinery used at YKK Group factories overseas as well as in Japan. The division builds machinery and equipment that takes environmental conservation into account. The equipment is standardized, designed for shared use, uses modular design and designed for longer life as well as being economical in order to be in harmony with the environment. An example of this would be the aluminum formed material scraps disposal unit being jointly developed by the Machinery and Engineering division and Architectural Products division.

◯ Development of aluminum formed material scrap disposal equipment

Aluminum scrap is produced in the various processes of aluminum sash manufacturing. The scrap is re-melted and recycled into new aluminum formed material.

Because aluminum formed material scraps produced from the extrusion process are long and bulky, they are difficult to transport and are hard to put in melting furnaces. We therefore developed scrap disposal equipment that cuts aluminum formed material scraps while mashing them. Cutting the scraps into shorter pieces enables scrap volume to be reduced by 40%. This facilitates transport and cuts down on the number of trips that have to be made. Because it reduces the number of times scraps have to be fed into melting furnaces and the time involved in doing so, it shortens the amount of time the furnace door has to be kept open and helps improve productivity while saving energy.

Aluminum formed material scrap disposal equipment

Effects
- ●Reduces volume of scraps (approx. 1.5 times bulk density)
- ●Saves energy for disposal of scraps
- ●Reduces number of trips for transporting
- ●Reduces space required for storing scraps
- ●Reduces number of buckets used

Example of environment-friendly products developed by the Architectural Products division

Based on product quality trusted the world over, by merit of our own original consistent production system, the Architectural Products division can respond accurately to diversified, individual needs.

As for environmental response, from the development stage, the Architectural Products division has worked to eliminate the use of PVC from lamination formed material and surface materials for entrance doors, screens and ropes for screen doors, and has taken measures for disposal such as labeling the materials of injection molded parts. The division also has switched to Fc0 low-formaldehyde wooden building materials to prevent "sick house" and provide healthy homes.

Plastic parts have been reduced for packaging, and the amount of cardboard used has been reduced for the total as well. For scenery products, environment-friendly products such as solar battery streetlights, which have acquired the eco mark, have been developed to appeal to the market.

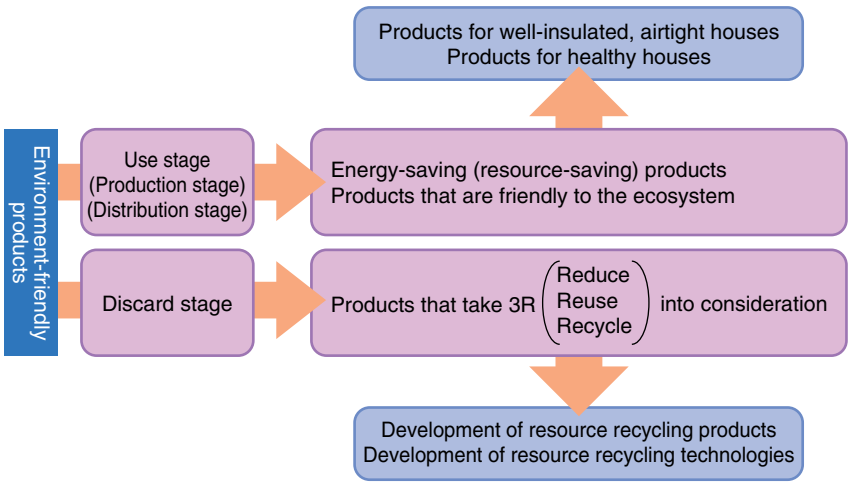
Four keywords

Save energy (Reduction of CO_2)
- ◆Thermal insulation products
- ◆Thermal insulation products
- ◆Clean energy products

Save resources (Efficient use of materials)
- ◆Basic function of all products

Recycle (Reduction of waste)
- ◆Easy change
- ◆Easy separation/disassembly
- ◆High durability / longer life

Ecosystem-friendly (Friendly to human beings)
- ◆Countermeasures against sick house
- ◆Countermeasures against atopy
- ◆Minimized dioxin



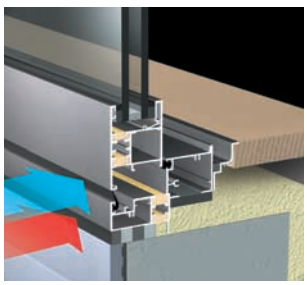
Insulated sashes

With slide joint that enables sorting/recovery of aluminum and plastic when discarded, APSWORD 100 is a product for thick walls (external insulation, ventilation construction, etc.) that aims for next-generation substitute energy standard I/II regions.

Configured of insulated formed material, the 100 Series insulated sash secures high insulation performance of H-3(K value 3.0). Of double tight construction, it reduces passage of cold air from outside through frame and lattice, enhances insulation performance for indoor side, and provides comfort.

APSWORD 100

100 Series insulated sash
(YDP - 100, YDS - 100)

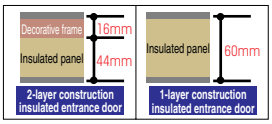


Insulated entrance

New DEWGUARD Series offers superior insulation performance for 60-mm door thickness. It uses colored sheet metal of non-PVC lamination for surface material, and the indoor side uses wood-grain oleofine resin sheets. The door features double construction and the aluminum and insulation panel can be easily separated when discarded.

Insulated Entrance Door SAE II offers superior insulation of maximum K value 3.0. The parts and materials can be easily exchanged. The product is durable and has a long life. The product's construction facilitates disassembly when discarded.

New DEWGUARD Series
type M type S



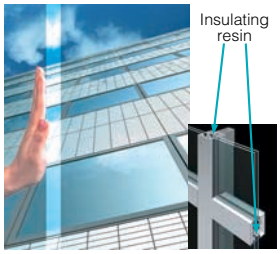
Insulated Entrance Door SAE Ⅱ

◯ Thermal insulation / energy-saving products

Thermal insulation curtain wall offers superior insulation and condensation prevention characteristics and supports the energy-saving environment.

The 2-wing automatic revolving door is used for the main entrance of hospitals, office buildings and public facilities. Because the doors maintain the air while they turn, drafts form outside are dramatically reduced enabling the ideal air conditioning environment to be maintained indoors while minimizing air cooling and heating cost.

Thermal insulation curtain wall



The 2-wing automatic revolving door

◯ Thermal insulation products

Blind shutters serve to block out sunlight and are equipped with the functions of ventilation and natural illumination incorporated into next-generation energy-saving standards.

Espalier Series products provide greenery that keeps the temperature of the wall from rising to maintain a comfortable environment inside while saving energy. Espalier Series products are effective for providing extra greenery and reducing the "heat island" phenomenon for cities and carbon dioxide that causes global warming.

Blind shutter

Espalier Series trellis

◯ Recycled wood products

Garden Club Rewood Deck and Landscape are products that use recycled wood.

Recycled wood products have superior resistance to weather, corrosion and water than wood products and are harder than natural wood, making them extremely durable. The products are environment-friendly and can be recycled when discarded.

Garden Club

Landscape

◯ Low-formaldehyde products

Adhesives used for plywood and other wood materials contain formaldehyde. Our La Foresta New E Series products conform to the Fc0 level, the highest standard of the Japanese Agricultural Standard (JAS) for minimizing release of formaldehyde into the atmosphere. From surface sheeting to molding plastic products and resin parts, all of these products are environment-friendly, non-PVC products.

Featuring construction that facilitates exchange, the parts and materials are durable for longer life and can be easily disassembled when discarded.

La Foresta hardware

Building materials

◯ Solar products

Our Eco Roof is a non-polluting, electric power generation system that directly converts sunlight to electricity to cover household power consumption. Eco Roof is an environment-friendly product that provides clean, solar power for the house.

Our Geoscape streetlights are ecological solar lights that place top priority of harmony with nature. Geoscape streetlights are clean energy products that directly convert sunlight to electricity and store the power in a battery.

Eco Roof

Geoscape street light

Example of environment-friendly technologies developed at the Research and Development division

The Research and Development division develops technologies for applied processes and research of new materials such as metals, plastics and ceramics for all business of the YKK Group.

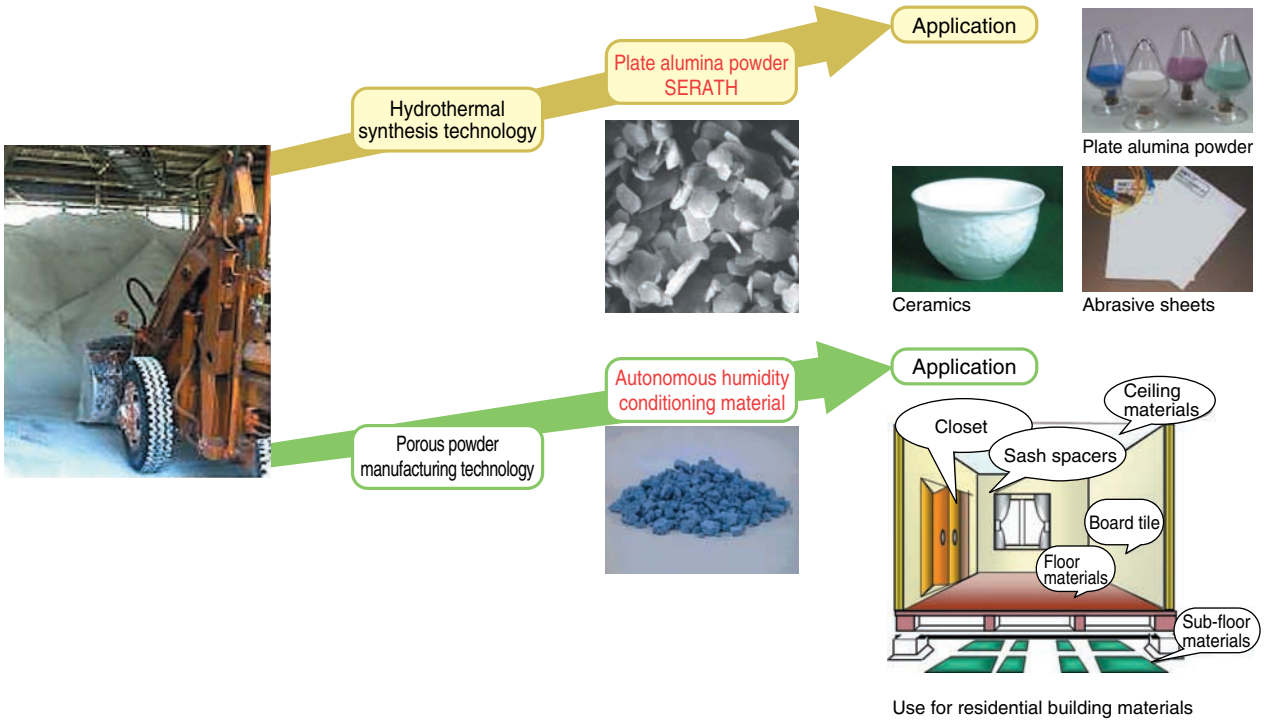
The Research and Development division develops environment-friendly products and materials that place importance on saving energy and recycling based on existing YKK projects. Forming a recycling-oriented society is an important theme for the 21st century. As laws are prepared and the government takes measures to achieve this, the Research and Development division is turning its attention to byproducts of production activities and is working on ways to reuse and recycle them.

○ Effective use of aluminum hydroxide sludge

In order to improve corrosion resistance of aluminum, aluminum building products are treated with alumite. Aluminum hydroxide sludge is a byproduct of this treatment, which is discharged.

The Research and Development division is working on converting aluminum hydroxide sludge into a raw material for sheet aluminum with high added value and autonomous humidity conditioning material.

◆ Environment-friendly technology development flow



Use for residential building materials

○ Plate alumina powder「SERATH」®

SERATH is made by hydrothermal synthesis that causes aluminum hydroxide to react with water under high-temperature, high-pressure conditions.

SERATH crystals are flat and compressed, and is characterized by its particles being easy to orient in the same direction.

Taking advantage of this feature, it is used for cosmetics, paint pigment, rubber and plastic fillers and abrasive materials.

Thus a material with new potential function is produced by converting aluminum hydroxide with plate alumina powder.

○ Alumina humidity conditioning material (autonomous humidity conditioning material)

Alumina humidity conditioning material is a material that functions to maintain ambient humidity at a certain level by heat-treating aluminum hydroxide and perforating it with a large number of holes. (The function of maintaining ambient humidity at a certain level is called autonomous humidity conditioning.)

Applications for alumina humidity conditioning material include indoor building materials such as board or panel type ceiling or wall materials. Formed into granules, alumina humidity conditioning material is used for multiplex glass suspension, showcases, shoeboxes, closets and sub-floor materials for houses. Alumina humidity conditioning material is able to create a comfortable residential environment.

VIII. Environmental education activities

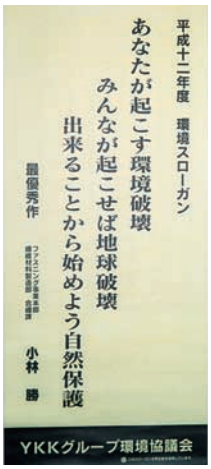
Raising environmental awareness

During "environment month" of June each year, the YKK Group collects environmental slogans and posters to raise employee's awareness of the environment.

Environmental poster (elementary school student)

Environmental poster (junior high school student)

Environmental poster (employee)



Environmental Slogan

Coexistence with local community

Through employee education, the YKK Group participates in environmental conservation and volunteer activities. The results have been praised and we have received various awards.

We have continued to tale part in roadside cleanups. By collecting data, we have determined the sources of trash and are considering or taking measures to reduce trash.

We are selling seedlings grown at out Shikoku plant the charity market and donating the proceeds to the Park Creation Project in Utatsucho.

Employee of our Shanghai branch participating in environmental conservation declaration activities at June 5 Global Environment Day.

Representative of Shanghai branch receiving award at Environmental Conservation Reliable Company Award ceremony.

President of YKK U.S.A. receiving Governor's Pollution Prevention Award for 2000 presented to the companies and organizations with outstanding results in preserving the global environment.

Promoting environmental information at exhibitions

The YKK Group participates in environmental exhibitions in order to let people know about our environment-friendly products and efforts to conserve the environment.

Eco Products 2000
December 14 - 16, 2000
Tokyo Big Site

IX. Environmental stress data for each site

YKK Group main domestic plants

	Kurobe plant	Kurobe Ekko plant
	200 Yoshida Kurobe-city, Toyama 938-8601 Tel: 0765-54-8000	9425 Yoshida Kurobe-city, Toyama 938-8603 Tel: 0765-57-0815
●Property area	1,017,000 m^2	221,000 m^2
●Total floor area of building	814,000 m^2	154,000 m^2
●Use district	Industrial area	
●Type of business	Fastening products manufacturing, building material products manufacturing, manufacturing of precision machinery, equipment and dies	
●No. of employees	4,378	684
●Energy management specified plant	Type I heat management, Type I electricity management	
●Electrical power consumption	249,711,000 kWh/year (Kurobe 216,644,000 kWh/year, Ekko 33,067,000 kWh/year)	
●Fuel consumption (crude conversion)	24,591kℓ /year (Kurobe 23,578kℓ /year, Ekko 1,013kℓ /year)	
●Water consumption	11,555,000 m^3/year	677,000 m^3/year
●Wastewater discharge destination	River	
●Leakage/outflow accidents	None	

Kurobe Makino plant	
936 Makino Kurobe-city, Toyama 938-8602 Tel: 0765-54-1100	
●Property area	104,000 m^2
●Total floor area of building	53,000 m^2
●Use district	Industrial area
●Type of business	Fastening products manufacturing, building material products extrusion die machining
●No. of employees	248
●Energy management specified plant	Type I electricity management
●Electrical power consumption	32,875,000 kWh/year
●Fuel consumption (crude conversion)	864kℓ/year
●Water consumption	932,000 m^3/year
●Wastewater discharge destination	River
●Leakage/outflow accidents	None

Kurobe Ogyu plant	
Ogyu Kurobe-city, Toyama 938-8604 Tel: 0765-57-2051	
●Property area	337,000 m^2
●Total floor area of building	126,000 m^2
●Use district	Not specified
●Type of business	Building material products machining/assembly
●No. of employees	702
●Energy management specified plant	Type I electricity management
●Electrical power consumption	12,463,000 kWh/year
●Fuel consumption (crude conversion)	476kℓ/year
●Water consumption	171,000 m^3/year
●Wastewater discharge destination	River
●Leakage/outflow accidents	None

Toyama Mizuhashi plant	
15-21 Mizuhashiichidabukuro Toyama-city, Toyama 939-3555 Tel: 076-479-2110	
●Property area	34,000 m^2
●Total floor area of building	20,000 m^2
●Use district	Semi-industrial area
●Type of business	Wooden building material products machining
●No. of employees	66
●Energy management specified plant	Does not apply
●Electrical power consumption	1,564,000 kWh/year
●Fuel consumption (crude conversion)	75kℓ/year
●Water consumption	3,000 m^3/year
●Wastewater discharge destination	Sewerage system
●Leakage/outflow accidents	None

YKK Sendai Institute of Material Science and Technology	
9-5-1 Narita Tomiya-cho Kurokawa-gun, Miyagi 981-3341 Tel: 022-351-5500	
●Property area	15,000 m^2
●Total floor area of building	4,000 m^2
●Use district	Industrial area
●Type of business	Research and development
●No. of employees	21
●Energy management specified plant	Does not apply
●Electrical power consumption	939,000 kWh/year
●Fuel consumption (crude conversion)	12kℓ/year
●Water consumption	2,000 m^3/year
●Wastewater discharge destination	Sewerage system
●Leakage/outflow accidents	None

Cut here

Let us know what you think.

Along with our activities, the YKK Group has prepared this report based on concrete numerical values and examples to enhance communication with society. You may however have some questions concerning our activities. We would therefore like to hear your opinions concerning our environmental conservation activities and creation of this report. If it's not too much trouble, we ask that you fill out questions on the reverse side and fax it to the YKK Environmental Group. We will be glad to send a copy of our Environmental Report 2002 to anyone who is interested (scheduled to be published August 2002).

August 2001

YKK Group Environmental Council Secretariat

Group Administrative Operations Center,

Environmental Group

YKK Group Environmental Report 2001

Please answer the following questions and fax this paper to us at the following number.

Group Administrative Operations Center, Environmental Group **FAX 0765-54-8190**

Q1 What are your impressions of the environmental report?

1) Readability

①Easy to understand ②Average readability ③Hard to understand

Why do you think so?

2) Contents

①More than enough ②Average amount ③Not enough

Why do you think so?

3) What part of the report were you most interested in?

( )Page (Item:)

Why?

4) How do you access YKK Group activities ?

①Superior ②Good ③Average ④Below average ⑤Complete failure

Why do you think so?

5) Please tell us in your own words what you think about the environment report and out environmental activities.

Write your comments here.

Q2 From what standpoint did you read the environmental report?

①Customer ②Supplier ③Government/administration ④Environmental NGO ⑤News media

⑥Person involved in environmental matters at company ⑦Student ⑧Resident of local community where YKK Group company is located

⑨Finance/investment ⑩Other (Please explain:)

Q3 How did you find out about this environmental report?

①Newspaper/magazine ②Web site ③Exhibition ④YKK salesman

⑤Other (Please explain:)

Please fill in the following information. Thank you very much for your cooperation.

Do you want us to send you a copy of our Environmental Report 2002?			1. Yes 2. No		
Name		Sex	1. Male 2. Female	Age	
Address	〒				
Occupation / business address				Department/ Job title	

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Hokkaido plant

1-22-33 Shinko-minami Ishikari-city,
Hokkaido 061-3296
Tel: 0133-64-4134

●Property area	63,000 m²
●Total floor area of building	22,000 m²
●Use district	Industrial area
●Type of business	Building material products
●No. of employees	134
●Energy management specified plant	Does not apply
●Electrical power consumption	2,827,000 kWh/year
●Fuel consumption (crude conversion)	162kℓ/year
●Water consumption	7,000 m³/year
●Wastewater discharge destination	Sewerage system
●Leakage/outflow accidents	None

Tohoku plant

1,Sanbongiyoshida Sanbongi-cho Shida-gun,
Miyagi 989-6392
Tel: 0229-52-3500

●Property area	725,000 m²
●Total floor area of building	324,000 m²
●Use district	Industrial area
●Type of business	Building material products
●No. of employees	1,465
●Energy management specified plant	Type I electricity management, Type I heat management
●Electrical power consumption	88,974,000 kWh/year
●Fuel consumption (crude conversion)	7,823kℓ/year
●Water consumption	4,121,000 m³/year
●Wastewater discharge destination	River
●Leakage/outflow accidents	None

Shikoku plant

4000 Yoshida Utazu-cho Ayauta-gun,
Kagawa 769-0293
Tel: 0877-46-8014

●Property area	330,000 m²
●Total floor area of building	180,000 m²
●Use district	Industrial area
●Type of business	Building material products
●No. of employees	798
●Energy management specified plant	Type I electricity management, Type I heat management
●Electrical power consumption	58,653,000 kWh/year
●Fuel consumption (crude conversion)	12,435kℓ/year
●Water consumption	1,566,000 m³/year
●Wastewater discharge destination	Sea
●Leakage/outflow accidents	None

Kyushu plant

1-10 Shinminato-cho Yatsushiro-city,
Kumamoto 866-8511
Tel: 0965-37-1111

●Property area	342,000 m²
●Total floor area of building	204,000 m²
●Use district	Industrial area
●Type of business	Building material products
●No. of employees	853
●Energy management specified plant	Type I electricity management, Type I heat management
●Electrical power consumption	54,620,000 kWh/year
●Fuel consumption (crude conversion)	12,730kℓ/year
●Water consumption	2,134,000 m³/year
●Wastewater discharge destination	Sea
●Leakage/outflow accidents	None

Namerikawa plant / YKK AP Namerikawa plant

Tel: 076-477-2300

3003 Sugimoto Namerikawa-city,
Toyama 936-8520

Tel: 076-477-2000

●Property area	667,000 m²		
●Total floor area of building	189,000 m²		
●Use district	Unspecified		
●Type of business	River		
●No. of employees	Building material product machining/assembly	●No. of employees	Manufacturing group support management, order receiving management, building materials manufacturing
●Energy management specified plant	390	●Energy management specified plant	749
●Electrical power consumption	Type II electricity management	●Electrical power consumption	Type II electricity management
●Fuel consumption (crude conversion)	8,685,000 kWh/year	●Fuel consumption (crude conversion)	5,917,000 kWh/year
●Water consumption	377kℓ/year	●Water consumption	414kℓ/year
●Wastewater discharge destination	172,000 m³/year	●Wastewater discharge destination	166,000 m³/year
●Leakage/outflow accidents	None	●Leakage/outflow accidents	None

YKK CORPORATION

1,Kandaizumi-cho, Chiyoda-ku, Tokyo, 101-8642, Japan

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Published by YKK Group Environmental Council, August 2001

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