

Tokuyama Corp.

Responsible Care & Eco Management Dept.
Tokuyama Corporation

Shibuya Konno Bldg., 3-1, Shibuya 3-chome
Shibuya-ku, Tokyo 150-8383
Phone: +81 3-3499-8478
Fax: +81 3-3499-8961
URL: <http://www.tokuyama.co.jp>
e-mail: rc-toukatsu@tokuyama.co.jp

The photo of the cover represents the kiln of the cement plant of Tokuyama Factory. The cement plant accepts a large quantity of waste and by-products not only from internal facilities but also from other companies and municipalities to recycle them effectively. The cement plant contributes to the creation of a recycle-oriented society through environmental conservation efforts, such as resource saving and reductions in CO₂ emissions and waste.



This report is printed on FSC-accredited paper with pure plant oil ink, which contains no volatile organic compounds, and in a dry printing process that uses no water, thus precluding release of any harmful effluents.

Date of issue: September 30, 2005

Next issue: Scheduled for September 2006



Responsible Care Report *2005*

Our Commitment to the Environment, Safety, and Health

Chemistry with a heart

TOKUYAMA



CONTENTS

01	Summary of Business
02	Message from the President
RC Management	
03	Basic Philosophy of Responsible Care
04	Material Flow Balance in Our Production Activities
05	Results and Evaluation of Fiscal 2004 Activities
06	Environmental Accounting
07	RC Promotion System and Management Systems Operation
Environmental Performance	
09	Recycling Outside Waste
11	Reducing and Recycling of Waste Materials
12	Prevention of Global Warming
13	Reduction of Air and Water Pollutants
15	Development of Environmentally-Friendly Products and Environmental Technologies
17	Comprehensive Safety Management of Chemicals
18	Promoting Safety and Environmental Management in the Distribution Process
Relationship with Society	
19	Reliable Company
22	Relationship with Employees
23	Process Safety and Disaster Prevention/Occupational Health and Safety
25	Harmonious Coexistence with Communities and Society
Site Report	
27	Tokuyama Factory
28	Kashima Factory
29	Environmental Activities of Group Companies
30	Third Party Opinion/History of Activities

Editorial Notes

This Environmental Report 2005 was prepared with the aim of bringing Tokuyama's activities on the environment, safety and health in fiscal 2004 to the attention of all concerned, such as stakeholders, customers, employees and their families, people living near its sites, and the general public. We increased the number of items under the title of "Relationship with Society" as compared with the Environmental Report 2004. The Environmental Report 2005 includes, as much as possible, performance data of group companies. The Environmental Report 2005 is prepared based on the Environmental Reporting Guidelines (Fiscal 2003 Edition) (Ministry of the Environment). The Environmental Report 2005 is available at our Web site. <http://www.tokuyama.co.jp>

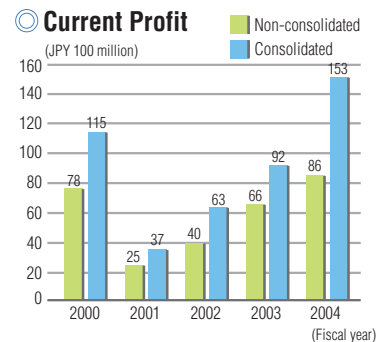
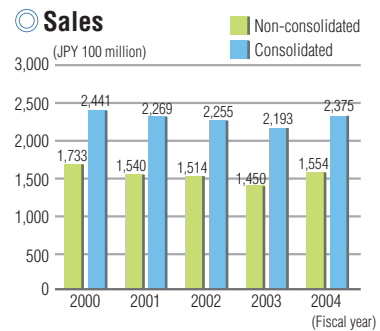
Scope of Report

Period: From April 2004 to March 2005
Companies: Tokuyama Corp. (Tokuyama and Kashima Factories)
 For certain performance data, a total of eleven main production subsidiaries (see page 29) is also indicated.
Region: Activities in Japan

Summary of Business

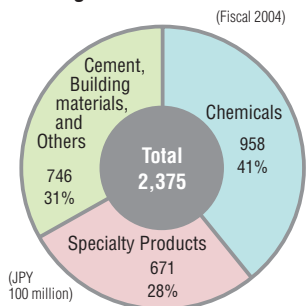
Company Outline

Established: February 16, 1918
Headquarters: Shibuya Konno Bldg. 3-1, Shibuya 3-chome, Shibuya-ku, Tokyo 150-8383, Japan
Production and Research Sites: Tokuyama Factory, Kashima Factory, Tsukuba Research Laboratory
Capital: JPY 19,273 million (as of March 31, 2005)



Segmental Sales Breakdown

(Fiscal 2004)



Business Segments and Main Products

Segment	Main Products
Chemicals	Caustic soda, soda ash, calcium chloride, sodium silicate, vinyl chloride monomer and polyvinyl chloride, propylene oxide, isopropyl alcohol, methylene chloride, biaxial-oriented polypropylene films, multilayer co-extrusion films, cast polypropylene films, microporous films
Specialty products	Polycrystalline silicon, amorphous precipitated silica, fumed silica, aluminum nitride, dental materials, pharmaceutical, agricultural chemical bulks and intermediates, plastic lens materials, ion-exchange membranes, methylene chloride for washing metal, solvent for semiconductor base materials, environment-related items, medical diagnosis systems, gas sensitive semiconductors
Cement, Building materials, and Others	Ordinary Portland cement, high early strength Portland cement, blast furnace slag cement, ready-mixed concrete, plastic window sashes, cement type stabilizer, waste treatment

Message from the President

We promote environmental management and CSR. Tokuyama aims at becoming a "company to be consistently relied on by society and customers."

Economic and social activities in the 20th century, characterized by mass production and mass consumption, have greatly benefited human beings. On the other hand, they have also brought about environmental problems, such as global warming and concerns about the depletion of natural resources. Reflecting on this situation, we must be determined to make the 21st century the "Century of the Environment," in which we pay full respect to the value of the global environment and make efforts to ensure our harmonious coexistence with it. The chemical industry has made available a variety of chemical products to society and contributed to enhancing the wealth of our life. At the same time, as a chemical company, we are well aware of the indispensable necessity of giving due consideration to the environment and human health to ensure that they are not harmed by chemical products.

By acting on the principle of responsible care that is followed globally by chemical industries, Tokuyama joined Japan Responsible Care Council when it was founded in 1995. Since then, we have been conducting voluntary activities for a decade to protect people's health and the environment and to maintain safety for the whole life cycle of chemical products from manufacturing, logistics, use, to final consumption and disposal.

We have positioned environmental management as one of the core strategies and included a theme of "environment and energy" as one of the important growth strategies in our medium-term business plan. Environmental management is a business philosophy that places a priority on the environment. We aim at enhancing corporate values and achieving a sustainable society by transforming all our business activities into environmentally friendly ones. In particular, we have concentrated our energy on recycling waste and by-products by utilizing our ability to manufacture chemical products and cement. In fiscal 2004, we received waste and by-products in the amount of 1.54 million tons from the outside to manufacture cement. We are proud of the fact that we are contributing to the "creation of an environmentally friendly country" by reducing consumption of natural resources through the above-mentioned activities.

In the three-year business plan starting from fiscal 2005, we introduced a concept of corporate social responsibility (CSR) to ensure the sustainability of our company. Based on this concept, we will enhance a framework to promote environmental management, security, disaster prevention, and energy saving to help prevent global warming, compliance, etc. In other words, we aim at developing excellent "human resources" through the enhanced framework and the promotion of the above-mentioned activities.

Following the past "industrial revolution" and the recent "IT revolution," it is said that the "environmental revolution" will begin in the 21st century. Tokuyama, as a chemical enterprise with excellent technologies, aims at becoming a "company to be consistently relied on by society and customers" by contributing to the "environmental revolution" and completely fulfilling its social responsibilities.

The contents of this report as a social and environmental report are enriched. We sincerely hope that you will understand our activities and give us your opinions or comments.

July 20, 2005

Shigeaki Nakahara
President



Basic Philosophy of Responsible Care

To fulfill the social responsibilities of our company as a chemical product manufacturer, we have established a basic policy, action objectives and medium-term environmental goals, and are promoting responsible care activities for the protection of the environment and people's health and safety maintenance on a company-wide basis.

Basic Policy

As a member of the Japan Responsible Care Council, Tokuyama Corporation carries out Responsible Care activities that protect the environment and preserve safety and health throughout the entire chemical substance life cycle, from development and manufacturing, to distribution, use, final consumption, and disposal. Our social mission is to aggressively tackle and solve environmental issues in particular, which, in turn, will lead to sustainable corporate and social development. Based on this recognition, we are promoting "Environmental Management," a management policy that emphasizes the environment, in all of our business activities, including development, manufacturing, and sales.

Action Objectives

- Promote environmental protection.**
 - Implement ISO14001 based Environmental Management System and reduce environmental loads.
- Observe laws and regulations.**
 - Observe international rules, local laws and regulations, and industrial standards.
 - Thoroughly practice internal export control rules.
- Promote energy conservation and curb global warming.**
 - Achieve the lowest unit energy consumption in the industry for each of our products.
- Promote resource recycling and work towards the reduction and proper management of waste materials.**
 - Promote material recycling and thermal recycling of resources.
 - Work towards the paperless office.
- Promote process safety, disaster prevention, and occupational health and safety.**
 - Aim for zero accidents and disasters based on principles of safety self-management and self-responsibility.
 - Secure comfortable work environment and protect people's safety and health.
- Ensure strict product safety standards.**
 - Offer environmentally-oriented products that can be safely used.
 - Provide clear information on how to use the product and what care to take.
- Deepen trusting relationships with the society.**
 - Publicly disclose information on Company's activities concerning environmental protection, process safety, occupational health and safety, and chemical product safety.
 - Actively pursue dialogue with local communities.

Environmental Goals

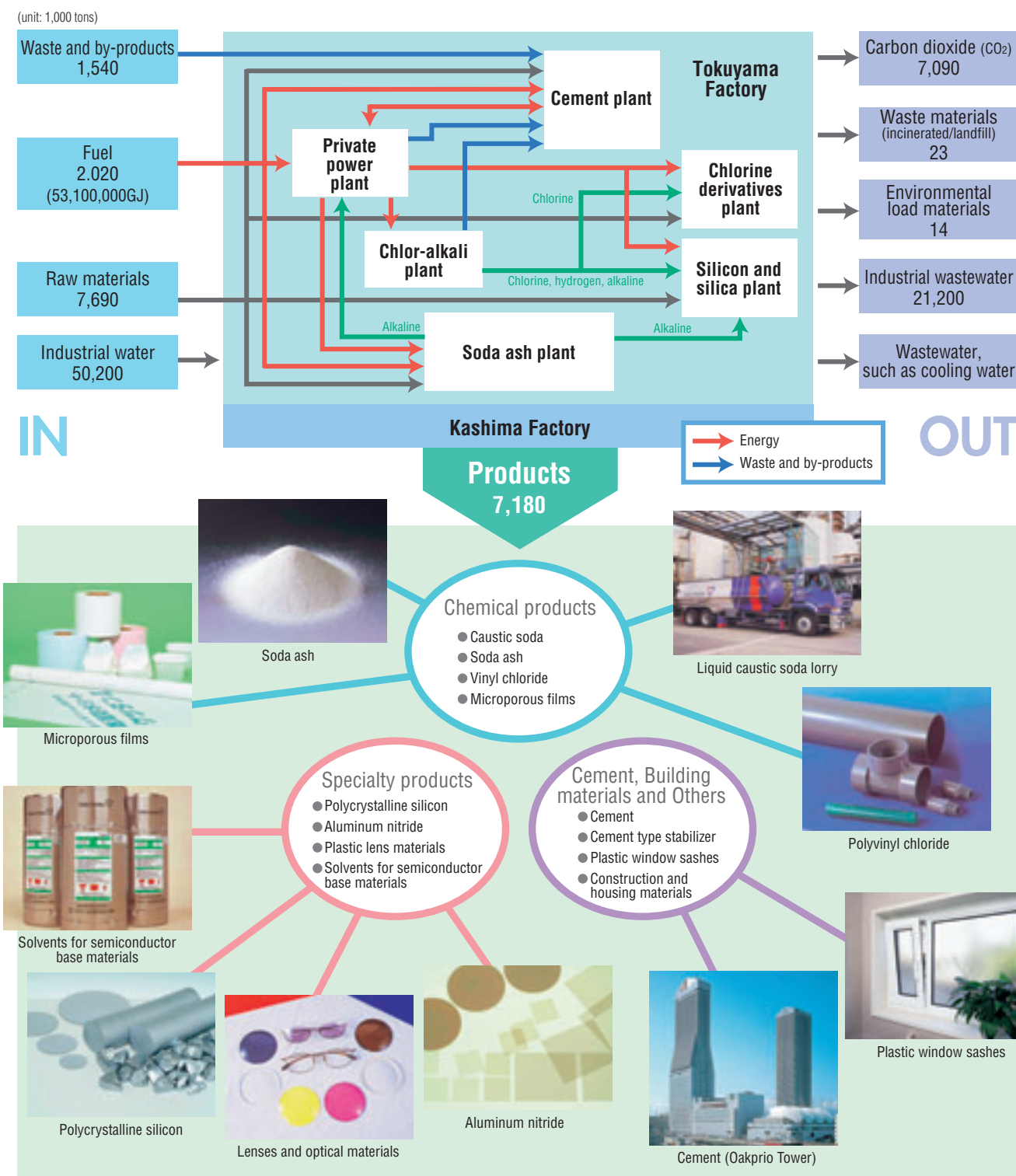
- Achieve a 15% reduction in unit energy consumption from 1990 levels by 2005.
- Raise the effective waste utilization rate to 92% by 2005.



Responsible Care: Responsible Care (RC) is a self-management activity by a company that either manufactures or handles chemical substances, to implement and improve measures for protecting the "Environment, Safety, and Health" of society and staff throughout the chemical substance handling process—from inception in the research and development through manufacture, distribution, and use, to final consumption and disposal. These activities also includes public disclosure of company performance and social dialogue. Born in Canada in 1985, Responsible Care has spread to 47 countries. The Japan Responsible Care Council (JRCC) was established in 1995 within the Japan Chemical Industry Association and has 107 companies registered as of April 2005.

Material Flow Balance in Our Production Activities

We accurately assess and manage the input and output of the manufacturing of main products, such as cement, chemical products, and polycrystalline silicon, and also the input and output of the private power plant that supplies most of the energy needed for production operations.



Results and Evaluation of Fiscal 2004 Activities

We have already achieved environmental goals for 2005 for unit energy consumption and the waste utilization rate. Tokuyama Factory has received the Director-General of the Agency for Natural Resources and Energy Award for Excellent Energy Management Plant.

We have established priority themes for each of the categories of responsible care activities, and promoted activities on a company-wide basis. We are properly implementing environmental, quality and occupational safety and health management systems to improve activities.

In fiscal 2004, we further improved unit energy consumption by carrying out an energy saving project, etc. The waste utilization rate remained at a high level of 94.3%, although the rate slightly declined from the previous year's level due to increased production,

etc. Both unit energy consumption and the waste utilization rate have already achieved fiscal 2005 medium-term goals. From now on, we will further promote activities by establishing goals of higher levels.

We have significantly reduced the emission of PRTR substances and hazardous air pollutants by implementing effective emission reduction measures.

We will continuously make efforts to reduce the emission of NOx and soot particles and COD that have increased slightly.

◎ Fiscal 2004 RC Activities—Priority Issues and Solutions

Segment	Priority Issues	Solutions	Related pages
Management	<ul style="list-style-type: none"> Review by Senior Management 	<ul style="list-style-type: none"> RC Administration Committee Safety and Environmental Inspection 	P. 7 P. 8
Environmental preservation	<ul style="list-style-type: none"> Reduction in environmental burdens (air, water quality, etc.) Reduction in the emission of PRTR substances and hazardous air pollutants Decrease in unit energy consumption Promotion of zero-emission activities Promotion of green purchase Compliance with environmental regulations 	<ul style="list-style-type: none"> Reduction in emission of SOx and hazardous air pollutants Promotion of energy conservation Thermal recycling of waste plastic materials Waste material recycling "Green Procurement" of office supplies and lighting equipment Implementation of Environmental Management System 	P. 13-14 P. 12 P. 10 P. 9-10 P. 8 P. 7
Process safety	<ul style="list-style-type: none"> No accident Promotion of risk management Active efforts to acquire a certification of safety self-management 	<ul style="list-style-type: none"> Maintenance of no-accident operations Improvement of the crisis management system Acquisition of a certification of high pressure gas safety inspection 	P. 23 P. 21 P. 23
Occupational health and safety	<ul style="list-style-type: none"> No disaster Consistent implementation of occupational safety and a health management system 	<ul style="list-style-type: none"> Maintenance of no-disaster operations Internal audit 	P. 23-24
Chemical product safety	<ul style="list-style-type: none"> Ensured product safety 	<ul style="list-style-type: none"> Product assessment, labeling inspection Improvement of MSDS, investigation of potentially poisonous and deleterious substances Participation in the HPV program 	P. 17-18
Trusting relationships with local communities	<ul style="list-style-type: none"> Participation in community activities Co-existence with local communities 	<ul style="list-style-type: none"> Participation in community's volunteer activities Hosting dialogue meetings on RC activities (for local communities and inside each factory) Factory tours for community members 	P. 25-26
Promotion of RC program to group companies	<ul style="list-style-type: none"> Dissemination of RC activities 	<ul style="list-style-type: none"> Safety and environmental inspection Acquisition of ISO certification Sharing of RC-related information 	P. 29

◎ Fiscal 2004 Environmental Management Activities

Segment	Items	Unit	Target	FY 2003	FY 2004	Year-over-Year	
Pollution control	Air	SOx*	tons/year	1,880	1,720	-160	
		NOx*	tons/year	10,900	11,500	+600	
		Soot and Dust*	tons/year	254	272	+18	
	Water	COD	tons/year	135	145	+10	
Global environment conservation	Energy conservation	Unit energy consumption index* (compared to 1990)	%	-15 (FY 2005)	-16.7	-16.9	-0.2
Reduced waste materials	Recycling	Waste material effective utilization rate	%	92 (FY 2005)	94.8	94.3	-0.5
PRTR	PRTR		tons/year	98	68	-30	
	Hazardous air pollutants		tons/year	49	33	-16	

* Tokuyama Factory

Environmental Accounting

We have adopted an environmental accounting system and publicized related data since fiscal 2000 with an aim of analyzing the cost of environmental conservation activities (investment and expenditure), assessing their economic benefits, and utilizing the data for more efficient environmental management.

In fiscal 2004, investment amount increased by about 700 million yen over the previous year's level. Expenses and economic benefits remained almost unchanged from the previous year's level.

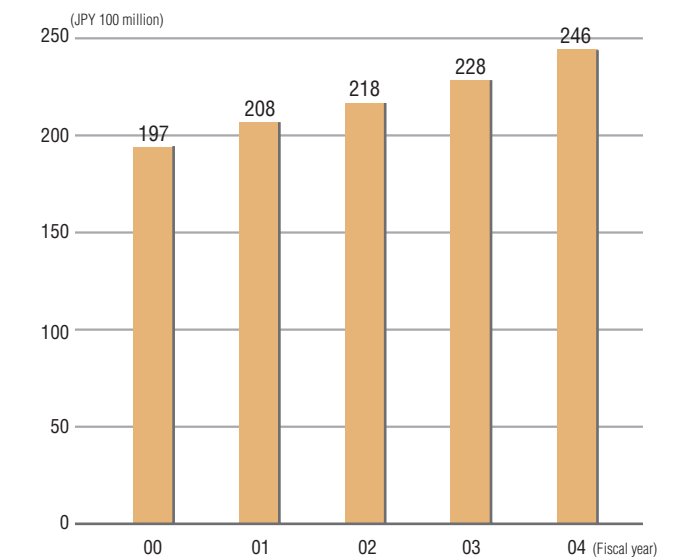
● Environmental Conservation Costs

About 60% of environmental investment is used for pollution prevention, and a little less than 40% for the conservation of the global environment. In fiscal 2004, environmental investment was mainly made for the installation of incidental environmental equipment to newly built production facilities, the adoption of new coolers for cement plants, and the adoption of energy-saving desulfurization equipment for private electric generators.

● Economic Benefits

Economic benefits are evaluated based only on actual revenue figures, where any projected benefits are excluded, in areas of energy conservation, sales of relevant materials, and reutilization of waste materials, which helps minimize processing for disposal and reduce consumption of raw materials and fuel. In fiscal 2004, economic benefits in the amount of about 1.5 billion yen were generated. This amount remains almost unchanged from the previous year's level.

◎ Trends of Accumulated Environmental Investments (cumulative since FY 1990)



◎ Environmental Conservation Costs

Classification		Major Expenditure Items	Amount Invested (JPY million)	Total Expenditure (JPY million)
Factory site costs	Pollution prevention	Installation of incidental environmental equipment at a new plant, and installation or renewal of waste gas treatment equipment, electric precipitator, etc.	1,053	3,526
	Global environment conservation	Adoption of new model cement coolers, and installation of energy saving equipment	637	575
	Resource recycling	Improvement of waste fluid recovery equipment	4	1,032
Upstream/downstream costs			0	1
Costs of management activities		Hazardous air analyzer	33	263
Research and development costs		Development of waste treatment technology	1	189
Costs of social activities		Tree-planting at factories and preparation of environmental reports	20	42
Costs of environmental damage		Levies and management of disused mines	1	188
Total			1,749	5,816

◎ Economic Benefits

Item	Material Benefits (1,000 tons)	Economic Benefits (JPY million)	Remarks
Benefits from energy conservation	—	120	Benefits from lower electricity and steam consumptions
Revenues from salable materials	92	129	Revenues from selling metal scraps, waste oils, waste acids and alkalis
Benefits from lower waste materials processing costs	273	701	Processing costs reduced by reutilization of waste materials
Benefits from lower raw material and fuel consumption realized by waste reutilization	279	509	Raw materials and fuels costs reduced by reutilization of waste materials
Total		1,459	

* Costs were compiled according to "Environmental Accounting Guideline—2002" of the Ministry of the Environment. * Economic benefits of Tokuyama Corp. are totalized.

RC Promotion System and Management Systems Operation

We have a company-wide system to secure the environment, quality, and safety. Compliant to respective management systems, we are making continuous improvement. In fiscal 2004, we made an effort to improve the quality of activities by expanding the scope of application.

RC Promotion System

Our RC Administration Committee, which draws up the highest level policies on our RC activities, is chaired by the president and comprises corporate management members. The committee discusses and approves company-wide RC policies and other environment, safety, and quality-related policies. Under this committee are various subordinate organizations: the Environmental Measures Committee, the Safety Measures Committee, the Product Safety and Quality Assurance Committee, and the Product Assessment Committee. These subordinate organizations are responsible for discussing specific activity plans and assessing product safety. Each subcommittee is chaired by a corporate director responsible for the relevant company-wide issues. Heads of appropriate departments of the company are assigned as subcommittee members.

Management System for Environmental Activity Assessment

We prepared a mid-term (3 years) environmental plan. To implement the plan, we set ourselves yearly policies and goals, based on which each department prepares specific plans for implementation. The activities undertaken are assessed at the fiscal year end and the results reflected in plan for the following year.

Operation of Management Systems

ISO 14001 Environmental Management System

Both our Tokuyama and Kashima factories have acquired ISO 14001 certification, one of the main international standards and on which we base our Environmental Management System.

In line with company-wide environmental policy, each factory sets itself an environmental policy and the specific goals to be achieved in areas covering lowering environmental loads, energy conservation, reducing waste material disposal, and promoting resource recycling.

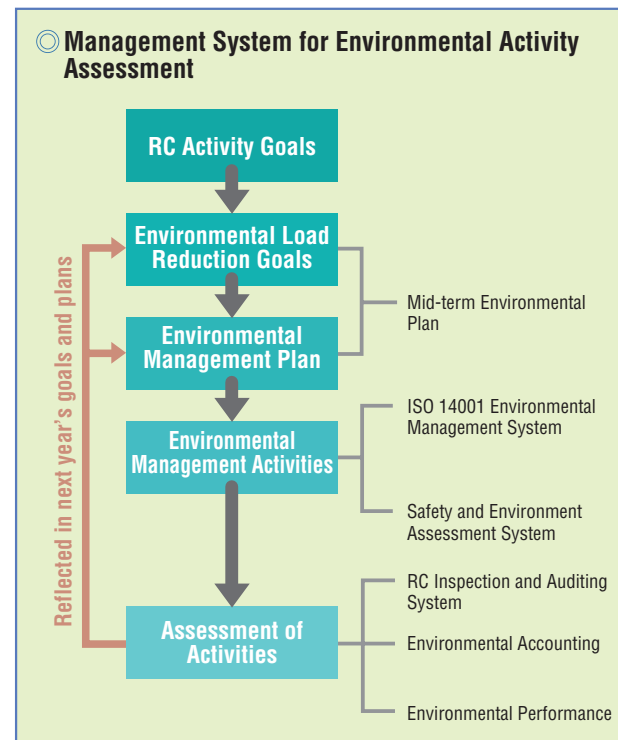
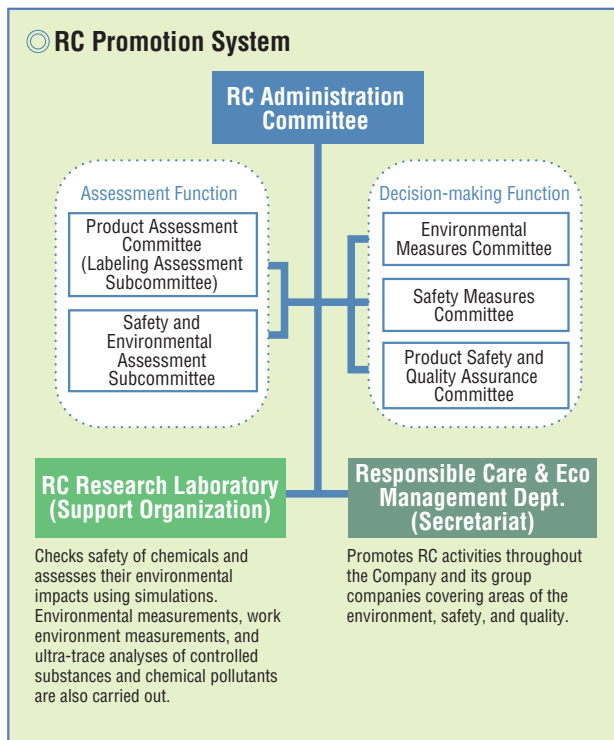
At the company headquarters, branch offices, and research laboratories, activities are under way based on their respective policies and goals in the areas of energy conservation, reducing waste material disposal, and resource recycling.

ISO 14001

ISO 14001 is one of the major international standards developed by the International Organization for Standardization (ISO), and provides the requirements for Environmental Management Systems. ISO 14001 certification is awarded to an organization that, based on the environmental management system implemented according to a systematized process, operates its business in an environment-oriented manner and achieves continual improvements through corrective actions, as necessary.

ISO 9001 Quality Management System

We have also acquired ISO 9001 certification (Quality



Management System) for our major products. In fiscal 2004, we made an effort to enhance our Quality Management System, in which our Sales and Development departments joined in fiscal 2002, to further improve customer satisfaction.

ISO 9001

ISO 9001 is one of the major international standards developed by the International Organization for Standardization (ISO), and provides the requirements for Quality Management Systems. It enables a company to establish dependable quality management systems within its organizations and thereby further address customer satisfaction.

Health and Safety Management System

Based on the "JCIA—New Occupational Health and Safety Guidelines" of Japan Chemical Industry Association, we have implemented a Safety and Health Management System within our respective factories and commenced operation of these in fiscal 2003. In fiscal 2004, we expanded the scope of risk assessment, and also expanded the scope of application of the system to include administrative departments of factories.

Health and Safety Management System

In the area of occupational health and safety, this system requires the company to list dangerous/hazardous tasks, make risk assessments, and provide appropriate measures to be adopted for such tasks in the order of the highest risk first, thereby lowering the overall risk level. Performance is continually and systematically improved as the above activity proceeds in a cycle of "Planning—Action—Assessment—Corrective Action." The "JCIA—New Occupational Health and Safety Guidelines" are prepared for chemical companies, based on the relevant guidelines issued by the Ministry of Health, Labor and Welfare, as well as International Standard OHSAS 18001.

Assessment Systems

With the necessary assessment systems in place, we are working towards lowering environment- and safety-related risk levels.

The Safety and Environmental Assessment Subcommittee and the Product Assessment Committee are at work making strict assessments on environmental, safety, and product safety management performance.

Safety and Environmental Assessment

Before any facility is newly installed, expanded or refurbished, we require a safety and environmental assessment to be carried out. The assessment is designed to check the design safety of equipment, the safety of the materials being handled, compliance with laws and regulations, and impacts on the environment. This helps us in our effort to make our facilities safe and easy to operate, easy to maintain, and accident-free. The assessments apply to three stages: Basic Plan Assessment, Design Assessment, and Pre-Operational Assessment. Through such stages, assessments are made to ensure that facilities are of safe and environment-oriented design, built to the design requirements, and ready for operation.

Product Assessment and Labeling Assessment

To ensure product safety, our Product Assessment process is in effect at each stage, from research and development through to shipment of our products. This risk assessment covers a variety of aspects including safety of the chemical substances involved, environmental impacts, human health effects, compliance with laws and regulations, etc. Our Labeling Assessment helps us ensure that the labels that we carry on our products contain no defects in their instructions and/or warnings and that they contain sufficient and easy-to-understand information.

Inspection and Auditing System

Our Inspection and Auditing System is in place to help us verify that activities undertaken at each factory are in line with company-wide policies.

Safety and Environmental Inspection

We apply this inspection on a yearly basis to check the appropriateness of our accident/disaster preventive measures and management quality concerning environmental conservation. The inspection team is headed by the corporate director chairing the Environmental and Safety Measures Committee, and conducts inspections at the respective factories, distribution sections, and the health management center.

A report is compiled from the inspection results and distributed to all those concerned. The results are also reported to the company president.



Safety and Environmental Inspection (Tokuyama Factory)

Internal Auditing

Our internal auditing is carried out periodically in accordance with ISO 9001, ISO 14001, and Safety and Health Management System procedures. Progress status of the planned actions and the systems operational status are audited, and areas of nonconformity identified for corrective actions.

Third Party Auditing

We are audited by registrars for certification of ISO 9001 and ISO 14001.



ISO 9001 auditing (Chemicals Business Division, Manufacturing Dept.)

Promotion of Green Purchasing

We have included the promotion of green purchasing in the basic purchase policy. We are actively promoting a green purchasing campaign in purchasing copy paper and other office supplies.

Education and Training

Employee education and training on the Responsible Care activities are provided on a hierarchical group basis.

For environmental management, safety management, occupational health and safety, and quality management, "On-the-Job-Training" is provided so that employees can learn through actual management activities.

Recycling Outside Waste

Our cement plant accepts and recycles a large quantity of outside waste and by-products to use as raw materials or fuel. These activities produce significant environmental conservation effects, such as conservation of natural resources, a decrease in the emission of CO₂ and reduction in waste.

Efficient Use of Resources and Energy

Our cement plant, which commenced operations in 1938, was designed to be capable of effectively utilizing the by-products from our own soda ash plant and coal cinders from our own power plant as part of the raw materials for cement. Today we also accept and recycle a large quantity of waste and by-products from outside.

Most waste and by-products contain the same elements as those contained in limestone, clay, silica, etc. that are used as raw materials for cement. Therefore, they can be used as raw materials for producing cement. Flammable waste can be used as an alternative fuel instead of coal. The internal temperatures of the cement kiln* reach as high as 1000–1800 °C, high enough to allow complete combustion of any flammable materials. Another feature

is that the ash remaining after combustion is still used as a constituents of cement, thereby leaving no residues such as incineration ash.

Thus, elements of waste are effectively recycled as heat energy or raw materials for cement. Therefore, the effective utilization of waste and by-products at the cement plant greatly contributes to the creation of a recycle-oriented society through a reduction in consumption of exhaustible resources, the prevention of global warming due to a decrease in the emission of CO₂ and the extension of service life of final disposal sites in Japan.

The waste materials and by-products reutilized in our cement plant in fiscal 2004 amounted to 1,890,000 tons, including 350,000 tons of waste from inside our company. Of this, 1,810,000 tons

were used as the raw material substitutes (Material Recycling) and the remaining 85,000 tons were used as fuel substitutes (Thermal Recycling). Unit consumption of waste/by-products per ton of cement increased by 1.2% from 401kg in fiscal 2003 to 406kg.

Recycling a Variety of Waste Materials

Waste Plastics

We began thermal recycling of waste plastics at the cement kiln in 1999 and expanded recycling capacity annually. In January 2005, we started the construction work of the No. 4 unit at the waste plastic crushing plant. When the unit is completed, the annual recycling capacity will increase from 85,000 tons to 125,000 tons. In fiscal 2004, a total of 63,000 tons of waste plastics were recycled.

Waste Tires

We have facilities to feed chipped waste tires into the cement kiln and recycled 7,000 tons of waste tires in fiscal 2004.

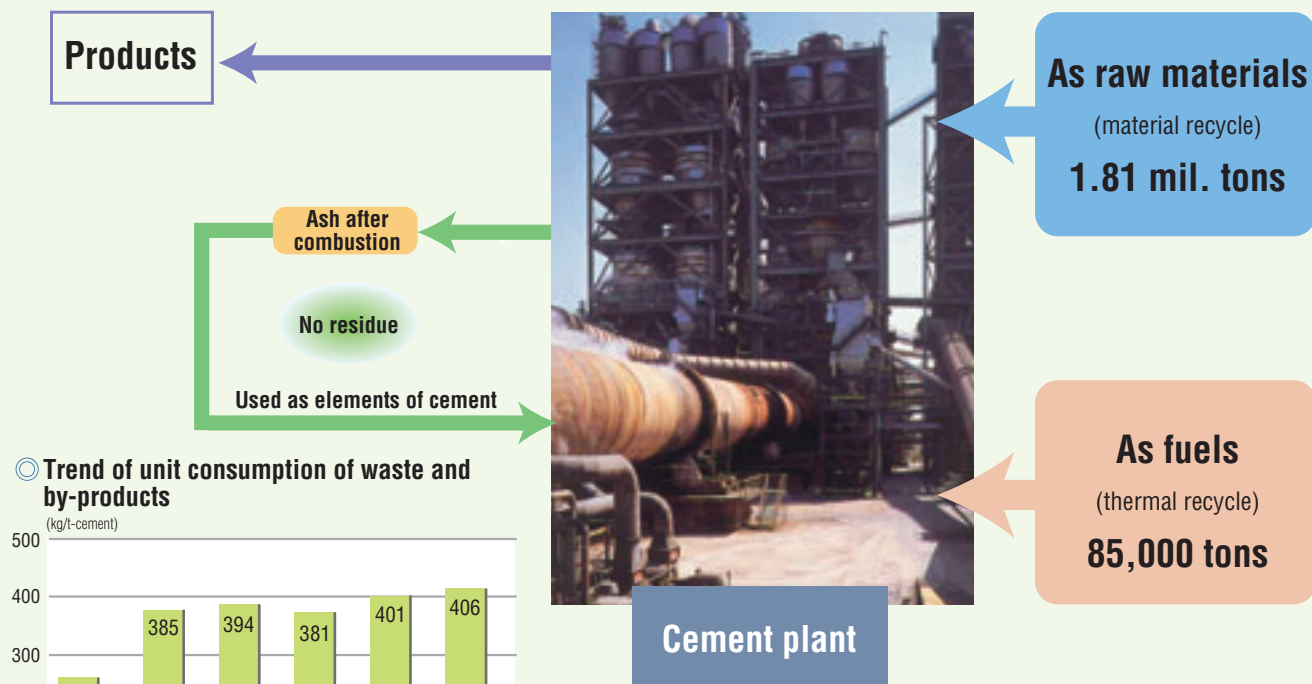
Coal Ash/Sludge

We accepted a total of 970,000 tons of coal ash from thermal power plants, sewage sludge from municipal sewerage systems, and waste soils from construction sites, and used them as the clay

substitute in fiscal 2004. In July 2004, we expanded facilities to recycle waste soil from construction sites.

Dehydrated Cakes of Municipal Waste Incineration Ash
Yamaguchi Eco-Tech Co. (a joint venture company between Tokuyama and Ube Industries Ltd.) handles the recycling of municipal garbage incineration ash generated in Yamaguchi prefecture. The incineration ash originating from municipal garbage and industrial waste is processed for dioxin removal and water wash desalting, and then used as raw materials for cement. In fiscal 2004, we accepted 27,000 tons of dehydrated cakes of municipal waste incineration ash from Yamaguchi Eco-Tech, and used them as raw materials for cement.

Flow Diagram of the Waste and By-products Recycling Process in Cement Manufacturing (Figures represent those of fiscal 2004)

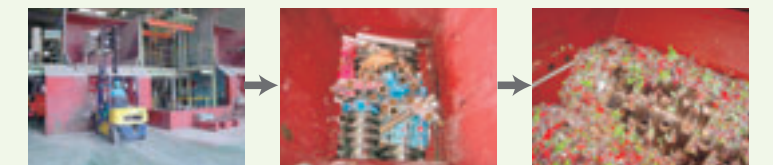
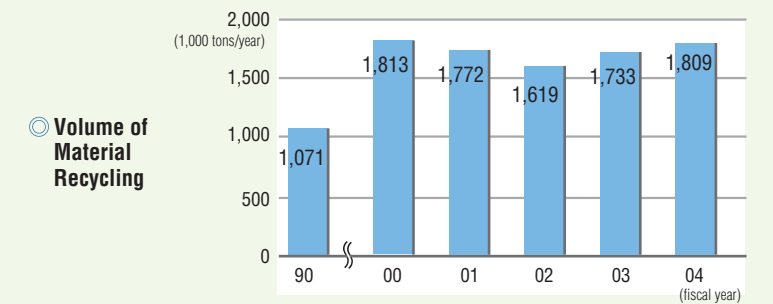


Waste and By-products Generated from Inside Our Company and Accepted from the Outside

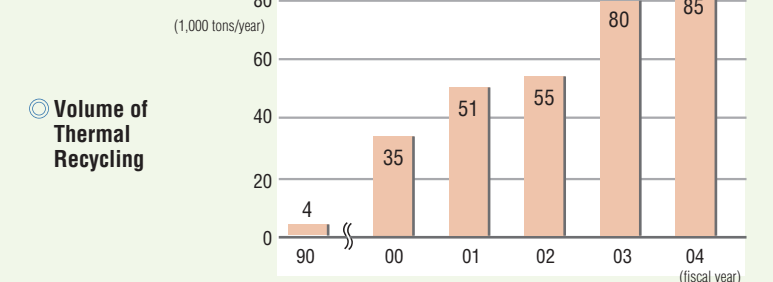
- Sludge**
Construction sludge, water works sludge, sewage sludge, paper sludge, fuel sludge, industrial wastewater sludge
- Waste Soils**
Construction waste soil
- Waste Incineration Ash**
We recycle incineration ash generated from municipal waste incineration facilities in Yamaguchi prefecture after the ash is pre-treated by Yamaguchi Eco-Tech.
- Coal Ash**
Coal ash generated from thermal power plants, including our private power generation plant
- Waste Liquid**
Film developer and waste alkali are injected into the drier after they are stored in special tanks.
- Slag**
Blast furnace slag, converter slag, steel-making slag, neutralization slag
- Waste Plastics (Excluding Vinyl Chloride)**
We developed a technology to stably inject quantities of crushed waste plastics into the front portion of the cement kiln. We expanded our capacity to accept, crush and incinerate them year after year in response to increased requirements.
- Heavy Fuel Oil Ash**
Heavy fuel oil ash generated from thermal power plants, etc.
- Waste Tires**
Acceptance of chipped waste tires
- Animal Sludge**
Meat-and-bone meal
- Wood Chips**
- Waste Liquid**
Inflammable waste liquid



Facility to treat sludge, Facility to reform construction waste soil, Coal ash silo



Injection of waste plastics, Primary crushing, Secondary crushing



* A cement kiln is a rotating furnace used to sinter the raw materials in the cement plant.

Reducing and Recycling Waste Materials

We are making an effort to reduce waste generated in production and promoting the effective use of generated waste. Thanks to these efforts, We have acquired a certification of "Fiscal 2004 Yamaguchi Prefecture Eco Factory."

Waste Management

Waste materials generated in fiscal 2004 from our facilities amounted to 396,000 tons. We actively promoted the recycling of waste materials generated inside and outside our company, such as the reutilization of waste materials as raw materials and fuel for producing cement at Tokuyama Factory. Although the quantity of waste oil generated increased due to the high operating rate of the manufacturing plants, and the increased incineration quantity, effective utilization rate of waste materials remained at 94.3%. Although this figure is slightly lower than that of the previous year, it successfully exceeds fiscal 2000's target of 92%.

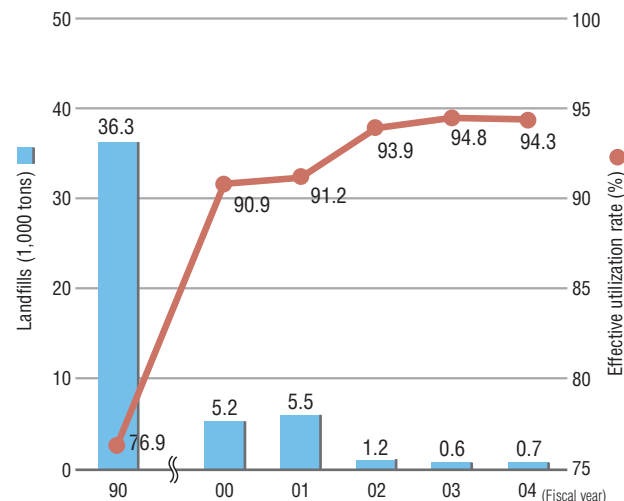
Our efforts in the field of minimizing landfill waste and maximizing recycling of such waste allowed us to achieve a 99.8% "zero-emission" rate for landfill waste.

In fiscal 2004, Tokuyama Factory acquired a certification as "Yamaguchi Prefecture Eco Factory," thanks to these efforts. Under the "Eco Factory Certification System," Yamaguchi prefectural government grants a certification to those factories that are actively involved in the reduction and recycling of industrial waste generated. The system intends to contribute to the formation of a recycle-oriented society.

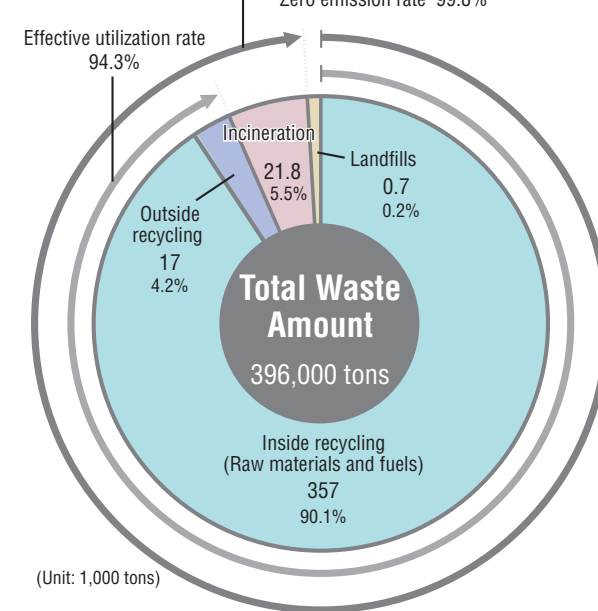
PCB* Waste Management

Both Tokuyama and our group companies appropriately store PCB containing articles such as utility transformers, capacitors, and the like, in accordance with the requirements of the "Law Concerning Special Measures against Polychlorinated Biphenyls Waste."

Effective Utilization Rate for Waste and Disposal to Landfill



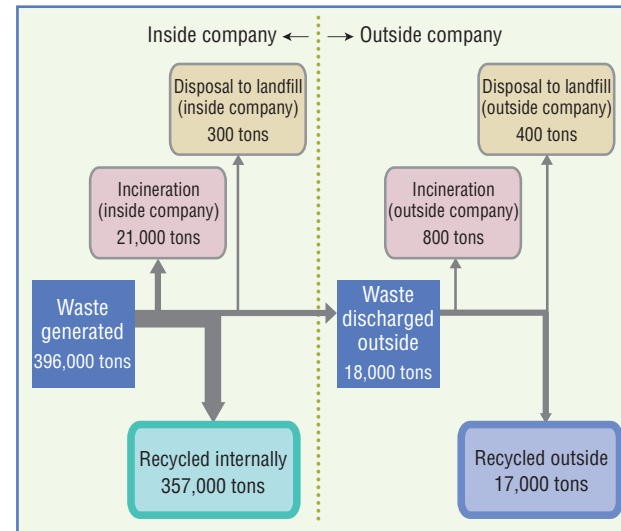
Breakdown Graph of Industrial Waste Handling in Fiscal 2004



$$\text{Effective utilization rate (\%)} = \frac{\text{Recycled Volume (inside \& outside)}}{\text{Total Waste Generated}} \times 100$$

$$\text{Zero emission rate (\%)} = \left[1 - \frac{\text{Disposal to Landfill (inside \& outside)}}{\text{Total Waste Generated}} \right] \times 100$$

Waste Materials Flow



* PCB is an abbreviation for Polychlorinated Biphenyl. This is a chlorinated organic compound and produces dioxins when burnt at low temperatures. It is chemically stable, heat-resistant, chemical-resistant, and provides excellent electrical characteristics such as high insulation performance. It had many applications in electrical equipment, such as utility transformers, capacitors, etc., until 1972 when its production and use were banned due to the fact that it is harmful to humans. The law requires that transformers, capacitors, and the like, that are already in the market be brought to safe storage at appropriate business units.

Prevention of Global Warming

We acknowledge that a company has a social responsibility to reduce greenhouse gas emissions to help prevent global warming. We are always promoting various activities, including energy saving efforts, by setting high goals.

Promotion of Energy Saving Efforts

We consume a large amount of energy in the manufacturing process of our major products, such as caustic soda, cement, etc. Carbon dioxide, which is one such greenhouse gases, is generated by the combustion of fossil fuels. CO₂ will also be generated when limestone as a raw material is decarbonated in the cement production process. We place a priority on contributing to the prevention of global warming, and are promoting energy saving activities to reduce CO₂ emissions.

Tokuyama Factory, which accounts for 99% or more of the energy consumption of our company, has established a midterm target to reduce unit energy consumption by 15% by fiscal 2005 as compared with fiscal 1990, and is promoting energy-saving activities. Tokuyama Factory had already achieved this target in fiscal 2003 and is making continuing efforts to achieve a new target of reduction of unit energy consumption by 17.5% by fiscal 2010 as compared with fiscal 1990. Our new target is far more challenging than the overall target of Japan Chemical Industry Association (a reduction of unit energy consumption by 10% by fiscal 2010 as compared with fiscal 1990.)

In fiscal 2004, we implemented those energy saving activities that were found in the energy-saving project assisted by an outside consultant in fiscal 2003. As a result, we achieved a 16.9% reduction of unit energy consumption in fiscal 2004 as compared with fiscal 1990. This reduction rate is more favorable than that achieved in fiscal 2003. Thanks to these energy saving efforts, CO₂ emissions increased only slightly despite the fact that production increased.

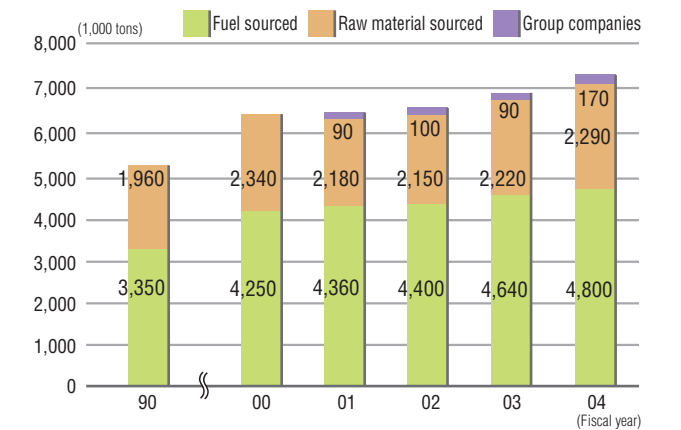
Tokuyama Factory has received the fiscal 2004 Director-General of the Agency for Natural Resources and Energy Award for Excellent Energy Management Plant (Electricity Sector).

We also have completely converted the refrigerants in our refrigeration equipment from Freon to other substitutes.

Contribution to Global Warming Prevention Measures of Consumer and Transportation Sectors

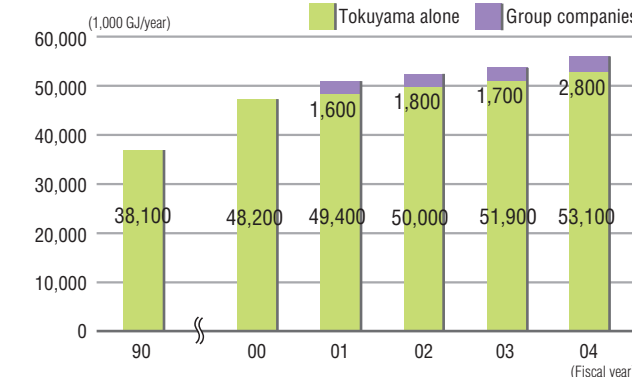
Both Tokuyama and its group companies contribute to a reduction in CO₂ emissions in consumer and transportation sectors, in which CO₂ emissions have significantly increased, through the sales of products, including a resin sash called "Shanon" that is highly effective for saving energy at home and silica for energy-saving tires. Furthermore, we are developing technologies for the prevention of global warming, such as the construction of a test plant for polycrystalline silicon for solar cells and the development of electrolyte membrane for fuel cells.

CO₂ Emissions

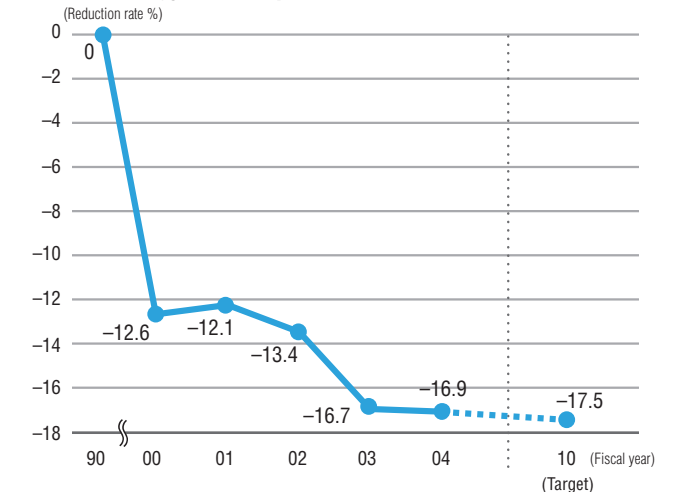


* Figures of group companies are included in and after fiscal 2001. This time, we made a review to avoid double counting, etc. As for Tokuyama Polypropylene Co., Ltd., their actual figures have been included in the data of Tokuyama until fiscal 2003, and included in the data of group companies since fiscal 2004.

Energy Consumption



Unit Energy Consumption Index (Tokuyama Factory)



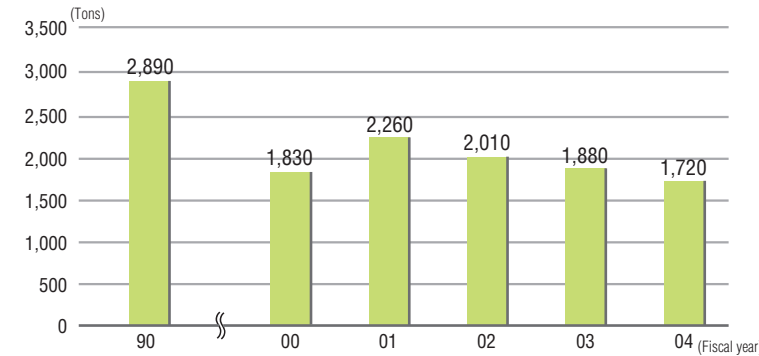
Reduction of Air and Water Pollutants

We have long been measuring environmental loads on air and water, and taken various measures to reduce such loads. Environmental impact on air and water quality remain well below control levels.

SOx Emissions

SOx* (sulfur oxides) are emitted from such facilities as boilers, sintering furnaces, drying furnaces, etc., where heavy fuel oil or coal is combusted. In our case, most SOx emissions are from power plant boilers. To reduce SOx emissions, we have installed flue gas desulfurization equipment in each boiler system.

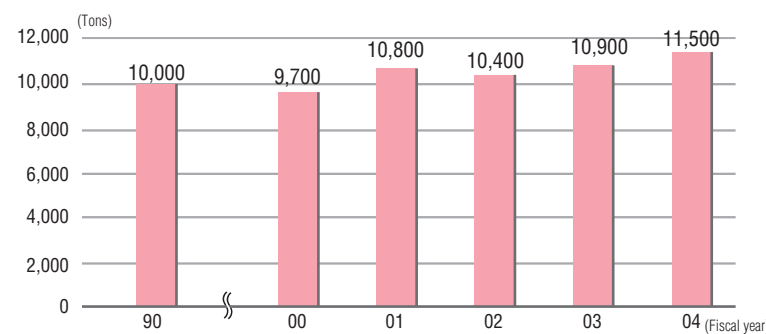
SOx Emissions



NOx Emissions

NOx* (nitrogen oxides) are also emitted from facilities such as boilers, sintering furnaces, drying furnaces, etc., where heavy fuel oil or coal is combusted. Most NOx emissions from our facilities are from power plant boilers and cement sintering furnaces. We have already installed denitration equipment and low NOx burners. In fiscal 2004, NOx emissions slightly increased due to the high operating rate of facilities.

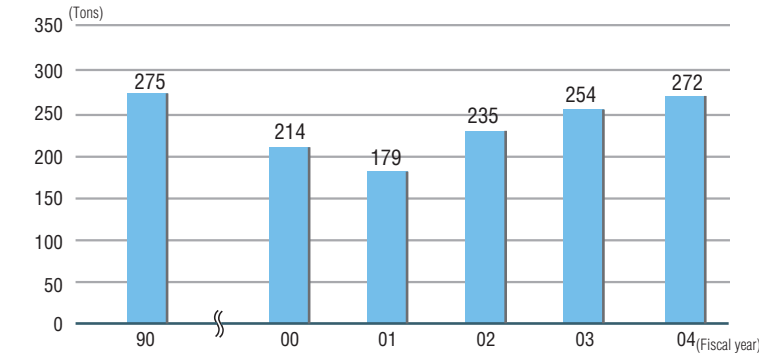
NOx Emissions



Soot and Dust Emissions

Soot and dust* are emitted in the combustion process of fuel and other materials in the power plant boilers and cement sintering furnaces. We have installed dust collecting facilities to reduce soot and dust emissions. In fiscal 2004, soot and dust emissions slightly increased due to the failure of some precipitators.

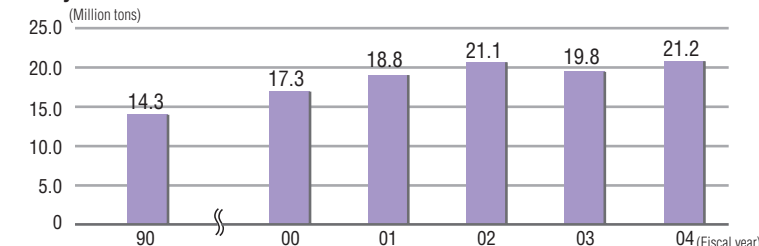
Soot and Dust Emissions



Factory Wastewater

Our Tokuyama Factory releases some 20 million tons of factory wastewater each year into public waters. We have a stringent monitoring system to keep the hydrogen-ion concentration (pH) and suspended solids within their respective limits. The wastewater from our Kashima Factory is treated at the terminal treatment facilities.

Factory Wastewater Release

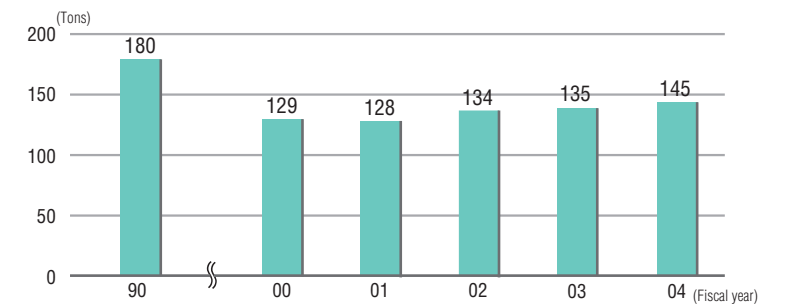


* SOx refer to sulfur oxides, which are produced primarily by the combustion of fossil fuels such as coal and oil. They are known to cause respiratory disorders and to be a causative agent of acid rain.
 * NOx refer to nitrogen oxides, which are included in the exhaust gases from automobiles and factories. They are a contributor to photochemical smog and acid rain.
 * Soot and dust refer to fine particles of soot and dust contained in the emissions from smoke stacks.

Release of COD, Nitrogen and Phosphorus

We have a system in place to prevent water pollution. Activated sludge process equipment is in operation downstream of the process where organic constituents are involved, to reduce COD* (Chemical Oxygen Demand). We began to measure the release of nitrogen and phosphorus in fiscal 2004 because these substances are subject to the total amount controlled under the Water Pollution Control Law in that year. The release of these substances is well below control levels.

COD Release



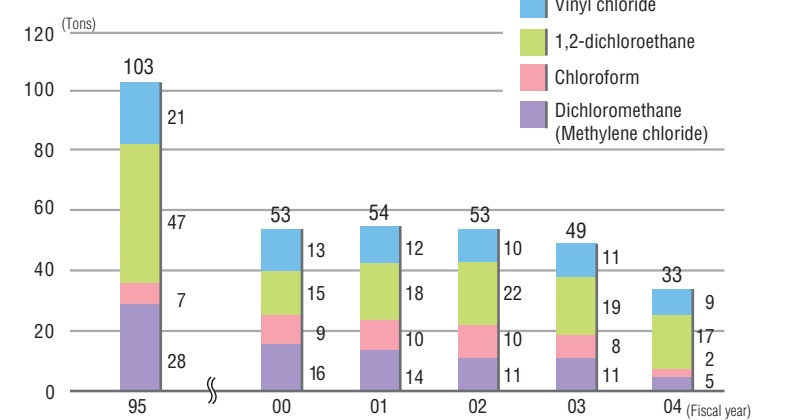
Release of Nitrogen and Phosphorus

Item	(kg/day)	Tokuyama Factory
Nitrogen	Legal regulation value	5,280
	Measured value	260
Phosphorus	Legal regulation value	270
	Measured value	21

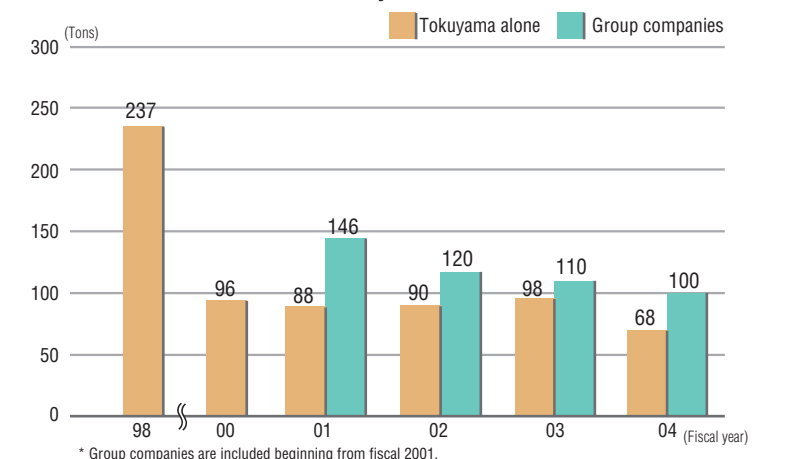
Hazardous Air Pollutants Release

Of the 12 substances left to corporate self-management under the Air Pollution Control Law, four substances, including vinyl chloride, are produced by our company. We have set ourselves a voluntary program to achieve the necessary reductions.

Hazardous Air Pollutants Release



Release of Substances Governed by PRTR Law



* Group companies are included beginning from fiscal 2001.

Release of Substances Governed by the PRTR Law

We compile reports on all PRTR substances and file them as necessary in accordance with the PRTR* Law, while at the same time, we pursue reductions in releasing such substances. In fiscal 2004, we had 24 substances that we were required to report on. In fiscal 2004, the total release of those substances decreased to 68 tons, a reduction of 30 tons from the previous year's level because we implemented measures to reduce the release of vinyl chloride and 1,2-dichloroethane from the vinyl chloride plant and environmental equipment operated in good condition.

Dioxin Measures

One waste incinerator and three waste oil incinerators are regulated by the Law Concerning Special Measures against Dioxins. The measured concentrations of dioxin in emission gas and wastewater are well below control levels.

* COD is the abbreviation for Chemical Oxygen Demand. It shows the amount of oxygen required to oxidize organic matter in the water and indicates the level of water contamination.
 * PRTR, Pollutant Releases and Transfer Register, is a system for the compilation and publication of data concerning harmful chemical substances with respect to their sources, the amount of their environmental emissions, and the amount released from factory in waste materials.

Development of Environmentally-Friendly Products and Environmental Technologies

One of the R&D areas on which we stress is the environment/energy area. In fiscal 2004, we continued efforts to develop environmentally-friendly products and waste-recycling technology for creating a recycling society.

● Establishment of a Closed System for Liquid Developers

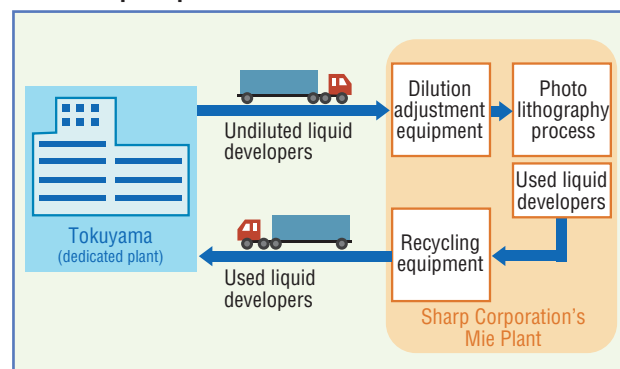
Material Recycling of Used Liquid Developers

In collaboration with Sharp Corporation, we developed the material-recycling technology for used liquid developers at liquid crystal plants. Liquid developers used at the Sharp Corporation's Mie plant in Taki-gun, Mie prefecture are concentrated and collected by the special recycling equipment installed at the plant. The collected liquid developers are recovered at a special plant at our site and then reused by the Sharp Corporation's Mie plant. This is the closed system for liquid developers for liquid crystal plants.

The liquid developers are diluted in the lithography process* for liquid crystal panels. Therefore, the volume of used liquid developers increases as compared with that of undiluted liquid developers. Thus, used liquid developers must be condensed and collected. However, dissolved resist elements may generate a large number of blisters. Even if antifoaming agents were used to restrain blistering, recycling was difficult because many impurities were contained. This system can concentrate and collect used liquid developers using our uniquely designed recycling equipment and prevent blistering. Thus, no antifoaming agents are needed. As a result, the system can recover liquid developers of the same quality as new liquid developers.

We have been developing material-recycling technology for liquid developers since 2000. We have constructed a pilot-scale recycling facility in Shunan city in Yamaguchi prefecture and have repeatedly conducted external valuations. According to these valuations, performances of recovered liquid developers are favorable for use not only for liquid crystals but also for semiconductors (from gamma ray to resist a maximum laser.)

◎ Closed System for Liquid Developers at Sharp Corporation's Mie Plant

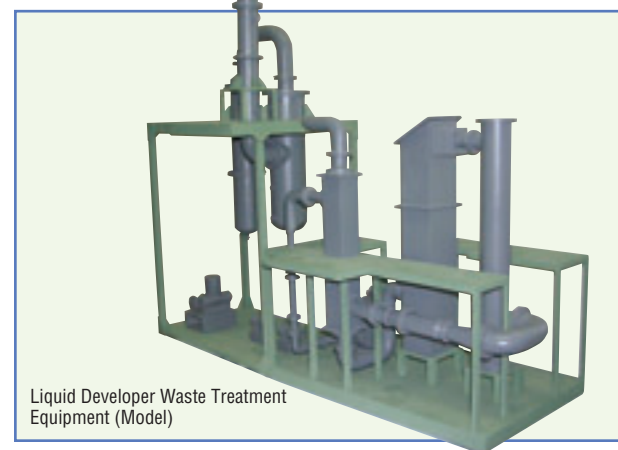


* Photo lithography process: This is a process to transform thin film layers on glass substrates into pre-determined patterns in order to create a TFT (thin film transistor) for liquid crystal panels. In this process, pre-determined patterns are created by the application of photo resists, exposure, developing (using liquid developers), etching and the removal of photo resists.

● Development of a System to Make Photo Resist Liquid Developers Nonhazardous

Low-Cost Waste Liquid Treatment Method with Less Environmental Impact

We have succeeded in developing a system to make resist liquid developers nonhazardous for small and medium-sized users for which the closed system for liquid developers is not suited. In the past, waste resist liquid developers had to be incinerated or processed biologically. However, the system can turn waste resist liquid developers into nonhazardous gas with the help of a special catalyst after heating the developers up to 300°C to 400°C. If the system is installed on site, the treatment process may be made at lower cost than the conventional method and with less environmental impacts. The system may satisfy the requirement for denitrogenation that is expected to be imposed by a law or regulation in the future. In addition, the system installed on site can reduce environmental impacts because environmental impacts caused by logistics are minimized and less CO₂ is emitted as compared with the incineration method.



Liquid Developer Waste Treatment Equipment (Model)

● Construction of a Demonstration Plant for New Technology to Manufacture "Polycrystalline Silicon for Solar Cells"

Realization of Energy Saving through Supply of Raw Materials for Solar Cells

On February 15, 2005, we began to construct a demonstration plant for a new technology to manufacture polycrystalline silicon for solar cells (the VLD method) at Tokuyama Factory. Solar cells are in the limelight as clean energy. Facilities to manufacture photovoltaic power generation systems are being increasingly constructed around the world.

However, polycrystalline silicon as raw material for solar cells is in short supply in the world. Therefore, a stable supply of it is

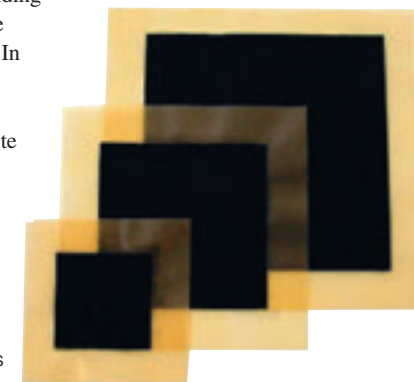
urgently needed. We began to construct a demonstration plant (production capacity: two hundred tons a year) using the VLD method to manufacture polycrystalline silicon for solar cells at a higher speed and more efficiently than the conventional method. Our goal is to supply samples by the beginning of 2006. Thus, We contribute to the energy-saving initiative through the diffusion of solar cells. New Energy and Industrial Technology Development Organization (NEDO) has granted a subsidy for the construction of the demonstration plant.

● Development of "Hydrocarbon-Based Electrolyte Membranes" for Fuel Cells*

Realization of a High Level Power Generation Efficiency at Low Cost Direct methanol fuel cells (DMFCs)* are expected to become the next generation power source for portable terminals, including cell phones and laptop PCs, replacing lithium ion batteries. We have developed hydrocarbon-based electrolyte membranes* with low methanol permeability for DMFCs.

At present, electrolyte membranes are mainly fluorine-based ones. But their problems include high cost and a decrease in power generation efficiency due to methanol crossover*. In the case of hydrocarbon-based electrolyte membranes developed by our company, the cost is 1/5 or 1/10 of that of fluorine-based electrolyte membranes and methanol permeability is about 1/10. Our hydrocarbon-based electrolyte membranes have achieved a power generation efficiency of 50mW/cm² or more, the highest level for hydrocarbon-based electrolyte membranes. In addition, we have developed dedicated binding resins that facilitate processing into MEA (membrane-electrode assembly). We aim to market dedicated binding resins and electrolyte membranes in 2006. In addition to uses for DMFCs, we are researching electrolyte membranes for car-mounted and home fuel cells.

MEA using electrolyte membranes for DMFCs



● Demonstration Tests for "Hydrogen Fuel Cells"

Power Generation and Hot Water Supply using a Cogeneration System

On December 22, 2004, a demonstration plant for hydrogen fuel cells started trial operation at Tokuyama Factory. This operation was made under the "Hydrogen Frontier Promotion Initiative" implemented by the Yamaguchi prefectural government. The aim of this initiative is to help prevent global warming and help develop a new environmental industry by exploiting the country's largest hydrogen supply capability of the Shunan Industrial Complex. We acknowledge its significance and support it.

The demonstration plant is a cogeneration system consisting of fuel cell and hot water storage tank units, and hydrogen

manufactured by our company's electrolytic plant which is directly supplied to fuel cells through the pipeline. The system can generate power not exceeding 1kw and supply hot water at about 60 °C.

The experiment will be conducted for one year. From this point forward, the performance of hydrogen fuel cells and the effect of CO₂ reduction will be examined.



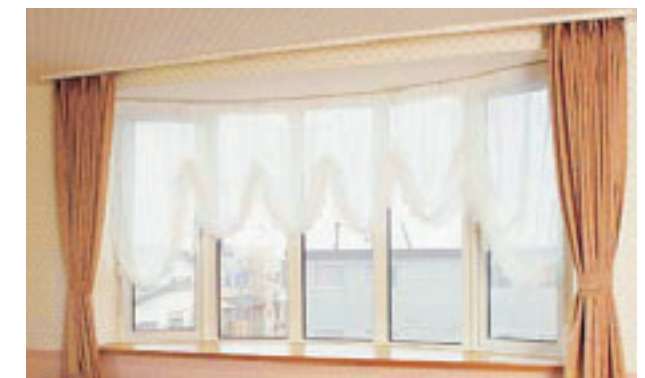
A pilot plant that supplies hydrogen manufactured by an electrolytic plant directly to fuel cells through the pipeline

● "Shanon" Plastic Window Sashes (Shanon Corporation)

High-performance windows contribute to home energy conservation

Shanon Corporation, one of our group companies, manufactures and sells "Shanon" plastic window sashes, which provide an excellent airtight quality, heat and sound insulation, and prevent moisture condensation.

With the Kyoto Protocol on preventing global warming in effect, our country is obligated to achieve a 6% reduction of greenhouse gas emissions over average 1990 levels between 2008 and 2012. Although reductions are being steadily achieved in the industrial sectors, household emissions are on the rise and need to be addressed through effective measures. In this regard, plastic window sashes are receiving attention due to their ability to conserve energy. A simulation run by the "Plastic Window Sash Promotional Committee" indicates a significant improvement in insulation efficiency or some 40% reduction in CO₂ emissions can be achieved per house if single-glazed aluminium window sashes are all replaced with double-glazed plastic window sashes fitted with a low emission glass. Shanon's plastic window sashes are drawing attention as a promising material for use in the prevention of global warming.



Plastic window sashes, "Shanon," for energy saving houses

* Fuel cell: A chemical battery to generate electricity via a chemical reaction between hydrogen inside the fuel cell and oxygen in the air in contrast with electrolysis of water.
 * DMFC: Direct methanol fuel cell that converts fuel methanol into hydrogen using a catalytic electrode in the fuel cell.
 * Electrolyte membrane: Membrane to selectively conduction.
 * Methanol crossover: This is a phenomenon that power generation efficiency decreases as methanol permeating electrolyte membrane burns at opposite poles.

Comprehensive Safety Management of Chemicals

We implement comprehensive safety management of chemicals in the strictest manner throughout their entire life cycle from R&D to disposal. We are making every effort to conserve the environment and secure people's health and safety.

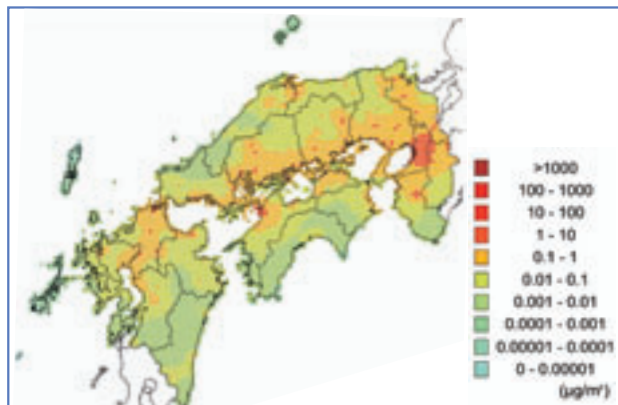
Data Acquisition and Analysis on the Safety of Chemical Substances

We assess the safety of chemical substances by acquiring and analyzing safety-related data. Such data is used in preparing safety information for our products, waste materials, etc.

In fiscal 2004, we assessed chemical hazards contained in raw materials, reviewed the handling method, and provided information.

Risk Assessment and Management of Chemicals

We are conducting activities to prevent environmental pollution by monitoring the concentration of chemicals in effluents and gas emissions. In addition, we simulate concentration distribution for



Estimated concentration distribution of dichloromethane in the air based on PRTR data and estimated release of non-PRTR chemicals in 2003 (using AIST-ADMER ver.1.5 of National Institute of Advanced Industrial Science and Technology)



Analysis of organic matters in wastewater

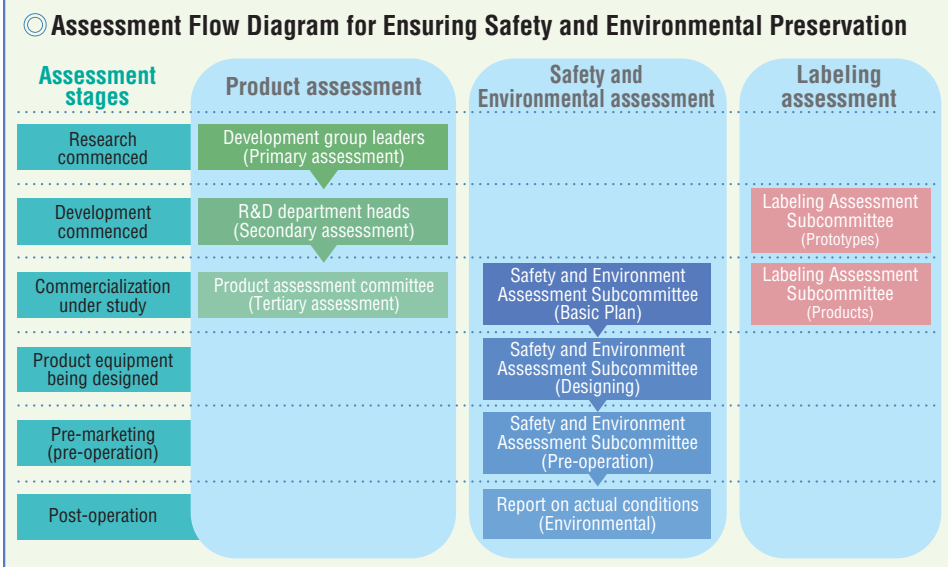
chemicals, and analyze their detailed behaviors.

Risks are characterized based on a combination of concentration data and safety data, and the characterized results are reflected in enhancing our equipment safety measures and handling procedures, and in educating workers involved in handling products and waste. These efforts eventually help us improve our product safety and provide accurate information to our customers.

Participation in HPV Program

The HPV Program (High Production Volume Chemicals Program) is an international program to conduct safety assessment of chemicals that are manufactured in no less than two countries with a volume of 1,000 tons or more, and OECD (Organization for Economic Co-operation and Development) lists as priority chemicals (about 1,000 chemicals). We actively participate in the HPV Program in regards to 17 chemical substances and conduct safety assessments of them.

We were the leader of an international consortium for the calcium chloride HPV, and submitted a safety assessment report to OECD in October 2002. The report was successfully accepted by OECD. At present, our company is conducting safety assessments as the leader of an international consortium for TMAH (tetramethylammonium hydroxide) that is used as a liquid developer in the photo lithography process for semiconductors and liquid crystal panels. This assessment report is scheduled to be discussed at an international meeting to be held in 2006.



Assessment of Products and Labeling

We appropriately assess the safety of both the chemicals and equipment units that we manufacture, in stages from research and development through commercialization. We made 49 assessments of this kind in fiscal 2004.

We also carry out labeling assessments of our catalogues, MSDSs* and other technical documents. In fiscal 2004, we conducted about 300 labeling assessments. Labelings and packages of our products, prototypes and sample products are all assessed, and inappropriate representations are corrected.

Provision of Information on Our Chemical Products

We provide MSDSs for all our products and prototypes to our customers and distribution agents.

MSDSs are prepared for about 400 types of products. Of these, MSDSs for 32 types of products that are transported in large quantities and heavily used by our customers are publicized on our company's Web site.

We also have each driver carry a yellow card* that is prepared with emergency instructions for use if an incident occurs during transportation. MSDSs and yellow cards on our products and waste materials are also posted on our intranet Web site so that this type of safety-related information can be shared.

Safety Management of Waste Materials

Waste materials are handled in the same way as our products. We have prepared the necessary MSDSs for waste materials and distribute them to waste handling contractors and distribution agents to ensure safe handling and transportation of such waste materials. Also each driver is made to carry a yellow card prepared for the waste materials in case an incident occurs during transportation. We have so far prepared 66 MSDSs for waste materials.



MSDSs for our major products are also available on our Web site (in Japanese only)

Promoting Safety and Environmental Management in the Distribution Process

Providing Our Distribution Agents with Guidance and Education on Safety Management

We regularly hold local safety meetings with our nation-wide distribution agents to whom we consign product transportation services. We conduct logistics safety inspections for logistics companies to help improve their management level. Within the premises of our Tokuyama Factory, our safety specialists make continual inspections and visit cargo carriers in their berths, providing safety guidance as necessary in cooperation with logistics companies.

We also have a range of emergency measures in place. For example, each truck driver is required to carry a yellow card and appropriate emergency tools, enabling suitable and speedy actions based on the emergency measures specified on the card if an incident occurs during land transportation. An emergency network and related organization also form part of our safety procedures.

Distribution Risk Assessment

We conduct risk assessments on the transportation of hazardous materials. (Means of product transport, safety of trucking routes, emergency measures to be taken in the event of an accident, etc., are all examined at Transport Safety Review Meetings). We provide training for dealing with accidents during the transportation.

When a logistics facility is newly constructed or enlarged inside

or outside our factories, facility safety assessment is conducted.

Crisis Management System

To deal with potential crises in logistics operations, we have established emergency response criteria and can ensure that disaster prevention equipment is always ready for use. In the Tokuyama and Tokyo districts, we have established a mutual disaster prevention assistance system with logistics companies.

Environmental Preservation Measures and Energy Conservation

As part of environmental preservation measures, we provide thorough instructions to trucking companies with regard to meeting the controlled exhaust emissions from diesel-powered vehicles. We also encourage energy conservation efforts through the introduction of a mileage log management system.



Monthly factory premises safety patrols (Tokuyama Factory)

* MSDS is the abbreviation for Material Safety Data Sheet. It is a document that contains information such as the name of the chemical material, appropriate safety and emergency measures required, etc., related to that material, and is intended to ensure safe handling by providing information about any hazards related with the specific material.

* The "Yellow Card" is the common name of a card prepared for emergency use, which explains to the truck driver or his representative, fire crews, or police what to do in the event of an accident involving chemicals or high pressure gases during transportation.

Reliable Company

We are making every effort to enhance compliance, strictly protect information security and improve our risk management system in order to fully perform corporate social responsibility (CSR) and become a company on which society can rely.

Improvement of the Compliance System

We are committed to the fact that one of the social responsibilities of our company as a manufacturer is to develop and manufacture socially useful products by paying due attention to their environmental impact and safety, and to supply them to our customers. Our basic management policy is to place a priority on compliance as part of CSR.

In July 2003, we revised the “Tokuyama Code of Behavior” that was established in 1997. Under the revised charter, we improved the compliance system. For example, we created the compliance

committee, nominated an Officer in charge of compliance and established a helpline. The compliance system is applicable to all group companies. In March 2004, we established the “Tokuyama Behavior Guidelines” to enhance all employees’ awareness for compliance.

The compliance committee is making efforts to establish the basic compliance policy of our company and formulate a proper system, and aims at providing solutions to problems pointed out through the helpline as soon as possible.

Recognizing that our corporate culture plays the most important role in promoting compliance, we are making efforts to maintain a transparent work environment at all times.

Tokuyama Code of Behavior

1. Fair Business Operations

We will compete with rival companies in a fair, transparent and liberal manner. We will maintain sound and normal relationships with politicians and administrative organizations.

2. Compliance

We will comply with laws, regulations and rules. We will never succumb to antisocial groups that will threaten the order or security of civil society.

3. Responsible Care

- We will develop and manufacture socially useful products by paying attention to their safety, and provide them to society in order to secure the confidence of our consumers and customers.
- We will be voluntarily and actively engaged in activities to help conserve the environment from broad viewpoints of the global environment, resource recycling, etc.

4. Communications

We will enhance communications with various stakeholders in society, including our shareholders, through proactive and fair disclosure of information.

5. Social Contributions

- As a “good corporate citizen,” we will conduct social contributions in a positive manner.
- We will respect local cultures and customs in foreign countries, and promote business operations that may contribute to the development of local communities.

6. Corporate Culture

We will make an effort to secure a safe, less inhibited and comfortable work environment in which our employees can realize spiritual and physical affluence, and the personality and individuality of each employee are respected.

7. Roles of Top Management

Top management must understand that their role is to comply with the philosophy of this charter, take the initiative, make an effort to improve the internal system to collect internal and external opinions, and ensure the strict observance of corporate ethics. If a situation infringing any of the provisions of this charter takes place, top management must immediately disclose information to society in a proper manner and perform accountability. In this case, top management must investigate the causes of such a situation and take countermeasure to avoid repetition, as well as take disciplinary actions against persons involved, including themselves, after having identified responsible persons.

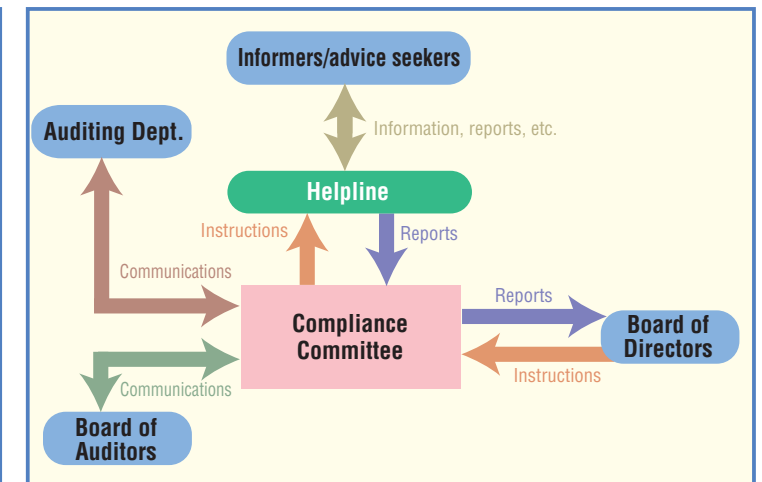


This is a pamphlet entitled “Tokuyama Code of Behavior Guidelines” that was distributed to all employees. Based on the “Tokuyama Behavior Charter,” these guidelines specify matters to be observed by each employee and the excerpts of main laws and regulations.

◎Tokuyama’s Compliance Vision



◎Compliance System



Protection of Information Security

●Company-Wide Efforts

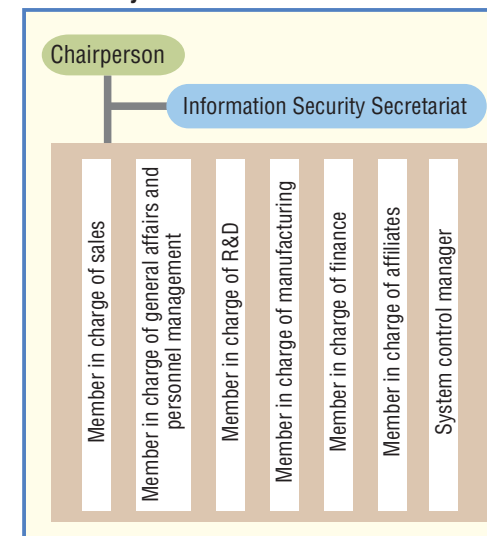
We are actively promoting the introduction of IT with an aim of reforming business operations of all group companies. In the meantime, we fully understand that the importance of information security will increase as employees are increasingly dependent on information and networking systems as a result of the diffusion of IT. Therefore, we have enhanced efforts to ensure that we can utilize “information” as an important asset while protecting it in a proper manner.

In 2001, top management declared that measures to protect information security should be implemented with the participation

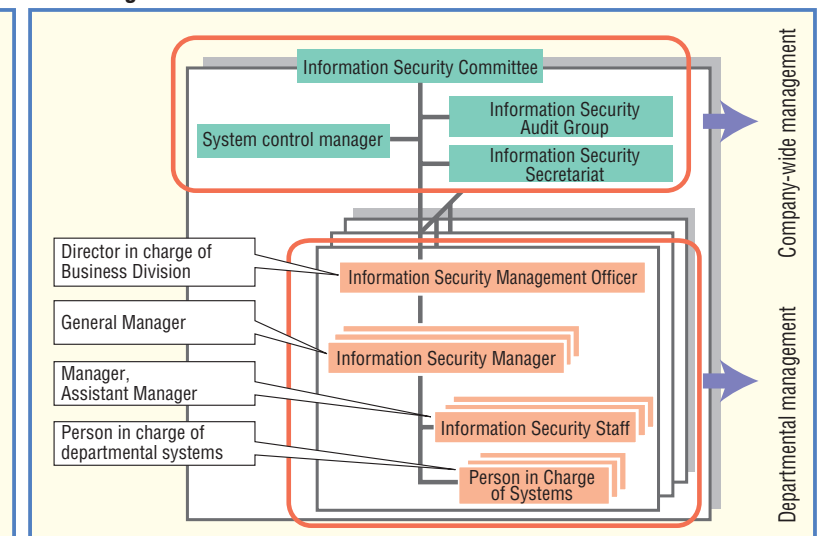
of all employees. As a result, the “Information Security Committee,” which establishes and implements overall and particular measures, was formed. The “Information Security Committee” has established the “Information Security Policy” containing overall security measures with an aim of actively utilizing information assets held by our company (information and the information system) while protecting their security. It has also finalized the basic policy of information security for Tokuyama group companies and promotes an educational campaign.

Each department of Tokuyama implements particular activities in accordance with the common rules contained in the Information Security Policy that was established in March 2002. Each group company has established various regulations in view of the Information Security Policy. Thus, Tokuyama and its group companies are making efforts to enhance information security.

◎Organization of the Information Security Committee



◎Information Security Management Structure



● **Enactment of the "Personal Information Protection Law"**

We have been giving weight to privacy protection. When the Personal Information Protection Law was enacted in April 2005, we recognized anew that we have an obligation to protect personal information as part of "CSR," and established the Personal Information Protection Management System.

In particular, we have nominated a Personal Information Protection Promotion Director who works as a superintendent in charge of personal information protection management. We have also established the "Personal Information Protection Promotion Committee," the Secretariat and the Inquiry Desk. Thus, we have established a system to facilitate the enhancement of employees' awareness of the importance of personal information prevention and compliance.

A Personal Information Management Leader is nominated for

each department. The Leader promotes adequate management and utilization, and implements educational activities for employees in close coordination with the Personal Information Protection Promotion Director.



The in-house magazine carries an article entitled "Lecture on the Personal Information Protection Law" with an aim of enhancing employees' understanding and awareness of the law.

Relationship with Employees

We review the personnel management system on an as-needed basis and make every effort to improve the work environment so that all employees may exhibit their abilities and willingly engage in their work.

● **Personnel Management System to Maintain and Develop Dynamism**

Our personnel management system is based on the principle of capability development, and attaches importance to the development and utilization of human resources. The system is similar to an ability-based grade system that is adopted by many enterprises. We review the personnel management system from time to time in order to meet ongoing changes or needs (of both employees and our company) while making the best use of principles of the excellent system.

In fiscal 2002, we expanded the course selection scheme and revised the personnel evaluation and reward scheme for general employees. In fiscal 2005, we introduced the annual salary scheme for managers. This annual salary scheme is intended to reform managers' attitudes toward management and business performances, to activate the organization, and to improve corporate financial performances. With the annual salary scheme, we intend to abolish seniority or personal factors, and pay compensation to managers on the principle of "work-and-you-will-be-rewarded" depending on their duties, roles and achievements.

● **Diversified Work Styles**

1. **For Older Workers**

To respond to the gradual postponement of the pensionable age for old age welfare annuities, and to help transfer the skills of retiring baby boomers to younger generations, we created a re-employment scheme for retired employees in fiscal 2001, ahead of other companies in the same industry. Although this scheme was temporarily suspended due to poor financial performances, we restarted it in fiscal 2005.

2. **For Working Women**

As of April 2005, there are about 210 female employees at our company. Of these employees, about 90 are married and 60 of them have children. At our company, comparatively speaking, many

married women continue to work. The figure mentioned below indicates how many married women have taken childcare leave in recent years.

In fiscal 2003, we created the "Gender-Free Committee," an expert committee consisting of representatives from the employer and employees. The Gender-Free Committee makes an effort to realize equal employment opportunities for men and women, prevent sexual harassment, and promote affirmative actions. From this point forward, we will make every effort to create a safe working environment for our female employees.

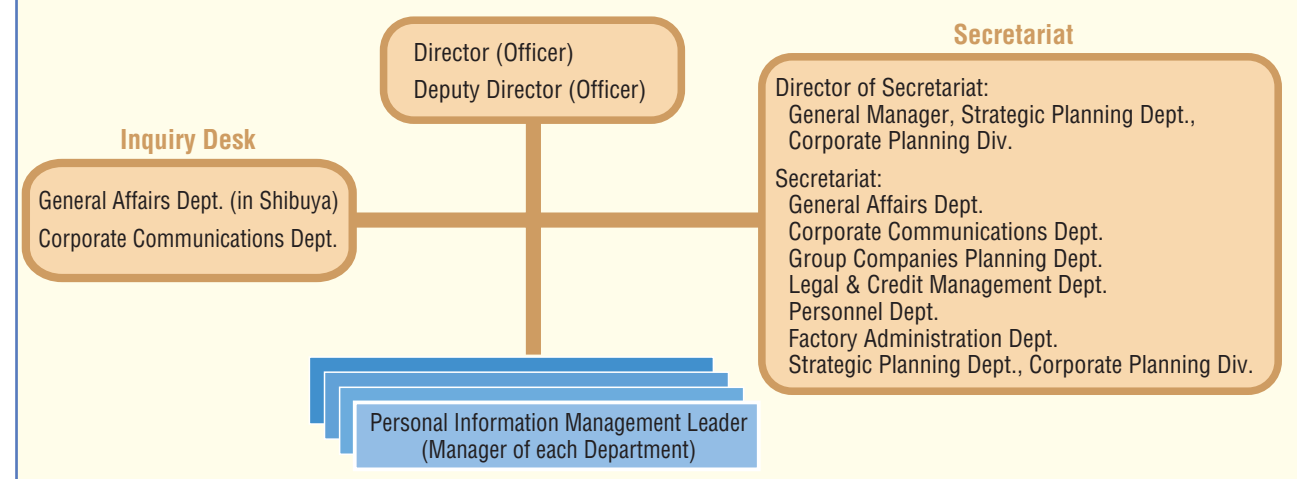
3. **Employment of Physically-Challenged Individuals**

In fiscal 2004, the employment rate for physically-challenged individuals was 1.44%, regrettably falling short of the legal employment rate. Although difficult factors exist because our company is a manufacturer, we will make efforts to employ physically-challenged individuals.

● **Promotion of Internal Recreational Activities**

We are promoting recreational activities for better communications and health with an aim of creating a "cheerful and lively workplace." The objective of these recreational activities is to encourage communication among employees, which otherwise tends to be minimal in the IT environment, and to help create a stress-free and vibrant workplace. Employees in charge of recreational activities mainly plan and conduct various activities at factories, divisions, branches and offices.

◎ **Organization of the Personal Information Protection Promotion Committee**



Enhancement of the Crisis Management System

Since corporate risks are diversified, corporate crisis management is increasingly important from the standpoint of CSR. If a grave crisis threatening the survival of our company should take place, such as a "security environment crisis," "products' crisis" or "human life crisis in foreign countries," an emergency headquarters headed by the president will be immediately established. The emergency headquarters will conduct crisis management operations across the company with an objective of restoring normal business operations as soon as possible. In fiscal 2004, we reviewed the internal regulations and enhanced the crisis management system.

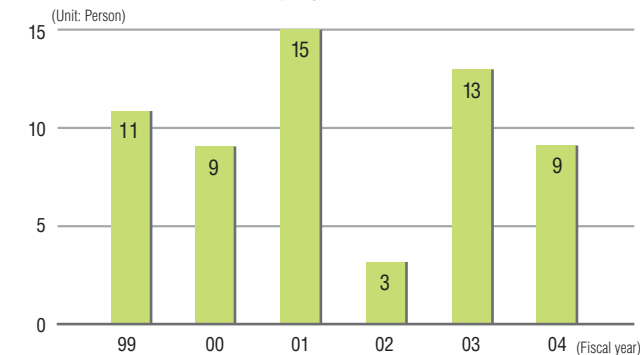
On January 17, 2005, the 10th anniversary of the great Hanshin and Awaji earthquake, we invited an external consultant to organize a crisis management top seminar. Since the risk of a large-scale earthquake, such as a metropolitan earthquake, the Nankai-Tonankai earthquake or the Tokai earthquake, has increased

recently, we have recognized anew the importance of crisis management. In fiscal 2005, we will further strengthen communication tools in case of emergency and conduct internal drills to ensure the effectiveness of the crisis management system.



Crisis management top seminar (held on January 17, 2005)

◎ **Number of Female Employees Who Took Childcare Leave**



A "Softball Game" at the Tokuyama Factory



A "Bowling Competition" at the Hiroshima Branch

Process Safety and Disaster Prevention/ Occupational Health and Safety

Safety is a basic factor of business activities, and is important for achieving a harmonious coexistence with society. All three of our establishments maintain excellent safety performances through their intensive efforts in the fields of process safety and disaster prevention/occupational health and safety.

Commitment to Safety and Disaster Prevention

Comprehensive Disaster Prevention and Safety Activities

Each establishment of our company carries out disaster prevention drills each year. Tokuyama Factory has a self-defense disaster prevention unit for the industrial complex, and conducts comprehensive, joint disaster prevention drills in collaboration with neighboring enterprises and related public authorities on the assumption that various accidents or disasters have taken place. In January 2005, we conducted a drill combined with an annual fire-brigade review. The drill was opened to the neighboring self-governing bodies for the first time. A total of 400 people, including participants and visitors, participated in the drill.

We are now increasing the total number of hours without disaster by "creating a workplace where any unsafe actions or conditions are never overlooked" and promoting the concept of "think-about-safety" and "see-about-safety" before starting an activity. Our safety activities include workplace safety meetings, safety patrols, hazard prediction activities, avoidance of careless activities, 5-S activities, verbal safety checks (pointing at the item to be checked and voicing its name), etc.



Annual ceremony cum internal comprehensive disaster prevention drill (held on January 14, 2005)

Commitment to Voluntary Maintenance

We are going to get our facilities designated as a "Voluntary Safety Certified Facility" under the High Pressure Gas Control Law. In fiscal 2004, we newly acquired a "voluntary safety certification" for 10 facilities, including the vinyl chloride monomer facility. In addition, we are making an effort to acquire the qualification of the Administrator of Accredited Completion Inspections in 2005.

As a result of the revision of the High Pressure Gas Control Law, our internal regulations have clearly indicated that the president shall have a final responsibility for safety management in order to clarify the importance of the role of top management.

We are committed to stable plant operations by promoting

voluntary maintenance activities in our operational management sector and by reinforcing the specialized maintenance skills in our facilities management sector. These efforts have enabled us to steadily reduce the number of sudden failures. Our cement factory is running a TPM* program and has won the TPM Excellence Award.



On-site inspection for high-pressure gas certification (June 16-18, 2004)

Safety Inspection

We conduct inspections for all of our facilities to identify the status of Process Safety and Disaster Prevention/Occupational Health and Safety. If the inspection identifies any incidents of nonconformance, these are pointed out and necessary guidance is given for corrective actions. The results of inspections are reported to the Safety Measures Committee, and will be reflected in the action policy for the following fiscal year.



Safety inspection at Kashima Factory (October 26, 2004)

Total Zero-Accident Hours Topped the 10 Million Mark

In August 2004, Tokuyama Factory achieved a record of total zero-accident hours of 10 million for the first time. At present, all employees of Tokuyama Factory are making every effort to achieve the Ministry of Health, Labor and Welfare's Category III zero-accident record (12.2 million hours). Kashima Factory has had zero accident for 19 years since its start-up. Tsukuba Research Laboratory can also boast of zero accidents for the 15 years since it was established. Our company's three key establishments are all making efforts to continue their excellent safety performances.

Our investment for process safety in fiscal 2004 amounted to 380 million yen and included items of emergency equipment for use in the event of a disaster, emergency power supply units, etc.

Commitment to Occupational Health and Safety

Safety and Health Management System is Strictly Implemented

Each establishment has established a Safety and Health Management System, having commenced its operation in fiscal 2003. This system provides the means to voluntarily and continually perform safety and health management by repeating the PDCA (Plan-Do-See-Act) cycle.

In fiscal 2004, Tokuyama factory expanded the scope of application of this system to include its administrative division. The progress of these activities was monitored by an internal audit to improve the level of safety and health management.

In fiscal 2004, we invested 120 million yen as work environment improvement expenses.

Safety Education to Improve Knowledge and Know-how of Hazard Prediction Activities

To promote safety awareness and knowledge among our company employees and subcontractors, we are providing in-house workshop, safety meetings, hazard prediction activities, factory visitor instructions, and so on.

To prevent occupational accidents of employees of subcontractors, we have established a disaster prevention council with subcontractors. We are promoting activities in close coordination with these subcontractors. The aim of these activities is to enhance safety patrols and meetings so that all employees of contractors may share the same information and improve safety knowledge and know-how.

Maintenance of a Comfortable Work Environment

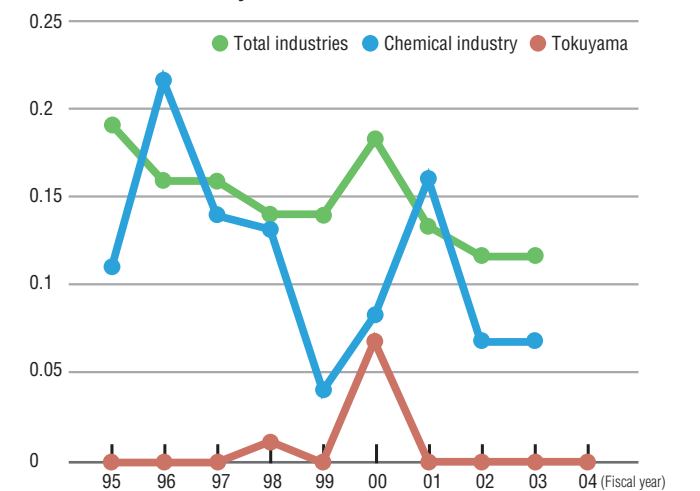
Aiming to create pleasant working conditions, we continue to monitor the workplace environments where specified chemicals and organic solutions are being handled, and continue to improve the work procedures and equipment involved. These efforts have enabled us to maintain all of our worksites in Control Category I,* as verified by our workplace environment inspections.

Health Promotion Based on THP (Total Health Promotion)

To promote employee well-being, we actively adopt new technology for cancer examinations, which is not required by related laws, at regular health examinations.

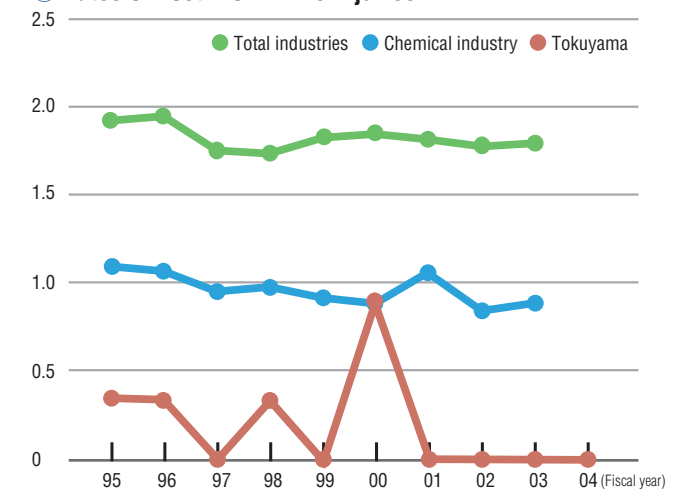
We have also organized a "THP-based Health Promotion Committee" in line with the THP Guidelines recommended by the Ministry of Health, Labor and Welfare, under which a variety of health promotion programs are being conducted. Specialized subcommittees for health maintenance and promotion include the Mental Health Subcommittee, the Education Subcommittee, the Lifestyle Habits Subcommittee, and the Publicity Subcommittee. We have organized a mental health workshop for managers. We have also commissioned a specialized organization to provide advice to managers, if necessary. Based on the results of health examinations, we provide employees with guidance on nutrition and physical exercises so that they may improve the condition of their health.

Accident Severity Rates*



* Accident Severity Rate refers to the number of work days lost in 1000 cumulative work hours, and represents the severity of industrial accidents.

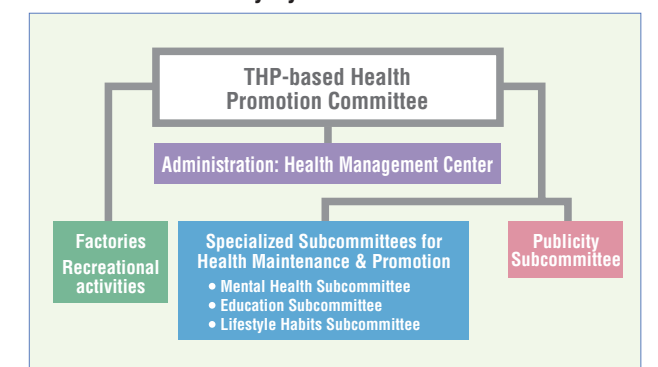
Rates of Lost Work Time Injuries*



* Rate of Lost Work Time Injuries refers to the number of workers away from work due to workplace injuries in 1 million cumulative work hours, and represents the frequency of industrial accidents.

Source: "Survey on Industrial Accidents" of the Ministry of Health, Labour and Welfare

THP-based Activity System



* TPM is an abbreviation for Total Productive Maintenance. It is intended for achieving zero-losses with the participation of all employees, in pursuit of maximized production efficiencies, by implementing systems that prevent any losses due to accidents, defective products, equipment failures, etc.

* Control Category I refers to a condition in which an atmospheric concentration of hazardous substances is below the control level in most part (over 95%) of the unit work area. There are three classes of Control Category: Category I, II, and III, of which I is the most desirable.

Harmonious Coexistence with Communities and Society

We aim to achieve a harmonious coexistence with communities and society by enhancing communications with local residents through RC dialogues, active participation in local environmental conservation activities or events, and transparent and rapid provision of information.

Communications with Communities and Society

Tokuyama Science Foundation

This foundation was established in 1988 with the aim of achieving an ideal of creating a new science as part of the project for commemorating our company's 70th anniversary. The objectives of creating the foundation are to promote science and technologies and to contribute to the development of society and the economy and the improvement of people's lives through the grant of subsidies to studies on new materials and related matters in the science and technology sector, and the diffusion of and awareness building for new materials.

Each year, the foundation grants subsidies to young researchers in the field of study on new materials, and conducts various fostering projects, including "international exchange assistance," "international symposium assistance," and "science and technology awareness building assistance." There were 238 studies in total to which subsidies were granted, and the total amount of subsidies stands at 460 million yen (as of March 2005).

Communications between Tokuyama Factory and Local Communities

◆ Every year, "RC dialogues with community people" are organized with the aim of increasing community awareness of environmental conservation efforts being made by companies in the Shunan district. In fiscal 2004, we acted as the organizer of the companies and held a presentation, panel discussions and information exchange.

In fiscal 2004, Tokuyama Factory organized "RC dialogues with community people" by itself for the first time. Twenty-five people from local communities (community associations) participated in the RC dialogues. At the dialogues, opinions were exchanged under the theme of "Efforts for Environmental Conservation and Process Safety." We will continue this kind of



"RC community dialogue" sponsored by Tokuyama Factory (on August 19, 2004)

RC dialogues with individuals from the community.

◆ We have donated a bookrack to a total of 53 elementary and junior high schools in Shunan city. Every year, we present book coupons to these schools. We have been doing this since 1978 in the hope that many children will be encouraged to read, despite the current general trend of children not wanting to read. The bookracks are referred to as the "Mikage Library."



"Mikage Library"

Thank-you letters from children

◆ Shunan City is developing its "Clean Network Promotion Activities" to improve the local environment. Tokuyama Factory participates in these activities and carries out a "Cleanup Campaign" once a month to clean around its vicinity.

◆ Each year we also actively participate in forestry maintenance activities, called "Activities for Community-Forest-Water Interaction," organized to help preserve the forests in the community area. In fiscal 2004 (the 8th year), 130 people participated.

◆ We aim at being a company open to society. Anyone interested can visit us for a factory tour by making an application in advance. We had some 2,700 visitors to our Tokuyama Factory in fiscal 2004, taking the tour of the cement plant where the waste recycling facilities are in operation.

◆ There were eleven environmental complaints in fiscal 2004, five of which were considered attributable to our Tokuyama operations. We investigated the causes and implemented the necessary measures, including equipment repair.



Forest maintenance activities of the "Activities for Community-Forest-Water Interaction" (November 13, 2004)



Representatives from the Chamber of Commerce and Industry in Masan City, the Republic of Korea, visited one of our company's plants. (May 20, 2004)

Communications between Kashima Factory and Local Communities

◆ We have designated May 30 "Zero Refuse Day," and carry out coordinated cleaning work inside and outside Kashima Factory every year.

◆ As a member of the Hasaki District Companies Network (Hasakiren), we undertook odor patrols and coordinated cleaning around the industrial complex.

◆ In fiscal 2004, we participated in the RC community dialogues as the organizer of the Kashima-District RC Activity Network. We are determined to continue promoting the environmental management activities to strengthen harmonious coexistence with local communities.

◆ There was a complaint from local residents to Hasakiren that offensive odors were experienced in the northeast district of the complex. Although we eventually found that we were not responsible for that incident, our Administration Section took the role of coordinating with the parties concerned.

◆ There were three inquiries from the waste material handling contractors, which were all properly dealt with through adequate communications.



Coordinated cleaning work

Environmental Communications

We are enhancing the provision of information and mutual communication to ensure that our environmental activities are known to many stakeholders.

Environmental Report

Every year since 1997, we have issued an "Environmental Report" (both Japanese and English editions) to report on and summarize our stance on environmental activities of the previous year. The reports are available on our Web site.



2004 edition

Provision for Environmental Information on the Web Site

Our Web site introduces "basic policy" and "compliance." Detailed information about the "waste recycling business" and "MSDS" as our main products is available in the business introduction corner. The newly established "Environment" corner introduces our environmental activities, including "zero emission."



Top page of the "Environment" corner

"energy saving and anti-global warming measures," "reduction in the discharge of air and water pollutants" and "environmentally-friendly products."

Exhibition at the Environmental Event

Fine Tech Japan

We participated in the 14th Flat Panel Display Manufacturing Exhibition (commonly known as "Fine Tech Japan") that was held at the Tokyo Big Site from June 30 to July 2, 2004.

We exhibited functional cleaning agents based on environmental conservation technology, and introduced our proposal on the technology to detoxify TMAH as a developer.



Tokuyama's booth at Fine Tech Japan

NEW Environmental Exposition

T&T Corporation, as our group company, and we jointly participated for the first time in the "2004 NEW Environmental Exposition" held in Osaka from September 1 to 4, 2004. T&T and we introduced soil treatment technology and acceptance of waste materials, respectively, and gained popularity.

Yamaguchi Iki-Iki Eco Fair

We introduced our environmental activities, including "recycling waste materials using the cement kiln," using panels and videos at a booth at an environmental event titled the "Yamaguchi Iki-Iki Eco Fair" organized by the Yamaguchi prefectural government (October 16-17, 2004). This enabled us to improve our communication with citizens.



Exhibition at the "Yamaguchi Iki-Iki Eco Fair"

International Fuel Cell Exhibition

We exhibited electrolyte membranes and membrane-electrode assemblies, which are the main parts of fuel cells, at the 1st International Fuel Cell Exhibition held at the Tokyo Big Site (January 19-21, 2005). More than 1,000 people in total visited our booth over the three days.



We exhibited electrolyte membranes, membrane-electrode assemblies, etc. at the 1st International Fuel Cell Exhibition

Tokuyama Factory



Location: 1-1, Mikage-cho, Shunan City, Yamaguchi Prefecture

Number of Employees: 1,517

Area of Factory: 1,430,000 m² (gross area) (Tokuyama Plant, Nanyo Plant and Higashi Plant)

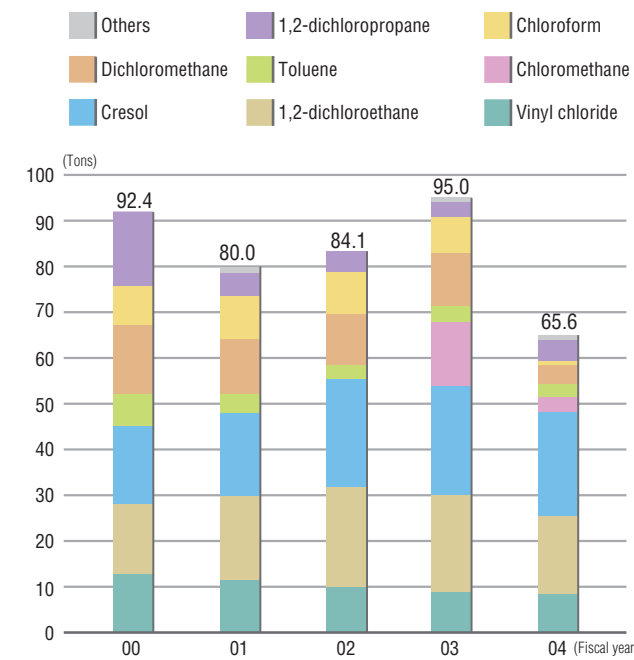


Main Products
Cement, inorganic and organic chemical products, polycrystalline silicon, silica, vinyl chloride, etc.

Hisami Tanimoto
Executive Managing Director and Tokuyama Factory General Manager

Facing the Tokuyama bay, the Tokuyama Factory is conveniently located for sea transportation of raw materials and products. The cement factory contributes to recycling waste materials and by-products. Electric power and steam are supplied from our own power generation plant.

Release of Chemical Substances Subject to the PRTR Law




Tokuyama Factory was granted a certification as an "Eco Factory in Yamaguchi Prefecture" for its efforts to reduce waste and increase recycling in fiscal 2004.

Release and Transfer of PRTR Substances Sorted by Item (FY 2004)*

Name of substance	Legally-specified substance number	Amount released				Amount transferred
		To atmosphere	To public water systems	To soils	Subtotal	
Cresol	67	0.0	23.3	0.0	23.3	0.0
1,2-dichloroethane	116	17.0	0.0	0.0	17.0	0.1
Chloroethylene (Vinyl chloride)	77	9.2	0.0	0.0	9.2	0.0
Dichloromethane (Methylene chloride)	145	3.6	0.0	0.0	3.6	0.0
1,2-dichloropropane	135	4.6	0.0	0.0	4.6	186.0
Chloromethane (Methyl chloride)	96	3.5	0.0	0.0	3.5	0.0
Toluene	227	2.6	0.0	0.0	2.6	79.9
Chloroform	95	1.3	0.0	0.0	1.3	0.0
1,2-epoxypropane (Propylene oxide)	56	0.5	0.0	0.0	0.5	2.3
2,2'-azobisisobutyronitrile	13	0.0	0.0	0.0	0.0	0.0
Ethylene glycol	43	0.0	0.0	0.0	0.0	0.2
Vanadium pentoxide	99	0.0	0.0	0.0	0.0	0.0
Carbon tetrachloride	112	0.0	0.0	0.0	0.0	0.0
Copper and its water-soluble salts (excluding complex salt)	207	0.0	0.0	0.0	0.0	0.0
Hydrazine	253	0.0	0.0	0.0	0.0	0.0
Hydrogen fluoride and its water soluble salt	283	0.0	0.0	0.0	0.0	0.0
Benzene	299	0.0	0.0	0.0	0.0	0.0
Boron and its compounds	304	0.0	0.0	0.0	0.0	0.0
Dioxins	179	(12.6)	(3.0)	(0.0)	(15.6)	(0.0)
Total		42.3	23.3	0.0	65.6	268.5

* Scope of survey includes PRTR-law specified substances with an amount handled of more than 1 ton per year, and dioxins.
** While the PRTR Law says the amount of release shall be given in kilograms to two significant figures, the amount in this report is given in tons, rounded to the nearest 1/10 ton (dioxins in mg-TEQ).

Kashima Factory



Location: 26 Sunayama, Hasaki-machi, Kashima-gun, Ibaraki Prefecture

Number of Employees: 84

Area of Factory: 101,000 m²



Shigeki Yuasa
Kashima Factory General Manager

Kashima Factory is located within the Hasaki Industrial Complex that forms a part of the Kashima Coastal Industrial Region. It comprises the plants of Tokuyama's three group companies. They are all engaged in manufacturing specialty chemical products that contribute to human health.

Tokuyama's Kashima Factory
Bulk pharmaceuticals (x-ray contrast agents, stomach and duodenal ulcer treatment drugs); optical materials (plastic lens monomers, light modulating materials, hard coat solutions); metal washing solutions

Kashima Plant of Tokuyama Dental Corporation
Dental materials (restorative materials, adhesives, denture relining materials, impression materials, dental stone, implant materials)

Kashima Works of A&T Corporation
Reagents for clinical analysis (electrolyte analysis reagents, glucose analysis reagents)

Hazardous air pollutants: In Fiscal 2004, a change of processing solutions from dichloromethane to water in part of the overall process contributed to a reduction in the release of dichloromethane per unit production. However, the gross release of the substance into the air increased by 40% over the previous year due to an increase in production (at the Kashima Plant of the Tokuyama Dental Corporation). We will continue efforts to reduce the release of dichloromethane.

Volume of final disposal: In Fiscal 2004, the volume of final disposal decreased to 29 tons (-33%) due to recycling of inorganic sludge and material recycling of metals.

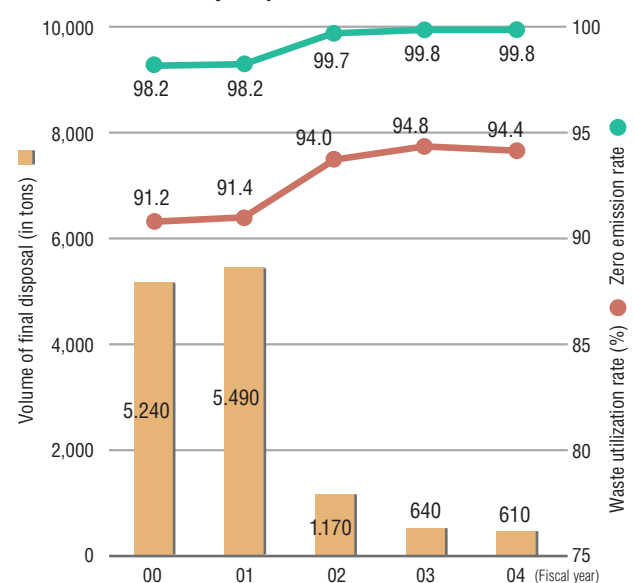
Process safety: All operators participated in an experience-based seminar on bulb operation to improve their capability to predict hazards and prevent careless work.

Occupational health and safety: We were able to maintain our work environment as excellent in Control Category I and were granted a certification of "Certified Facility under the Comfortable Workplace Promotion Program" from the Ibaraki prefectural government.

We were granted the Director-General of Labor Bureau of the Ibaraki Prefectural Government Award at the Ibaraki Prefecture's Occupational Safety and Health Competition (on October 5, 2004).



Volume of Finally Disposed Waste, Utilization Rates, etc.

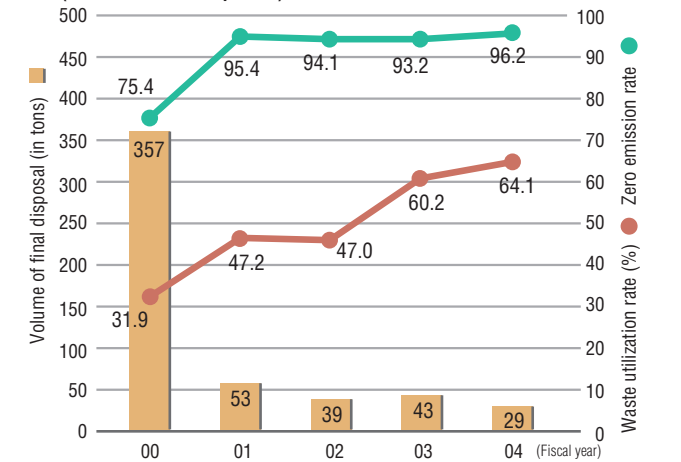


Release and Transfer of PRTR Substances Sorted by Item (FY 2004)* (Total of Three Companies)

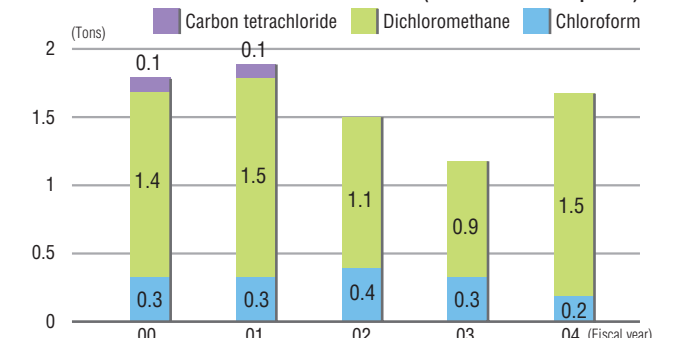
Name of substance	Legally-specified substance number	Amount released				Amount transferred
		To atmosphere	To public water systems	To soils	Subtotal	
Toluene	227	2.0	0.0	0.0	2.0	24.9
Dichloromethane (Methylene chloride)	145	1.5	0.0	0.0	1.5	4.8
Chloroform	95	0.2	0.0	0.0	0.2	0.9
Acetonitrile	12	0.1	0.0	0.0	0.1	2.0
N,N-dimethylformamide	172	0.0	0.0	0.0	0.0	18.1
1,4-dioxane	113	0.0	0.0	0.0	0.0	0.1
Ethylene glycol	43	0.0	0.0	0.0	0.0	3.2
2,3-epoxypropyl methacrylate	316	0.0	0.0	0.0	0.0	0.1
Methyl methacrylate	320	0.0	0.0	0.0	0.0	0.0
α-methylstyrene	335	0.0	0.0	0.0	0.0	0.0
Total		3.8	0.0	0.0	3.8	54.1

* Scope of survey includes PRTR-law specified substances with an amount handled of more than 1 ton per year.
** While the PRTR Law says the amount of release shall be given in kilograms to two significant figures, the amount in this report is given in tons, rounded to the nearest 1/10 ton.

Volume of Finally Disposed Waste, Utilization Rates, etc. (Total of Three Companies)



Release of Hazardous Air Pollutants (Total of Three Companies)



Environmental Activities of Group Companies

We believe we should jointly address Responsible Care activities with our group companies. To provide support for their activities, we have exchanged a memorandum of agreement on RC management with the respective group companies that are engaged in production activities at home and abroad.

We assess overall RC activities by reviewing the RC activity data of the group companies, such as their environmental loads, safety management indicators, etc., and also by making safety and environmental inspections for several companies on a yearly basis.

We share information on relevant laws and regulations among group companies, and also help them acquire ISO 14001 and ISO 9001 certification.

ISO 9001 and ISO 14001 Acquisition Status for 11 Group Companies

Company name	ISO9001	ISO14001
Sun-Tox Co., Ltd.	●	●
Shanon Co., Ltd.	●	—
Tohoku Shanon Co., Ltd.	●	●
A&T Corporation	●	●
Figaro Engineering Inc.	●	●
Tokuyama Dental Corporation	●	●
Tokuyama Siltech Co., Ltd.	●	●
Sun Arrow Chemical Co., Ltd.	—	●
ASTOM Co., Ltd.	—	●
Shin Dai-ichi Vinyl Corporation	—	●
Tokuyama Polypropylene Co., Ltd.	—	●

● Certified ● Included as a group site

Sun Tox Co., Ltd.

Established: February 14, 1992
Shareholders: Tokuyama Corporation (100%)
Head office: Annex to Tokuyama Bldg. 1-4-5, Nishi-Shimbashi, Minato-ku, Tokyo, 105-8429
Business: Manufacture and sales of biaxially oriented polypropylene films and cast polypropylene films (including multi-layer co-extruded films)

Kanto Plant

3075-18, Shimasu, Itako City, Ibaraki Prefecture, 311-2434



Plant manager: Hideki Tanaka
Employees: 162
Area: 55,800 m²

RC Activities at Kanto Plant

Kanto Plant is located in the Itako Industrial Park in Ibaraki prefecture, and manufactures biaxially oriented PP films and cast PP films in a total quantity of 25,000 tons a year. Kanto Plant has actively pursued energy saving from the standpoint of environmental conservation. In fiscal 2004, the plant constructed a cogeneration unit with the aim of promoting energy saving and further reducing CO₂ emissions. It is expected that efficient production of both electricity and steam used at the plant will lead to a drastic reduction in CO₂ emissions. Regarding occupational safety and health, the plant organizes annual safety promotion meetings every April, as does Tokuyama Plant. At such meetings, all employees reconfirm the yearly safety policy and increase their awareness of safety matters. In fiscal 2005, the plant is scheduled to adopt an occupational safety and health management system.

Performance Data (FYs 2000-2004)

	Unit	2000	2001	2002	2003	2004
Power consumption	1,000 kWh	21,960	21,730	26,890	27,810	28,470
Heavy oil consumption	kl/year	1,170	1,280	1,480	1,460	1,470
SOx	tons/year	1.1	1.4	2.2	2.0	2.0
NOx	tons/year	2.4	2.5	2.8	3.3	3.3
Soot particles	tons/year	0.6	0.6	0.1	0.3	0.3
Industrial water consumption	tons/year	42	62	56	52	53
Waste generation	tons/year	300	300	100	27	90
Volume of external final disposal	tons/year	—	7	10	20	0
COD	tons/year	0.02	0.01	0.02	0.02	0.02

Tokuyama Plant

7-7, Harumi-cho, Shunan City, Yamaguchi Prefecture, 745-0024



Plant manager: Toshihiko Nishimura
Employees: 137
Area: 24,100 m²

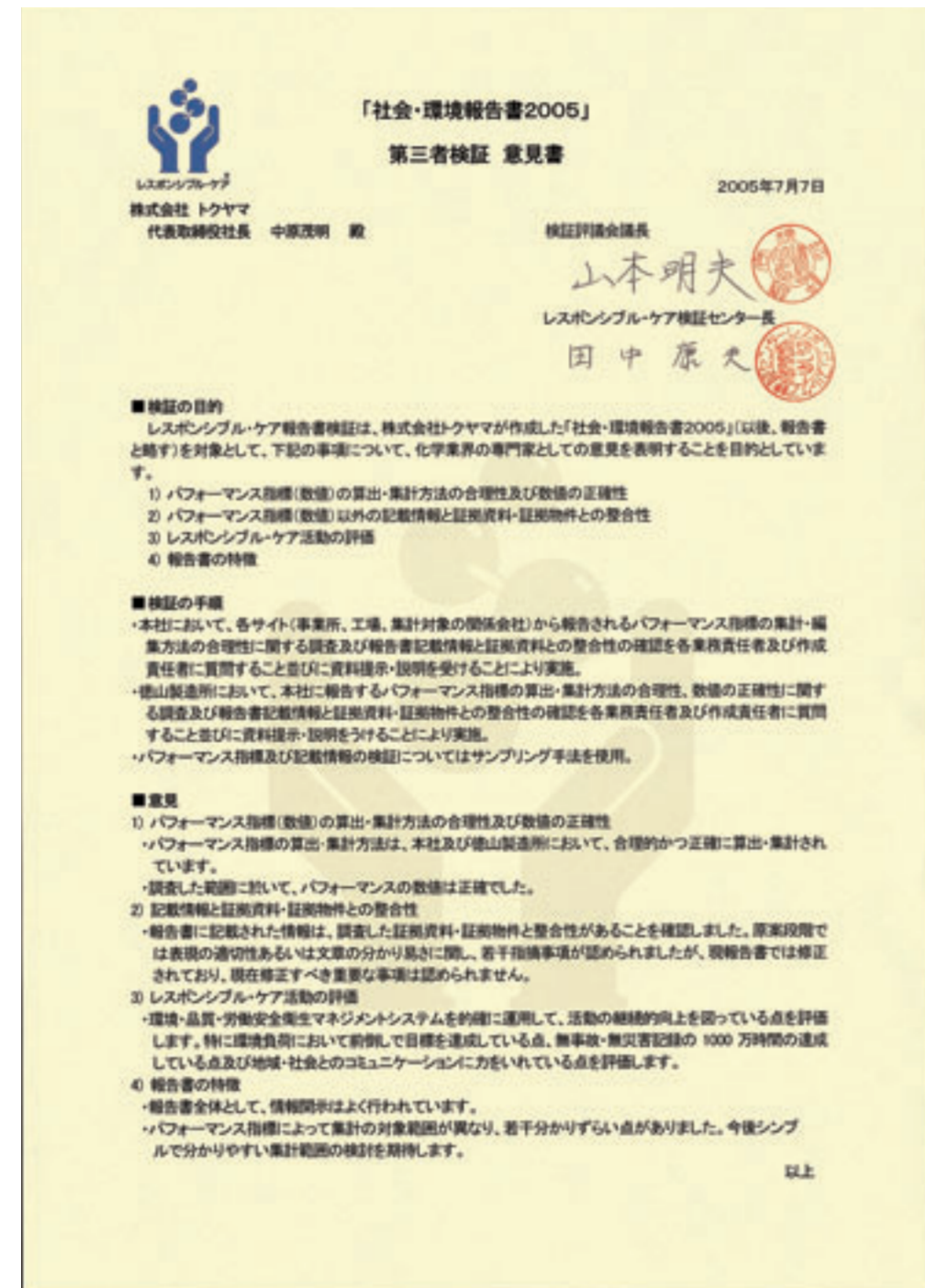
RC Activities at Tokuyama Plant

Tokuyama Plant is located in Tokuyama Factory of Tokuyama Corporation, and manufactures biaxially-oriented PP films in a quantity of 20,000 tons a year. The plant conducts coordinated RC activities with Tokuyama Factory. In fiscal 2004, the plant improved its manufacturing process with the aim of improving unit raw material consumption and unit energy consumption. As a result, the plant was able to achieve a significant reduction in manufacturing losses and a reduction in waste. Regarding occupational safety and health, the plant promotes a safety and health plan based on the safety policy. All managers and employees conduct safety activities, including a complete workplace safety examination. We participate in disaster prevention drills conducted by Tokuyama Corporation to improve our disaster prevention skills. In fiscal 2005, the plant is scheduled to adopt an occupational safety and health management system.

Performance Data (FYs 2000-2004)

	Unit	2000	2001	2002	2003	2004
Power consumption	1,000 kWh	31,730	34,420	34,920	36,170	35,740
Consumption of 0.3 MPa steam	kl/year	2,220	2,500	2,450	3,080	2,610
Consumption of 2.1 MPa steam	tons/year	37,650	37,690	39,670	42,270	42,760
Waste generation	tons/year	490	670	270	100	80
Volume of external final disposal	tons/year	80	36	18	4	2

Third Party Opinion



Tokuyama RC Activities—Historical Overview

July 1991	Established Global Environmental Issues Committee	April 2002	Acquired ISO 9002 certification for vinyl chloride monomer and polyvinyl chloride
March 1993	Established RC Administration Committee. Instituted voluntary plan for Total Management of Environment, Safety and Quality	June	Kashima Factory won the Ibaraki Prefecture award in recognition of it being an "Earth-Friendly Company"
April 1994	Acquired ISO 9002 certification for High-Purity Isopropyl Alcohol	March 2003	Received the award of distinction in "Resource Recycling Technologies and Systems" from the Director-General of Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry
June	Improved product warranty systems, such as product and labeling assessments	April	Updated certification to ISO 9001:2000; company's sales sector was newly certified
April 1995	Became a member of the Japan Responsible Care Council	December	Underwent the Responsible Care verification process. Tokuyama Factory achieved a Category II zero-accidents record (8.1 million hours for the chemical industry) as defined by the Ministry of Health, Labor and Welfare.
May 1997	Acquired ISO 9001 certification for Cement Manufacturing	October 2004	Figaro Engineering Inc. acquired an ISO 14001 certification. Kashima Factory was granted the Director-General of Labor Bureau of the Ibaraki Prefectural Government Award.
September	Issued RC Report (First edition)	February 2005	Tokuyama Factory was granted the Director-General of the Agency of Natural Resources and Energy Award for Excellent Energy Management Plant (Electricity Sector.)
April 1998	Acquired ISO 9001 certification for Dental Materials Manufacturing	March	Tokuyama Factory acquired a certification of the Yamaguchi Prefecture Eco Factory.
December	Acquired ISO 9001 and 9002 certifications for aluminum nitride and Functional Powders Manufacturing; Tokuyama Factory was certified to ISO 14001		
January 1999	Kashima Factory was certified to ISO 14001		
June	Acquired ISO 9002 certification for Chemical Products, Polypropylene, Films, etc.		
December	Set up Ecological Management Initiative Department. Acquired ISO 9002 certification for polycrystalline silicon, organic solutions, etc.		
August 2000	Created Recycling and Environmental Business Department		
April 2001	Established Yamaguchi Eco-Tech Co., Ltd.		