



**Environmental Protection,
Product Safety, Operational Safety,
Workplace Hygiene and Health**



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Domestic Locations

- Fibers ● Chemicals ● Life & Living ● Construction Materials
- Homes ● Electronics Materials & Devices ● Pharma

Editing Policy

The Japanese Ministry of the Environment's *Environment Report Guidelines*, 2003 edition, were consulted during the preparation of this report. The content of this report is not limited to environmental protection, but includes information related to corporate social responsibility and all of our Responsible Care measures, including product safety, operational safety, and workplace hygiene and health.

Period under review

The primary focus of the report is fiscal 2004 (April 2004 – March 2005), and all data shown corresponds to this period unless otherwise indicated. Some information pertaining to events subsequent to the end of the fiscal year has also been included.

Publication

Ninth edition, published June 2005 in Japanese.

Purview of report

The purview of the report includes all domestic operations of the core operating companies of the Asahi Kasei Group and the operations of affiliated companies implementing our common Responsible Care program shown on pp. 54–55.

Responsible Care

Responsible Care represents the commitment and initiative to secure and improve safety and environmental protection at every step of the product life-cycle through the individual determination and responsibility of each firm producing and handling chemical products. Responsible Care also entails measures to gain greater public trust through communication and dialog. Responsible Care was conceived in Canada in 1985, and expanded notably following the 1990 establishment of the International Council of Chemical Associations (ICCA) which has expanded to comprise the chemical industries of 52 nations by April 2005. In 1995 the chemical industry in Japan began implementing Responsible Care with the establishment of the Japan Responsible Care Committee (JRCC). As of April 2005, the JRCC comprised 108 member companies. Asahi Kasei was among the founding members of the JRCC, and played a leading role in the expansion and development of Responsible Care in Japan.

Responsible Care at Asahi Kasei is not limited to chemicals-related operations, but extends throughout all fields of operation.

Public awareness of environment-related issues was prominent in fiscal 2004, and measures to prevent global warming gained new impetus in February 2005 with the Kyoto Protocol coming into effect. Environmental protection is a constant part of doing business in today's world. Every enterprise must contribute to the sustainability of prosperity for the people of the world. At the Asahi Kasei Group we work to advance sustainable development in accordance with our basic tenets of contributing to human life and human livelihood through constant innovation and advances based in science and the human intellect.

Our voluntary Responsible Care program lies at the core of our efforts for preservation of regional and global environments, physical integrity and safe operation for the safety and security of the communities where we operate, workplace safety, hygiene, and health for our workers, and product safety for our customers and consumers.

Many important lessons learned from the March 2002 Leona Plant fire have been applied throughout the Asahi Kasei Group, enhancing the overall level of safety in operation and ensuring against the occurrence of another major accident. The minor incidents which do occur are analyzed to identify their cause and mechanism, which not only enables recurrence to be prevented but also brings insight into the potential for preventing situations which carry the risk of developing into an accident. This means not simply following a familiar routine and assuming all is well as long as problems don't occur, and then reacting to problems as they arise; it means taking a comprehensive view of all related factors and taking proactive measures to eliminate the risk of problems developing.

There are three points of emphasis as we work to heighten the level of operational safety. First, we are adopting a new approach and concept for the maintenance of plants which are operating beyond their originally planned life-span. Second, we are adopting new management standards which reflect emerging changes in the makeup of our workforce, with experienced veteran operators approaching retirement, and changes in public expectations for safety performance, with heightened sensitivity and awareness of safety-related issues. Third, we are expanding the application of lessons from safety incidents at other companies and among the various Asahi Kasei Group production sites, with a focus on identifying signs which enable risks to be predicted before problems develop. The first two entail the use of new safety management technology and systems, and also utilization of knowledge gained from the third.

One key aspect of our role as a corporate citizen is our responsibility to engage the public in a dialog based on faithful information disclosure. We hope that this report, describing our day-to-day efforts for Responsible Care and published since 1997, serves to advance this dialog. We welcome any opinions or feedback you may have.



President Shiro Hiruta

June 2005

Basic Credo of the Asahi Kasei Group

Basic tenets

We the Asahi Kasei Group, through constant innovation and advances based in science and the human intellect, will contribute to human life and human livelihood.

Guiding precepts

We will

- create new value, thinking and working in unison with the customer, from the perspective of the customer.
- respect the employee as an individual, and value teamwork and worthy endeavor.
- contribute to our shareholders, and to all whom we work with and serve, as an international, high earnings enterprise.
- strive for harmony with the natural environment and ensure the safety of our products, operations, and activities.
- progress in concert with society, and honor the laws and standards of society as a good corporate citizen.

Action guideline

Breakthrough – Together

Move beyond the current limits, open the path, share the advance

- *Customer – focus*..... Act with the customer as the starting point.
- *Global – development*..... Act in a global field of vision.
- *Group – dynamics*..... Act for a group structure of independent enterprises in mutual rivalry.

Asahi Kasei Group Overview

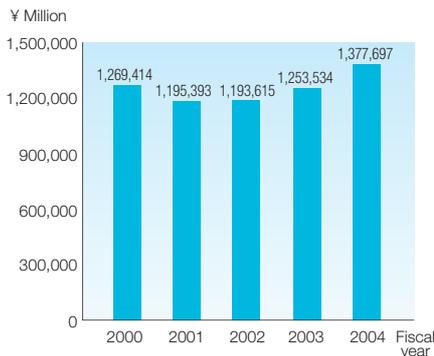
Asahi Kasei Corporation

- Head office: 1-1-2 Yurakucho, Chiyoda-ku, Tokyo
- President: Shiro Hiruta
- Establishment: May 21, 1931
- Paid-in capital: ¥103,389 million*
- Consolidated assets: ¥1,270,057 million*
- Consolidated employees: 23,820*

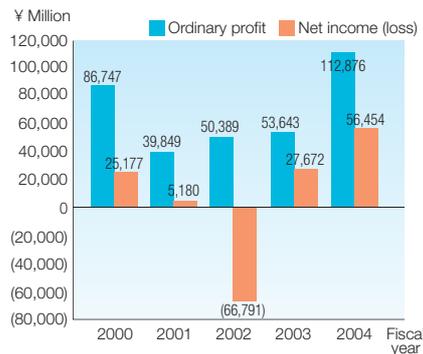
* As of March 31, 2005.



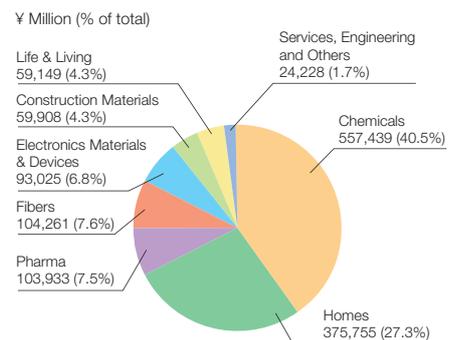
Consolidated net sales



Ordinary profit, net income (loss)



Fiscal 2004 sales by operating segment



Corporate governance

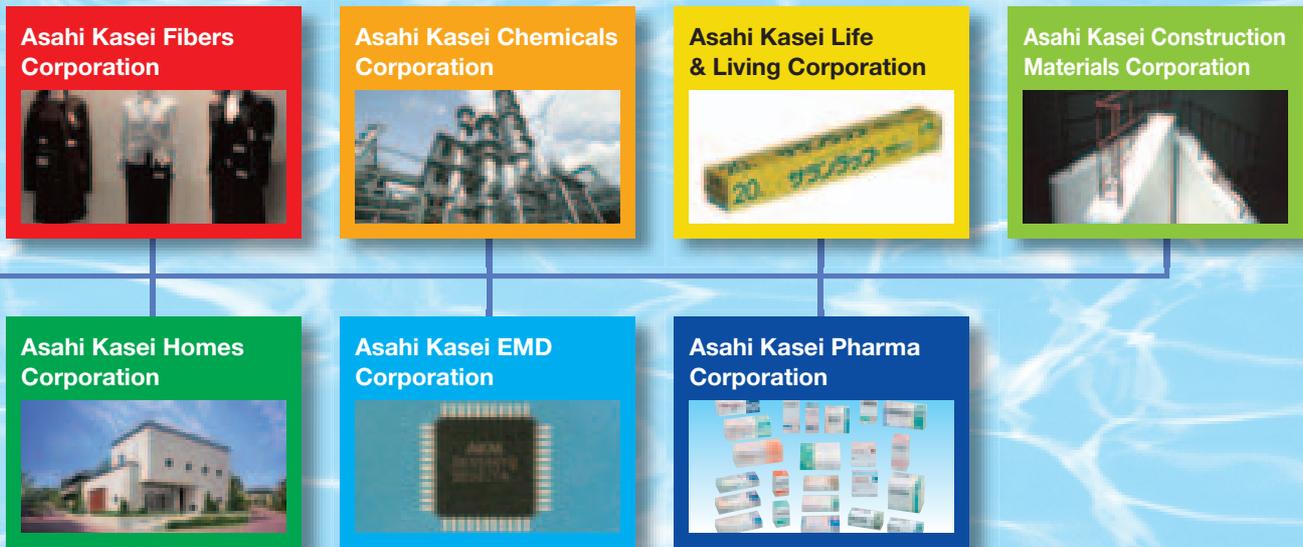
Asahi Kasei constantly endeavors to heighten fast-moving and transparent management as essential for maximum corporate value and greater earnings. Corporate governance has been enhanced by the transformation to a holding company configuration, the adoption of an executive officer system of management with separate execution and oversight functions, and the establishment of a Group Advisory Committee.

Asahi Kasei has long recognized the importance of issues related to corporate social responsibility (CSR), and has adopted a range of measures guided by the Corporate Ethics Committee, the Responsible Care Committee, and other corporate organs. In April 2005 a Risk Management Committee and

a Community Fellowship Committee were established, and a CSR Council was formed with the president serving as chair, to guide the effort to heighten our performance in this area for the sustainable expansion of

corporate value. The CSR Council builds on and enhances the Asahi Kasei tradition of management with an emphasis on environmental and social aspects of operation.





Corporate ethics and compliance

We have long sought to ensure compliance throughout the operations of the Asahi Kasei Group, in the conviction that high ethical standards correlate with business performance and success. In 1998 we codified our *Corporate Ethics – Basic Policy and Code of Conduct* and established a Corporate Ethics Committee. A booklet describing the *Basic Policy and Code of Conduct* was distributed to all personnel as part of a program to make everyone thoroughly familiar with them. In 2001 our *Corporate Ethics – Basic Policy and Code of Conduct* was revised to bring clear continuity with our newly established Basic Credo, the Basic Tenets and Guiding Precepts of which identify the purpose and meaning of the Asahi Kasei Group and the purpose and commitment of each employee. With the transformation to a holding company configuration, corporate bodies in each core operating company have been charged with coordination and oversight to maintain compliance.

Compliance Hotline

Beginning in April 2005, the Asahi Kasei Group employs a “Compliance Hotline” to ensure that personnel have secure and trusted recourse to report any possible ethical lapses which may be encountered or observed. The Compliance Hotline is available for use by all personnel working in the Asahi Kasei Group, including executives, employees, contractual employees, and dispatched personnel – both full-time and part-time, and both long-term and temporary. The Compliance Hotline Secretariat or, if deemed appropriate, a response team formed for the purpose will investigate each matter reported. If the investigation confirms that a violation of law or internal corporate regulations has occurred, appropriate action will be implemented. The reporting party will incur no disfavor or other disadvantage as a result of having made a report through the Compliance Hotline.

Protecting personal information

To ensure full compliance with Japan’s Personal Information Protection Law which took effect in April 2005, an e-learning course was implemented in January for all personnel throughout the Asahi Kasei Group, including executives, employees, contractual employees, and dispatched personnel – both full-time and part-time, and both long-term and temporary. Some 25,000 personnel completed the course, gaining a practical understanding of the law and proper handling of personal information.



E-learning course for handling of personal information.

Corporate Ethics – Basic Policy

- Creating value, contributing to society
- Caring for environment, health, and safety
- Honoring law and norms of society
- Excluding subversive elements
- Respecting the individual
- Ensuring transparency
- Respecting information and intellectual property
- Practicing corporate ethics

HIGHLIGHTS

Countering global warming

Asahi Kasei's greenhouse gas emissions in fiscal 2004 were roughly half of those in fiscal 1990. This is equivalent to an approximately 0.5% reduction from Japan's total fiscal 1990 greenhouse gas emissions.

Measures to curtail emissions of greenhouse gases in Japan gained new impetus in February 2005 as the Kyoto Accord came into effect. Asahi Kasei has implemented a broad range of measures, including technological development, to achieve its large reduction. Some notable developments are shown here. See p. 21 for more information.

Chemicals

Reducing by-product N₂O emissions

One by-product of adipic acid production at the Leona Plastics & Materials Plant of Asahi Kasei Chemicals is the greenhouse gas N₂O, which had been released to the atmosphere. Equipment was developed for the thermal decomposition of this by-product N₂O, and operation began in March 1999. In fiscal 2004, over 90% of the N₂O from this plant, with a global warming potential equivalent to some 8 million tons of CO₂, was decomposed into nitrogen and oxygen.



Equipment for thermal decomposition of N₂O.



Chemicals

Non-phosgene PC process using CO₂

Asahi Kasei has developed the world's first polycarbonate (PC) production process to use the chemically inert CO₂ as feedstock. The process contributes to emissions reduction by utilizing as feedstock CO₂ which would otherwise have been released to the atmosphere.

The process also enables PC production without using the hazardous phosgene and methylene chloride as process materials, bringing a greater degree of safety for production personnel and the surrounding community. Intermediate compounds are cycled back into the production system, resulting in a very low amount of waste generation.

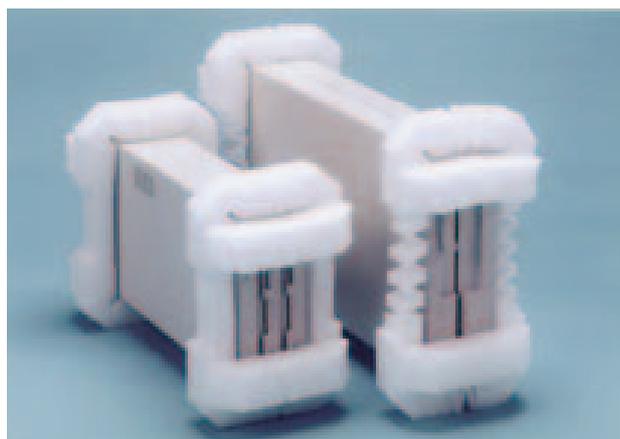


Life & Living

Phase-out of HFCs as foaming agent

HFCs were used as foaming agent in the production of Suntec™ plastic foam cushioning material at the Suzuka Plant of Asahi Kasei Life & Living. Because HFCs are designated as greenhouse gases, technology was developed to enable their substitution by hydrocarbon foaming agent. A phase-out of HFC foaming agent began in fiscal 2004, with completion scheduled for fiscal 2005. This will result in an annual reduction of emissions with a global warming potential equivalent to some 180 thousand tons of CO₂.

Suny Lite™ plastic foam insulation panels produced at the same plant are made using HCFCs, also designated as greenhouse gases, as foaming agent. Plans are being advanced to phase out HCFCs in favor of hydrocarbon foaming agent.



Suntec™ foam cushioning material.

Homes

Eco-footprint Club

Asahi Kasei Homes operates a website called “Eco-footprint Club” for children to learn about the environment, ecology, and conservation in a fun and easy-to-follow format. The site includes interactive tools for tracking and monitoring a household’s ecological footprint, and learning about ways a family can reduce it.



Eco-footprint Club brochure.

HIGHLIGHTS

Ecology, comfort, security

Products for the consumer are designed for exceptional performance with respect to ecology and comfortable ease of use. Measures implemented to ensure compliance with Japan's Personal Information Protection Law which took effect in April 2005 are also described here.

Homes

Ecoefficient Hebel Haus™ products

Long-term serviceability

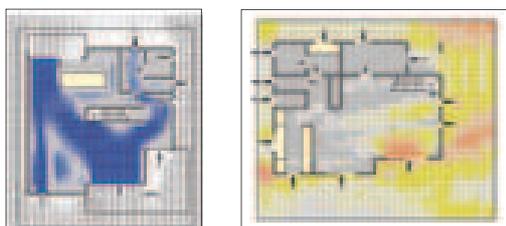
The Long Life Home means the durability and functionality to maintain ownership satisfaction over more than half a century. Given the serious shortage of landfills, and that homes have an average life span of 26 years in Japan, Long Life Home products which last for over 60 years make a valuable contribution to sustainability by lessening the need to demolish and rebuild.

Enhanced ecological function

The Hebel Haus Sorakara™ and Kazenoto™ Long Life Home products are designed to alleviate environmental burdens and utilize the benefits of nature, enabling exceptional environmental benefits in terms of energy and resource conservation.

Utilizing nature to reduce environmental burdens and improve comfort

A simulation system enables enhanced energy efficiency and comfort to be achieved by using natural sunlight and airflow. Simulations of sunlight and wind enable window placement, building orientation, and arrangement of floor plans and fixtures to be optimized for each specific site. The Sorakara™ is designed to enable this system to be utilized to maximum effect.



Simulation of wind and sunlight penetration.



Hebel Haus Sorakara™.

Geothermal heating/cooling

A geothermal heating and cooling system utilizes the temperature differential between the air and ground to provide energy-efficient cooling in summer and heating in winter. While conventional heat pumps release heat to the atmosphere when cooling the home, the new system releases the removed heat to the ground and thus avoids contributing to the “heat island” effect in dense urban areas. Standard equipment on the Kazenoto™.

Roof gardening

A planting system for roofs and verandas to be covered in soil to grow plants provides natural insulation from the heat of summer and enables residents to enjoy gardening in confined urban locations. Standard equipment on the Kazenoto™.

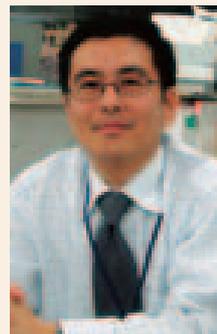
Rainwater utilization

A system for collection of rainwater for flushing toilets and watering plants enables conservation of water. Standard equipment on the Kazenoto™.



Hebel Haus Kazenoto™.

Researcher's comment



I question the notion that a comfortable environment is necessarily one that is mechanically controlled and regulated. We are opening eyes to the possibility of homes and living habits which utilize nature to provide comfort, while reducing the consumption of resources.

Yutaka Tahara
Product & Design Planning Department
Asahi Kasei Homes Corp.

Life & Living

Saran Wrap™ with universal design

The concepts of universal design, to facilitate ease of use by all, are a key part of product and packaging design at Asahi Kasei Life & Living. Their application, as an extension of the tradition of customer-oriented product development, is promoted by its Universal Design Awards program. The latest Saran Wrap™ box is a case in point, with easy to read instructions and with tab, flap, and adhesive components, and dimensions and markings, that all facilitate sure, safe, smooth film access, withdrawal, and cutting. It has been recognized with a PA Award from the Japan Society of Physiological Anthropology (see p. 18).

People involved in the new box design



Kousei Tanaka
Home Products Technology Dept.
Asahi Kasei Life & Living Corp.



Chikashi Mukai
Marketing Dept.
Asahi Home Products Co., Ltd.



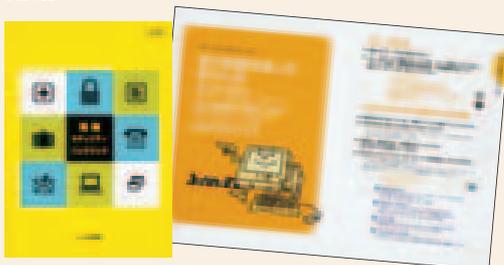
Kyoko Hayashi
Marketing Dept.
Asahi Home Products Co., Ltd.

Protection of personal information

In the course of doing business, the Asahi Kasei Group receives personal information from consumers, clients, suppliers, shareholders, and others. We are committed to maintaining the privacy and security of this personal information, and to ensuring that it is handled appropriately in accordance with the basic policy at right.

Corporate regulations for proper handling of personal information are codified in the Asahi Kasei Group Personal Information Handling Guidelines. Each core operating company has taken inventory of personal information held, and inspected practices throughout the receipt, use, storage, and disposal of personal information, implementing corrective measures as necessary.

Education and training for all employees includes the distribution of an information security handbook which covers issues related to personal information protection, and the implementation of an e-learning course about protection of personal information. Personal information of employees is subject to the same standards of protection.



Information Security Handbook.

Basic policy for protection of personal information

- We handle personal information properly and in compliance with the Personal Information Protection Law and other applicable statutes, and in conformance with generally accepted norms and standards.
- We ensure that personnel throughout the Asahi Kasei Group thoroughly understand and faithfully comply with corporate standards and regulations for the handling of personal information.
- We use personal information only for the specific purposes which have been indicated or announced at the time of its receipt.
- We employ appropriate measures in the maintenance and management of personal information to ensure against unauthorized alteration, disclosure, and loss of personal information.
- We will respond in good faith to requests to confirm, revise, cease using, or delete personal information.

HIGHLIGHTS

Operational integrity

Following the January 2004 loss of certification of Asahi Kasei Chemicals to perform its own “completion inspections” and “safety inspections” as provided for by Japan’s High-pressure Gas Safety Law, systems for safety and compliance have been enhanced at production sites throughout the Asahi Kasei Group. Three categories of measures were established, with ongoing implementation.

Thorough legal compliance

Confirmation that no lapse or omission exists with respect to measurement, detection, and notification as mandated by legal regulations related to all production operations of the Asahi Kasei Group. Repeated periodically and as regulatory changes take place.

Enhanced systems of management

Separation of organizational authority for plant operation, maintenance, and workplace safety and hygiene.

Compliance education

Education to ensure compliance. Performed each year at all production sites, with courses tailored for each level of responsibility.

Chemicals

In addition, Asahi Kasei Chemicals is enhancing the safety and integrity of its production operations with Total Productive Maintenance (TPM). TPM is a natural extension of the plant integrity initiatives which Asahi Kasei Chemicals has advanced for over 30 years, beginning with the New Plant Maintenance program of 1975 to heighten the skills and abilities of operators at the Mizushima plant complex. While the measures and practices for safe operation which have grown and developed over the years were in many ways the forerunner of TPM, the conditions and circumstances of operation have changed over time, with some plants reaching 35 years of age and the number of operators having decreased.

TPM was launched at Mizushima and Kawasaki, the two main production centers of Asahi Kasei Chemicals, to



The General Manager of the Mizushima Works observes a presentation of TPM results during his daily rounds.



The TPM Kickoff Meeting at the Kawasaki Works.

refound the commitment to safe operation while adapting to today’s circumstances. It will be expanded successively to include all production sites of Asahi Kasei Chemicals. The TPM initiative serves to reinforce physical integrity and safe operation through a variety of measures to enhance operator awareness and creative thinking while improving and modifying plant and equipment.



The TPM Kickoff Meeting at the Mizushima Works.

Comments from personnel involved

We are using TPM to drive the effort for a vibrant, thriving Mizushima Works, seeing operational, mechanical, and organizational problems from a fresh perspective, gaining new insight into how to progress. Nine specialized functional teams lead the lateral advancement of TPM measures across the organization, throughout all sections, both production and support. Day by day, each task is executed with pride, bringing us one step closer to achieving our vision.



Kazuo Nakamura
General Manager, TPM
Mizushima Works

TPM Vision

Creative minds and innovative plant – bright & lively Mizushima revitalization.

We are keenly aware that TPM must yield concrete results in conjunction with the Kawasaki Works mid-term management plan. We are working with the teams at each production section, supporting their efforts for fresh thinking and plant improvements. To keep the initiative from becoming stale, events are periodically held to showcase TPM measures and stimulate discussion. TPM brings a sense of accomplishment, helping people appreciate the value of seemingly small, every-day tasks as vital to our overall objectives.



Hidetaka Itou
General Manager, TPM
Kawasaki Works

TPM Vision

Revitalized plant and renewed perspective – Kawasaki thriving with TPM by all.

HIGHLIGHTS

Workplace safety

Workplace safety is a priority throughout the Asahi Kasei Group. The effort to prevent workplace accidents is focused on the intrinsic safety of the plant and equipment we use, and on education and training of personnel to heighten awareness of hazards and understanding of their avoidance.

The program of education and training includes four-step hazard prediction, reporting of near-accidents and potential hazards, case studies, observation patrols, and confirmation by indication and vocalization.

Hands-on training with simulated hazards

Since 2000, the safety training program has also included hands-on experience with equipment to simulate hazards at the Nobeoka Technical Training Center. This training enables personnel to see for themselves how seemingly harmless equipment can cause serious injury if not handled with sufficient care. This hands-on training has built a greater appreciation of workplace hazards, resulting in heightened compliance with safe operation standards to prevent accidents.

Construction Materials

In 2002 an employee at the Asahi Kasei Construction Materials plant in Shiraoi was pinched and caught by the machinery, receiving serious injury. In addition to formulating ways to improve intrinsic plant safety, a safety training program was developed for hands-on experience using simulated hazard equipment, modeled on the Nobeoka program but tailored to the workplace conditions of construction materials plants.

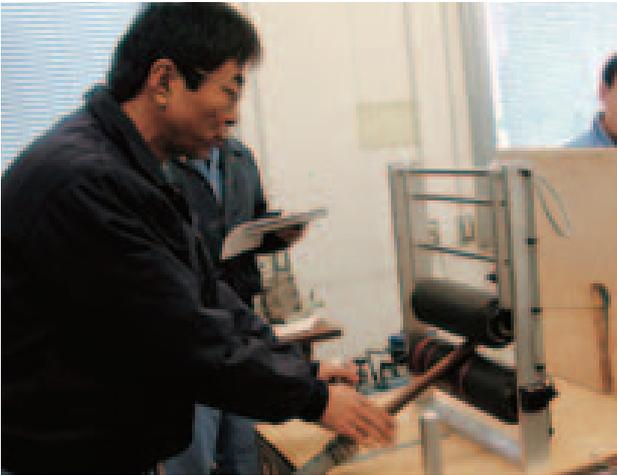


Feeling how the intensity of electric shock varies with degree of moistness.



Watching a chopstick easily broken by a chain and sprocket.

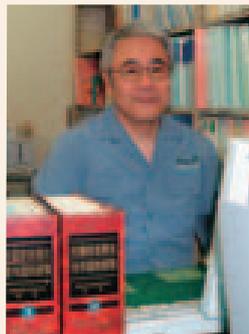
Seeing the power of an air cylinder.



Experiencing the instinctive reaction to hold tightly to an item the moment it is caught between rollers.

Comment from the project coordinator

While considering a wide range of measures to heighten awareness for safe operation, we learned about the hands-on training program in Nobeoka. Looking into it, we soon realized that it was an excellent concept, and one which we could draw on to develop equipment to simulate hazards encountered in our plants.



We came up with five pieces of equipment: A chain drive, an air cylinder, a set of rollers, an electric shock unit, and a unit to measure the electrical resistance of the human body.

Because our production sites are spread throughout Japan, we had to be able to easily disassemble, transport, and reassemble the equipment in order for the training to be applied for all personnel. My department led the program, setting up the equipment at each plant site and instructing local personnel who then led the training at their location.

The program was well received at each site, with many participants commenting on the valuable experience gained. Even if everyone knows of the hazards around them in the workplace and has been trained to avoid them, a real-life taste of their effects leaves a lasting impression. We have received many requests from other core operating companies to borrow our equipment, and the program has been used at the plant sites in Fuji and Moriyama in addition to the construction materials sites. We also have other sites scheduled to use it all through 2005. By March 2005, some 3000 Asahi Kasei Group personnel had taken part in the training.

Makoto Kurokouchi
Production Control Dept.
Asahi Kasei Construction Materials

Comments from training participants

Things I learned

Rollers

- The unconscious reflex is to hold tightly to an item the moment it is drawn into the rollers, and it's hard to let go.
- If I was concentrating on something else, I wouldn't be able to react in time to avoid getting pulled in.

Chain and sprocket

- Seeing the chopstick so easily snapped in two, I shuddered to think it could be my finger.
- If a 40 watt motor can easily break a chopstick, I could easily lose a finger to the motors in the plant.

Air cylinder

- I understood how solenoid valves controlled the cylinder's movement.
- I was surprised how much force is released by an air cylinder which is obstructed in mid stroke.

The body's electrical resistance

- I saw how much difference there is between a dry and wet state.
- Even when wearing safety boots, resistance decreased when wet. I will be extra careful when it's raining.

Electric shock

- I appreciated how much greater the shock is when wet.
- I learned how much difference there is between individuals.

Things I will do differently

- Keep a safe difference from machinery in operation. Never be so at ease that I fail to pay enough attention.
- Double check that electric power is cut and air pressure is released.
- Be sure to use rubber gloves and other protective gear.



Appreciating the drawing strength of rollers.

HIGHLIGHTS

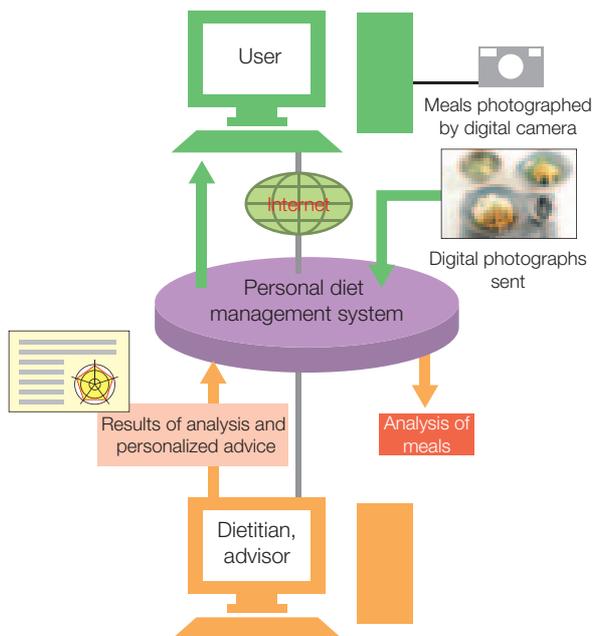
Health and fitness

The Asahi Kasei Group supports the maintenance and improvement of employee health, and workplaces are equipped to respond to health-related emergencies.

Personal diet management system

The effort for health management is enhanced by the use of an Internet-based system to help employees improve dietary habits. The system provides users with personalized dietary advice based on analysis of photos of their meals. Employees with diabetes, high blood pressure, high cholesterol, and overweight who use this system have shown marked improvement in their condition.

Personal diet management system



Comment from an industrial physician

The source of many health problems is intricately related to people's lifestyles. The personal diet management system developed by Asahi Kasei is proving to be a powerful tool: Some 70% of employees who use the system have improved their dietary habits, resulting in significant reductions in diabetes indicator and total cholesterol values.



Kenichi Sumiyoshi
Industrial Physician
Fuji Office

Comment from a user

I had tried to manage my diet before, but was never able to memorize the amounts and calories of each item of food. With the personal diet management system, I can get an analysis of my meals by simply taking a photo, making it easy for my wife and me to adjust my diet without leaving home. With Internet access, I can also continue to use the system even though I've been transferred to China.

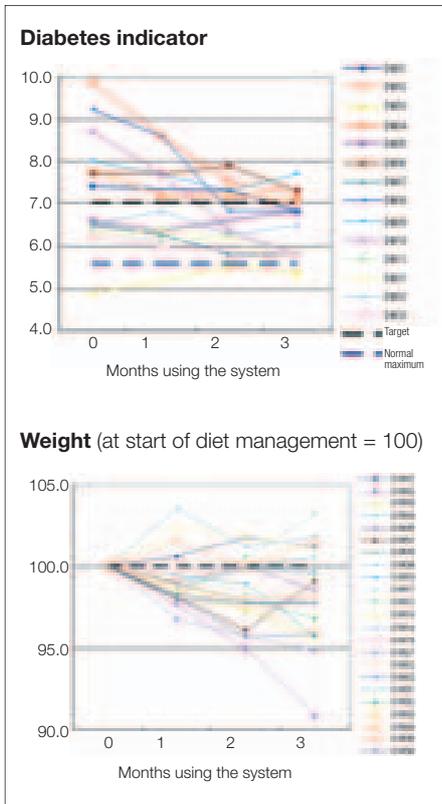


Naoyuki Ohya
Asahi Kasei Medical (Hangzhou)

Industrial Safety and Hygiene Conference

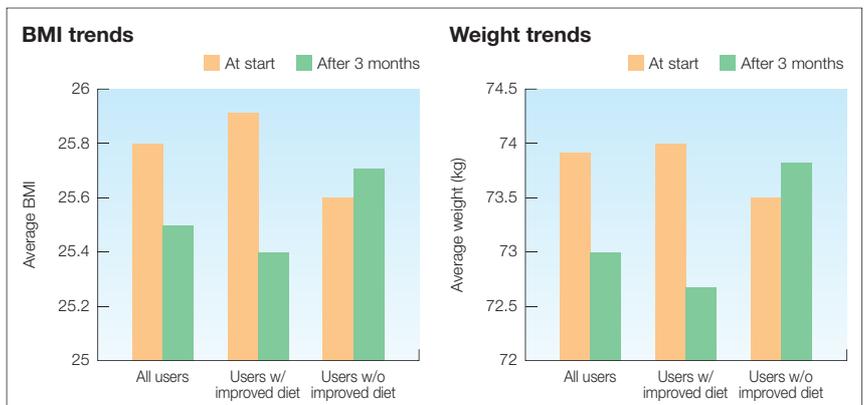
A presentation describing our personal diet management system was given at the 2004 Industrial Safety and Hygiene Conference, held by the Japan Industrial Safety and Health Association in Osaka. The presentation drew interest with its outstanding ease of use and the improved health indicators which result, including weight, cholesterol, and blood sugar measurements.





Some 70% of the system's users improved their diets, resulting in reduced BMI.

Diet	% of users		Average weight change	Average BMI change
Improved	69.8%	All users	0.9 kg decrease (from 73.9 to 73.0, P<0.0001)	0.3 decrease (from 25.8 to 25.5)
No change	25.7%	Users w/ improved diet	1.3 kg decrease (from 74.0 to 72.7, P<0.0001)	0.4 decrease (from 25.9 to 25.4)
Worsened	4.5%	Users w/o improved diet	0.3 kg increase (from 73.5 to 73.8, NS)	0.1 increase (from 25.6 to 25.7)



Automated external defibrillators (AEDs)

AEDs are used to administer an electric shock to counter ventricular fibrillation in cardiac arrest victims. Beginning in July 2004, a physician's order is no longer required before defibrillation can be administered in Japan. AED units are now being emplaced at workplace locations throughout the Asahi Kasei Group, with on-site health care staff are being trained in their use. As of March 2004, fifteen AEDs are available: Twelve at offices in the Tokyo region, two at locations in Nobeoka, and one in Ohito.

AEDs are also available at many public gathering places, such as airports, auditoriums, sports stadiums, and fitness clubs. The many Asahi Kasei Group personnel trained in their use will be ready to provide a life-saving response if the need arises away from the workplace.



Training to be an instructor in AED use.



Practicing AED use.

An AED at the Tokyo Health Center



Kanako Katube and Akiko Tsukao, public health nurses of Asahi Kasei's Tokyo Health Center, are ready to respond quickly to an emergency.

Responsible Care Initiative of the Asahi Kasei Group

The program of Responsible Care at the Asahi Kasei Group, comprising measures for environmental protection, product safety, physical integrity and safe operation, workplace safety, hygiene, and

health, and community outreach, is not limited to chemicals-related operations but includes operations in all fields, including fibers, construction materials, housing, electronics, pharmaceuticals, and

medical devices. Responsible Care remains fundamental to the management of operations in the holding company structure adopted in October 2003.

Asahi Kasei Group Responsible Care Principles

Throughout the product life-cycle from R&D to disposal, utmost consideration is given to environmental preservation, product safety, operational safety, and workplace hygiene and health as preeminent management tasks in all operations worldwide.

- Environmental preservation is achieved by ameliorating the environmental burden of operations while giving full consideration to the environment in the development of new technologies and products.
- Product safety is ensured by evaluating the safety of products and providing safety information.
- The safety of personnel and members of the community is secured through endeavors to maintain stable operation and improve technologies for safety and disaster prevention.
- Workplace accidents are prevented through improvements to the workplace environment and plant modifications to achieve inherent safety.
- Maintenance and promotion of employee health is supported by efforts to achieve a comfortable workplace environment.

In addition to maintaining legal compliance, continuous improvement is pursued through attainment of self-imposed targets based on results of risk assessment. Public understanding and trust is gained through proactive communication and information disclosure.

Asahi Kasei Group Responsible Care



Our fiscal 2004 Responsible Care Objectives and results for the year are shown at right. While results in some areas were not satisfactory, we have examined the reasons for this and are implementing changes in fiscal 2005 to enable improvement. For fiscal 2005 we are again aiming for thoroughgoing legal compliance, and for zero environmental pollution from accidents, and zero industrial accidents, zero workplace injuries.



Kunio Kohga
Executive for RC

RC objectives, results, and goals

	FY 2004 RC Objectives	FY 2004 summary results	Achievement	FY 2005 RC Objectives	Long-term goal
General	Expand scope of application of RC.	RC advanced in overseas operations of each core operating company.	Fair	<ul style="list-style-type: none"> Enhance RC compliance. Extend RC to more affiliates. Advance RC education and training. Enhance dialog with the public. 	Heighten RC performance.
	Advance RC education and training.	Guidelines for educational materials prepared.	Fair		
	Enhance dialog with the public.	RC reports published by core operating companies.	Good		
Environmental protection	Avoid all environmental pollution from accidents.	No environmental pollution from accidents.	Good	<ul style="list-style-type: none"> Avoid all environmental pollution from accidents. Reduce final disposal volume of industrial waste by 45% from fiscal 2000 level. Reduce unit energy consumption by $\geq 1\%$. Acquire ISO 14001 certification at 90% of plants. Improve other environmental factors. Advance green procurement. 	<ul style="list-style-type: none"> No environmental pollution from accidents. Zero emission of industrial waste by fiscal 2010. Reduce unit energy consumption to $\leq 90\%$ of fiscal 1990 level by fiscal 2010. (JCIA target) Reduce release and transfer of PRTR-specified substances. Acquire ISO 14001 certification at all plants.
	Reduce final disposal volume of industrial waste by 33% from fiscal 2000 level.	Approximately 35% reduction achieved.	Good		
	Reduce unit energy consumption by $\geq 1\%$.	Target achieved.	Good		
	Reduce greenhouse gas emissions by $\geq 1\%$.	Approximately 50% reduction from fiscal 1990 emissions maintained.	Good		
	Reduce release and transfer of PRTR-specified substances, including hazardous atmospheric pollutants.	Releases to air and water reduced by approximately 34%. Transfer increased by approximately 23%. Release of hazardous atmospheric pollutants reduced by over 90% from fiscal 1995 level.	Fair		
	Acquire ISO 14001 certification at 90% of plants.	Certification acquired at approximately 80% of plants.	Poor		
Product safety	Avoid serious product safety incidents.	No serious product safety incidents.	Good	Avoid serious product safety incidents.	No serious product safety incidents.
Operational safety	Avoid all industrial accidents.	Two industrial accidents occurred.	Poor	<ul style="list-style-type: none"> Avoid all industrial accidents. Enhance functional separation of authority for operation, maintenance, and ESH. Control changes to equipment and operating conditions. Fully utilize systematic maintenance for accident prevention. Monitor for items in need of replacement and uninspected items; implement remediation. Monitor for fire, explosion, and leak hazards; implement remediation. 	No industrial accidents.
	Control changes to equipment and operating conditions.	Establishment of system for three-party approval (operation, maintenance, and ESH).	Fair		
	Monitor for items in need of replacement/uninspected items, implement remediation.	Backlog from fiscal 2002 cleared.	Good		
	Advance utilization of preventive measures, perform remediation based on risk assessment.	Implemented. Ongoing advancement to continue.	Fair		
	Fully utilize systematic maintenance system for accident prevention.	Implemented. Ongoing advancement to continue.	Fair		
	Establish independent responsibility for plant safety and maintenance.	Preparation of system completed. Disaster response training to be premised on more serious situations.	Fair		
Workplace safety and hygiene	Achieve frequency rate of 0.1 or less. Achieve severity rate of 0.005 or less.	Frequency rate of 0.36 and severity rate of 0.011.	Poor	<ul style="list-style-type: none"> Achieve frequency rate of 0.1 or less. Achieve severity rate of 0.005 or less. Expand adoption of OHSMS. Enhance utilization of OHSMS where it is implemented. Thoroughly comply with safe operation standards. 	Maintain world-leading frequency rate and severity rate for lost-workday injuries.
	Expand adoption of OHSMS. Enhance utilization of OHSMS where it is implemented.	Adoption at approximately 90% of production facilities, as planned.	Good		
Health maintenance	Systematize and unify base for health support.	Systems established at regional offices and geographically separated plants.	Fair	<ul style="list-style-type: none"> Systematize and unify base for health support. Reduce proportion of employees receiving health cautions. Enhance workplace environment through advanced utilization of four approaches to emotional health and care. Reduce number of employees on extended leave of absence for emotional convalescence. 	Promote employee health.
	Reduce proportion of employees receiving health cautions.	Slight increase.	Poor		
	Promote emotional health and care.	Ability to respond appropriately evaluated. Support provided to geographically separated plants.	Fair		

* Number of accidental deaths and injuries resulting in the loss of one or more workdays, per million man-hours worked.

** Lost workdays, severity-weighted, per thousand man-hours worked.

Responsible Care Management System

The efficiency and effectiveness of Asahi Kasei Group Responsible Care is maintained in accordance with our Responsible Care Management Guidelines and our Responsible Care Implementation Guidelines. Core operating company Presidents hold responsibility for implementation within the core operating companies,

and the President of Asahi Kasei holds responsibility for implementation throughout the group.

Certified compliance with internationally standardized management systems is obtained for the Responsible Care Management System of the Asahi Kasei Group. ISO 14001 environmental management

system certification is obtained for environmental protection, ISO 9000-series quality management system certification is obtained for product safety, and an Occupational Health & Safety Management System (OHSMS) is adopted for workplace safety, hygiene, and health.

RC Principles

The Asahi Kasei Responsible Care Principles, authorized by the Responsible Care Committee, form the foundation of the initiative. The core operating companies and the Nobeoka and Fuji Regions also have their own Responsible Care Principles in addition to the Asahi Kasei Responsible Care Principles.

RC Objectives

Responsible Care Objectives for the Asahi Kasei Group are formulated each fiscal year in accordance with the Asahi Kasei Responsible Care Principles. The core operating companies and the Nobeoka and Fuji Regions have their own Responsible Care Objectives, established in accord with the Asahi Kasei Responsible Care Objectives.

RC Implementation

Implementation of Responsible Care is performed by the core operating companies and the Nobeoka and Fuji Regions. Specific measures and actions are taken by the individual facilities, in accordance with the applicable RC Principles and RC Objectives.

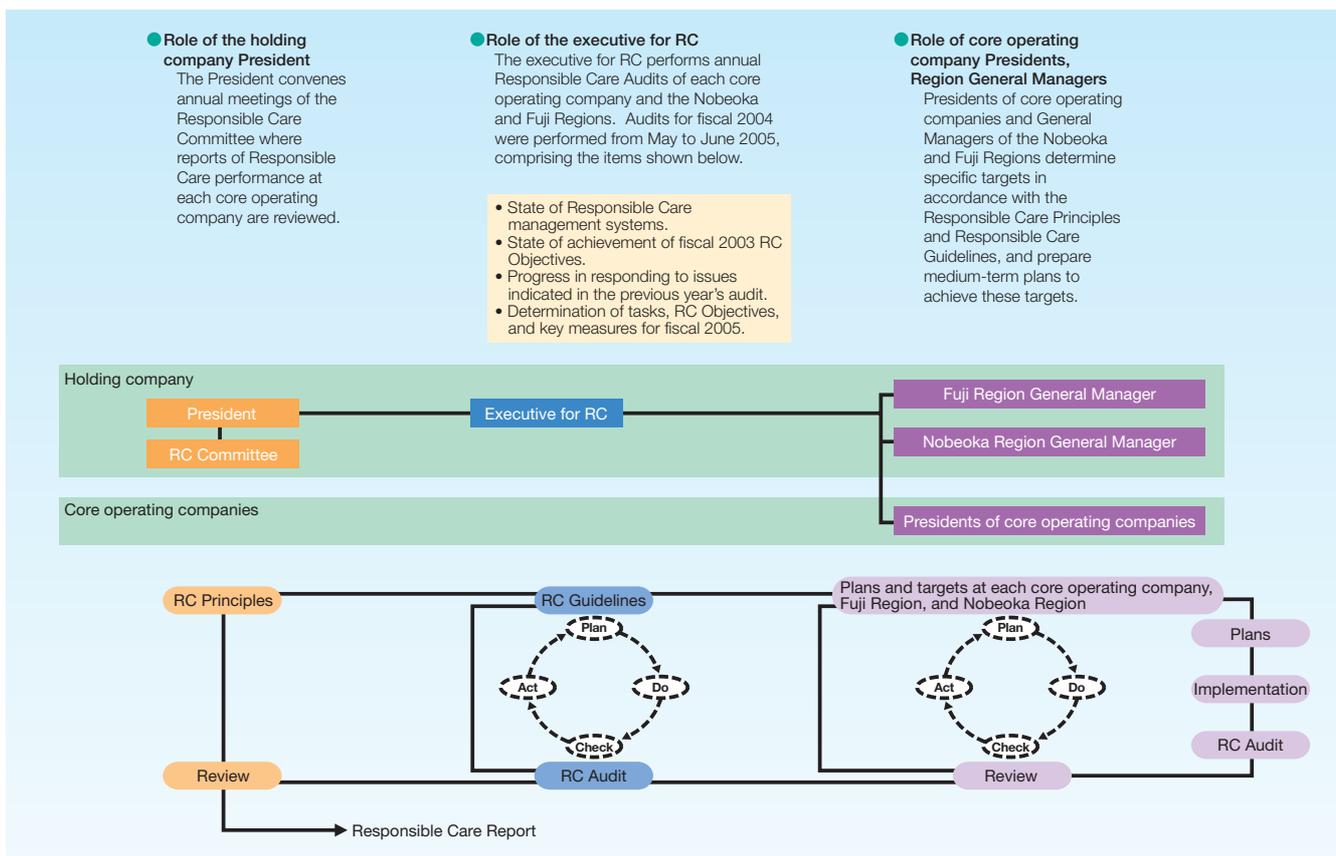
RC Audits

Each year the core operating companies and the Nobeoka and Fuji Regions audit the Responsible Care performance of the individual facilities under their authority. The executive for RC then audits the Responsible Care performance of the core operating companies and the Nobeoka and Fuji Regions.

RC Committee

The Responsible Care Committee is chaired by the holding company President, and its members comprise the Presidents of the core operating companies and the General Managers of the Nobeoka and Fuji Regions. Each fiscal year the Responsible Care Committee reviews the performance and results of the previous year, and makes revision to the Asahi Kasei Responsible Care Principles if deemed necessary.

As the following diagram shows, continuous reevaluation and improvement is systematically pursued with “plan-do-check-act” cycles both for the Asahi Kasei Group as a whole and for each core operating company, the Nobeoka Region, and the Fuji Region.



RC Education and Training

Education and training in the Asahi Kasei Group are performed at different organizational levels as appropriate – throughout the group, in individual core operating companies, at individual sites, and at individual plants. New hires and transferees receive systematic education and training regarding ESH at their new assignment. At each plant, education and training specific to the production facilities and equipment there are performed

as required. Each workplace independently performs education and training as needed for specific purposes.

In conjunction with the corporate training program, the acquisition of officially certified qualifications is encouraged and supported. The total number of personnel who have obtained each class of qualification is well in excess of the regulatory minimum required for our operations.

Asahi Safety Training (AST)

A distinguishing feature of safety training at the Asahi Kasei Group is the AST curriculum, which was developed in-house based on an ergonomic approach. AST is a fundamental part of safety training throughout the Asahi Kasei Group at every plant and workplace.

ESH-related Investments

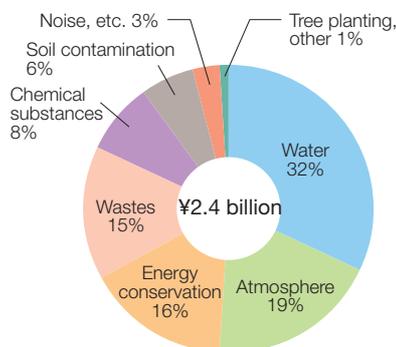
Measures for environmental protection, operational safety, and workplace safety, hygiene, and health have long been an important priority in the investment of management resources at the Asahi Kasei Group. A record of investments in plant and equipment modifications related to environmental and safety measures began in 1970, when the Safety and Environmental Department (presently Corporate ESH & QA) was established. As shown at right, these investments have averaged approximately ¥5 billion per year.

In fiscal 2004, ¥2.4 billion was invested in environmental protection measures including prevention of water pollution, suppression of release of PRTR-specified substances, and energy conservation, and ¥5.1 billion was invested in operational safety and workplace safety and hygiene measures including fire prevention systems and plant modification. A breakdown of each of these figures is shown at right.

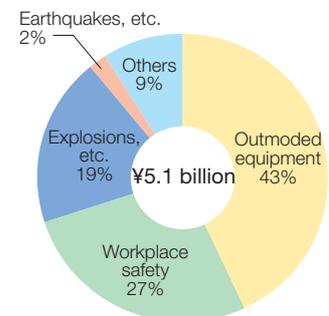
Investment in environmental and safety modification



Fiscal 2004 investment in environmental protection



Fiscal 2004 investment in safety



Third-Party Recognition of ESH Performance

Nikkei Global Environment Technology Award

Received by Asahi Kasei Chemicals from Nihon Keizai Shimbun, Inc. for its ecoefficient polycarbonate process. The process was cited for its use of CO₂ as initial feedstock, its elimination of the necessity to use phosgene and methylene chloride, and its trouble-free commercial application at a 65,000 ton/year plant in Taiwan.



PA Award

Received by Asahi Kasei Life & Living from the Japan Society of Physiological Anthropology for its Saran Wrap™ dispenser box. The PA Award is given in recognition of products designed with use, consideration, and evaluation standards based on an understanding of the various aspects of human physiology.

The Saran Wrap™ box was cited for the physiological investigation during its development for safety, convenience, and usability, and for the utilization of the results of this investigation into the product design.



Chairman's Award, 3R Promotion Association

Received by the Polyester Filament Division of Asahi Kasei Fibers from the Reduce, Reuse, Recycle (3R) Promotion Association for its chemical recycling of PET resin. The award is given to individuals, groups, and business entities in recognition of outstanding contribution to the "3Rs." Awarded since 1992, with the support of eight government offices and ministries.

The division was cited for its commercial utilization of a chemical recycling system to produce polyester filament from scrap PET bottles.

People involved in the start-up and advancement of the recycling system

It's very gratifying to receive recognition for the PET bottle recycling system, which was developed with technology originally used to recycle scrap fiber within the plant.

Recycling is also being expanded to include polyester clean-room suits, in partnership with apparel makers.

We look forward to continuing to expand operation with this ecoefficient process, making a growing contribution to society's overall level of recycling.

Kazuyuki Obara
General Manager,
Polyester Filament Production
Planning & Technology

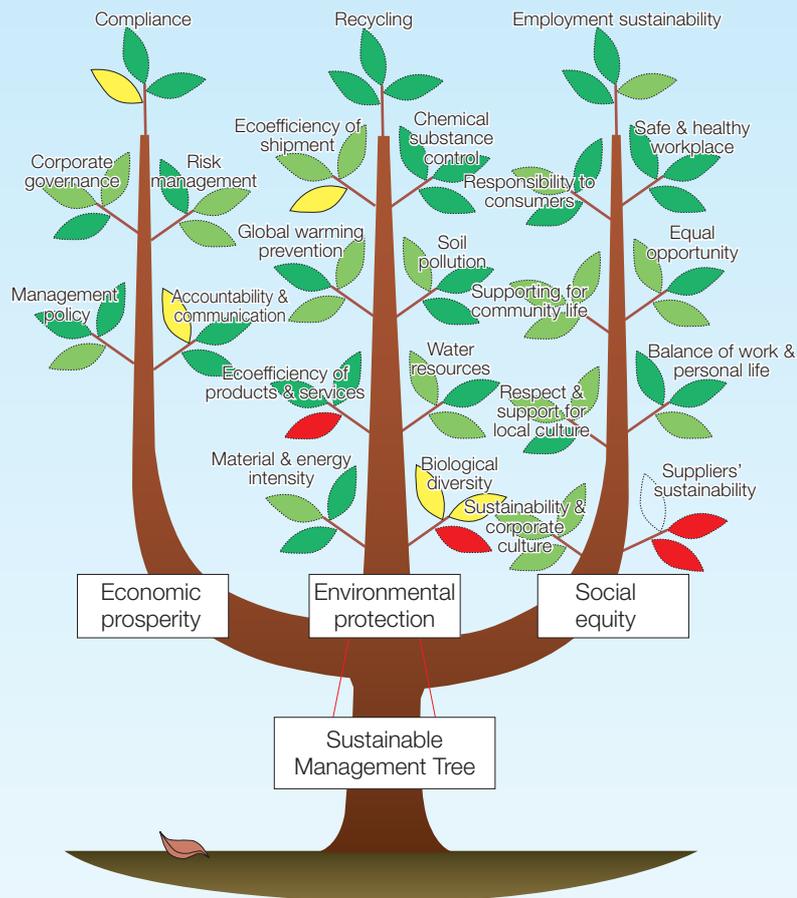


Sustainable management rating
 Evaluation by Japan's Sustainable Management Rating Institute has resulted in classification of the Asahi

Kasei Group as a "Green Top Runner" for the third consecutive year. The findings of this evaluation will be incorporated in the continuous

improvement of our Responsible Care initiative.

JSMRI Rating for Asahi Kasei, 2005



Philosophy & Strategy Performance	System & Organization	Philosophy & Strategy Performance	Superior	Excellent	Good	Poor	No Good	Not Applicable NO
							Fallen leaf	

Environmental Protection

RC objectives

- Avoid all environmental pollution from accidents.
- Acquire ISO 14001 certification at 90% of plants.
- Reduce unit energy consumption by $\geq 1\%$.
Reduce greenhouse gas emissions by $\geq 1\%$.
- Reduce final disposal volume of industrial waste by 33% from fiscal 2000 level.
- Reduce release and transfer of PRTR-specified substances, including hazardous atmospheric pollutants.

Summary results

- No environmental pollution from accidents.
- ISO 14001 certification acquired at approximately 80% of plants.
- Unit energy consumption reduction target achieved.
Maintained approximately 50% reduction of greenhouse gas emissions from fiscal 1990.
- Approximately 35% reduction of final disposal volume of industrial waste.
- PRTR releases to air and water reduced by approximately 34%; transfer increased by approximately 23%; release of hazardous atmospheric pollutants reduced by over 90% from fiscal 1995 level.

Prevention of polluting accidents

The Asahi Kasei Group is committed to avoiding environmental pollution as an effect of business operations.

The day-to-day effort to prevent pollution ranges from the reliable operation of effluent water treatment facilities and effluent gas treatment equipment, to preparing systems for swift and appropriate response to emergency situations.

When an accident does happen we respond immediately to prevent or minimize pollution, and follow up with an analysis of how it could have been prevented. The results of the analysis are shared throughout the Asahi Kasei Group.

Fiscal year	2000	2001	2002	2003	2004
No. of polluting accidents	0	1	1	0	0

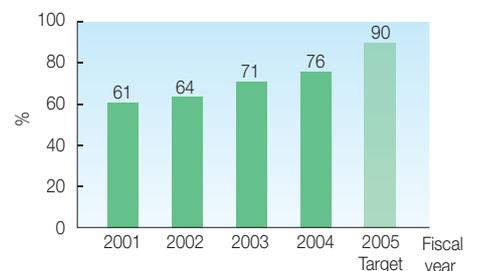
Polluting accidents include instances where regulatory limits for atmospheric release, effluent water quality, groundwater contamination, or soil contamination are exceeded, and instances where a community is affected as by unlawful waste disposal. In fiscal 2001 hypochlorous acid was released in effluent water from our Wakayama Plant, killing a few dozen fish. The release was immediately

stopped, and no other effects resulted. In fiscal 2002 it was discovered that the groundwater within the grounds of our plant and laboratory site in Fuji had been contaminated by tetrachloroethylene. No contamination was found beyond the site grounds. Barrier wells were bored to ensure against the contamination spreading, and groundwater purification measures were instituted.

ISO 14001 certification

ISO 14001 certification is acquired to systematize the environmental protection elements of Responsible Care at the Asahi Kasei Group. Presently, over 70% of all plants have acquired ISO 14001 certification, and we plan to raise this to 90% by the end of fiscal 2005.

Plants with ISO 14001 certification



ISO14001

An international standard for environmental management systems which meet specified requirements to prevent and minimize environmental effects and environmental risks.

■ Curtailing greenhouse gas emissions

The Asahi Kasei Group was among the earliest to implement action to curtail emission of greenhouse gases*. Asahi Kasei has also played a leading role in the preparation and institution of the emissions reduction targets of the Japan Chemical Industry Association

(JCIA) and the Japan Business Federation (Nippon Keidanren).

We implement emission reduction measures in three areas, as shown at right. Fiscal 2004 emissions were 6.1 million tons CO₂-equivalent, a reduction by half from fiscal 1990 and

far surpassing the 6% Kyoto Accord reduction target for Japan.

* Carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)

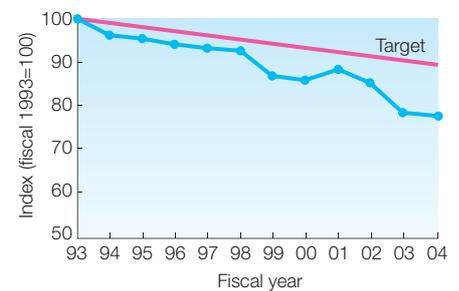
- Curtailment of CO₂ emission from power generation.
- Curtailment of emissions of greenhouse gases from production processes.
- Phase-out of greenhouse gases as process materials.

Reduction of CO₂ emission from power generation is achieved through cogeneration of steam and electricity and through process modification to obtain greater energy efficiency. We have already surpassed the JCIA target of reducing unit energy consumption to 90% of the fiscal 1990 level by fiscal 2010. Emissions of CO₂ are now lower than in fiscal 1990. We continue to work toward further reductions in unit energy consumption through expanded utilization of cogeneration and plant modification for energy conservation.

Measures for reduction of greenhouse gas emissions from production processes include decomposition of by-product N₂O from adipic acid production (see p. 4) and recovery of greenhouse gases used as solvents and etching agents to prevent their atmospheric release.

Greenhouse gases used as plastic foaming agent at our Suzuka Plant are being phased out (see p. 5). The phase-out of greenhouse gases used in other production processes, largely as solvent, is also planned.

Unit energy consumption*



* In terms of kiloliters crude oil equivalent per tons product output, as converted to benchmark product.

Greenhouse gas emissions



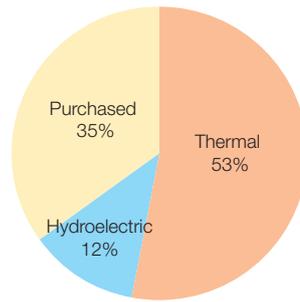
- CO₂-equivalent emission of six greenhouse gases in accordance with the Law concerning the Promotion of Measures to Cope with Global Warming.
- Fiscal 1990 baseline for CO₂, N₂O, and CH₄; fiscal 1995 baseline for HFCs, PFCs, and SF₆.
- Increase in fiscal 2000 due to malfunction of N₂O decomposition equipment; increase in fiscal 2004 due to number of plant shut-down/start-up cycles.

Clean energy by hydroelectric generation

The Asahi Kasei Group has seven hydroelectric power generation plants. The clean energy generated at these plants meets 12% of our electricity needs. Generation of the equivalent amount of power at thermoelectric plants would result in approximately 130,000 tons of CO₂ emissions annually.*

* Assuming 436 g CO₂/kWh.

Electricity sources, fiscal 2004



Alleviating the environmental effects of physical distribution

A wide range of measures are employed to reduce energy consumption and moderate the environmental effects of physical distribution through improved efficiency.

Measures to alleviate environmental effects of physical distribution

Improving unit energy consumption in shipment	<ul style="list-style-type: none"> Increasing sales lot sizes Transport mode changeover to roll-on/roll-off ships, ferries, and rail Mixed loading of materials for home construction
Reduction of energy consumption by shortening shipment distances	<ul style="list-style-type: none"> Product swaps with other producers Repositioning of stock points for optimal distribution Sharing of pallets with other producers to shorten empty pallet return distances
Reduction of energy consumption in storage	<ul style="list-style-type: none"> Direct shipment to users Direct reloading from large trucks to smaller trucks, without temporary warehousing
Use of returnable packaging to reduce material waste	<ul style="list-style-type: none"> Shipment of resins in flexible containers or bulk Use of intermodal containers, owned by Asahi Kasei and by shippers
Promotion of energy conservation by firms contracted for physical distribution through physical distribution safety conferences and inspections	<ul style="list-style-type: none"> Compliance with environmental laws and regulations Advancement of ISO certification Promotion of energy-efficient driving practices Conversion to energy-efficient transportation modes Promotion of efficient loading

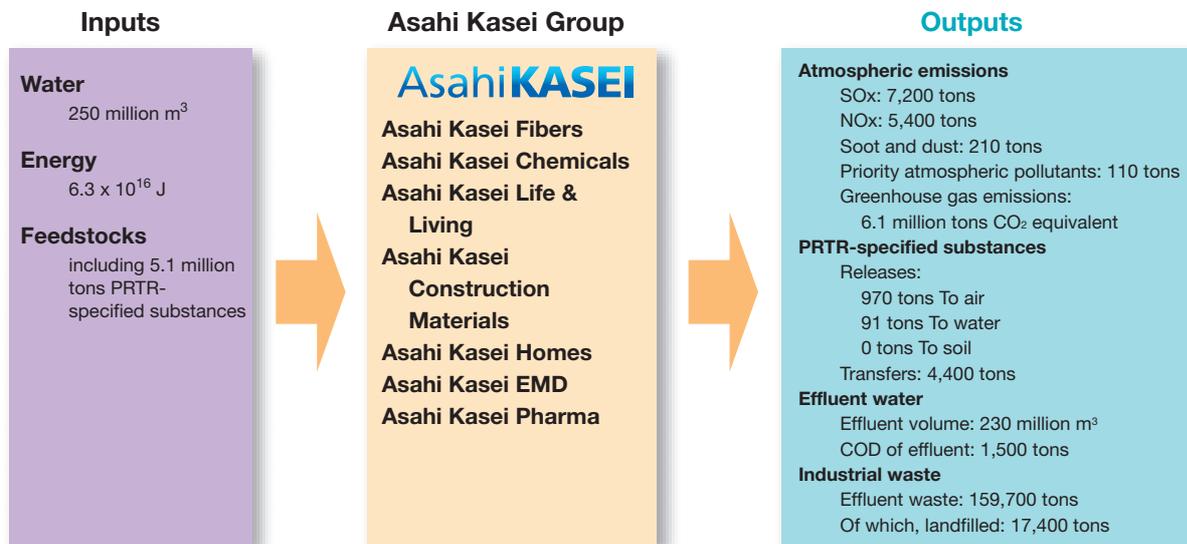
Company-owned vehicles

The Asahi Kasei Group owns some 1,800 vehicles for use in marketing and within plant grounds. About half of these are low-pollution vehicles, including natural gas, electric, and low-emission vehicles (LEVs). About 15% of the low pollution vehicles are

forklifts and other vehicles used within plant grounds. We are increasing the number of low-pollution vehicles through a phased transition when older vehicles need to be replaced. At Asahi Kasei Homes, subcompact cars are being phased in

for reduced fuel consumption and lower emissions, with the process about one third complete in fiscal 2004. Asahi Kasei Pharma leases 335 vehicles for marketing, and a transition to LEVs was completed in February 2005.

Main environmental aspects, fiscal 2004



Note:

- Data shown for plants and laboratories only.
- Energy inputs include hydroelectric power.
- PRTR transfers are included in effluent solid waste.

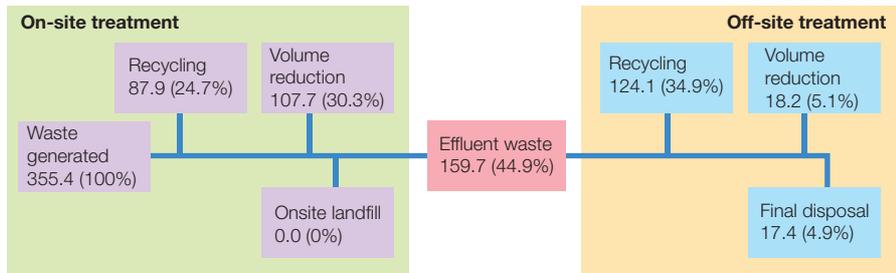
Recycling

The shortage of landfill sites in Japan and concern about resource depletion has prompted public discourse about the need to increase recycling throughout society, and in 2000 the Basic Law for Establishing a Recycling-Based Society came into effect.

The Asahi Kasei Group is contributing to this effort by working toward zero emission of industrial waste through the “3-Rs” of reduction, reuse, and recycling. Where we consign the off-site treatment of industrial waste, records are kept in

waste disposal manifests, and the consigned firms and disposal sites are periodically inspected to ensure that proper disposal is performed in accordance with sound systems of control.

Industrial waste treatment and disposal, fiscal 2004



Note:

Not including waste generated from non-recurring events such as dismantling closed plants or from dismantling old homes when constructing new homes sold by Asahi Kasei Homes.

Zero emission of industrial waste

Reducing final landfill disposal volume toward zero involves measures to minimize the amount of industrial waste generated, and reusing or recycling industrial waste as material or energy.

Progress toward zero emission of industrial waste

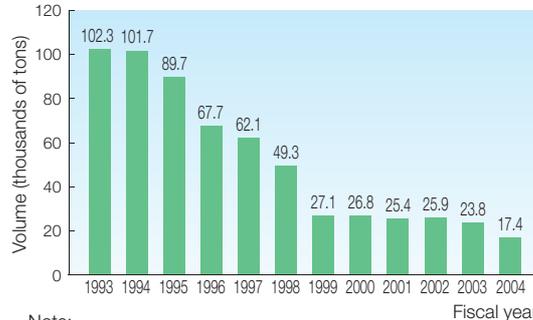
The volume of waste generated is minimized through processes optimization, recovery of useful substances for reuse or recycling as feedstock or material for other production processes, and recovery of energy by using waste material as fuel. As shown below, the volume of industrial waste transferred off site for final disposal was reduced by approximately three-fourths between fiscal 1993 and fiscal 1999.

Since then, however, progress has slowed. To gain renewed impetus for further reduction, we have adopted a stretch target of reducing industrial waste emission to zero by fiscal 2010.

Our objective for fiscal 2004 was a 33% reduction from fiscal 2000, and a 35% reduction was achieved. This

was a 27% reduction from fiscal 2003, as important progress toward zero emission was made during the year.

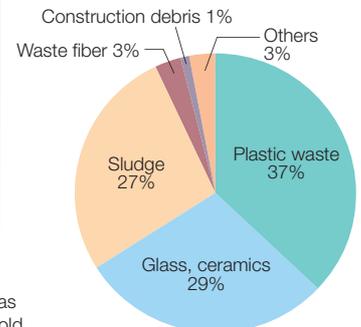
Off-site final disposal waste volume



Note:

Not including waste generated from non-recurring events such as dismantling closed plants or waste generated from dismantling old homes when constructing new homes sold by Asahi Kasei Homes.

Off-site final disposal waste by category, fiscal 2004



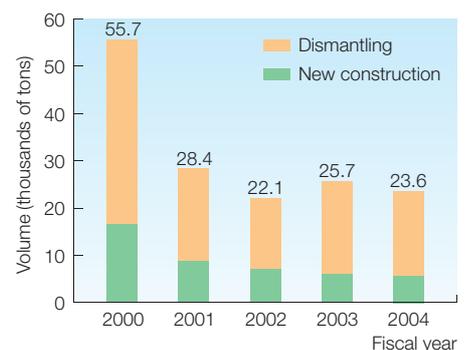
Reduction of industrial waste from housing operations

Waste generated from housing operations includes leftover materials, packing materials, and trimmings from new construction, and waste generated from the dismantling of old homes to be replaced. Asahi Kasei Homes works to reduce final disposal amounts by suppressing waste generation in both new construction and dismantling, and by recycling wastes which are generated.

In fiscal 2004, priority was given to reducing waste generation from new construction by precutting materials

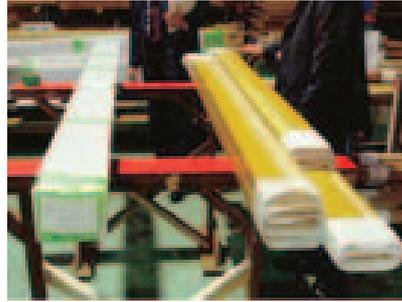
at the factory, and by minimizing use of packing materials. To reduce waste disposal, the sorting of waste to facilitate recyclability is vital, and a policy of thorough waste sorting has been instilled among personnel and contracted firms involved. In the dismantling of old homes, wood and concrete are sorted for recycling. Progress has been made in the identification of firms which can use these materials as resources. In fiscal 2004, final disposal of waste from new home construction was reduced by some 5% from fiscal 2003.

Final disposal of industrial waste generated at construction sites

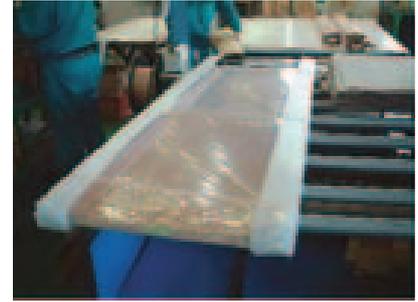


Returnable packing materials for housing operations

Asahi Kasei Homes is advancing the application of a system for returnable packing materials, through joint development of returnable packing with suppliers of fixtures and building materials for home construction, and by utilizing RFID tags for packing material tracking.



Door/window frames with returnable packing



Door with returnable packing

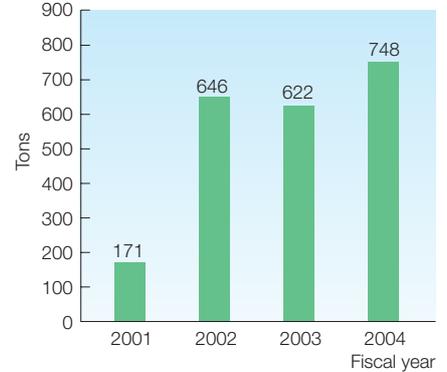
Chemical recycling of polyester

Asahi Kasei Fibers developed a large-scale process to recover polyester feedstocks from used PET beverage bottles based on its chemical recycling technology for recovery of polyester feedstocks from waste fiber at its polyester filament plant. This outstanding new process enables the recovery of feedstocks of purity equivalent to that of virgin feedstocks. Further, reaction residue can be used as fuel in electricity generation and as a cement feedstock, enabling operation with no waste for disposal.

A recycling plant with a capacity of 3000 tons/year, equivalent to 100 million 500 mL PET bottles, began operation in fiscal 2001. In fiscal 2004 some 748 tons, or 23 million 500 mL PET bottles, were recycled. In addition to PET bottles, sources of polyester material for recycling include polyester clean-room suits used in the electronics industry which are collected in coordination with an apparel manufacturer. Polyester filament made from recycled material is being marketed

as Ecosensor™, with production of 3000 tons.

PET bottle recycling



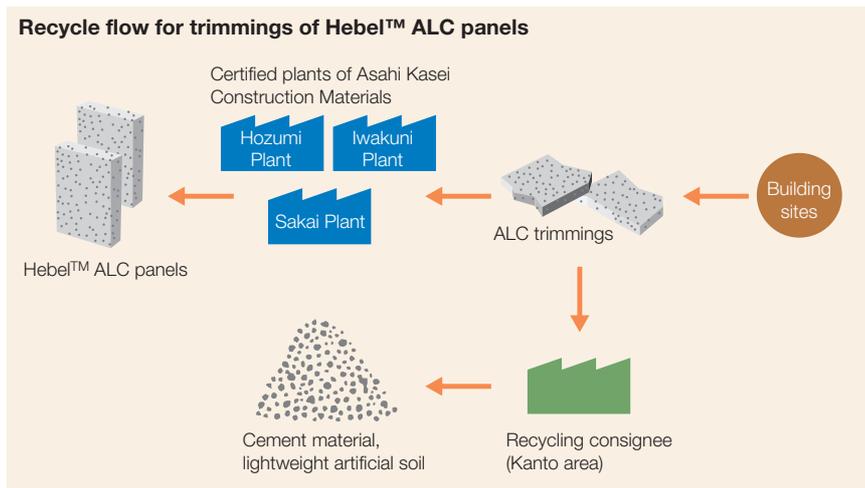
Recycling trimmings from ALC panels

In 1997 Asahi Kasei Construction Materials became the first of Japan's ALC (autoclaved lightweight concrete) producers to receive designation by the Minister of the Environment for "wide-area recycling" of industrial waste. Trimmings of ALC panels from construction sites were recycled under this system until September 2004, when the designation system was replaced with a certification system.

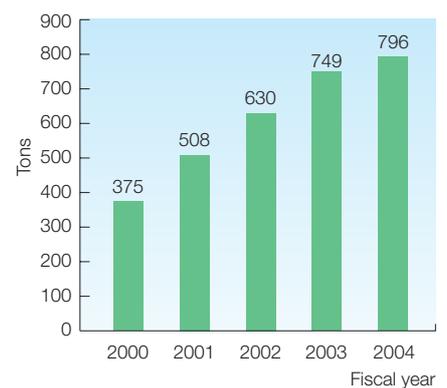
On September 17, Asahi Kasei Construction Materials obtained certification for wide-area recycling under this new system. This certification makes it unnecessary for the company to obtain a waste treatment license to recycle trimmings of ALC panels from construction sites. ALC trimmings are returned from sites of new building or remodeling to plants in Hozumi, Iwakuni, and Sakai, where

they are recycled as material for new Hebel™ ALC panels. In fiscal 2004, 796 tons of material was recycled.

In addition to this in-house recycling, ALC trimmings from building sites in the Kanto area are recycled on consignment to produce material for cement and lightweight artificial soil.



ALC trimmings recycled by Asahi Kasei Construction Materials



Reducing the environmental burden

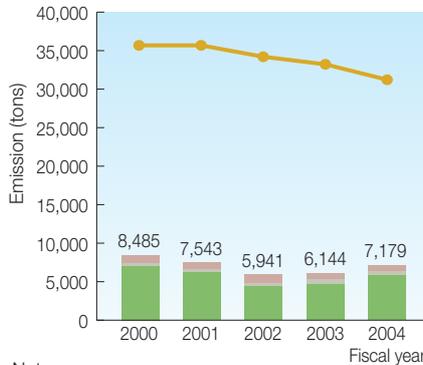
Preventing air pollution

Since the 1970s, the Asahi Kasei Group has undertaken a number of measures to curtail emissions of sulfur oxides (SOx), nitrogen oxides (NOx), and soot and dust. These include flue gas

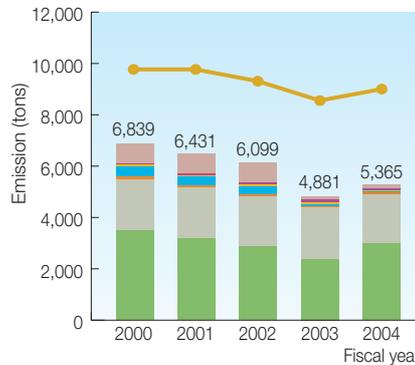
desulfurization, denitrification, electric dust collection, changeover to low-sulfur fuel, combustion process improvement, and other measures which have resulted in a large reduction in emissions.

Emissions are maintained well below regulatory limits, meeting the stringent standards set in accords with local authorities and voluntary corporate targets for emission control.

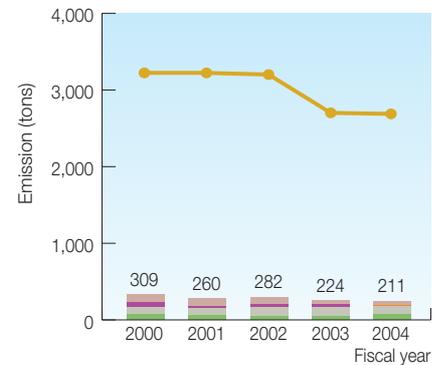
SOx emissions



NOx emissions



Soot and dust emissions



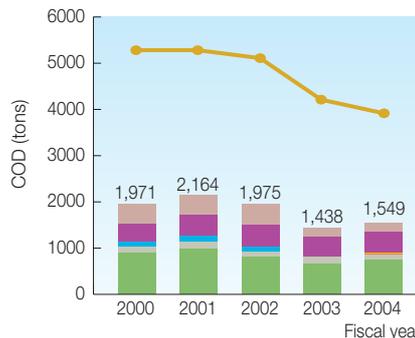
Note:

- Decreases in NOx and soot and dust emissions in fiscal 2003 resulted from the divestment of Shin Nihon Salt and Ako Kaisui, and the termination of in-house power generation in Fuji.
- At some sites, regulation by total pollutant amount applies for some pollutants in addition to concentration limits. Permissible levels shown are the sums of gross emission limits where they apply and concentration limits times amount of emitted gas where they do not. Permissible levels therefore fluctuate from year to year with fluctuations in production volumes.

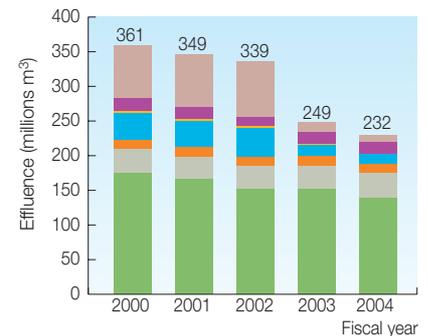
Preventing water pollution

Measures implemented throughout the Asahi Kasei Group have resulted in a significant reduction in the amount of pollutants in effluent water. As shown at right, chemical oxygen demand (COD) of effluent – a standard indicator of pollution level – has been maintained well below permissible levels at all sites in terms of both COD concentrations and total COD.

COD of effluent



Effluent water volume



Note:

- At some sites, regulation by total COD applies in addition to COD concentration limits. Permissible levels shown are the sums of total COD limits where they apply and concentration limits times amount of effluent water where they do not. Permissible levels therefore fluctuate from year to year with fluctuations in production volumes.
- Decreases in COD of effluent and effluent water volume in fiscal 2003 resulted from the divestment of Shin Nihon Salt and Ako Kaisui, and the termination of acrylic fiber production in Fuji.

—●— Permissible level ■ Nobeoka ■ Mizushima ■ Moriyama ■ Fuji ■ Ohito ■ Kawasaki ■ Other sites

Sulfur oxides (SOx)

Sulfur oxides are formed in nature and through industrial activity. Industrial sources include combustion of crude oil, fuel oil, or coal which contain sulfur impurities, and incineration of wastes which contain sulfur. Sulfur dioxide (SO₂) is most common, but some sulfur trioxide (SO₃) also forms. The notation "SOx" is used to indicate both sulfur oxides inclusively.

Nitrogen oxides (NOx)

Nitrogen oxides are formed in nature and through industrial activity. Industrial sources include combustion at thermal power plants, factory boilers, internal combustion engines, and incinerators. The notation "NOx" is used to indicate both nitric oxide (NO) nitrogen dioxide (NO₂) inclusively.

Chemical oxygen demand (COD)

Chemical oxygen demand is an indicator of water pollution by organic substances. COD is expressed in terms of the amount of oxygen required by an oxidizer to chemically oxidize the organic substances contained in the water.

Soil and groundwater contamination

Measures to prevent soil and groundwater contamination are performed in accordance with Asahi Kasei Group guidelines. In the event that soil or groundwater contamination is discovered at one of our sites, we promptly report the matter to the surrounding community, relevant

authorities, and the media, and take action to ensure against effects on the surroundings.

In the past we have discovered soil and groundwater contamination at our sites in Nobeoka, Moriyama, and Fuji. Measures were immediately implemented to prevent the

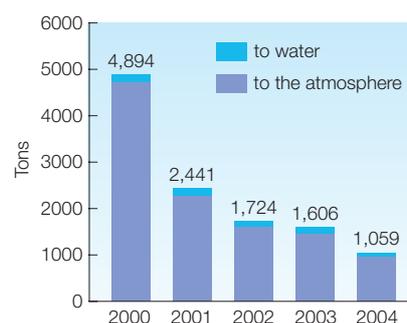
contamination from spreading beyond the site grounds. Soil remediation was performed, and ongoing groundwater purification programs were established, including monitoring of groundwater samples to confirm that contamination has not spread beyond the site grounds.

Pollutant release and transfer register (PRTR)

The Asahi Kasei Group monitors the release and transfer of substances designated for PRTR by the Japan Chemical Industry Association (JCIA) and PRTR-specified substances defined by the PRTR Law (Law concerning Reporting, etc. of Release of Specific Chemical Substances to the Environment and Promotion of the Improvement of their Management). Priority for reduction is based on degree of hazardousness and amount of release.

Of the 354 PRTR-specified substances, 96 were handled in the Asahi Kasei Group in fiscal 2004, with 968 tons released to the atmosphere, 91 tons released to water, no release to soil, and 4,381 tons transferred as components of waste. Releases to the atmosphere and to water were reduced from the previous year, but transfer in industrial waste increased. The increase was largely due to higher production volumes, which resulted in more solvent-containing waste transferred off site for processing and disposal.

Releases of PRTR-specified substances

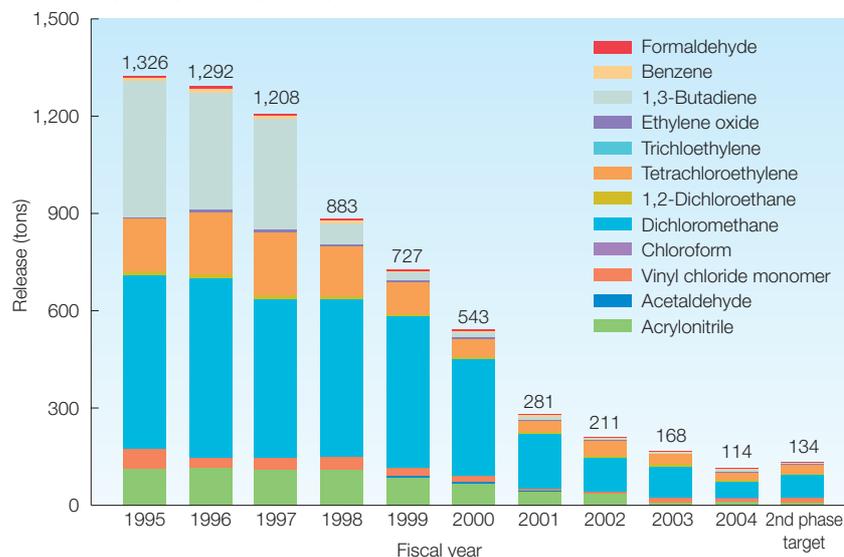


Reduction of hazardous atmospheric pollutants

The JCIA has led a voluntary program to reduce the release of hazardous atmospheric pollutants. The first phase of this program targeted reductions from fiscal 1995 levels to be achieved by fiscal 1999, and the second phase targeted reductions from fiscal 1999 levels to be achieved by fiscal 2003.

The first phase target for the Asahi Kasei Group was a 30% reduction, and a reduction of 45% was achieved. Our second phase target was an 82% reduction, and a reduction of 78% was achieved. In fiscal 2004 we met the second phase target, achieving a total reduction of more than 90% from 1995.

Release of priority atmospheric pollutants



Volatile organic compounds (VOCs)

A fiscal 2004 revision to Japan's Air Pollution Control Law provides for the regulation of VOC emissions. We currently are studying the installation of facilities to recover and process VOCs and the installation of VOC measurement devices to enable compliance when the new regulations come into force. At the same time, the JCIA is formulating plans for the voluntary reduction of VOC emissions beyond that legally mandated.

Polychlorinated biphenyls (PCBs)

Disused condensers, transformers, and fluorescent lamp ballasts which contain PCBs are employed in stainless steel

vessels, recorded in a ledger, and stored under strict control. These are scheduled to be disposed of by 2016 though consignment to facilities equipped to render them harmless.

Stratospheric ozone layer-depleting substances

Stratospheric ozone layer-depleting substances used in the Asahi Kasei Group include freezer refrigerants and solvents. Refrigeration equipment is being replaced or modified with the best practical technology for operation

without refrigerants specified as ozone-depleting. We are also conducting research on the substitution of solvents, and plan to cease using ozone layer-depleting substances when technology for their substitution is established.

Biodiversity

We have long worked to extend the amount of greenery and gardening space at our plant grounds. The preservation of biodiversity within and surrounding our plants and offices is also given due consideration.

Pollutant Release and Transfer Register (PRTR)

Under the PRTR Law, releases to the environment and off-site transfers of specific hazardous chemical substances must be monitored and recorded for each production facility and operating site. Results are reported to the government, which publishes aggregate results.

Hazardous Atmospheric Pollutants

Japan's Air Pollution Control Law defines "hazardous atmospheric pollutants" as substances which occur as atmospheric pollutants and have the potential to damage human health given continuous exposure. The Central Environment Council has specified 22 substances for priority action based on understanding of health risks. Regulations also require corporations to monitor and control atmospheric release of 12 of these priority atmospheric pollutants, with measures for curtailment performed on their own initiative. The 12 substances –

selected based on potential carcinogenicity, amount of production and importation, and presence detected in the atmosphere – are acrylonitrile, acetaldehyde, vinyl chloride monomer, chloroform, 1,2-dichloroethane, dichloromethane, tetrachloroethylene, trichloroethylene, 1,3-butadiene, benzene, formaldehyde, and sulfides and sulfates of nickel. The JCIA recommends substitution of ethylene oxide in this list in place of sulfides and sulfates of nickel, as member companies only handle the latter in nominal amounts.

Green procurement

“Green procurement” is an aspect of our Responsible Care program which forms a natural extension of our long-standing safety management system for procurement of feedstocks and materials with minimal environmental impact. When products are purchased, their dangers, hazards, and relevant regulations are researched and confirmed. If deemed necessary, improvements are requested of the

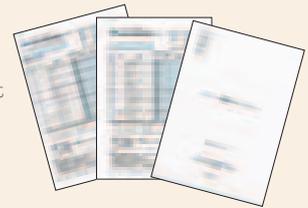
supplier. Appropriate strict control measures are instituted to ensure legal compliance for environmental integrity. For the past two years, Corporate Procurement & Logistics has surveyed suppliers in accordance with our Green Procurement Guideline. Suppliers were evaluated based on survey results, and improvements were requested of suppliers whose environmental performance appeared unsatisfactory.

The program of green procurement is being enhanced by expanding the survey focus to include compliance, human rights, socially responsible management, and public service, in addition to environmental performance. Guidance to suppliers will be extended to include on-site visits.

Green procurement in electronics

Responsible Care at Asahi Kasei EMD is guided by the concepts of “clean manufacturing” and “green products.” Throughout the electronics industry, priority is given to materials and components with reduced environmental burden. In addition to its own in-house efforts, Asahi Kasei EMD works with its material suppliers to achieve enhanced performance throughout the supply chain.

Suppliers are surveyed for their environmental management, social responsibility, and the content of hazardous materials in their products. While most suppliers received high marks, some specific areas for improvement were identified. Asahi Kasei EMD is working together with the relevant suppliers to achieve enhanced performance.



Green procurement guideline and survey

Tracking the cost of environmental protection measures

The cost of measures for environmental protection in fiscal 2004 was tracked at core operating companies Asahi Kasei Chemicals, Asahi Kasei Life & Living, and Asahi Kasei EMD, in accordance with cost classification standards promulgated by the Ministry of the Environment.

The ¥1.36 billion investment at Asahi Kasei Chemicals was notably to curtail release of hazardous atmospheric pollutants and for energy conservation. The ¥6.15 billion expense was notably to curtail NOx and SOx emissions and for maintenance and monitoring of water quality.

The ¥1.06 billion investment at Asahi Kasei Life & Living was notably for replacement of foaming agent for foamed plastic products, enabling the elimination of use of ozone-layer depleting substances and a large reduction in greenhouse gas emissions. The ¥1.37 billion expense was notably for waste treatment, recycling, and development of biodegradable plastic products. The expense also included environmental training for personnel and community fellowship events.

The ¥80 million investment at Asahi Kasei EMD was notably to curtail release of hazardous atmospheric pollutants and for wastewater treatment. The ¥490 million expense was notably for treatment of industrial waste and for recycling.

Asahi Kasei Chemicals

(millions of yen)

Cost class		Principal measures	Investment	Expense	Principal effects
Combined operating area			1,175	4,171	
comprising	Pollution prevention	Curtailed release of atmospheric pollutants	953	2,932	Year-on-year emissions reductions.
	Global environmental protection	Energy conservation	194	246	Release of atmospheric pollutants reduced from 111.3 to 85.6 tons.
	Resource circulation	Treatment of industrial waste	28	993	
Upstream and downstream	Using flexible containers to reduce environmental burden of packing materials	0	62		
Management	Monitoring	126	939		
Research and development	Development of biodegradable chemicals	59	785	Release of PRTR-specified substances reduced from 504 to 403 tons.	
Community outreach	Community fellowship and dialog	0	4		
Environmental damage	Compensation pursuant to Pollution Health Damage Compensation Law, groundwater purification	4	193		
Total			1,363	6,153	

Asahi Kasei Life & Living

(millions of yen)

Cost class		Principal measures	Investment	Expense	Principal effects
Combined operating area			1,034	942	
comprising	Pollution prevention	Management of effluent water, noise control	4	69	Year-on-year emissions reductions.
	Global environmental protection	Installation of equipment for phase-out of HFC foaming agent, energy conservation	1,016	271	HFC emissions reduced from 19 to 15 tons.
	Resource circulation	Treatment of industrial waste, recycling of feedstocks	14	601	Release of PRTR-specified substances reduced from 734 to 373 tons.
Upstream and downstream	Recycling of containers and packaging, green procurement	0	10		
Management	Exhibition at eco-products fair, gardening on plant grounds, education of personnel	1	85		
Research and development	Development of biodegradable plastic products, development of technology for substitution of HFC foaming agent	0	249		
Community outreach	Litter pick-up, Earth Day participation	0	2		
Environmental damage	Remediation of groundwater contamination	23	78		
Total			1,058	1,365	

Asahi Kasei EMD

(millions of yen)

Cost class		Principal measures	Investment	Expense	Principal effects
Combined operating area			69	330	
comprising	Pollution prevention	Elimination of use of dichloromethane, effluent water treatment	62	97	Year-on-year emissions reductions.
	Global environmental protection	Air compressor energy conservation	0	15	Release of atmospheric pollutants reduced from 17.9 to 0.05 tons.
	Resource circulation	Treatment and recycling of industrial waste	7	218	
Upstream and downstream	Recycling of containers and packaging, green procurement	0	66		
Management	Measurement and monitoring of environmental burden, tree-planting on factory grounds	10	78	Release of PRTR-specified substances reduced from 41 to 10 tons.	
Research and development	Development products with reduced environmental burden	0	19		
Community outreach	Community fellowship and dialog, litter pick-up	0	1		
Environmental damage	Remediation of groundwater contamination	0	0		
Total			79	494	

Note: Sums may not equal totals due to rounding.

Ecoefficient Products and Technologies

Asahi Kasei Group guidelines and standards for ecoefficient products and technologies which incorporate the principles of life cycle assessment and green and sustainable chemistry are used in the development of products and technologies which enable resource conservation, energy conservation, and waste reduction.

Company	Product/technology	Ecological aspects	Category*			
			Resource conservation	Chemical substances	Waste reduction	Other
Asahi Kasei Fibers Corp.	Bemberg™ regenerated cellulose filament	Made from natural cotton linter, biodegradable. Eco Mark certification for products containing at least 70% Bemberg™. Oeko-tex 100 certified.			✓	✓
	Bemliese™ regenerated cellulose nonwoven	Made from natural cotton linter, biodegradable. Eco Mark certification for Haize™ gauze, made from Bemliese™.			✓	✓
	Ecosensor™ polyester	Chemically recycled from post-consumer PET bottles and other used polyester products. Eco Mark certified.	✓		✓	
	Eutec™ oil-water separators	Waste reduction by extending usable life of industrial cleaning agents and treating bilge water.		✓	✓	
	Eltas™ EL, ET, and E0 series spunbond	Spunbond for civil engineering made with Ecosensor™ chemically recycled polyester. Eco Mark certified.	✓		✓	
	Lamous™ and Sensuede™ artificial suede	Made without organic solvents. Oeko-tex 100 certified products available.		✓		
	Fusion™ and Cubit™ honeycomb-structure cushioning	Oeko-tex 100 certified.		✓		
Asahi Kasei Chemicals Corp.	AGI hollow plastic molding technology	Reduced number of parts, reduced materials consumption, reduced weight.	✓		✓	
	AMOTEC™ CO ₂ -assisted molding technology	Lighter parts and elimination of need for painting by improving surface appearance with heightened resin flow.	✓		✓	
	Long™ coated fertilizer and Ecolong™ environmentally degradable coated fertilizer	Controlled release of fertilizer to avoid excessive application. Photodegradable, biodegradable coating is restored to the natural cycle.	✓			✓
	Halogen-free flame-retardant acrylonitrile-butadiene-styrene resins	Flame retardance without using halogens.		✓	✓	
	Styrene-butadiene latex coating for moisture-resistant paper and release paper	Enables production of recyclable moisture-resistant paper and release paper.			✓	
	Methyl methacrylate production process by direct oxidative esterification	Eliminates ammonium sulfate by-product.	✓		✓	
	Phosgene-free, methylene chloride-free polycarbonate production process	Eliminates the need for the hazardous phosgene as reactant and methylene chloride as solvent.		✓		
	Asahi Kasei PC™ non-halogen, non-phosphorus flame-retardant polycarbonate	Flame-retardant polycarbonate containing no halogen or phosphorus compounds.			✓	
	Suming™ process	System for rapid adsorption of VOCs which cause sick house syndrome.		✓		
	Asaclean™ purging agent for plastic molding machines	Reduces the amount of waste during material changeover.	✓		✓	
	Buster Mild™	Liquid cleaning agent made of 100% natural ingredients to prevent soil and air pollution.		✓	✓	✓
	Duranate™ MF-K	Enables low-temperature hardening (90°C) for energy conservation.	✓	✓		
	Cyclohexanol production process from cyclohexene	Resource-efficient process with minimal waste gas and waste liquid.	✓		✓	
	Asahi Kasei PCDL™	For polyols with outstanding hydrolysis resistance, as water-soluble paints and adhesives. Reduces VOC emissions from solvents.	✓	✓		
Halogen-free cleaning agent	Metal cleaning, precision cleaning, electronics cleaning without ozone-depleting halogen compounds.		✓			

Company	Product/technology	Ecological aspects	Category*			
			Resource conservation	Chemical substances	Waste reduction	Other
Asahi Kasei Chemicals Corp.	Membrane electrolysis process	Eliminates the need for asbestos and mercury in chlor-alkali production.		✓		
	Microza™ MF and UF modules and systems	Purification of drinking water, treatment of waste water; enables closed water systems in industrial and commercial applications.	✓	✓		
	Environmental reagents (Asahi Kasei Clean Chemical Co., Ltd.)	Microbial enzymes and chemical deodorants used to accelerate bioprocessing, for sludge volume reduction, and for deodorization of waste water.		✓	✓	
	SEAST™ process (Asahi Kasei Clean Chemical Co., Ltd.)	Biological water treatment technology generating 1/20 the excess sludge of ordinary process.	✓			
Asahi Kasei Life & Living Corp.	Acclima™	Saran™ fiber biological membrane carrier for water treatment.		✓		
	OPS™ film	Made from punch-out scrap from biaxially oriented polystyrene sheet. EcoMark and MebiusMark recycled labels acquired.	✓		✓	
	Grease trap cleaning product series	Improved kitchen hygiene, prevention of grease release in wastewater.		✓		
	Green Promax™	Containers and cups made of biodegradable plastic.	✓		✓	✓
	Bioclear™	Biodegradable plastic used in envelope windows, etc. Certified as "GreenPla" by the Biodegradable Plastics Society.	✓		✓	✓
Asahi Kasei Construction Materials Corp.	Neoma™ foam	High-performance home insulation panels, for energy conservation.	✓			
	Suny Lite™ SD airtight insulation system	Airtight, high-performance insulation system for energy conservation in wooden homes.	✓			
Asahi Kasei Homes Corp.	Long Life Home products	60-year durability enables reduction of waste from demolition and rebuilding.	✓		✓	
Asahi Kasei EMD Corp.	Apolarm™ C oil leak detector, Apolarm™ M waste water monitor (Asahi Kasei Technosystem Co., Ltd.)	Detection of oil leaks and monitoring of industrial waste water for surface oil.				✓
Asahi Kasei Pharma Corp.	Dehydrated microbe fertilizer no. 2 [Hokkaido No. 2813] (Asahi Kasei N&P Co., Ltd.)	Surplus sludge from treatment of waste liquid from fermentation is dehydrated and sold as organic fertilizer.			✓	
Asahi Kasei Engineering Co., Ltd.	Exhaust gas treatment technologies	Elimination of hazardous substances and recovery of useful substances from exhaust gases.		✓		
	Waste liquid treatment equipment	Activated sludge treatment. High-performance fluorine adsorption.	✓	✓	✓	✓
	Waste liquid incinerator	Treatment of highly concentrated organic waste liquids, and waste liquids containing inorganic salts.		✓	✓	
Toyo Kensa Center Co., Ltd.	Environmental analysis	Capable of analyzing endocrine disruptors and dioxins in addition to ordinary environmental analyses.				✓
Asahi Kasei Amidas Co., Ltd.	Environmental consulting	Establishment of efficient and effective environmental management systems by "flow chart and format" method.				✓

* *Resource conservation* includes energy conservation, water conservation, and reduced consumption of raw materials.

Chemical substances indicates reduction in use or effluence of chemical substances, or removal of chemical substances by treatment of waste water or exhaust gas.

Waste reduction indicates reduction of the amount of waste generated or reduction of waste through recovery or recycling.

Ecoefficient Products and Technologies

Ecosensor™ recycled polyester

Polyester resin and filament chemically recycled from PET bottles and other polyester waste, with the quality and purity of virgin polymer. The exemplary process technology enables any number of recycling repetitions with no loss of quality, and all reaction residue is recycled as fuel and cement feedstock so that no waste requiring disposal is generated. Face fabric containing at least 60% Ecosensor™ is Eco Mark certified, as is other fabric containing at least 50%.



Ecosensor™ resin.

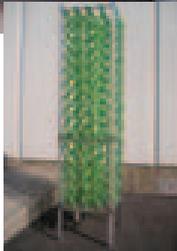
SEAS™ process

A carrier with outstanding microbe adherability enables the attainment of a food chain in which bacteria that propagate consuming organic matter in wastewater are consumed by protozoa, which are consumed by metazoa, which are consumed by worms, the result being extremely little excess sludge. The process also operates well in a wide range of loading conditions, and features easy maintenance.



SEAS™ facility.

Carrier block used in SEAS™ process.



Neoma™ foam insulation

Phenolic foam thermal insulation panels made without CFC foaming agents, featuring outstanding insulation performance and safety. Widely used in homes and other buildings, with growing use in other applications such as the doors of refrigerated trucks.

The environmental performance of Neoma™ has been recognized by an Outstanding Energy Conservation Award from the Energy Conservation Center, Japan (ECCJ) in 2000 and an Award for Excellence in Ozone Layer Protection/Global Warming Prevention from the Nikkan Kogyo Shimbun in 2003.

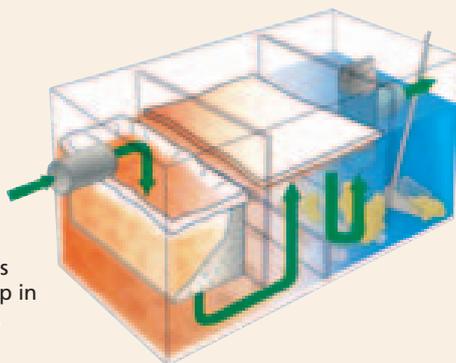


Neoma™ for home insulation.

Grease-trap cleaning product series

Grease traps are installed in commercial kitchens to remove grease and sediments from wastewater before effluence into sewage systems. Asahi Kasei Life & Living produces a comprehensive range of elements,

devices, and sprays to maintain the cleanliness, hygiene, and effective function of grease traps, making prevention of pollution easy and efficient.



Grease-trap cleaning products (above); bag, sheet, and scoop in grease-trap schematic (right).

Hebel Haus™ environment-friendly “long life home”

The “long life home” means the durability and functionality to maintain ownership satisfaction over more than half a century. Given the serious shortage of landfills, and that homes have an average life span of 26 years in Japan, “long life home” products which last for over 60 years make a valuable contribution to sustainability by lessening the need to demolish and rebuild. Performance features include the utilization of natural sunlight, wind, and rain, and a geothermal heating/cooling system, for comfortable, resource and energy efficient living.



The Hebel Haus Sorakara™.

Apolarm™ M

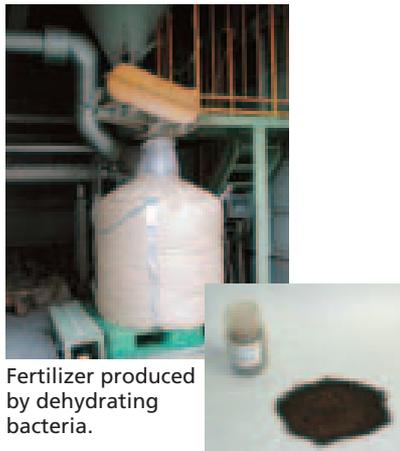
The Apolarm™ M scans the surface of wastewater with a semiconductor laser to detect floating oil. Because oil floats on water and has a much higher reflectance, the system is able to efficiently detect oil leaks even with high water flux, waves, and large changes in water level.



The Apolarm™ M.

Dehydrated bacteria fertilizer

Wastewater from the cultivation and refining of microbe-derived products contains organic material which is treated by bacterial digestion. The bacteria which propagate during wastewater treatment must then be disposed of, conventionally by removal through filtration and landfilling. Asahi Kasei N&P recycles the bacteria as fertilizer through dehydration. In fiscal 2004, 60 tons of dehydrated bacteria fertilizer was sold to fertilizer companies.



Fertilizer produced by dehydrating bacteria.

Waste liquid incinerator

The waste liquid incinerator developed by Asahi Kasei Engineering (AEC) is able to safely and efficiently treat highly concentrated organic waste liquids and waste liquids containing inorganic salts, which are ordinarily very difficult to treat. Waste liquid is sprayed into the high-temperature oxidizing atmosphere of the combustion chamber where it is instantly decomposed and oxidized, with only the complete combustion products CO₂ and H₂O released as exhaust. Inorganic salts contained in the waste liquid are continuously and safely removed from the system. The process also features stable operation with wide variation in waste liquid composition. It enables large reductions in COD of effluent and in the amount of waste transferred off-site for disposal.



Waste liquid incinerator.

Biodiesel process development

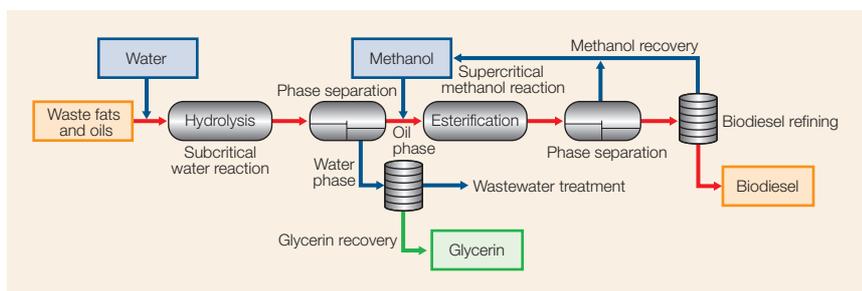
Biodiesel is an automotive fuel obtained from waste fats and oils. Ecological features of biodiesel include formation of less sulfur oxides during combustion, lower CO₂ generation, and waste reduction. In June 2003 Asahi Kasei was commissioned by the New Energy and Industrial Technology Development Organization (NEDO) to



Plant for biodiesel process research.

research process technology for biodiesel production, and consigned the research to Kyoto University, Toyota Tsusho Corp., and group companies Asahi Kasei Engineering and Asahi Research Center.

While conventional biodiesel processes can only process a narrow range of waste fats and oils, the new two-stage supercritical methanol process which is our focus of research makes it possible to efficiently process a wide variety of waste fats and oils. A test plant has been constructed at the Asahi Kasei site in Fuji, and operating efficiency is being advanced using commercially generated waste fats and oils.



Two-stage supercritical methanol process for biodiesel production.

PEFC membrane

We are developing proton exchange membranes (PEMs) for use as electrolyte in polymer electrolyte fuel cells (PEFCs), an emerging technology for mobile power generation. Automobiles powered by PEFCs would emit no nitrogen oxides and sulfur oxides, the principal pollutants from internal combustion engines. The development effort was transferred to Asahi Kasei Chemicals in 2005, and is advancing in concert with a NEDO project.



Proton exchange membranes and binder solution.

Physical Integrity and Safe Operation

RC objectives

-  Avoid all industrial accidents.
-  Control changes to equipment and operating conditions.
-  Monitor for items in need of replacement/uninspected items, implement remediation.
-  Advance utilization of preventive measures, perform remediation based on risk assessment.
-  Fully utilize systematic maintenance system for accident prevention.
-  Establish independent responsibility for plant safety and maintenance.

Summary results

-  Two industrial accidents occurred.
-  Establishment of system for three-party approval (operation, maintenance, and ESH) of changes to equipment and operating conditions.
-  Replacement/inspection backlog from fiscal 2002 cleared.
-  Preventive measures based on risk assessment implemented. Ongoing advancement to continue.
-  Systematic maintenance system implemented. Ongoing advancement to continue.
-  System for independent responsibility for plant safety and maintenance prepared. Disaster response training to be premised on more serious situations.

Industrial accidents

In fiscal 2004 we had two industrial accidents, a small fire at our naphtha cracker in Mizushima and an explosion during dismantling of the industrial nitrocellulose production facility in Nobeoka. The effort to avoid all industrial accidents continues to advance centered on identification of potential hazards.

Explosion during dismantling of industrial nitrocellulose facility

On January 14, 2005 an explosion occurred at the industrial nitrocellulose production facility in the Tohmi Plant of Asahi Kasei Chemicals in Nobeoka. The accident occurred as a waste process water pipe was being cut during dismantling of the disused facility. Six persons involved in the dismantling work were injured.

An accident response team was immediately formed to lead the internal investigation into the cause and formulate measures to ensure against recurrence. The explosion is believed to have happened when

insufficiently wetted nitrocellulose residue adhering to the inside of the pipe was initiated by the heat generated during cutting. Three measures were taken to ensure against recurrence:

- Prohibition of cutting when residue is present (complete removal of nitrocellulose required)
- Watering the saw blade when cutting
- Modification of work approval system, thorough education of supervisors and subcontracted personnel

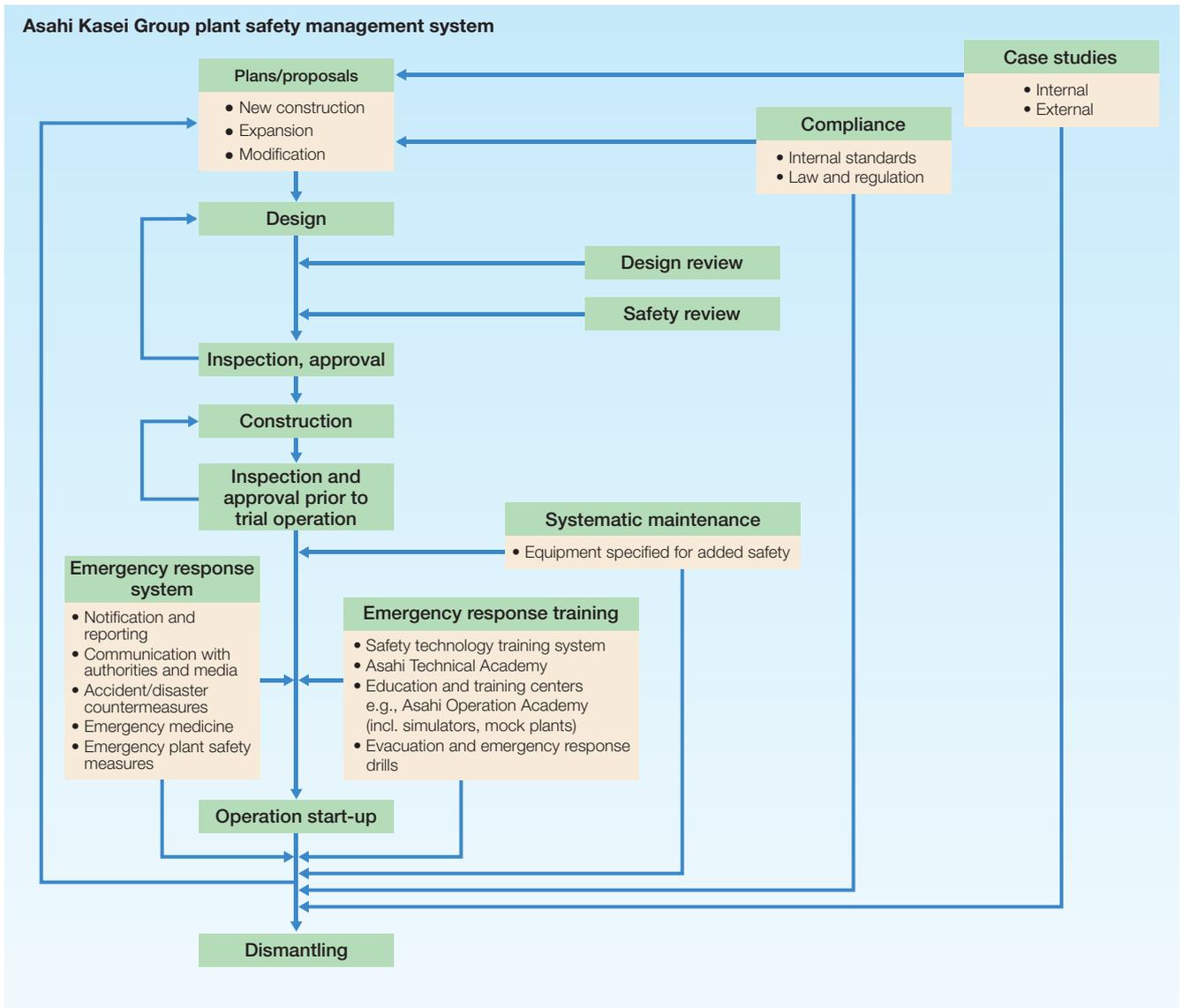
Potential hazards

Since fiscal 2001 we have advanced a program to identify all cases of dangerously aged plant and equipment, potential source of fires, explosions, or leaks, and other potential hazards, and implemented remedial measures. Through fiscal 2004 we have implemented 2,600 measures to mitigate hazards related to aged plant, at a cost of ¥7.7 billion. The program is ongoing.

Change control

Since fiscal 2002, we have advanced a program to systematically ensure that all operating changes are approved by responsible parties in the three areas of operation, maintenance, and ESH. The three parties perform a safety review whenever plant is modified or operating conditions are changed, and approve modifications and changes to be implemented in response to potential

hazards which are identified. The involvement of three parties with separate perspectives provides a check against bias in the decision-making process. The program also serves to enhance the development of personnel with superior knowledge and understanding of operation, maintenance, and ESH.



Safe, stable plant operation

With a diverse range of operations, the Asahi Kasei Group has plants with a wide variety of different characteristics. No single approach to safety would be appropriate for all plants. We employ a systematic process to tailor the safety effort to each plant's specific requirements. This includes determination of a rank of priority for safety measures to be implemented, identification of equipment which requires additional safety measures, and regular reviews of the term specified for periodic inspection and of maintenance procedures. Each plant thus has an individually adapted system to ensure its physical integrity and safe operation.

Thirteen systematic maintenance steps for plant safety

1. Setting basic maintenance policy
2. Defining equipment subject to maintenance
3. Comprehensive evaluation of importance, setting ranking standards
4. Evaluation of importance of plant safety, setting ranking standards
5. Ranking plant safety elements by importance
6. Identification of equipment to be specified for added safety
7. Identification of elements of equipment specified for added safety subject to maintenance
8. Elucidation of necessity for maintenance of each element subject to maintenance
9. Defining maintenance work operations for each element subject to maintenance
10. Designating personnel for maintenance work for each element subject to maintenance
11. Determining period for maintenance work for each element subject to maintenance
12. Defining maintenance procedure for each element subject to maintenance
13. Preparation of mid-long term maintenance plan for each element subject to maintenance

Preparation for emergency situations

A comprehensive set of internal regulations guides the proper response to any industrial accidents or natural disasters which occur. The smooth operation of the emergency response system ensures that personal safety is secured, that effects of the situation are prevented from spreading to surrounding areas, and that damage is held to a minimum, through close communication between the plants, regional management, and the head office.

Our operations located in industrial petrochemical districts have cooperative arrangements with nearby petrochemical manufacturers for mutual emergency assistance, and joint

training drills are performed regularly. To ensure against emergency response drills becoming routine and predictable, a wide variety of emergency situations are contrived for use as training scenarios. Such drills

confirm the effective operation of the systems of communication within the plant site and between the site and the head office, and the ability of on-site personnel to react swiftly with proper response measures.



Emergency response training at the Mizushima Works.

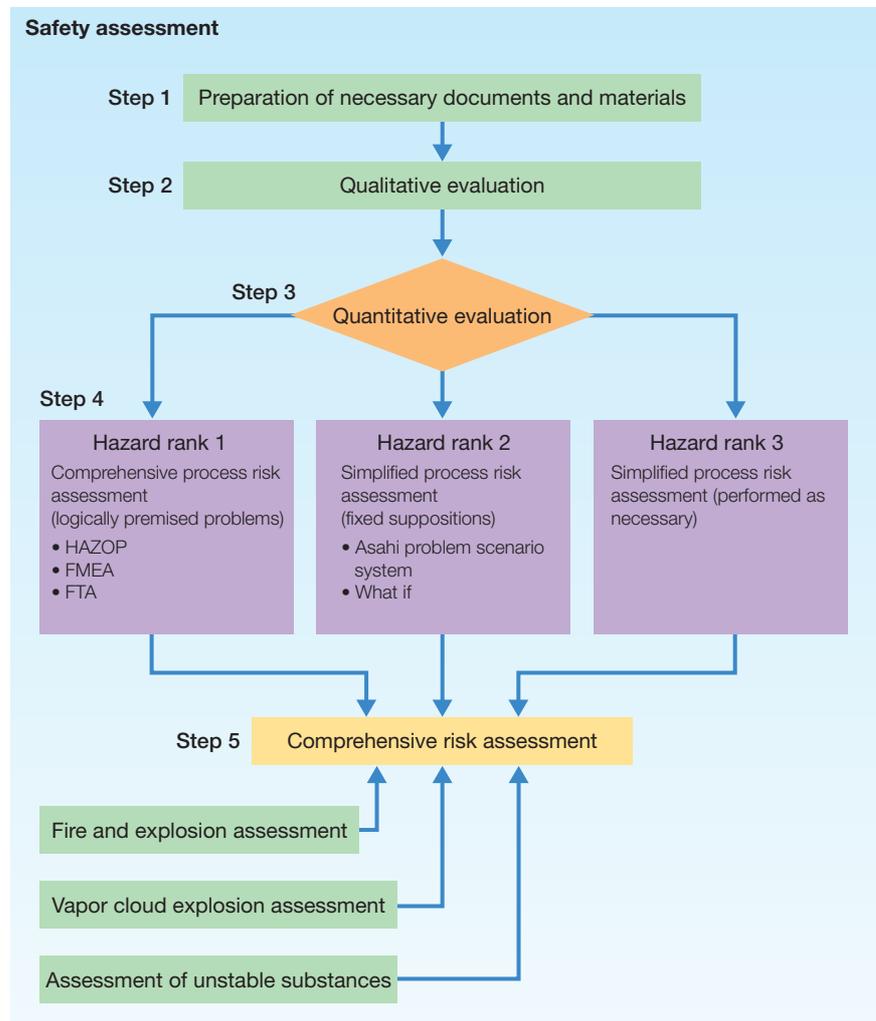
Pre-investment inspection system

Internal regulations require a pre-investment inspection to verify plant safety when there are plans to invest in new plant, plant expansion, or plant modification. Inspection and approval prior to trial operation provides an additional confirmation of plant safety before commercial operation begins.

For large investments, the holding company performs safety inspections in addition to the safety inspections performed by the core operating companies. In fiscal 2004, holding company safety inspections were performed for 12 investments.

A five-step safety assessment is

performed as part of the pre-investment inspection. Ranks are assigned based on degree of hazard, and process risk assessment is performed for low-risk plants which are deemed to be vital. A final comprehensive risk assessment is then performed.



Safety training and education

A distinguishing feature of our safety training program is the Asahi Safety Training (AST) curriculum, which was developed in-house based on long-term practical experience. AST is a fundamental part of safety training throughout the Asahi Kasei Group at every plant and workplace. The key elements of AST are:

- Participation and initiative by all employees as the core of accident prevention awareness and implementation.
- Ergonomic approach to identifying and eliminating sources of potential misconceptions, misoperation, and misjudgment.
- Analysis of past accidents to identify potential hazards and develop preventive measures.

The AST curriculum is used at the Asahi Technical Academy, where young technicians gain a basic knowledge of analysis, patents, computers, and ESH.

Training centers at each main site location provide additional training tailored to each rank of personnel, from line operators to supervisors.

At our petrochemical sites in Mizushima and Kawasaki, the Asahi Operation Academy (AOA) serves as the training center to cultivate the skills necessary to operate petrochemical plants. Miniature plants and simulators are used at AOA to provide hands-on experience

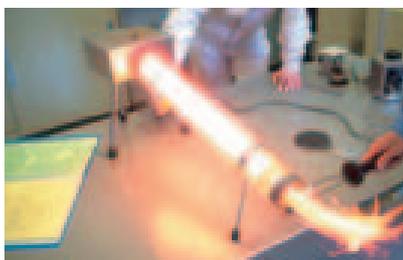
with controls and instrumentation for the technical skills and practical understanding of chemical engineering necessary for safe and reliable plant operation. Training at AOA is made available to personnel of smaller companies which do not have their own training centers.



Asahi Technical Academy lectures.



Dust explosion experiment at AOA.



Evaporation box ignition experiment at AOA.



Experiment for electrical discharge by inherent resistance differential at AOA.

Comments from trainees at explosion and fire prevention course

The three-day course was very easy to understand, beginning with candle combustion and advancing through combustion of hazardous materials and explosions due to static electricity, with both lectures and lab work. One part of the lab work which left a particular impression was the large size of the explosion from 1 cc of hazardous material. Now that I have been assigned to work at a real chemical plant, I am working with large volumes of many hazardous chemicals. I am always mindful of the lessons I learned in the safety training course, and vigilant not to let any accident occur.

**Tomonori Oe, Chemicals Plant, Nobeoka Works,
Asahi Kasei Chemicals**

The lecture made me appreciate how even very small mistakes can combine to result in a serious accident. The lab work let me see with my own eyes the kind of situations in which flammable fluids ignite, and how this is different depending on the fluid. I also saw how a seemingly empty vessel may contain residue of flammable liquid, which can explode due to static electricity. Seeing the explosion caused by static electricity really left an impact on me.

**Yuka Hiranuma, Synthetic Rubber Production Dept.,
Kawasaki Works, Asahi Kasei Chemicals**

The course had a small number of participants, so it was especially interesting and enjoyable. At a real plant the scale of an accident would be something else altogether. I will always keep the lessons I learned with me as I go about my work.

**Mio Minakawa, Performance Materials Research &
Development Center, Asahi Kasei Chemicals**

I had already studied safety engineering at school, but the practical training course gave me a deeper understanding of hazards. I really appreciate the importance of each person at the production site remaining alert at all times.

**Koji Shibata, 1st Monomers Production Dept.,
Mizushima Works, Asahi Kasei Chemicals**

RC objectives

- Achieve frequency rate of 0.1 or less.
● Achieve severity rate of 0.005 or less.
- Expand adoption of OHSMS.
● Enhance utilization of OHSMS where it is implemented.

Workplace Safety and Hygiene

Summary results

- Frequency rate of 0.36 and severity rate of 0.011.
- Adoption of OHSMS at approximately 90% of production facilities, as planned.

■ Safety performance

Since 1982, the Asahi Kasei Group effort for safety has been guided by a series of three-year ESH initiatives. The seventh, beginning in fiscal 2001, was renamed the Medium-term RC Program as part of an enhancement and expansion of the Responsible Care effort. The second Medium-term RC Program began in fiscal 2004.

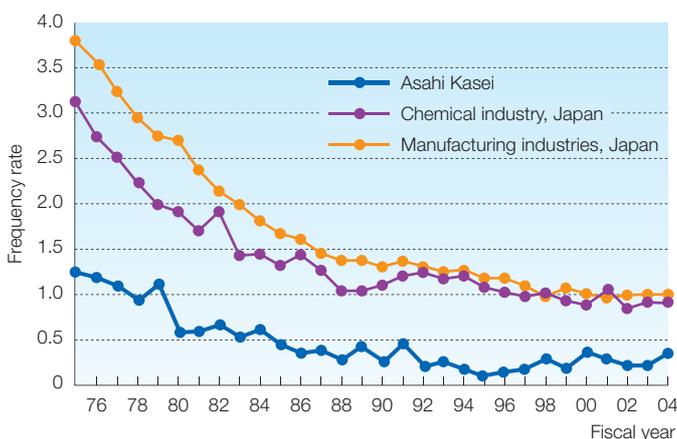
The holding company, each core operating company, and each operational region has formulated

three-year plans to heighten the effort for workplace safety and hygiene in order to achieve the extremely demanding targets of a frequency rate for lost-workday injuries of 0.1 or less and a severity rate for lost-workday injuries of 0.005 or less.

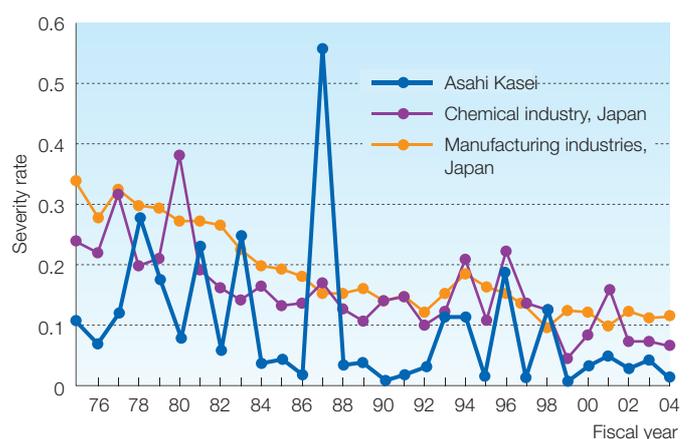
As seen in the graphs below, our record for both frequency rate and severity rate has generally been much better than that of the chemical industry. Our frequency rate has

decreased to about one sixth of what it was in 1970. In 2004 we nevertheless failed to achieve our targets, as our frequency rate was 0.36 and severity rate 0.011. Having missed our targets for several years, we are adopting an Occupational Health & Safety Management System (OHSMS) in an effort to obtain better safety performance.

Frequency rate



Severity rate

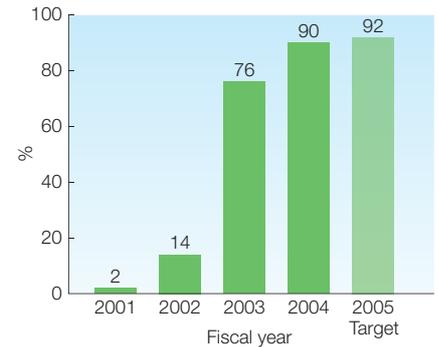


OHSMS

OHSMS is being adopted to obtain greater workplace safety by identifying potential workplace hazards, evaluating risks, setting priorities, and systematically and continuously making improvements to procedures and equipment. In fiscal 2002 and 2003, we began applying OHSMS at our main production sites in accord with OHSAS 18001 standards. In fiscal 2004 we concentrated efforts on heightening the effectiveness of OHSMS where it is in place. Guidance and training by the head office and by outside experts was provided to obtain greater understanding of the requirements of the OHSMS standard.

We have also found certain problems recurring in different plants where the system is introduced. These include management redundancies between the traditional safety measures and OHSMS, and an inability to complete the PDCA cycle due to the time required to perform identification of potential workplace hazards. Effectiveness is being raised by incorporating traditional safety measures into the new system, and by accelerating the PDCA process for greater safety. Application is also being expanded to include all remaining plants.

OHSMS implementation



OHSMS

A standardized management system used to confirm that continuous improvement is being applied to measures to minimize the risks of workplace injuries and to prevent the emergence of future risks.

Workplace injuries

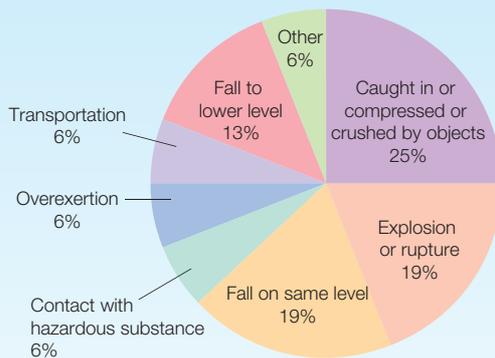
Sixteen workplace injuries occurred in fiscal 2004. As often is the case, the most common type of injury was becoming caught in or compressed or crushed by objects. Because of the risk of serious and lasting injuries from accidents of this nature we have made

their reduction a point of focus in our safety enhancement program.

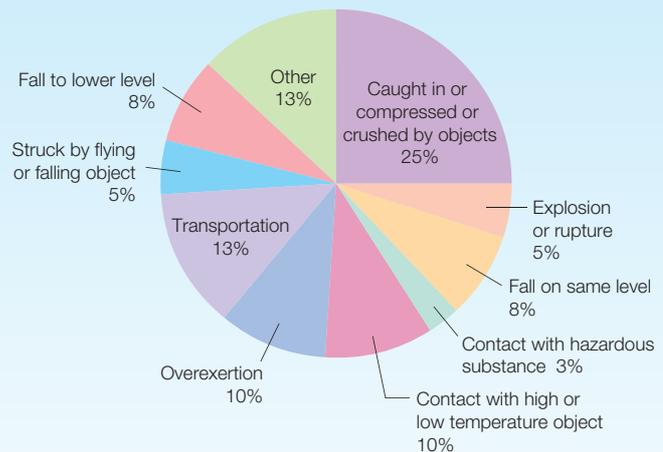
Because our application of OHSMS is relatively recent, not all potential hazards have been eliminated. The effort is progressing separately at each workplace, guided by the

individual characteristics of the hazards present. Where risk assessments appear to be lacking, we are advancing the identification of hazards with a structured approach to elucidate the effects and consequences which would result from given preconditions.

Incidence of workplace injury by event category, fiscal 2004



Incidence of workplace injury by event category, fiscal 1999–2003



Frequency rate for lost-workday injuries

Number of accidental deaths and injuries resulting in the loss of one or more workdays, per million man-hours worked.

Severity rate for lost-workday injuries

Lost workdays, severity-weighted, per thousand man-hours worked.

Solid results from OHSMS in Ohito administrative area

The average frequency rate for lost-workday injuries from fiscal 1999 to 2001 at operations in our Ohito administrative area was 0.41, over twice that for the Asahi Kasei Group overall, including a serious and lasting injury. Improvement in workplace safety and hygiene performance in the Ohito administrative area was therefore marked as a priority, and the area was one of our first to begin implementing OHSMS.

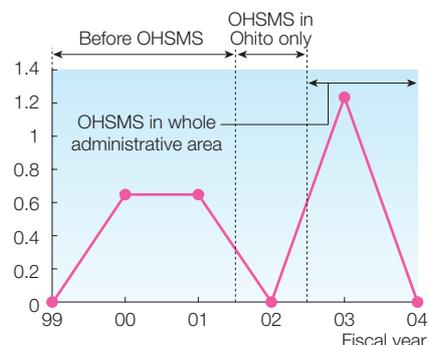
In fiscal 2002 preparations for OHSMS were made at five workplaces in Ohito, with implementation beginning in fiscal 2003. Preparations at the remainder

of workplaces in the administrative area were made in fiscal 2003, with OHSMS implementation beginning in fiscal 2004.

In its first year of implementation, an injury occurred at the Kamishima Pharmaceuticals Plant. Analysis of the accident revealed that some hazards had been overlooked in the risk assessment which had been performed. To ensure the identification of all hazards, risk assessments were repeated throughout the administrative area using a structured approach to elucidate the effects and consequences which would result from given preconditions.

No workplace injuries occurred in fiscal 2004, and we believe that further safety advances through the OHSMS program will enable this performance to be maintained.

Frequency rate for lost-workday injuries, Ohito administrative area



Comments from personnel involved

Oita administrative area OHSMS secretariat

Having a certified environmental management system since 1998 and completing the renewal of certification after three years, I came to appreciate the effectiveness of such standardized management systems, and thought it would be valuable for workplace safety and health as well. At the same time, I realized the necessary risk assessments would entail a great deal of effort.

We started preparing for OHSMS at our five plants in April 2002, with implementation beginning in April 2003. Preparation at the rest of our workplaces began in May 2003, with implementation beginning in fiscal 2004.

With a large number of personnel taking part in risk identification and assessment, we were able to implement measures to mitigate a large number of workplace hazards. An accident nevertheless occurred at one of the plants where OHSMS was implemented, so we cannot declare with certainty that our risk assessments have accounted for every possible eventuality. We will continue to enhance our risk assessments to ensure against the recurrence of workplace injuries.

Masahiro Takayama

Safety & Environment Dept.
Pharmaceuticals Production & Technology Center
Asahi Kasei Pharma



Plant OHSMS leader

When we began preparing for OHSMS in fiscal 2002, it took some time to get a good understanding of the system, and we were still finding our way when we began our initial risk assessments. The occurrence of an accident in the first half of fiscal 2003 exposed the inadequacy of the risk assessments. We knew we had to refound the system based on a deeper understanding and a renewed mindset in order to obtain the results we sought.

OHSMS study groups were held for core personnel, action teams and organizations were clarified, and all personnel participated in an exercise to identify risks by thinking through the consequences which would result from given preconditions based on operating manual procedures. A monthly conference of the leaders of each action team was instituted to follow up and share know-how across the organization.

We believe the effective utilization of this system is serving to establish a structure for safety, where knowledge and awareness of risks is shared openly and safety measures are implemented reliably.

Kenji Shiota

Kamishima Pharmaceuticals Plant
Pharmaceuticals Production & Technology Center
Asahi Kasei Pharma



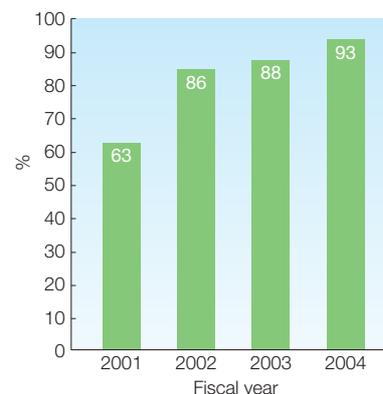
Compliance with safe operating standards

Uniform safety standards are applied to similar operating procedures throughout the Asahi Kasei Group. These standards clearly and concisely indicate our basic inviolable safety principles (excerpts below), and specific safe operation regulations derived from these standards are established at each workplace as appropriate.

As shown at right, most of the workplace injuries which have occurred were the result of noncompliance with workplace safety regulations. While we are implementing OHSMS to secure

greater workplace safety, maintaining strict compliance with safety regulations is a key focus of our effort to prevent workplace injuries. Awareness of safe operation regulations at each workplace has been raised, and training has been performed to ensure thorough understanding of the relationship between noncompliance and the risk of accidents. Systems to confirm compliance are applied, with the method and frequency of self-checking and follow-up by supervisors adapted to the characteristics of each workplace.

Proportion of workplace injuries resulting from noncompliance with safety regulations



Excerpted safety standards

Prevention of becoming caught in or compressed or crushed by machinery

Even if the power is off, confirm that there is no inertial rotation before beginning procedure.

Prevention of becoming crushed by heavy objects

Keep away from the area beneath the path of objects suspended by crane and where they could fall or swing.

Prevention of chemical poisoning and burns

Do not perform operations on chemical pumping or venting systems without protective gear.

Prevention of falling to a lower level

Securely fasten safety line when performing operations in high places.

Prevention of lumbago and tendon rupture due to overexertion

Do not exert strength in an awkward posture when using tools.

Prevention of injuries from forklifts

Do not enter into or encroach upon the area where forklifts travel.

Prevention of explosions and fires

Do not extract samples from or infuse feed into openings without first eliminating any static electrical charge.

Prevention of cuts

Do not assemble or disassemble glass apparatus without protective gloves.

Prevention of injury from objects falling down or falling over

Do not place objects in an unstable condition.

Prevention of injury from collapsing mounds

Do not encroach upon surfaces of mounds of granular matter which are at risk of collapsing.

Prevention of electrical shock

Do not perform operations near charge-carrying components which are exposed.

Prevention of oxygen deficiency

Do not enter or peer into towers, pipes, or pits without oxygen safety measures.

Maintaining workplace hygiene

Each autumn we hold a group-wide Workplace Hygiene Week, during which workplace environments are reviewed and plans for improvement are prepared. Workplaces where potential health hazards are present are subject to regular monitoring in accordance with the Working Environment Measurement Law.

All workplaces throughout the Asahi Kasei Group where organic chemicals, controlled substances, or dust is present are maintained at Category I, indicating acceptable results from air quality monitoring.

Where radioisotopes are present, radiation dose rates are maintained below regulatory limits, with measurement results reported each year to Japan's Office for Radiation Regulations.

Noise level measurements at some workplaces have resulted in Category III classification, requiring mitigation. Having determined that it would be impractical to significantly reduce the noise level at these workplaces without extensive modification and relocation of equipment, we rely on earplug use to protect against auditory damage.

A record of noise exposure data for each individual is maintained to enable exposure to be managed and minimized. Studies of the feasibility of technological measures to reduce noise generation are ongoing.

Some workplaces near high-temperature equipment are uncomfortably hot if personnel are required to be present for extended periods, especially for unscheduled maintenance. We are advancing plant modifications for reduced heat emission and greater operational reliability to minimize such discomfort.

RC objectives

- Systematize and unify base for health support.
- Reduce proportion of employees receiving health cautions.
- Promote emotional health and care.

Health maintenance

Summary results

- Health support systems established at regional offices and geographically separated plants.
- Slight increase in proportion of employees receiving health cautions.
- Ability to respond appropriately to emotional health issues evaluated. Support provided to geographically separated plants.

● Health maintenance support system

Since fiscal 2002 we have implemented a range of employee health maintenance and promotion measures as part of the group-wide

Responsible Care program to achieve targets set forth in our Health Promotion Policy. In fiscal 2004, health maintenance capabilities were

enhanced at geographically independent plants and offices which to not have specialist industrial medical staff stationed on site.

● Reducing health cautions

All personnel have annual health checkups including consultation with industrial physicians. A set of eight checkup results (below) are used as indicators of possible lifestyle-related health problems, and personnel

whose results exceed standard limits are given a health caution and advice from a physician.

About half of our personnel receive one or more health cautions based on these indicators, roughly the same

proportion as in Japan's workforce overall. To help reduce the proportion of employees receiving health cautions, we are expanding the use of an Internet-based personal diet management system.

Indicator	Standard for caution
Blood pressure	Systolic 140 mmHg Diastolic 90 mmHg
Total cholesterol (TCHO)	240 mg/dl
Neutral fats (TG)	180 mg/dl
Fasting blood sugar (FBS)	110 mg/dl
HbA1c	5.9 %
γ-GTP	80 IU/l
Uric acid (UA)	7.0 mg/dl
BMI	25

Emotional health and care

The maintenance of employees' emotional health and care is advanced in tandem with our physical health and fitness programs. The corporate Emotional Health Guideline provides for measures to improve the workplace environment together with four complementary approaches to care: By the individual employee, by line of authority, by industrial medical staff, and by specialists.

To promote self-awareness and care, we began implementing the Japan Mental Health Inventory (JMI) survey in fiscal 1993. In fiscal 2001 we began expanding coverage include to all personnel, with completion in fiscal 2004. The survey will be repeated for all personnel on a rolling three-year cycle. The JMI

survey was developed by the Mental Health Research Institute of the Japan Productivity Center for Socio-Economic Development, a non-profit organization advocating advanced industrial productivity. For supervisory and managerial personnel, an additional survey on workplace conditions is conducted to help guide improvements to the workplace environment.

The four approaches to care are summarized as follows:

- *Self-care by individual employee*
Prevention and alleviation of one's own stress
- *Care by line of authority*
Consultation of the employee with the supervisor, improvement of the workplace environment

- *Care by industrial medical staff*
Consultation with the individual or supervisor, support for improvement of the workplace environment
- *Care by specialists*
Care by specialist institutions and specialist physicians

The Oita Plant of Asahi Kasei Chemicals has been selected by the Japan Industrial Safety and Health Association as a model workplace for implementation of the four approaches in fiscal 2003 and again in fiscal 2004, demonstrating the beneficial results for emotional health and care of employees.

Comments from personnel involved

Our plant is now in its third year as a "model workplace" for emotional health and care, with the support and guidance of outside specialists. Our program for "A Bright and Healthy Workplace" includes the preparation of consultation systems, education of supervisors, plant-wide recreation events, and initiatives to facilitate greater communication.

Counseling is held not only for those who request it but also for personnel selected at random. In addition to helping to reduce reluctance to seek counseling, this gives the overall workforce a general idea about the nature of counseling. Four times per year, supervisors have training sessions and consultation with leaders of the emotional health promotion program. This has served to deepen the understanding of emotional issues among supervisory personnel.

In November 2004 representatives of our plant made a presentation about our emotional care program at an industrial health forum held by the Oita Occupational Health Promotion Center. Attendees, numbering some 200, included physicians, health managers, and other health maintenance staff from companies throughout the Oita area. Enhancement of emotional support for employees is an emerging issue in Oita, and many attendees commented that our presentation served as a valuable reference.

Creating a healthy atmosphere in the workplace is a long-term prospect, requiring the flexibility to try a variety of different measures, moving step by step in a positive direction.

Junji Yamaguchi
Environment & Safety Dept.
Oita Plant
Asahi Kasei Chemicals



I've seen a lot of improvements with the issues and problems we encounter with our emotional health support program. People have become more supportive and understanding, and the workplace environment seems more sunny and lively. We'll keep on making steady progress as part of the effort for health promotion.

Mihoko Ukeguchi
Registered Nurse, Industrial Counselor
Oita Plant Health Maintenance Center
Asahi Kasei Chemicals



Employee Fulfillment

The Asahi Kasei Group considers fulfilling and satisfying working conditions and workplace culture, in which personnel feel motivated to achieve and take pride in their career, to be a key to business performance. Our success in this regard is evidenced by one of the lowest employee turnover rates in Japan for an enterprise this large.

Equal opportunity

A wide range of measures are employed to ensure equal opportunity in the Asahi Kasei Group, coordinated by EO Promotion. The number of female employees rising to positions of responsibility has steadily grown as a

result of an increased proportion of female hires and a wider distribution of job assignments for female personnel. As of June 2004, 142 female personnel were working as managers. Assignment of female personnel

throughout the variety of posts in marketing, research, development, production, and administration has become commonplace.

Employment of persons with disability

Subsidiary Asahi Kasei Ability Co., Ltd. was established in 1985 for the employment of disabled persons, performing a wide range of services for the Asahi Kasei Group including website design, document printing and binding, copying, mounting and framing, gardening, and cleaning, with offices in Tokyo, Fuji, Mizushima, and Nobeoka. Employing 130 in fiscal 2004,

Asahi Kasei Ability also performs work for companies and individuals outside the Asahi Kasei Group.

Employment of disabled persons in the Asahi Kasei Group has exceeded the legal minimum since 1994, and amounted to 1.82% of employees in fiscal 2004.



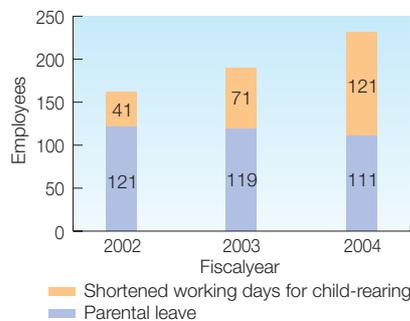
Working at Asahi Kasei Ability.

Balancing career and family life

The Asahi Kasei Group encourages personnel to take advantage of a full complement of provisions and benefits to enable the flexibility to maintain a career while raising a family or attending to family members who require care. These are among the most advanced in Japan, including short-term and extended leaves of absence, paid days off, and shortened working days. Financial assistance for hiring help at home, such as babysitting and home convalescent care, is available from the employees' mutual benefits cooperative.

The utilization of these provisions has grown to become quite broad, as shown in the graph below.

Utilization of provisions for child-rearing



for convalescence of family members. The cooperative has concluded group-discount agreements with several care service providers.

Support system for the employees' work and life balance

In fiscal 2003 helplines were established to promote utilization of the provisions and benefits available for employees to more easily maintain a career while caring for the family. Descriptions of the various provisions and guidelines for their use are made easily accessible on the corporate intranet, along with FAQs. EO Promotion provides personalized consultation on how best to utilize the available provisions in individual circumstances. In fiscal 2004 a dedicated helpline for male employees was established.

Parental leave and shortened working days for child-rearing

Parental leave is available until the child is three years old. Ninety-five percent of employees who take paid days off for childbirth also utilize this provision, and each year we have some 100 employees on parental leave.

The working day may be shortened by up to two hours until the child enters elementary school. In fiscal 2004, 121 employees utilized this provision, which may be used concurrently with "flex-time" for flexible working hours and with "child-rearing time" for temporary absence during the working day to spend time with a child under the age of one year.

Financial assistance for home care

The Asahi Kasei Group employees' mutual benefits cooperative will pay up to half of the cost of hiring help such as babysitters or home care workers

Employee's comment

At first I was uneasy about raising a child while working in overseas marketing.

I knew about the provisions for child-rearing, but I wasn't sure if I would be able to utilize them. But with the support of HR and my department, I was able to utilize the provisions smoothly. I am very pleased that these provisions enable me to flexibly manage my time to maintain my career while child-rearing.

Liu Xi
Functional Film Products Sales Dept.
Packaging Products Div.
Asahi Kasei Life & Living



Next Generation Nurturing Support Measures Promotion Law

An Action Plan for the Asahi Kasei Group in accordance with the Next Generation Education and Support Promotion Act was prepared in March 2005. The plan provides for the following measures to be implemented for the next two years.

- Development of a workplace environment in which both men and

women can continue working while raising a family, and promotion of utilization of provisions to this end. Encouragement of men to take part in child-rearing.

- Promotion of use of paid days off, working with labor unions to review working practices at workplaces with a large amount of overtime,

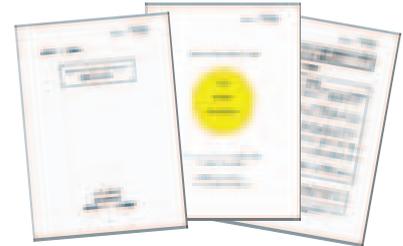
and advancement of reform of working practices.

- Working with local communities to advance community outreach measures for education of the next generation.

Preventing sexual harassment

Sexual harassment in the Asahi Kasei Group is clearly prohibited by our *Corporate Ethics – Code of Conduct* and by our corporate employment regulations. Prevention is reinforced through training at each level of promotion in rank and through periodic company-wide training within each core operating company for conformance with corporate ethics.

EO Promotion serves as a central point of consultation for the Asahi Kasei Group, and consultation centers have been established in each core operating company, at each operating site, and by each labor union. Training and consultation is not limited to regular full-time employees, but includes staff from placement agencies and employees of affiliated companies.

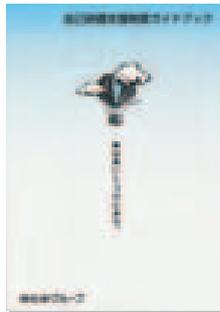


Corporate policy and guide for prevention of sexual harassment.

Career development support

Employees are given a wide range of training to develop the skills needed to successfully advance their careers. A regular program of training is applied throughout the Asahi Kasei Group at key career steps – upon hiring, promotion to manager, promotion to department general manager, promotion to division general manager, and assumption of an executive position. Other individual training programs such as for global management are implemented according to business need. Each core operating company also implements training programs to support the development of employee skills required for its specific field of business.

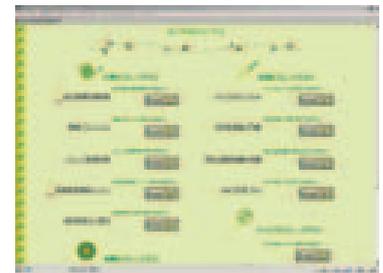
Supporting independent study in the subject field of choice is part of a broader effort to develop a corporate culture in which self-motivated employees pursue career advancement in accordance with their own individual interests and abilities, in the conviction that corporate success ultimately rests on an ambitious, dynamic, self-driven workforce.



Independent study support guidebook.

employee skills. Information on available training courses and seminars is posted, and e-learning courses are made available for employees to pursue on their own initiative, including a course on intellectual property.

The corporate intranet is also used to enable employees to record their specialist abilities, certified qualifications, working experience, and career ambitions. The recorded information is utilized in the evaluation of candidates for assignment transfers, and to provide newly transferred supervisors with a concise overview of their subordinates.



Intranet career development site.

Independent study

In October 2003, the Asahi Kasei Group instituted a program to support independent study by employees. To encourage employees to acquire high level specialist or technological ability, the company will pay part of the cost of attending courses or lectures.

Intranet support for career development

The corporate intranet is utilized as a tool to support the development of

Accord with labor unions

Discussions between management and labor union representatives are held on a regular basis to ensure that a constructive partnership and mutual understanding is maintained. Each year, union representatives meet with the Asahi Kasei Chairman and President. In May 2005, discussions included management plans, operational safety, and workplace hygiene and health. Discussions

related to RC measures are also regularly held among the labor unions,

Corporate Personnel & Labor Relations, and Corporate ESH & QA.

EO Promotion

EO (Equal Opportunity) Promotion is the section of Corporate Personnel & Labor Relations tasked with ensuring against unreasonable discrimination, on the basis of gender or otherwise, and coordinating the provision of support for employees to balance work and family life, to maintain a

workplace culture in which employee fulfillment and working performance are free from hindrance. The Asahi Kasei Group's efforts for equal opportunity from 1993 through 8 years were recognized with an Award for Excellence from the Minister of Health, Labor, and Welfare in 2001.

RC objectives



Avoid serious product safety incidents.

Product Safety

Summary results

● No serious product safety incidents.

● Consumer satisfaction

Products sold by the Asahi Kasei Group range from materials to consumer products. Many of the materials we sell are used in products which are ultimately purchased by ordinary consumers. Consumer satisfaction is therefore the ultimate measure of our success in the provision of safe, high-quality products.

● Product liability

Securement of product safety became an important imperative with the 1995 initiation of Japan's Products Liability Law. To avoid liability, any product defects must be discovered before the product reaches the customer. Product quality and safety are ensured through constant attention to production control.

● Product safety guidelines

Group-wide product safety guidelines have been prepared to secure product safety and prevent the occurrence of product safety incidents. The guidelines specify matters to be controlled throughout the process from material purchase through use and disposal. Product safety measures for individual products are performed by each core operating company in accordance the guidelines.

● Product safety measures

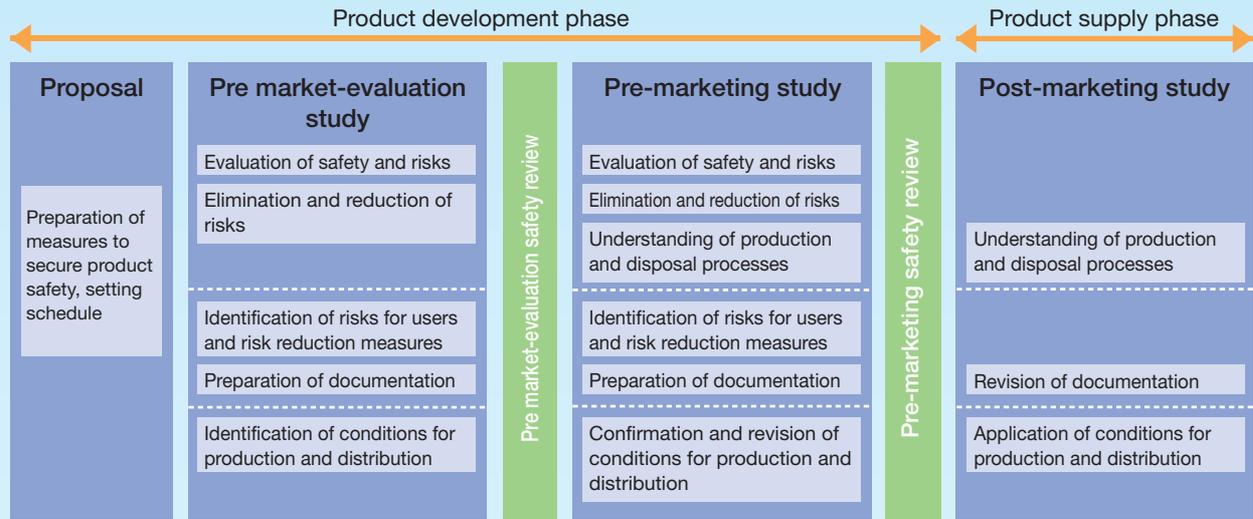
As shown at right, the flow of measures to secure product safety is centered on risk assessments during the development stage, prior to product marketing. Separate procedures are followed for chemicals and equipment. Material safety data sheets (MSDSs) are prepared to ensure the safe handling of chemical products sold to other businesses. Instructions for safe use are included in the product manuals of equipment sold to other businesses and of consumer products.

● Product safety results

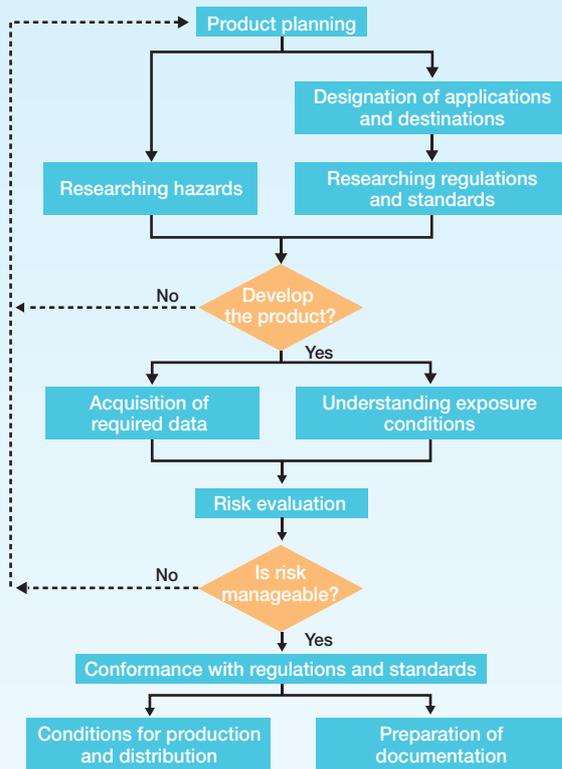
Avoidance of serious product safety incidents was specified as an RC Objective for fiscal 2004, and no serious product safety incidents occurred. We believe this result is attributable to the day-to-day product safety measures such as risk assessments, and to the ongoing education and training for product safety to maintain knowledge of issues related to product liability, safe handling of chemical substances, and safety of equipment sold as products.

In addition to useful characteristics, products also have hazards which could result in injury as a result of improper handling. While a variety of information is provided to customers to ensure safe and proper handling and use, this information is not always utilized completely. The information we provide is being revised for greater ease of understanding and ease of use.

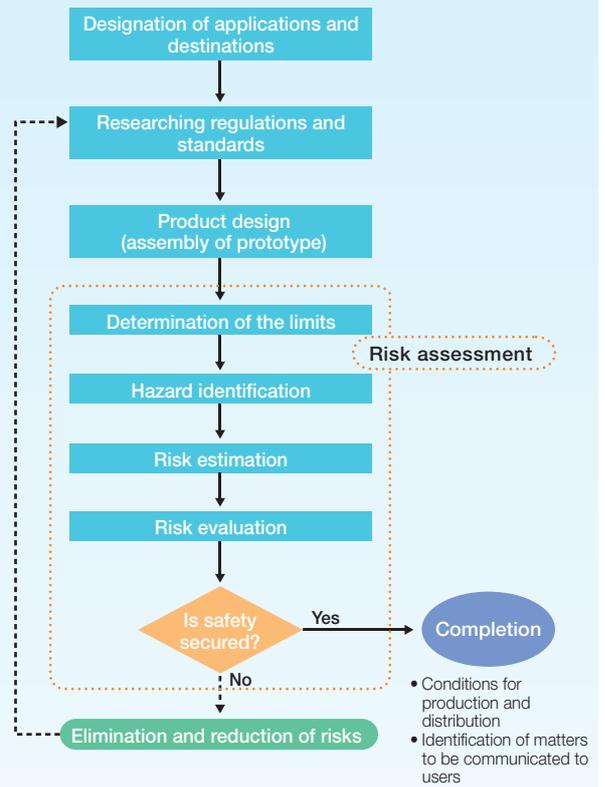
Flow of product safety measures



Product safety procedure for chemicals



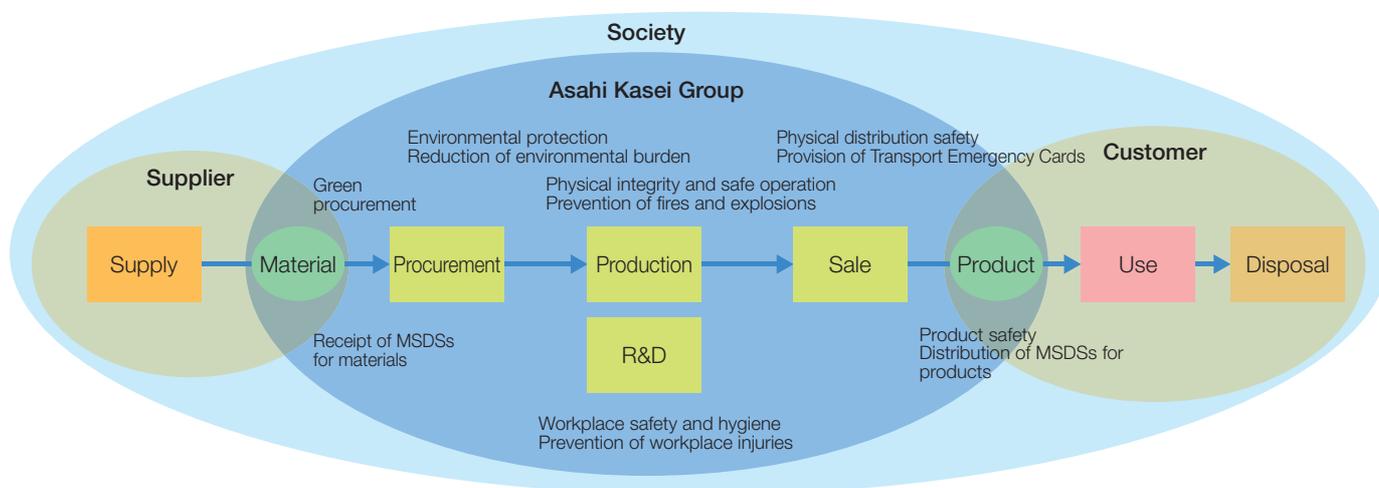
Product safety procedure for equipment



Managing chemical substances

Chemical substances are managed at each stage from development to use and disposal, as shown below.

Chemical substance management flow



Materials purchase

When purchasing materials, information related to the safety of chemical substances is received from the supplier. This information serves as a guide to safe storage and handling. Please refer to p. 27 for information related to green procurement.

Production

The safety of the local community and the protection of the environment are secured by proper handling of chemical substances to suppress environmental release (see pp. 20–28) and to prevent fires, explosions, and leaks (see pp. 32–35). The health of employees is protected by preventing workplace exposure to hazardous substances (see pp. 36–39).

Use and disposal

Guidance for proper use and disposal of chemical substances and chemical products is provided in MSDSs, technical bulletins, and product brochures. Transport Emergency Cards are provided to guide proper environmental and safety response in the event of an accident during physical distribution.

Research and development

Management of chemical substances begins with R&D. Development of both products and production processes is guided by the principles of “green and sustainable chemistry.”

Green and sustainable chemistry

“Green and sustainable chemistry” (GSC) means chemical technology to enable sustainable development through technological innovation in product design, feedstock selection, production process,

mode of use, and recyclability to alleviate effects on health, safety, and the environment and to achieve conservation of resources and energy.

The twelve principles of green chemistry

- It is better to prevent waste than to treat or clean up waste after it is formed.
- Synthetic methods should be designed to maximize the incorporation of all materials used in the process into the final product.
- Wherever practicable, synthetic methodologies should be designed to use and generate substances that possess little or no toxicity to human health and the environment.
- Chemical products should be designed to preserve efficacy of function while reducing toxicity.
- The use of auxiliary substances (solvents, separation agents, etc.) should be made unnecessary whenever possible and innocuous when used.
- Energy requirements should be recognized for their environmental and economic impacts and should be minimized. Synthetic methods should be conducted at ambient temperature and pressure.
- A raw material or feedstock should be renewable rather than depleting whenever technically and economically practicable.
- Unnecessary derivatization (blocking group, protection/deprotection, temporary modification of physical/chemical processes) should be avoided whenever possible.
- Catalytic reagents (as selective as possible) are superior to stoichiometric reagents.
- Chemical products should be designed so that at the end of their function they do not persist in the environment, and break down into innocuous degradation products.
- Analytical methodologies need to be further developed to allow for real-time, in-process monitoring and control prior to the formation of hazardous substances.
- Substances and the form of a substance used in a chemical process should be chosen so as to minimize the potential for chemical accidents, including releases, explosions, and fires.

From Paul T. Anastas and John C. Warner, *Green Chemistry: Theory and Practice*, New York: Oxford University Press, 1998.

International efforts for chemical safety

Through our membership in the Japan Chemical Industry Association (JCIA), the Asahi Kasei Group is an active participant in international research efforts to advance the safe management of chemical substances led by the International Council of Chemical Associations (ICCA).

High Production Volume (HPV) Chemical Initiative

In 1998 the ICCA determined to bring the efforts and resources of the world chemical industry to bear in advancing the HPV Initiative in concert with the Organization for Economic Cooperation & Development (OECD). The ICCA designated as a target the completion by 2004 of evaluation of the approximately 1,000 substances produced in volumes of 1,000 tons/year

or more in two or more of the major economies of Japan, the US, and the EU. Although the target was not reached, the OECD was more than satisfied with the progress achieved through the efforts of the ICCA, and work continues to advance toward completion in a few years time.

The Asahi Kasei Group began participation in the ICCA HPV Initiative in fiscal 1999, cosponsoring research for ten of the thirty chemical substances we produce which are among the 1,000 subject to HPV criteria. Evaluation of four of the ten substances has been completed by the OECD, and is in progress for the other six in coordination with other participating companies. Evaluation of two of the six is near completion.

Long-range Research Initiative (LRI)

The ICCA is advancing study on the long-term effects of chemical substances on health and the environment through the LRI. The JCIA is advancing research in four fields: Endocrine disruption, chemical carcinogenesis, hypersensitivity, and neurotoxicity.

The Asahi Kasei Group is represented on the Planning and Management Panels for endocrine disruption and neurotoxicity, participating in the preparation of research white papers, examination of proposed research projects, and follow-up of research that has been adopted.



Community Outreach

Customer feedback

Customer satisfaction is a primary objective throughout all segments of operation. In business-to-business dealings, feedback is obtained through the direct interaction between the customer and our sales personnel. In end-use product segments, feedback is obtained through consumer consultation centers in Asahi Kasei Life & Living, Asahi Kasei Homes, and Asahi Kasei Pharma, and through consumer contact personnel in the holding company.

Feedback from our customers provides valuable advice on our products. We handle all inquiries with sincerity, and pass all feedback on to the president and all general managers, and to production and R&D personnel as appropriate. Such feedback has led to many product improvements.

Akemi Yoshizawa
Consumer Consultation Center
Asahi Home Products Co., Ltd.



Public dialog

The General Affairs Dept. at each of the main operating sites of the Asahi Kasei Group serves as the contact with the surrounding community. At some sites, informal get-togethers are regularly held with the public to provide a forum for dialog. In fiscal 2004, three complaints about air quality, three about water quality seven about noise, and two other complaints were received. In each

case, the complaint was promptly addressed, with modification of plant and equipment where appropriate.

Local Responsible Care Reports are produced describing local ESH efforts and providing information for the local communities. Reports for fiscal 2004 were produced at Nobeoka, Mizushima, Moriyama, Fuji, Ohito, Kawasaki, Suzuka, and at construction materials plant sites.



Local Responsible Care Reports.

Community fellowship

Kawasaki

As a corporate member of Kawasaki City's Chemical Substance Study Committee, our Kawasaki Works held a plant tour in January 2004 for representatives of resident's associations and the city government.



Kawasaki Works plant tour.

Moriyama

Twice a year our operations in Moriyama hold fellowship meetings with local resident's associations, with discussion and exchange of views on environmental and safety measures.



Community fellowship meeting in Moriyama.

JRCC community meetings

Asahi Kasei participates in community meetings held by the JRCC. In February 2005, a community meeting was held in Chiba, with representatives of our Chiba Plant taking part.



JRCC community meeting in Chiba.

Events and activities

Maintaining neighborhood cleanliness

Employees at many sites periodically clear the plant vicinities of litter, rubbish, and weeds. Asahi Kasei Life & Living held an "Eco-Cleanup Campaign" in June and December at its Suzuka and Nobeoka plants, Tokyo and Osaka offices, and the Ageo, Ono, and Gunma plants of subsidiary Asahi Kasei Pax. This is a volunteer event for employees, their families, and the public to plant flowerbeds and remove trash and litter in the nearby community areas.



"Eco-Cleanup Campaign" in Tokyo.

Gardening on factory grounds

Asahi Kasei Life & Living uses space in the grounds of its factories for gardening. The effort to achieve aesthetic harmony with the surroundings through flowers and greenery is called the "Laurel Project" with the laurel tree held as the symbol of a healthy environment. The area around the main gate of the Suzuka Plant has been transformed into a garden pathway which is open to the public. At night, the area is illuminated with solar- and wind-powered lighting.



The Suzuka Plant garden pathway.

Eco-Products 2004

Asahi Kasei Fibers and Asahi Kasei Life & Living held an exhibit at "Eco-Products 2004," Japan's largest exhibition of environmentally friendly products and services. The Asahi Kasei Fibers exhibit featured Bemberg™ cupro and Ecosensor™ chemically recycled polyester. The Bemberg™ display highlighted its 73-year heritage as a forerunner among ecological textile filaments, being made by regeneration of cellulose from cotton linter. The Ecosensor™ display described its production process by molecular-level recycling of polyester, the advantages this has over material recycling, and the wide range of applications where Ecosensor™ is used.



Asahi Kasei Fibers exhibit at Eco-Products 2004.

Area environmental councils

Each year, representatives of many Asahi Kasei plants and Regions play an active role as members of various environmental councils organized by prefectural, city, town, and village governments, participating in the

planning and administration of a variety of functions and monthly events. Our operations in Moriyama had a panel display about "zero emissions" at an environmental symposium held by Moriyama City.



Corporate Citizenship

Geese coming to roost at Izu-numa.

■ Sponsorship of Children’s Environmental Symposium

The fifth Children’s Environmental Symposium was held on January 22–23, 2005 at Izu-numa in Miyagi Prefecture, with the Asahi Kasei Group as a co-sponsor. This was the second consecutive year the symposium was held at Izu-numa, focused on the rich environment in nature and the rice paddies of areas where migratory birds land, and the symbiotic relationship between people and nature. Some 40 participants took part in a two-day “eco tour” of the area, including elementary students and teachers from various locations throughout Japan, local farmers, college student

volunteers, and migratory bird specialists including Masayuki Kurechi, chairman of the Japan Association for Wild Geese Protection (JAWGP). Izu-numa, a site designated by the Ramsar Convention on Wetlands, is one Japan’s few wetland areas, with many large rice paddies.

The two-day program emphasized first-hand experience in the natural environment of Miyagi, with rice paddies, marshland, and migratory birds, enabling participants to gain a sense of the value of living in symbiosis with the natural environment. Children from nearby

in Miyagi commented that they had not previously known about how white-fronted geese land. Children from Tokyo commented on the beauty of the scenery with marshes, geese, and rice paddies, and that they would like to help keep water clean by wiping oil out of pans before washing them.

Children’s Environmental Symposium

Since fiscal 2000, the NPO Global School Project has held Children’s Environmental Symposia each year, supported by governmental bodies, other NPOs, corporate sponsors, and volunteers.



Observing the natural ecosystem of white-fronted geese.



Learning to distinguish between individual whistling swans.



Examining plants and animals in a rice paddy flooded throughout the winter.



Finding feathers.

School visits and plant field trips

Since 1999 Asahi Kasei has sent engineers from operations in Nobeoka to area middle schools to perform lectures and demonstrations on leading-edge technology, the associated science, and practical application in industrial production. The initiative being highly appreciated by students and schools alike, it has grown to involve other area companies and to include class field trips to plants. In 2004, engineers visited 15 middle schools

in Nobeoka and Kitaura, 10 of them from the Asahi Kasei Group.

Students have commented that they were able to see how the things they learned in science class are actually used, and that it made them feel proud to find out that many technologies used in everyday life originated in Nobeoka. Teachers have commented that they appreciate the opportunity to expose students to real examples of science in action, and that it has resulted in

greater interest in science among students.



Class field trip to the Tohmi Plant in Nobeoka.

Exhibition hall and plant tours

Asahi Kasei's history, technology, operations, and RC initiative are profiled at its Nobeoka Exhibition Hall. Many local residents, elementary and middle school students, and other groups and organizations visit the exhibit hall and take an attendant tour of the Bemberg Plant.

As a limited-time exhibit, Wild & Wonderful Fibers was on display in early 2005, spotlighting the role high-tech fibers play in space exploration, medical therapy, sports, biotech, recycling, and the environment.

An adjoining "science workshop" is used to demonstrate a wide range of scientific and technological principles. Volunteer alumni of Asahi Kasei lead the demonstrations, which provide visitors with a hands-on experience

and appreciation for the wonders of science. The demonstration on exhibit is periodically changed. Corresponding to Wild & Wonderful Fibers, the recycling of PET bottles to polyester fiber was demonstrated.



The science workshop.



The exhibition hall.

Sponsorship of Children's Conference

ShinAsahi-cho in Shiga prefecture was the site of "Ban Landmines! International Children's Conference 2004," with the Explosives Division of Asahi Kasei Chemicals as a sponsor. Activities for participants included a tour of our explosion-proof dome in nearby Aibano, Shiga, where destruction of antipersonnel land mines was performed on commission from the government of Japan. Destruction of all of Japan's antipersonnel land mines was completed in February 2003.

Conference participants included two-hundred children, some of them land mine victims, from Afghanistan,

Angola, Cambodia, Canada, Djibouti, France, Laos, Nepal, Rwanda, and Uganda, as well as Japan.



Conference participants at the Aibano explosion-proof dome.



Tree-planting in Australia

Since January 2004, the Asahi Kasei Labor Union has performed tree-planting in Hurricane Station, Queensland, Australia. Three plantings were held in fiscal 2004, in May and September 2004 and in January 2005. A total of 26 persons

took part, planting some 900 eucalyptus saplings in a one hectare area. The program has served to heighten environmental awareness among union members while making a practical contribution to the global environment.



Tree-planting volunteers and their hosts.

■ Culture and sports

Asahi Himuka Cultural Foundation

The Asahi Himuka Cultural Foundation was established in 1985 to enrich the environment of day-to-day life and to develop a highly cultured community in Miyazaki Prefecture, the cradle of Asahi Kasei. A wide range of cultural activities includes musical and dramatic events, support for local cultural promotion, and fostering familiarity with and understanding of folk culture.

In 2004 Kenji Nagatomo, a Nobeoka native and chairman of the Japan Advertising Photographers' Association, visited Totoro Elementary School in Nobeoka as a guest speaker, describing the essence of photography and his own approach

to taking photographs. "The best photographs capture the spirit of the people being photographed," says Nagatomo.



Kenji Nagatomo at Totoro Elementary School. (The Yukan Daily)



Athletics support award

In November 2004, Asahi Kasei received a "Top Athlete Support Award" from the Japan Olympic Committee (JOC). This award is given to corporations and schools in recognition for outstanding support for the development of top Japanese athletes.

Asahi Kasei has long supported athletic activity, and has top-tier judo, track, and volleyball teams. Between Montreal in 1976 and Athens in 2004, a total of thirty-seven employees have competed in the Olympics, earning four gold, three silver, and three bronze medals.



JOC award ceremony. (AFLO SPORT)



Athens gold medalist Masato Uchishiba. (Photo Kishimoto)



The track team, in Nobeoka.



The judo team, in Nobeoka.



The Sparkids volleyball team, in Mizushima.

Golden Games in Nobeoka

Since 1990, Asahi Kasei has sponsored the “Golden Games” track meet in Nobeoka. Competitors range from middle school students to Japan’s top-class runners. The meet has grown from one with some 100 competitors and 2000 spectators in its first year, becoming a major event with some 800 competitors and 30,000 spectators in the 15th games in May 2004. The city government and community volunteers have promoted the growth of the event in accordance with a vision to raise the vitality of Nobeoka as an athletic city.



The 15th Golden Games.



The Asahi Kasei Responsible Care Group

Plants, laboratories, and affiliated companies implementing Asahi Kasei Group Responsible Care, excluding administrative and sales offices.

	Plant, laboratory, or affiliated company	Main products/business line
Asahi Kasei Corp. Tokyo head office	1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-8440, Japan Tel. +81-3-3507-2060	
Asahi Kasei Corp. Osaka head office	1-2-6 Dojimahama, Kita-ku, Osaka 530-8205, Japan Tel. +81-6-6347-3111	
Nobeoka Region	2-1-3 Asahimachi, Nobeoka, Miyazaki 882-0847, Japan Tel. +81-982-22-2770	
Fibers	Polyester Plant	Polyester filament.
	Bemberg Plant	Cuprammonium rayon, nonwoven cellulose filament.
Chemicals	Nonwovens Plant	Artificial suede, melt-blown and spunlace nonwovens.
	R&D Laboratory for fibers & Textiles technology	R&D for new fibers.
	Asahi Kasei Eltas Co., Ltd.	Spunbond.
	Nobeoka Asahi Senni Co., Ltd.	Cuprammonium rayon and polyester subcontracting, fish bait.
	Nobeoka Kakoshi Co., Ltd.	Subcontracted work at Nonwovens Plant.
	Chemicals Plant	Nitric acid, caustic soda, chlorine, hydrochloric acid, fertilizer.
	Electrolysis Systems Plant Technology Dept.	Electrolysis systems.
	Tohmi Plant	Explosives, nitrocellulose.
	Ceolus Plant	Microcrystalline cellulose.
	Detonator Plant	Detonators.
	Leona Plastics & Materials Plant	Adipic acid, hexamethylenediamine, nylon 66.
	Leona Filament Plant	Nylon 66 filament.
	Hyuga Chemicals Plant	Coating materials.
	Nobeoka Power Supply Dept.	Utilities (electricity, steam, water)
	Asahi Kasei Newport Terminal Co., Ltd.	Receiving and storage of fuel and feedstocks.
	Nobeoka Plastics Processing Co., Ltd.	Nylon 66 compounding.
	Leona Kiko Co., Ltd.	Packing and shipping of resins and fibers.
Asahi Kasei Finechem Co., Ltd. Nobeoka Plant	Specialty chemicals.	
Asahi Chemitech Co., Ltd.	Bonded anchors.	
Asahi Cord Co., Ltd.	Tire cord processing, resin production.	
Asahi Kasei NS Energy Corp.	Electricity and steam.	
Life & Living	VDC Polymer Plant	Polyvinylidene chloride resin and latex.
Electronics Materials & Devices	Finepattern Devices Dept.	Fine-pattern coils.
	Pellicle Dept.	Pellicles.
	Asahi Kasei Microsystems Co., Ltd.	LSIs.
	Asahi Kasei Techno Systems Co., Ltd.	Plant diagnostic and environmental surveillance devices.
Pharma	Asahi Kasei Electronics Co., Ltd.	Hall elements, pellicles.
	Nobeoka Pharmaceuticals Plant	Pharmaceutical intermediates.
	Planova Plant	Virus removal filters.
	Asahi Kasei Medical Co., Ltd. Nobeoka Plant	Artificial kidneys and other medical devices.
Corporate R&D	Asahi Kasei Aime Co., Ltd.	Contact lenses.
	Asahi Kasei Pharma Support Co., Ltd.	Subcontracted work at Nobeoka Pharmaceuticals Plant and Planova Plant.
	Toyo Kensa Center Co., Ltd. Nobeoka Office	Environmental and other analyses, clinical testing, soil pollution evaluation.
	Asahi Kasei Kankyujigyou Co., Ltd.	Disposing of Asahi Kasei Group industrial waste.
	New Asahi Services Co., Ltd.	Insurance agency, cellular phone sales, bowling center.
	Asahi Kasei Office One Co., Ltd.	Utilization of Asahi Kasei Group assets, subcontracting.
Fuji Region	2-1 Samejima, Fuji, Shizuoka 416-8501, Japan Tel. +81-545-62-2111	
Chemicals	Photo Products Plant	Photopolymer.
	Fertilizers Plant	Fertilizer, nitric acid.
	Plastics Fabrication Plant	Polymethyl methacrylate sheet.
	Microza Plant	Filtration membranes and modules.
Construction Materials	Fuji Power Supply Dept.	Utilities (electricity, steam, water)
	Fuji Plant	Autoclaved lightweight concrete panels, piles.
Pharma	Fuji Kako Co., Ltd.	Construction materials processing.
	Biologics Bulk Production & Technology Dept.	Bulk pharmaceuticals and trial medicines.
	Institute for Life Science Research	R&D for new pharmaceuticals.
Electronics Materials & Devices	Asahi Kasei Medical Co., Ltd. Biomedical Equipment Center	Design and development of medical equipment.
	Electronics Materials Plant	Photosensitive polyimide.
	Electronics Interconnecting Materials Plant	Photosensitive dry film resist.
	Electronics Materials Laboratory	R&D for new electronics materials.
	Devices & Sensors Laboratory	R&D for new electronics devices.
Corporate R&D	Asahi Kasei Electronics Co., Ltd.	Hall elements.
	Central Research Laboratory	Advancement of technology, development of new interdisciplinary technology.
	Analysis & Simulation Center	Analysis and computer simulation.
Corporate R&D	Sun Business Services Co., Ltd.	Subcontracting.
Corporate R&D	1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-8440, Japan Tel. +81-3-3507-2285	
Atsugi	Information Technology Laboratory	Establishment of new solution-oriented businesses.
Other	Sun Trading Co., Ltd.	Sales of fibers, chemicals, and medical devices.
	Asahi Kasei Engineering Co., Ltd.	Plant, equipment, process engineering.
	Sun Associates Co., Ltd.	Patent-related subcontracting.
	Asahi Kasei Information Systems Co., Ltd.	Computer software, IT systems.
	AJS Software Co., Ltd.	Computer programming, systems operation.
	Koyo Fudosan Co., Ltd.	Real estate brokerage, subcontracted office work.
	Casanavi Co., Ltd.	Building and home fixtures e-marketplace.
	Asahi Kasei Amidas Co., Ltd.	Personnel placement, agency, and training; ISO consulting.
	Asahi Kasei Ability Co., Ltd.	Printing, bookbinding, and office work.
	Sun Foods Co., Ltd.	Provision of employee meals.
	Asahi Kasei Fukuri Service Corp.	Company housing, recreational facilities.
	Asahi Finance Co., Ltd.	Investment, finance.
	Asahi Kasei Fibers Corp.	1-2-6 Dojimahama, Kita-ku, Osaka 530-8205, Japan Tel. +81-6-6347-3600
Moriyama Office	515 Kojimacho, Moriyama, Shiga 524-0002, Japan Tel. +81-77-581-4001	
Fibers	Spunbond Plant	Spunbond.
	Roica Plant	Elastic polyurethane filament.
	Power Supply Dept.	Utilities (electricity, steam, water)
Chemicals	Moriyama Sun Business Co., Ltd.	Subcontracting.
	Hipore Plant	Microporous membrane.
Construction Materials	Marine Materials Development Dept.	Artificial fish reefs.
Electronics Materials & Devices	Electronics Materials Plant	Photosensitive polyimide.
	Asahi-Schwebel Co., Ltd.	Glass fabric.
Other	R&D Laboratory for Applied Product	Evaluation of new fibers, R&D for fiber processing technology.

	Plant, laboratory, or affiliated company	Main products/business line
Asahi Kasei Chemicals Corp.	1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-8440, Japan Tel. +81-3-3507-2220	
Mizushima Works	3-13 Ushiodori, Kurashiki, Okayama 712-8633, Japan Tel. +81-86-458-2111	
Chemicals	Basic Petrochemical Production Dept.	Ethylene, benzene.
	1st Monomers Production Dept.	Styrene monomer, cyclohexanol, ammonia.
	2nd Monomers Production Dept. AN Line	Acrylonitrile.
	2nd Monomers Production Dept. Styrene Line	Styrene monomer, polycarbonatediol.
	ABS & SB Latex Production Dept.	Acrylonitrile-butadiene-styrene resin, styrene-butadiene latex.
	Suntec Production Dept.	High density polyethylene, low density polyethylene.
	Tenac Production Dept.	Polyacetal.
	Power Supply Dept.	Utilities (electricity, steam, water)
	New Materials & Chemical Process R&D Laboratory	Development of new materials and chemical processes.
	Sanyo Petrochemical Co., Ltd.	Petrochemical feedstocks.
	PS Japan Corp. Mizushima Plant	Polystyrene.
	Mizushima Sun Business Co., Ltd.	Subcontracting.
	Asahi Kasei Epoxy Co., Ltd. Mizushima Plant	Epoxy resin.
Kawasaki Works	1-3-1 Yako, Kawasaki-ku, Kawasaki, Kanagawa 210-0863, Japan Tel. +81-44-271-2021	
Chemicals	AN/XY Production Dept.	Acrylonitrile, 2,6-xylenol.
	Industrial Chemicals Production and Technology Dept.	Sodium cyanide.
	MMA Production Dept.	Methyl methacrylate, cyclohexyl methacrylate.
	ABS & SB Latex Production Dept.	Styrene-acrylonitrile resin, styrene-butadiene latex.
	Synthetic Rubber Production Dept.	Synthetic rubber.
	Acrylic Plastics Production Dept.	Polymethyl methacrylate.
	Ion Exchange Membranes Production Dept.	Ion-exchange membranes.
	Power Supply Dept.	Utilities (electricity, steam, water)
	Xyron Production Dept.	Modified polyphenylene ether.
	Performance Materials R&D Center	Creation of new high performance materials.
	Specialty Products & Systems R&D Center	R&D for membranes, energy materials, water treatment materials and systems.
	Plastics R&D Center	Applied research for plastics and plastic processing.
	Kawasaki Sun Business Co., Ltd.	Contract work.
	PS Japan Corp. R&D Dept.	Polystyrene R&D.
	PS Japan Corp. Chiba Plant	Polystyrene.
	Nippon Crenol Co., Ltd.	2,6-xylenol.
Electronics Materials & Devices	Plastic Optical Fibers Dept.	Plastic optical fiber.
Corporate R&D	Membrane Technology Laboratory	Development of new products and new operations based on membrane technology.
Other	Oita Plant	Explosives.
	Chikushino Plant	Metal cladding.
	Wakayama Plant	Acrylic latex, stencil paper.
	Japan Elastomer Co., Ltd. Oita Plant	Synthetic rubber.
	Oita Sun Business Co., Ltd.	Subcontracting.
	Asahi Kasei Color Tech Co., Ltd.	Plastic compounding.
	Asahi Kasei Techno Plus Co., Ltd.	Plastic molding and sale.
	Asahi Kasei Geotechnologies Co., Ltd.	Sale of industrial explosives.
	Asahi SKB Co., Ltd.	Shotgun cartridges.
	Asahi Kasei Metals Ltd. Tomobe Plant	Aluminum paste.
	Asahi Kasei Finechem Co., Ltd. Osaka Plant	Specialty chemicals
	Kakuichi Rubber Co., Ltd.	Synthetic rubber compounding.
Asahi Kasei Life & Living Corp.	1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-8440, Japan Tel. +81-3-3507-2939	
Suzuka Plant	1-1 Hiranaka-machi, Suzuka, Mie 513-8660, Japan Tel. +81-593-79-5111	
	Suzuka Plant	Polyvinylidene chloride film, biaxially oriented polystyrene sheet/film, polyolefin film/foam.
	Suzuka Wrap Film Plant	Cling film, polyvinylidene chloride fiber.
	Suzuka Sun Business Co., Ltd.	Plastic processing.
Other	Asahi Home Products Co., Ltd.	Sale of cling film and other household products.
	Asahi Kasei Pax Corporation	Fabricated plastic products.
Asahi Kasei Construction Materials Corp.	2-12-7 Higashi-shinbashi, Minato-ku, Tokyo 105-0021, Japan Tel. +81-3-5473-5251	
Construction Materials	Iwakuni Plant	Autoclaved lightweight concrete panels, piles.
	Hozumi Plant	Autoclaved lightweight concrete panels.
	Sakai Plant	Autoclaved lightweight concrete panels.
	Shiraio Plant	Autoclaved lightweight concrete panels, piles.
	Neoma Foam Plant	Phenolic foam insulation panels.
	Asahi Kasei Foundation Systems Co., Ltd.	Installation of piles.
	Sakai Kako Co., Ltd.	Construction materials processing.
	Hozumi Kako Co., Ltd.	Construction materials processing.
	Kyowa Kogyo Co., Ltd.	Construction materials processing.
	Asahi Giko Co., Ltd.	Construction materials processing.
	Chuwa Kogyo Co., Ltd.	Construction materials processing.
	Hokkaido Shiba Kogyo Co., Ltd.	Construction materials processing.
	Tanaka Kiko Co., Ltd.	Construction materials processing.
Other	Asahi Kasei Marinotech Co., Ltd.	Artificial fish reefs.
Asahi Kasei Homes Corp.	1-24-1 Nishi-shinjuku, Shinjuku-ku, Tokyo 163-8345, Japan Tel. +81-3-3344-7111	
Asahi Kasei EMD Corp.	1-23-7 Nishi-shinjuku, Shinjuku-ku, Tokyo 160-0023, Japan Tel. +81-3-6911-2700	
Asahi Kasei Pharma Corp.	9-1 Kanda Mitoshiro-cho, Chiyoda-ku, Tokyo 101-8481, Japan Tel. +81-3-3259-5777	
Ohito	632-1 Mifuku, Izunokuni, Shizuoka 410-2321, Japan Tel. +81-558-76-7011	
Pharmaceuticals Production & Technology Center	Ohito Pharmaceuticals Plant	Pharmaceutical intermediates; animal feed and feed additives.
	Ohito Diagnostics Plant	Diagnostic enzymes, diagnostic reagent kits.
	Kamishima Pharmaceuticals Plant	Pharmaceuticals.
	Nagoya Pharmaceuticals Plant	Pharmaceuticals.
	Keagegawa Pharmaceuticals Plant	Pharmaceutical distribution.
	Engineering Dept.	Design, construction, and maintenance; utilities management.
	General Management Dept.	General management and administration.
	Safety & Environment Dept.	Management of safety and environmental affairs.
	Asahi Kasei Pharma Support Co., Ltd.	Subcontracting of maintenance, safety, and animal care for Asahi Kasei Pharma Corp.
	RC Dept.	Coordination and advancement of RC for Asahi Kasei Pharma.
	Institute for Life Science Research	R&D for new pharmaceuticals and pharmaceutical formulations.
Chemicals	Asahi Kasei Clean Chemical Co., Ltd.	Environmental chemicals, water treatment equipment.
Corporate R&D	Biotechnology Group	Development of bioprocesses for performance chemicals.
Other	Toyo Kensa Center Co., Ltd.	Environmental and other analyses, clinical testing, soil pollution evaluation.
Other	Asahi Kasei N&P Co., Ltd. Shiraio Plant	Pharmaceuticals and functional food additives.
	Asahi Kasei Medical Co., Ltd. Oita Plant	Artificial kidneys and other medical devices.

Facts and Statistics

ISO 14001 certification

Company	Certified unit	Entities included in certification*	Date of initial certification	Certification No.
Asahi Kasei Corporation	Nobeoka	Tohmi Plant, Leona Plastics & Materials Plant, Detonators Plant, Asahi Chemitech Co., Ltd., Power Supply Dept., VDC Polymer Plant, Asahi Kasei Electronics Co., Ltd. Nobeoka Plant, Asahi Kasei Microsystems Co., Ltd. Nobeoka Plant, Polyester Plant, Nonwovens Plant, Finepattern Devices Dept., Bemberg Plant, Asahi Kasei Newport Terminal Co., Ltd., Leona Filament Plant, Asahi Kasei Medical Co., Ltd. Nobeoka Plant, Electrolysis Systems Plant Technology Dept.	1999.10.22	JQA-EM0561
	Fuji	—	1998.12.25	JQA-EM0302
Asahi Kasei Fibers Corp.	Moriyama	Asahi-Schwebel Co., Ltd. Moriyama Plant, Asahi Engineering Co., Ltd. Moriyama Plant	1997.12.26	JQA-E-90093
Asahi Kasei Chemicals Corp.	Mizushima	Asahi Kasei Epoxy Co., Ltd. Mizushima Plant, Sanyo Petrochemical Co., Ltd. Mizushima Plant, PS Japan Corp. Mizushima Plant	1998.03.06	JQA-E-90117
	Kawasaki	Nippon Crenol Co., Ltd., PS Japan Corp. R&D Dept.	1997.04.21	JQA-E-90033
	Chiba	PS Japan Corp. Chiba Plant	1999.03.26	JQA-EM0395
	Wakayama	—	2004.01.09	JQA-EM3667
	Japan Elastomer Co., Ltd.	Oita Plant	2004.04.16	JQA-E-90033
	Asahi Kasei Metals Ltd.	—	1998.05.18	JCQA-E-0021
	Asahi Kasei Technoplus Co., Ltd.	—	2001.04.08	SGS/J/E127
Asahi Kasei Life & Living Corp.	Suzuka Plant	—	1998.08.21	JQA-EM0207
	Asahi Kasei Pax Corp.	Gunma Plant, Ono Plant, Ageo Plant	2002.04.12	JQA-EM2343
Asahi Kasei Homes Corp.	Asahi Kasei Juko Co., Ltd.	Shiga Plant	1998.03.31	BL-QE E002
Asahi Kasei Pharma Corp.	Ohito	Asahi Kasei Clean Chemical Co., Ltd., Toyo Kensa Center Co., Ltd., Asahi Kasei Pharma Support Co., Ltd., Asahi Vet Japan Co., Ltd., Asahi Kasei Information Systems Co., Ltd., Asahi Kasei Fukuri Service Corp.	1998.08.28	JSAE053
Other	Asahi Kasei Engineering Co., Ltd.	Head Office	2003.02.07	JQA-EM2969

* Where all organizational entities of Asahi Kasei Corp. and core operating companies at a given site are included, their individual listing is omitted.

ISO 9000-series certification

Segment	Registered entity	Date of initial registration	Registration No.	
Fibers	Asahi Kasei Fibers Corp.	1994.07.08	ISO9001-JQA0549	
Chemicals	Chemicals & Plastics	1993.11.11	ISO9001-JQA0374	
	Asahi Kasei Color Tech Co., Ltd.	1998.01.12	ISO9001-JCQA0278	
	Asahi Kasei Techno Plus Co., Ltd.	1998.08.05	ISO9001-SGS/J051/98	
	Performance Plastics & Compounds		1993.11.11	ISO9001-JQA3013
			2002.05.14	QS-9000-JQA-QS0195
	Performance Coating Materials Division – Wakayama Plant, Hyuga Chemicals Plant, Asahi Kasei Metals Tomobe Plant, Asahi Kasei Epoxy Mizushima Plant	1993.12.21	ISO9001-JQA0350	
	Asahi Kasei Finechem Co., Ltd.	1999.12.28	ISO9001-JQAQM4180	
	Industrial Membranes Div.	1994.02.21	ISO9001-JQAQM4618	
	Imaging Products Div.	1995.04.07	ISO9001-JQAQM5364	
	Ion Exchange membranes Div.	1997.03.31	ISO9001-JQA1668	
	Metal Cladding, Explosives Div.	1998.08.01	ISO9001-98QR120	
	Industrial Explosives Explosives, Div.	1998.10.23	ISO9001-JQA2717	
	Fastening Products Explosives, Div.	1999.03.12	ISO9001-JQA3154	
	Defence Explosives, Explosives Div.	1999.09.27	ISO9001-BSK0041	
Life & Living	Asahi Kasei Life & Living Corp.	1993.12.15	ISO9001-JQA0344	
	Asahi Kasei Pax Corp.	1998.09.25	ISO9001-JQA2654	
Construction Materials	Asahi Kasei Construction Materials Corp.	1998.04.24	ISO9001-RQ1838	
Homes	Asahi Kasei Homes Corp.	2002.11.19	ISO9001-BLQ741	
Electronics Materials & Devices	Electronics Materials Div.	1995.04.07	ISO9001-JQAQM3841	
	Asahi Kasei Microsystems Co., Ltd.	1995.06.09	ISO9001-JQA0899	
	Asahi-Schwebel Co., Ltd. Moriyama Plant	1995.10.20	ISO9001-JQA1008	
	Asahi Kasei Electronics Co., Ltd.	1996.06.07	ISO9002-JQA1301	
	Plastic Optical Fibers Dept.	2002.05.31	ISO9001-JQAQM8303	
Pharma	Asahi Medical Co., Ltd.	1994.11.10	ISO9001-BSIFM29731	
	Fine Chemicals & Diagnostics Division	2002.08.23	ISO9001-JQAQM8669	
Services, Engineering and Others	Asahi Kasei Information Systems Co., Ltd. System Integration Div.	1999.07.23	ISO9001-JQAQM3579	
	Asahi Engineering Co., Ltd.	2002.03.29	ISO9001-JQAQM804	

Note: Due to changes in scope of registration, dates of initial registration shown above do not correspond to certification date for all products handled by each entity registered.

OHSAS 18001 certification

Company	Certified site	Standard	Date of certification	Certification No.
Asahi Kasei Chemicals Corp.	Asahi Kasei Metals Ltd. Tomobe Plant	OHSAS18001	2002.07.22	JCQA-0-0004
	Kawasaki Works Ion Exchange Membranes Div.	OHSAS18001	2003.06.27	JQA-OH0044

FY 2004 treatment and disposal of industrial waste* by business unit

(thousand tons)

	On-site				Effluent	Off-site		
	Waste generated	Recycling	Volume reduction	Landfill		Recycling	Volume reduction	Final disposal
Asahi Kasei Fibers	36.1	24.7	0.0	0.0	11.3	10.5	0.2	0.7
Asahi Kasei Chemicals	220.3	37.6	105.2	0.0	77.6	60.6	13.3	3.6
Asahi Kasei Life & Living	15.8	0.0	0.0	0.0	15.8	8.7	0.1	6.9
Asahi Kasei Construction Materials	64.0	25.3	0.0	0.0	38.7	32.6	0.8	5.4
Asahi Kasei EMD	6.5	0.0	0.5	0.0	6.0	4.0	1.9	0.1
Asahi Kasei Pharma	12.5	0.3	1.9	0.0	10.2	7.6	1.8	0.8
Independent businesses group	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
FY 2004 total	355.4	87.9	107.7	0.0	159.7	124.1	18.2	17.4
cf., FY 2003	424.1	126.3	120.6	0.1	177.1	135.9	17.4	23.8
cf., FY 2002	395.4	53.6	182.9	0.1	158.8	114.7	18.3	25.9
cf., FY 2001	362.9	44.0	183.3	0.1	135.5	98.6	11.4	25.4
cf., FY 2000	361.9	3.5	187.5	0.1	170.8	122.0	21.9	26.8

* Not including waste generated from non-recurring events such as dismantling closed plants or waste generated from dismantling old homes when constructing new homes sold by Asahi Kasei Homes.

Industrial waste generated at construction sites of Asahi Kasei Homes

(thousand tons)

	2000	2001	2002	2003	2004
New construction	16.6	8.7	7.1	6.1	5.8
Dismantling	39.1	19.7	15.0	19.6	17.9
Total	55.7	28.4	22.1	25.7	23.6

ALC trimmings recycled by Asahi Kasei Construction Materials

(tons)

Fiscal year	2000	2001	2002	2003	2004
Tons	375	508	630	749	796

Chemical recycling of PET bottles by Asahi Kasei Fibers

(tons)

Fiscal year	2001	2002	2003	2004
Tons	171	646	622	748

Releases and transfers of PRTR substances by fiscal year

(tons)

Fiscal year		2000	2001	2002	2003	2004
Releases	To the atmosphere	4,724	2,273	1,594	1,457	968
	To water	170	168	130	149	91
	To soil	0	0	0	0	0
	Total	4,894	2,441	1,724	1,606	1,059
Transfer		2,134	1,985	2,685	3,550	4,381

FY 2004 releases and transfers of PRTR-specified substances

(tons)

Core operating company	Site	Substance	Releases to:			Transfers
			Atmosphere	Water	Soil	
Asahi Kasei Fibers	Nobeoka	<i>N,N</i> -dimethylformamide	0.0	7.2	0.0	0.0
Asahi Kasei Chemicals	Nobeoka	Tetrafluoroethylene	42.0	0.0	0.0	0.0
		Hexamethylenediamine	7.2	31.5	0.0	0.2
		Trichlorotrifluoroethane (CFC-113)	16.0	1.4	0.0	0.0
		3-Chloropropene (allyl chloride)	9.1	0.0	0.0	0.0
		Toluene	7.4	0.4	0.0	153.4
	Mizushima	Styrene	36.9	0.0	0.0	40.2
		Molybdenum and its compounds	0.0	9.7	0.0	19.2
	Moriyama	Dichloromethane (methylene chloride)	41.5	0.0	0.0	1.2
	Fuji	Tetrachloroethylene	21.6	0.0	0.0	1.1
	Kawasaki	Methyl methacrylate	43.7	0.8	0.0	186.0
		Ethylbenzene	31.5	0.0	0.0	127.7
		Xylene	20.6	0.0	0.0	62.2
Methyl acrylate		2.6	5.5	0.0	0.2	
Asahi Kasei Life & Living	Nobeoka	1,1-Dichloroethylene (vinylidene chloride)	36.0	0.9	0.0	28.8
		Chloroethylene (vinyl chloride)	12.2	0.0	0.0	0.0
	Suzuka	Chloroethane	213.7	0.0	0.0	0.0
		1-Chloro-1,1-difluoroethane (HCFC-142b)	102.9	0.0	0.0	0.0
Asahi Kasei Construction Materials	Fuji	1,3,5-Trimethylbenzene	13.9	0.0	0.0	0.4
		Xylene	12.8	0.0	0.0	2.9
	Sakai	1,3,5-Trimethylbenzene	109.8	0.0	0.0	4.8
	Hozumi	1,3,5-Trimethylbenzene	83.3	0.0	0.0	3.4
Asahi Kasei EMD	Nobeoka	Toluene	6.0	0.0	0.0	0.0
Asahi Kasei Pharma	Nobeoka	Dichloropentafluoropropane (HCFC-225)	15.5	0.0	0.0	2.8
Subtotal			886.0	0.0	0.0	634.5
Others (total release of less than 5 tons)			81.4	0.0	0.0	3746.4
Total			967.4	0.0	0.0	4380.9

Notes: • Substances listed are those of which total release was 5 tons or more.
• All figures rounded to the nearest ton.

Release of priority atmospheric pollutants by fiscal year

(tons)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2003 target
Acrylonitrile	113	109	101	109	84	51	40	29	6	6	7
Acetaldehyde	—	—	—	—	4	3	1	0.5	0.5	0.6	0.5
Vinyl chloride monomer	60	53	63	61	23	21	14	12	12	12	8
Chloroform	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.5	0.2	0.1	0.2
Dichloromethane	536	568	495	486	476	340	141	96	72	52	56
1,2-Dichloroethane	10	9	9	8	6	6	10	8	11	4	5
Tetrachloroethylene	164	161	150	118	94	92	48	38	46	22	35
Trichloroethylene	2	5	6	2	2	2	2	0.3	0.0	0.0	2
Ethylene oxide	6	5	5	5	4	4	5	5	5	5	3
1,3-Butadiene	419	371	367	83	26	15	10	10	5	3	8
Benzene	9	7	8	7	5	5	3	5	6	4	4
Formaldehyde	7	4	4	4	3	4	6	6	4	5	4
Total	1,326	1,292	1,208	883	727	543	281	211	168	114	134

FY 2004 release of priority atmospheric pollutants by core operating company

(tons)

	Asahi Kasei Fibers	Asahi Kasei Chemicals	Asahi Kasei Life & Living	Asahi Kasei Construction Materials	Asahi Kasei EMD	Asahi Kasei Pharma	Total
Acrylonitrile	–	6.3	0.1	–	–	–	6.4
Acetaldehyde	0.5	–	–	–	0.03	–	0.6
Vinyl chloride monomer	–	0.01	12.2	–	–	–	12.2
Chloroform	–	0.1	–	–	–	–	0.1
Dichloromethane	–	46.7	–	–	–	5.3	52.0
1,2-Dichloroethane	–	2.2	–	–	–	1.4	3.6
Tetrachloroethylene	–	21.6	–	–	–	–	21.6
Trichloroethylene	–	–	0.0	–	–	–	0.0
Ethylene oxide	–	–	–	–	–	4.9	4.9
1,3-Butadiene	–	3.3	–	–	–	–	3.3
Benzene	–	3.9	–	–	–	–	3.9
Formaldehyde	3.9	1.4	–	0.05	0.02	–	5.4
Total	4.4	85.6	12.3	0.05	0.05	11.6	114.0

Release of air and water pollutants by fiscal year

(tons except water effluence, million m³)

	2000	2001	2002	2003	2004
SOx	8,485	7,543	5,941	6,114	7,179
NOx	6,839	6,431	6,099	4,881	5,356
Soot and dust	309	260	282	224	211
Waste water effluence	361	349	339	249	232
COD	1,971	2,164	1,975	1,438	1,549
Nitrogen	–	–	6,761	5,960	5,948
Phosphorus	–	–	47	28	14

FY 2004 release of air and water pollutants by site

(tons except water effluence, million m³)

	Nobeoka	Mizushima	Moriyama	Fuji	Ohito	Kawasaki	Others	Total
SOx	5,786	558	0	14	5	3	812	7,179
NOx	2,982	1,927	67	63	13	150	155	5,356
Soot and dust	68	95	1	0	1	11	35	211
Waste water effluence	140	35	14	13	1	17	11	232
COD	744	116	12	13	1	461	203	1,549
Nitrogen	5,108	335	16	91	3	354	41	5,948
Phosphorus	0	3	2	3	0	3	4	14

Greenhouse gas emissions by fiscal year

(million tons CO₂ equivalent)

	Baseline*	2000	2001	2002	2003	2004	2010 target
Carbon dioxide	5.06	5.10	4.88	4.86	4.73	4.87	4.90
Nitrous oxide	6.82	3.59	0.75	0.56	0.56	0.90	0.67
Methane	0	0	0	0	0	0.01	0
HFCs	0.16	0.21	0.18	0.19	0.20	0.16	0
PFCs	0.01	0.07	0.07	0.09	0.11	0.13	0.01
Sulfur hexafluoride	0	0.02	0.01	0.02	0.03	0.03	0.02
Total	12.06	8.99	5.90	5.73	5.63	6.10	5.60

* FY 1990 for carbon dioxide, dinitrogen oxide, and methane; FY 1995 for HFCs, PFCs, and sulfur hexafluoride.

FY 2004 greenhouse gas emissions by business unit

(thousand tons CO₂ equivalent)

	Asahi Kasei Fibers	Asahi Kasei Chemicals	Asahi Kasei Life & Living	Asahi Kasei Construction Materials	Asahi Kasei EMD	Asahi Kasei Pharma	Independent businesses group	Total
Carbon dioxide	318	4057	98	129	111	149	10	4871
Nitrous oxide	2	894	0	0	0	0	0	897
Methane	0	0	0	0	0	0	12	12
HFCs	2	0	148	0	5	2	0	157
PFCs	0	0	0	0	82	48	0	131
Sulfur hexafluoride	0	0	0	0	34	0	0	34
Total	322	4951	247	129	233	199	22	6102

Lost workday injury indices

Fiscal year		2000	2001	2002	2003	2004
Frequency rate	Asahi Kasei Group	0.35	0.27	0.21	0.20	0.36
	Chemical industry, Japan	0.89	1.03	0.83	0.92	0.88
	Manufacturing industries, Japan	1.02	0.97	0.98	0.98	0.99
Severity rate	Asahi Kasei Group	0.029	0.045	0.024	0.034	0.011
	Chemical industry, Japan	0.08	0.16	0.07	0.07	0.06
	Manufacturing industries, Japan	0.12	0.10	0.12	0.11	0.11

Note: Fatalities contributed to the fiscal 1987 and fiscal 1996 peaks in the severity rate graph on p. 38. Three fatalities occurred in fiscal 1987, due to an automobile collision, an airplane crash, and a collapsing mound; one fatality occurred in fiscal 1996, due to crushing by machinery.

Consolidated financial performance

(million yen except employees)

Fiscal year	2000	2001	2002	2003	2004
Sales	1,269,414	1,195,393	1,193,615	1,253,534	1,377,697
Ordinary profit	86,747	39,849	50,389	53,643	112,876
Net income (loss)	25,177	5,180	(66,791)	27,672	56,454
Employees	26,695	26,227	25,730	25,011	23,820

[translation from Japanese]

May 31, 2005

Verification Advisory Committee
Chairman
Akio Yamamoto

Responsible Care Verification Center
Chief Director
Yasuo Tanaka

To: Shiro Hiruta, President
Asahi Kasei Corporation

Scope and Objectives of Verification

Responsible Care Report Verification was performed with respect to the Responsible Care Report 2005 Edition (“the Report”) prepared by Asahi Kasei Corporation, with the objective of expressing an opinion as a chemical industry specialist with respect to the following:

1. Reasonableness of methods of calculation and aggregation of performance metrics (numerical values), and the accuracy of numerical values.
2. Consistency of reported information other than performance metrics (numerical values) with supporting documents and materials.
3. Evaluation of Responsible Care activities.
4. Characteristics of the Report.

Verification Procedure

- At the head office: Examination of the reasonableness of methods of aggregation and compilation of performance metrics reported from each site (office, plant) and confirmation of the consistency of reported information with supporting materials were performed through interviews of responsible parties and compilers of the Report and receipt of internal documents and explanation thereof.
- At the Ohito administrative area and the Kawasaki Works: Examination of the reasonableness of methods of calculation and aggregation of performance metrics reported to the head office, examination of the accuracy of numerical values, and confirmation of the consistency of reported information with supporting documents and materials were performed through interviews of responsible parties and compilers of the Report and receipt of internal documents and explanation thereof.
- Performance indices and reported information were verified by sampling.

Opinion

1. Reasonableness of methods of calculation and aggregation of performance metrics (numerical values); accuracy of numerical values.
 - Performance metrics at the head office, the Ohito administrative area, and the Kawasaki Works have been calculated and aggregated reasonably and accurately.
 - Some inconsistency was found between performance numerical values of the head office and some sites. Corrections were made.
2. Consistency of reported information with supporting documents and materials.
 - Information contained in the report was confirmed to be consistent with supporting materials. Some minor issues related to appropriateness of expression and ease of understanding were identified in the draft stages, but these are rectified in the present Report and no important matters warranting correction are believed to exist at present.
3. Evaluation of Responsible Care measures.
 - It is highly noteworthy that the entire group is making progress toward its target of zero emission, and that the Ohito administrative area and Kawasaki Works have targets stricter than those of the group and are achieving positive results.
 - It is noteworthy that all main production bases, including the Ohito administrative area and the Kawasaki Works, publish their own RC Reports and strive for a good relationship with the local community.
 - It is noteworthy that information related to accidents and legal noncompliance is disclosed, and that concrete and systematic measures to prevent recurrence are advancing.
4. Characteristics of the Report.
 - It is noteworthy that measures in many fields are presented in an easy-to-understand format in the new Highlights section, and that photos and comments of personnel are included to draw the reader’s interest.

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