

Emphasizing the Environment, CS & Quality and Human Resources to Contribute to Society through Our Business Activities

Environmental & Social Report 2006

2006

### Mission Statement

## Create social value while responding to stakeholders' expectations

The Sekisui Chemical Group will strive to become a "good company" as one that has a favorable image and continuous growth.

We intend to maintain business growth and maximize corporate value with customer satisfaction in responding to the expectations of our shareholders. We also actively support the self-realization of the employees who are the driving force of our corporate activities. We strive to deepen our partner-relationships with our business associates. Through our business, products and contribution to society, we aim to create value to the community and the global environment, which will also benefit future generations.

The Sekisui Chemical Group will pursue high profitability and a prominent position in the marketplace while fulfilling our corporate responsibilities and responding to the expectations of our customers, shareholders, employees, business partners, local communities and the environment.



### Corporate Activity Guidelines of Sekisui Chemical Group

In order to continually enhance the confidence that society places in us, we, Sekisui Chemical Group of Companies, aim at becoming an evermore highly acclaimed enterprise through our day-to-day business activities, in accordance with the corporate activity guidelines set forth as follows.

1. Our business activities contribute to the positive development of our global society.

We supply products and services that are highly appreciated by society, manufactured and provided with full consideration for the safety of the handlers and consumers, and for the environment.

We are a forerunner in developing new technologies, new products and new markets. We develop our business continuously, by providing safe and comfortable work environments and establishing sound corporate guidelines.

2. We activate our operations by maximizing each employee's personal abilities.

We individually aim at being self-supporting persons by our perpetual efforts

we individually aim at being seif-supporting persons by our perpetual errors to expand our attributes and abilities.

We seek "speed" and "quality" in fulfilling our roles and duties.

We achieve maximum results by confidently facing every challenge and contributing to our best in teamwork, without being hampered by precedents.

3. We maintain an enterprise in which society has confidence, and which is highly regarded by our customers, business partners, stockholders, local communities and the general public.

We obtain our customer confidence and satisfaction by supplying top quality

products, and providing excellent services.

We communicate meaningfully with our customers, business partners, stockholders and local communities.

We disclose our corporate information justly and timely

We protect personal information and customer information with the strictest security.

4. We comply with the laws and the spirit therein, and act with sincerity, in all aspects of our business activities.

We conduct clear and fair trading by complying with all relevant laws and regulations both inside and outside of Japan, as well as with our internal rules and all international rules.

We conduct all our activities in a manner which will have only beneficial results to the society at large, fully in accordance with our position as a responsible corporate member of the society.

We maintain sound and normal relations with political and all other

administrative bodies.

We fully respect human rights and refrain from any form of discrimination

5. We, as a good corporate citizen, work for global environmental protection and contribute to the wellbeing of society from the viewpoint of sustainability.

We tackle global environmental issues and are dedicated to global warming prevention and resources recycling.

We support social contribution activities widely, such as nature preservation activities, culture, welfare and so forth.

We respect the culture and customs of local communities for co-existence and

co-prosperity both inside and outside of Japan.

Enacted: May 1998 Revised: May 2006

### **Editorial Policy**

Sekisui Chemical Group adopted a thoroughgoing approach to Corporate Social Responsibility (CSR) last year, in fiscal 2005. With this change, the "Environmental Report," published until 2004, changed its name to "Environmental & Social Report," further expanding its reporting scope by not merely reporting on environmental activities but also addressing the broader issues of CSR. This year marks the second publication in the new series.

This report was prepared with reference to the Ministry of the Environment's "Environmental Reporting Guidelines (2003 Edition)" and the Global Reporting Initiative's (GRI) "Sustainability Reporting Guidelines 2002." In a continuing series of the report in fiscal 2005, the report contains chapters on the "three prominences" (the Environment, CS & Quality, and Human Resources) and the "three attitudes of sincerity" (compliance, risk management and information disclosure and communication), which are the fundamental CSR concepts of Sekisui Chemical Group.

The contents of each section of this edition are intended to center around reports of further advances made since the 2005 edition. We have also set up new special article pages to handle reports covering the specific characteristics of three division companies engaged in very different businesses, as well setting up special reports for company-specific information in each of the main sections on the Environment, Customer Satisfaction (CS) & Quality and Human Resources.

Through this "Environmental & Social Report" and the accompanying "Annual Report," which outlines the financial information of the Group, Sekisui Chemical Group hopes to promote public disclosure of its business activities.

#### Scope of this Report

Entities Encompassed by this Report:

The basic function of this report is to comment on the activities of Sekisui Chemical Group. However, some activities may include those individually done by Sekisui Chemical Co., Ltd. and its group companies.

Timeframe Encompassed by this Report: April 2005-March 2006 (including activities up to June 2006).





Annual Report

Environmental & Social Report (this report)

#### Disclaimer

This report is not confined to commentaries on the past and current activities of Sekisui Chemical Co., Ltd. and its affiliated companies. It includes business plans and forecasts as well as future projections based upon management plans and directives that were valid at the time of publication. These forecasts are based on information available at the time of publication, and therefore the actual status and outcome of future business activities may differ from those projected in this report, due to changes in various conditions. Furthermore, because figures contained in the included graphs and tables are rounded up (or down), the actual totals may not always identically match those stated in the report. Reviews of methods of calculation and changes in the coefficients used for environmental impact have led to some revisions of data for previous years. We hope that readers will understand and take these factors into consideration.

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# Sekisui Chemical Group develops and provides a wide variety of products used in various applications throughout the industry and in daily life

### **Main Raw Materials** Metals ----- 90.000 tons Wood, wooden building materials ----- 55,000 tons Cement for exterior walls --- 144,000 tons Concrete for foundations --- 297,000 tons PVC ----- 195,000 tons Polyethylene ---- 91,000 tons Polypropylene ---- 37,000 tons Kraft paper ----- 14,000 tons **Energy** ----- 6,318 TJ Purchase of electric power ----- 371,167 MWh Heavy oil A ----- 13,641 KL City gas ---- 38,540,000 m<sup>3</sup> PRTR-designated **substances** ----- 127,000 tons Industrial water ----- 12.909.000 tons

### Sekisui Chemical Group



#### **Housing Company**

Through our housing and housing environment businesses, which encompass manufacture and sale of Sekisui Heim and Sekisui Two-U Home modular houses, together with interior and exterior housing products and house renovation services, we offer environment-friendly houses that can be lived in safely and comfortably for at least 60 years.



### Urban Infrastructure & Environmental Products Company

We care about the water environment on which both people and nature depend. Our aim is to help develop a society in which future generations can live safely and comfortably. We offer this through our lifeline services, which include water supply and sewerage systems, aged pipe recovery, in-home water usage-related products, and installation services.



### High Performance Plastics Company

We provide intermediate materials and functional parts that utilize our core technologies in applications relating to materials, molding, processing and evaluation. These are widely used in various fields, including information technology (IT), automotive materials, medical products and functional building materials.



CO<sub>2</sub> from energy consumption

292,000 tons SOx 16 tons NOx 489 tons Soot particles 13 tons PRTR-designated substances

To the atmosphere 460 tons
To water 1.2 tons

Water discharged

12,265,000 tons

COD 70 tons

Total generated waste 45,000 tons

¥885 billion

(consolidated)

(consolidated)

(consolidated)

(consolidated)

¥40.2 billion

¥20.2 billion

Net Sales:

Net Income:

Operating Income:

Number of Employees: 17,966

#### Corporate Profile (as of March 31, 2006)

Established: March 3, 1947 Capital: ¥100.002 billion

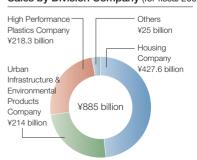
Representative Directer: Naotake Okubo

Domestic Subsidiaries: 150 Overseas Subsidiaries: 50 Affiliated Companies: 17

Total: 217 companies\*

(\* of which 142 companies are consolidated subsidiaries)

#### Sales by Division Company (for fiscal 2005)



### OUTPUT

### Major Products and Usage

### Housing & Construction

- Steel frame modular house (Sekisui Heim), wooden frame modular house (Sekisui Two-U Home), land for residential use, refurbishing, interiors, exteriors, care facilities and equipment for nursing and the elderly
- Building materials and fixtures (rain gutters, materials for roofs, deck materials), and bathroom units
- Interlayer films for architectural laminated glass, materials for soundproof flooring, fire resistant tapes and sheets, foamed polyethylene, sheeting for interior decoration, adhesives





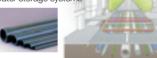


### Infrastructure

- Piping systems for water supply, sewerage, electricity, gas, communication (PVC pipes, lining steel pipes, plastic valves, plastic mass, pipe renewal materials and installation methods), rainwater storage and penetration systems, anti-corrosive piping materials for industrial use, Recycle Engineered Wood
- Underground water storage systems







### **Automotive Materials**

Interlayer films for automotive laminated glass, molded vehicle parts, foamed polyethylene and foamed polypropylene materials used for automobile interio







### Electronics

- Piping materials for ultra-pure water systems, plastic plates for antistatic/electromagnetic shielding
- Display materials (spacers, sealing compounds), printing materials (toner binders), protective/affixing tapes for semiconductors, circuits and boards
- Manufacturing devices for semiconductor and flat-panel headquarters-controlled products







### **Medical Products**

 Blood sampling plastic tubes, transdermal drugs, diagnostic drugs, medical equipment



### Agriculture

- Piping systems for agricultural use
- Films for agricultural

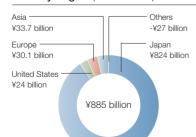


### Transport & Logistics

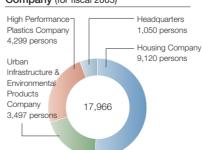
 Packaging tapes, films, adhesives, plastic containers



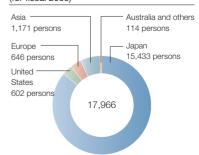
#### Sales by Region (for fiscal 2005)



#### Number of Employees by Division Company (for fiscal 2005)



#### Number of Employees by Region (for fiscal 2005)



<sup>\*</sup> For trends over time please refer to the appended data (P83).

### Deserving society's respect by responding to Its expectations through our business activities

### Our business itself contributes to society

The relationship between business and society is currently undergoing major changes. As the nature of the demands that society makes of enterprises is changing, the criteria of corporate value are also diversifying.

We see corporate social responsibility (CSR) at such a time of changes as a matter of fulfilling the responsibility that the enterprise owes to society or, in other words, responding to the expectations of society.

We, Sekisui Chemical Group, have adopted a corporate philosophy of creating social value by responding to our stakeholders' expectations. This is a clear expression of management as essentially a matter of fulfilling social responsibility.

In the practical implementation of this corporate philosophy, I am confident that when we are considering how we should respond to society's expectations, based on our understanding of the function of the enterprise in society, Sekisui Chemical Group's CSR philosophy is that our business activities themselves should do so.

Our products and services, and the processes by which we create and provide them, respond to the expectations of the full spectrum of stakeholders, including our customers, and contribute to society. These factors form a cornerstone of Sekisui Chemical Group's CSR.

### **GS21-Go! Frontier**

Sekisui Chemical Group Midterm Management Vision 2006–2008

- Focus on "Opening Up Frontiers of Growth" to achieve better growth and higher profitability.
- Target at an operating income of 75 billion yen (an operating income ratio of 7.5%) in fiscal year 2008 to sustain an operating income ratio of 10% in fiscal year 2010.
- Focus on becoming a genuine Premium Company that contributes to society through the implementation of Corporate Social Responsibility.

### To be prominent in three areas the Environment, CS & Quality and Human Resources

To develop a business that inherently contributes to society, we feel that the best approach is to make a prominent business by offering products and services that possess unique strengths. Such prominence will naturally involve standards that make us prominent in the Environment, CS & Quality and Human Resources. In other words, if we seek sustainable growth based on environmental standards, then we will have to become what we call an environmentally creative organization. We will also need to provide prominent quality that impresses our customers, and we will have to provide a positive work environment for our employees, precious assets entrusted to us by society, that encourages them to achieve their own personal prominence and supports their self-realization. This is the true meaning of the "three prominences."

Sekisui Chemical Group's CSR management has therefore focused on these "three prominences." Awareness of this has heightened throughout the Group and is already bearing fruit.

In terms of the Environment, we have advanced from the concept of "environmental friendliness" to "environmental contribution," as part of our initiative designed to make us an "Environmental Top Runner Plan." In terms of CS & Quality, the motto of the entire group "we take customer opinions as the seed for manufacturing development," has been practically embodied in both organizational mechanisms and employee activities. And in terms of Human Resources, the culture of volunteering to take on challenges is taking root.

These results encourage us in our commitment to pursuing the "three prominences."

### In "Opening Up Frontiers of Growth" we seek to become a company that deserves society's respect

Recently, Sekisui Chemical Group published within and outside the company the Midterm Management Vision for the three years commencing in fiscal 2006, "GS21-Go! Frontier."

This midterm vision seeks to transform us into a genuine "Premium Company," and its central pillar will be "Opening Up Frontiers of Growth."

Markets are undergoing dynamic changes. New possibilities are arising and expanding around Sekisui Chemical Group. By accurately grasping these market



changes, and making good use of the characteristics of the Group, we can provide new values and satisfaction to our customers, while at the same time securing higher profits and, more importantly, responding to society's expectations. This is what we mean by "Opening Up Frontiers of Growth," and by contributing to society through our businesses.

"GS21-Go! Frontier" also has a second main pillar, that of implementing CSR so as to create a Premium Company that contributes to society. A serious commitment to CSR is not only a response to the expectations of society but also to becoming a company that truly deserves society's respect.

### In implementing CSR, we seek to become a Premium Company, combining prominence with high profitability.

As is clear from our corporate philosophy, there have been many concepts and approaches discussed and implemented by Sekisui Chemical Group's management consistent with CSR. By codifying and systemizing these concepts and approaches in what we call CSR management, we have identified deficiencies and inadequacies.

The result has been to see the need for deployment of CSR throughout the Group, including its overseas operations, and

the identification of issues in opportunities for women, and the need to foster human resources globally.

To fulfill our responsibilities to each of our stakeholders while we resolve these issues, it is vital for us to adopt an objective viewpoint for our activities. It is also important for us to actively disclose information to our stakeholders and involve them in dialogs.

The publication of this report is part of our efforts to improve communications and its role is to convey a proper view the Group's approach to CSR. While recognizing that the details of our approaches and the way they are described still leave much room for improvement, we will be pleased to hear frank opinions and suggestions from our readers.

Sekisui Chemical Group is determined to respond to everyone's expectations as it evolves into a prominent and highly profitable company. It would be a great encouragement to hear your suggestions.

June 2006

### Naotake Okubo

President

### The successes of the year and the issues for the future



Tetsuji Izu Executive Managing Director in Charge of CSR



Previously, at Sekisui Chemical Group, each headquarters department addressed CSR issues like the environment and CS & Quality.

From fiscal 2005, we brought these all under the major heading of CSR, positioning Sekisui Chemical Group CSR in terms of the "three prominences"—in the Environment, CS & Quality, and Human Resources—and the "three attitudes of sincerity"—Compliance, Risk Management, and Information Disclosure and Communication. We have communicated these CSR activities through publishing the Environmental & Social Report and other communication events.

These original keywords and the roll-out based upon them have led many people outside the company to evaluate them as both unique and readily understandable.

Also, in our "GS21-Go! Frontier," the Midterm Management Vision started in fiscal 2006, the emphasis on growth and higher profitability has been joined by a firm stress on fulfilling our CSR in practice and contributing to society.

In our strengthening of the approach to CSR, as we have achieved various favorable results, we have also identified new issues. One of these concerns our relationships with our business partners—those with whom we do business and who cooperate with us.

> Our corporate philosophy clearly positions those with whom we do business, and cooperating companies, as stakeholders in partnership with us, and we will be incorporating these partners in our future CSR activities.

We will not only be addressing the



various individual issues but also assessing CSR results throughout the entire group. In this, of course, it will be important to establish the basic criteria for evaluation in CSR Management as we seek to address the further broadening and deepening of our CSR approach.



### What progress have we made in the "three prominences"—the Environment, CS & Quality. and Human Resources?

In terms of the Environment, our midterm environmental plan "STEP-2005" ran from fiscal 2003 through 2005. In almost every category we were able to exceed our original target. Now, from fiscal 2006, we are expanding the area of our approach and increasing its sophistication, seeking mainly to contribute to lowering the environmental impact on society not only of our corporate activities but also of our products themselves, and have started a new midterm environmental plan, "Environmental Top Runner Plan, Part I." One major theme of this plan is identifying how we can advance from our previous "environmental friendliness" towards actual "environmental contribution."

In terms of CS & Quality, we will be implementing our midterm CS & Quality Management Plan until fiscal 2008, demonstrating the sincerity with which we listen to our customer feedback, and moving steadily on from the first stage, in which we worked to improve the inherent Quality of Products, into the second stage, in which we will further strengthen our approach with the aim of "satisfying" to indeed "inspiring" our customers.

In terms of Human Resources, our employees are precious assets entrusted to us by society, and we see them as borrowed from society—and we want to pursue our activities so that each and every one of them will be able to grow and work with peace of mind. Indeed, we believe that an atmosphere conducive to this is already being formed.

In the Environmental & Social Report 2005, we tried to make clear exactly how we would be working for the Environment, CS & Quality and Human Resources. From the days of the Environmental Report, we reported on the environment in line with the PDCA cycle.



but in terms of non-environmental issues, it is fair to say that it was in the process of preparing this report that we were able to successfully clarify the issues and the goals of our approach.



### What about the "three attitudes of sincerity"?—Compliance, Risk Management and Information **Disclosure and Communication?**

Over the past year, the area in which we have made the greatest progress has been information disclosure and communication.

We have engaged in dialogs with a wide variety of stakeholders—our employees and the labor union, local communities, our customers, and specialists in the environment and CSR. We naturally regard daily working procedures from an internal perspective, but engaging in dialogs makes us conscious of what needs to be done. From now on, not only those directly responsible for CSR but all of our employees, from their various positions, will engage in dialogs with stakeholders, and we are determined to adopt an approach that reflects their opinions and suggestions. We are particularly concerned to include dialogs with various people overseas, a future task we have hitherto been unable to address.

Concerning Compliance and Risk Management, I believe we are making progress with adopting an approach that

### An Interview with the Director Responsible for CSR

steadily responds to changes in the operating environment. In this area, as in management itself, the role of leaders is vital, so we have made thoroughgoing efforts to reform the consciousness of those with leadership responsibilities. We have held a number of trainings to ensure common commitment to the three basics-keeping promises, telling the truth, and not hiding facts.

We have also made significant progress in information security, particularly in rendering networks visible.



Sekisui Chemical Group consists of three division companies, and the nature of their business, their customers, and those with whom they do business all differ. The issues they have to address, and their most urgent priorities, therefore differ. In Housing Company, for instance, plants produce the basic units for houses, construct the building, and hand it over to the customer, in other words it is a "business to consumer" (B to C) business. On the other hand, High Performance Plastics Company supplies intermediate materials made by plastic molding to industrial users, a "business to business" (B to B) business.

Basically, both types of business activity contribute to society, but additionally, depending upon the characteristics of each division company, the achievement of proper attitudes of employees and contractors to quality and communication with customers and business partners, we are



adopting approaches that put priority on these CSR issues.

In this report, we have been conscious of the approaches adopted by each division company, and have tried to introduce practical examples as much as possible.



One of them, as shown in the new midterm management vision, is improving our business performance, in other words, working to ensure that the products and services of Sekisui Chemical Group are used by as many people as possible, and making all employees understand that this is the first step in contributing to society. As one example of this policy, we will add the categories of Environment and CS & Quality to those upon which the business performances of the division companies are assessed, so as to change the attitudes of every individual involved.

Another will address the problem of how to foster leaders and professional human resources from a global perspective, with the priority on diversity, and particularly on the proper assignment and promotion of women.

In future, the most important keywords in our implementation of CSR will be "sustainable" and "next generation." Now, looking towards a sustainable society and the next generation, what should Sekisui Chemical Group be doing, and what policies will ensure a sustainable Sekisui Chemical Group? It is from this point of view that we must always maintain an awareness of the problems that confront us, actively identifying new issues as they arise, and committing ourselves to their resolution.

### Tetsuji Izu

Executive Managing Director in Charge of CSR

### **Special Articles**

# Aiming to Contribute to a Sustainable Society

**Sekisui Chemical Group Businesses and CSR** 

Sekisui Chemical Group, operating the differing qualities of each of its three division companies, aims to help create and maintain a sustainable society.

Here we present the distinctive activities that each division company has been making.



Report I
Activities of Housing Company



Report II
Activities of Urban Infrastructure & Environmental Products Company



Report III Activities of High Performance Plastics Company



### For sustainable residences and modes of living

**Zero Utility Cost House** Taking responsibility for providing houses that are resource for society

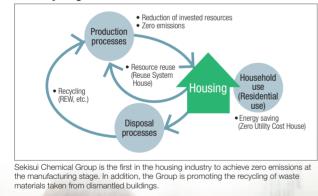


### Making safe and comfortable recyclable houses that endure for over 60 years

In recent years in Japan, both public and private sectors have come together, reducing resource consumption, cutting waste, saving energy, and other measures, persisting in a joint effort to bring about a recycling-based society. During this effort, the short life of Japanese houses has become an issue. Compared with the average house lifetime of 45 to 75 years in Western countries, the average Japanese house lifetime of about 26 years is rather short. Frequent demolition and rebuilding requires a more input of resources and generates a large amount of waste materials. What is more, because of the proliferation of electrical appliances and other factors, households consume 30% more power than they did 10 years ago, and this is accelerating global warming.

In view of these problems, Sekisui Chemical Group, through its business policy of providing environment-friendly houses that can be lived in safely and comfortably for at least 60 years, has reduced the environmental impact of houses throughout their entire life cycle, from initial production, through daily living and at demolition.

#### Sekisui Chemical Group's concept of building houses for recycling resources



Minimal energy consumption during residence: The concept of Zero Utility Cost House

#### Balancing environmental impact reduction Prominence in and cost performance

Environmental issues are of great importance throughout the house life cycle. Over the long-term, it is essential to reduce the environmental impact of residence. To provide residences that are safe and capable of long-term residence, Sekisui Chemical Group developed Zero Utility Cost House.

The designs emphasize thoroughgoing energy-saving. These houses minimize the heating effect of outdoor air in summer and the cooling chill in winter by exceeding regulatory standards for insulation and airtightness. Furthermore, they are equipped with air conditioning and hotwater systems that, because they are highly energy efficient, reduce unnecessary power consumption.

In addition to energy-saving, by providing photovoltaic power generation systems, Sekisui Chemical Group advocates energy generation. When photovoltaic generation systems were first developed, it was difficult to mount enough photovoltaic panels to meet the entire daily energy needs of an average household. We have developed roof designs, however, that maximize the number of panels that can be mounted. Through the cooperation with panel makers, we have also made progress in improving the performance of photovoltaic generation systems and increasing the area of panel units. As we have increased the amount of power produced, the cost of power generation has been reduced.

Compared with conventional houses, this approach involving both saving and generating energy can save a





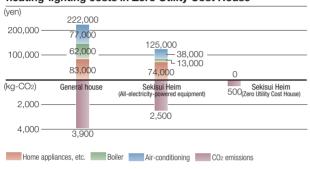
### environmentally sound and economical.

\* The Ministry of Construction and the Ministry of Economy, Trade and Industry have set next generation energy-saving standards for airtightness properties by houses that have to withstand the bitterly cold winters of Tohoku in Northern Honshu. Houses made by Sekisui Heim, Sekisui Two-U Home, with their superior insulation and airtightness performance, better the stipulated O-value of 1.9 W Der m<sup>2</sup>k. The Q-value, a heated



loss coefficient, refers to the amount of heat per hour per square meter of floor space that is transmitted from a building interior to the exterior when the temperature difference is one degree centigrade. The smaller the value, the more effectively insulation and sealing work at retaining heat in the residence.

### The effectiveness of energy savings and lower heating-lighting costs in Zero Utility Cost House



### Outstanding basic performance in durability and quake resistance, etc.

Prominence in CS & Quality

In addition to environmental performance, all the basic features required of a residential structure are of high quality in Zero Utility Cost House. Owner security is ensured by a structure with excellent durability and quake resistance. What is more, our exclusive unit technology enables us to make not just structural parts but also whole rooms at the plant. This means that final quality is little affected by local weather conditions or the level of skill of onsite workpeople and, with



Sekisui Chemical's unit construction can perform over 80% of its house construction work at the plant, including the manufacturing of parts and materials and the assembling of each section of the house.

minimal variation, each house is consistently finished to the same high standards.

Even after completion, we inspect airtightness performance and other parts of the building to make sure that the residence retains the basic performance of Zero Utility Cost House.

### Supporting residents with expert knowledge and advanced skills

Prominence in Human

In making products with these characteristics and performance, Sekisui Chemical Group accurately communicates its residence production concepts so as to secure the customers' understanding. In the sales companies of the Group, the sales staff work with a finely tuned range of service proposals. In addition to the usual consultations about the residence, they use special tools to carry out life-cycle cost (LCC) analysis and simulations of earthquake performance and other functions. For detection of substances that might cause sick house syndrome, they also collect and measure the levels of their concentration in samples from the interior of each house and report their findings to the house owners.

In 2003, to support the sales staff in these kinds of activities, Ecoheim Promotion Group was organized. People with experience of technical development were attached, as Ecoheim Promotion Advisors, to sales companies all over the country. Their task was to fully inform the sales staff about the performance, quality, and environmental friendliness of the houses and to instruct them in the use of simulation and evaluation tools.

## Taking the opportunity to make people aware of how they can live with environmental friendliness

At present, 52% of detached houses sold by Sekisui Chemical Group are equipped with photovoltaic generation systems. In a survey we carried out in autumn 2005, 40% of households reported achieving zero utility cost. Moreover, compared with conventional houses, the photovoltaic-equipped houses in the survey annually saved an approximate average of 170,000 yen in light and heating costs.

There are other benefits of Zero Utility Cost House. Residents report that, in addition to appreciating the conservation of electricity and gas, they had become more aware of the need to reduce waste and the use of harmful materials, and the need for water conservation and other aspects of environmental conservation. Moreover, because more respondents wanted to know about things that can contribute to energy saving, in April 2006, Sekisui Chemical Group started an Energy Saving Consulting Service for purchasers of its houses.

While continuing to produce high-quality long-life houses that can be passed on as a social resource to the next generations, an activity that incidentally increases the environmental awareness of those who live in them and, by extension, the world at large, Sekisui Chemical Group remains committed to helping in the formation and maintenance of a sustainable society.

#### The voice of a resident

### Since living in a house with photovoltaic generation, the environmental awareness of our family has changed.

Before living in Sekisui Heim, our environmental awareness was not particularly high. Now, however, because we are involved in generating our own electricity, it seems more wasteful if we don't conserve it. In all kinds of situations, this changed attitude affects our feeling towards waste.



The Sakamoto family Kobayashi City, Miyazaki

I don't know whether or not the kids are picking it up from us, but they actively try to help: doing things like closing the door when the air conditioner is on and always remembering to turn off the bathroom light.

### Providing the world with sustainable urban infrastructures

Trenchless sewage pipe renewal (SPR) method: meeting the challenge of giving new life to aging conduits

### Preventing increased road subsidence due to aging sewage conduits

The underground sewage system is one of the most basic elements in the urban infrastructure that supports life and industry. In over a century since Japan's Meiji Reformation, 370,000km of sewage conduit has been



installed. That is about 700 times the length of the Tokaido Shinkansen Line (bullet train). These sewers have suffered the ravages of time. In particular, cities such as Tokyo and Yokohama, which were early adopters of enclosed sewage systems, began to suffer from road subsidence caused by collapsing conduits in the 1980s. Recently, the annual total of such incidents has exceeded 1,500. To avoid the disruption caused by subsidence, the administration has placed a high priority on renewing aging sewage conduits.

Currently, however, of an existing 8,000km of sewage conduits that have exceeded their nominal service life of 50 years, only some 2,500km have been renewed. One of the reasons for slow progress is the disruption caused when the main pipes, many of which are located under major roads, are dug up for replacement. Besides traffic congestion, the excavation work also generates a large amount of waste

To address this problem. Sekisui Chemical Group has developed and tendered its innovative trenchless SPR method.

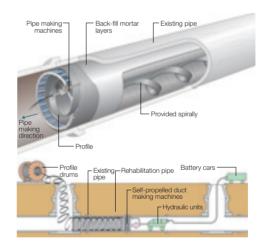
### How SPR method solves the problems of aging sewer conduits

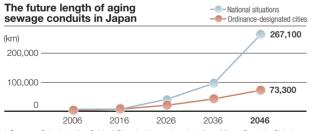
Along with minimal traffic congestion, the environmental impact is greatly reduced



Our SPR method is a non-excavating method for renewing undeground conduits. It involves lining the existing conduit with rigid PVC (forming a profile). Via a manhole, a winding machine is placed in the conduit and it forms the profile from a spiral strip of PVC.

This non-excavating method does not require any road or surface excavation at all. Besides minimizing disruption of regular traffic, SPR method greatly reduces the resource consumption, waste generation, noise and vibration that are usually associated with sewer renewal work.





Source: Calculated by Sekisui Chemical based on data from Nihon Gesuido Shimbun (Sewerage Newspaper of Japan)

Comparison of conventional and SPR methods



Estimate by Sekisui Chemical: (Estimate conditions) duct size: 1.7 x 1.5mm, 30m



Sewer replacement workflow using SPR method



#### Trial and error resolved the technical problems

The excellence of our non-excavating method depended on resolving two main issues. One problem was dealing with the various non-circular square and horseshoe shaped cross sections of the old sewers, not to mention curved sections that occasionally posed seemingly insurmountable challenges to trenchless work. The other problem was, because it would not be possible to stop wastewater from plants and houses, carrying out repair work in a constant flow of water would prevent the hardening of repair materials. Diversion of the flow seemed necessary, but the amount of work involved and its cost made this prohibitive.

Beginning in the 1980s and wrestling with these two problems for some ten years, Sekisui Chemical Group resolved the issues after trial and error. A series of improvements to winding machines enabled us to apply, from within the sewer a lining profile to any form of conduit. Morever, we developed our own composite materials and joining methods which succeeded in creating the first method in the world enabling to repair conduits while sewage is still flowing.

#### Training technicians to ensure safe and high-quality work

The liquid flow in the sewers beneath our cities may sometimes more than half fill the conduits. To ensure that high-quality work is safely and properly carried out in these trying conditions, Sekisui Chemical Group paid a geat deal of attention to the training of technicians. In 1989, together with the contractors who implement the work, we set up the Japan Sewage Pipe Renewal Method Association. This organization provides training for technicians performing SPR work and has established an examination system to confirm the qualifications of SPR technicians, foremen, and supervising engineers. Furthermore, assigning the highest priority to the safety of those who carry out the work, the association has produced, and insists on rigorous compliance



with, a works manual that lays down detailed safety control standards. These cover, for example, the point at which to stop work when flow increases due to rainfall.

Working according to these standards of safety and quality control, Nippon No-Dig Technology Ltd. (Sekisui Chemical Group member that handles SPR work), has so far undertaken about 150 sewer renewal projects.



Working and quality manual, and certificate of qualification

### Addressing the world's urban infrastructure issues

Countries all over the world, not just Japan, are struggling with the problem of aging, dilapidated sewer pipes. In the US, for example, the Environmental Protection Agency has ordered 20 cities including Los Angeles and Atlanta to improve their sewage systems.

Sekisui Chemical Group began a full-scale global rollout of its innovative SPR method in fiscal 2004, and the method's quality and environmental friendliness have been widely acclaimed. Cities like Los Angeles and Seoul have already used it to excellent effect.

Keeping our cities' infrastructures working while lowering installation costs and environmental impact is indispensable to global society's sustainable development, and Sekisui Chemical Group intends to go on using its SPR method to help maintain urban infrastructures around the world.

#### The opinion of an expert

### I look forward to further technical developments enabling us to contribute to pipeline renewal worldwide.

Trenchless techniques that allow pipes to be upgraded or renewed without digging them up are being used more and more these days, because they are cheaper, interfere less with traffic, and are better for the environment. When pipes are renewed, they must be made as strong and long-lasting as brandnew ones, and the method used must be reliable and safe. Sekisui



Hiroshi Suzuki Metropolitan Sewerage Service Corporation and former Director of the Tokyo Metropolitan Government Bureau of Sewerage

Chemical's SPR method, an exceptional technique that has been adopted by public bodies throughout Japan, meets all of these requirements. It should continue to be refined in the service of sewage pipe renewal at home and overseas. Our company takes its role in the maintenance of urban sewerage systems very seriously, and values any help that Sekisui Chemical Group and other enterprises, organizations or individuals can give us in fulfilling that role.

### Our goal — a sustainable, highly mobile society

Interlayer films for laminated glass in automobiles our efforts as the leading manufacturer, responsible for supplying approximately 30% of the world market



### An essential component of laminated glass for safer, more secure motoring

Global automobile production has increased annually over the past four years, reaching a new high of 66.77 million vehicles in 2005, up 3.3% over the previous year. Growth was particularly rapid in emerging markets such as South America (up 13.2% over the previous year), Russia, Central Europe and Eastern Europe (up 8.8%).

More vehicles means more demand for parts and materials, and one essential material is interlayer films for laminatedglass. Sekisui Chemical Group is the top supplier of these, with approximately 30% of the world market.

An interlayer film for laminated-glass is the essential plastic one sandwiched between sheets of glass to improve vehicle safety and security by increasing the glass's strength and impact resistance and making it shatter-proof when accidents occur. Japanese vehicle safety regulations require safety glass—typically this kind of laminated glass—to be fitted to front windshields.

Sekisui Chemical Group develops and supplies high performance interlayer films that offer solar control and sound insulation in addition to greater safety and security.

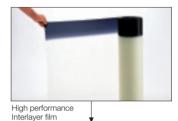
- \* Source: May 2006 Monthly Report on the Global Automotive Industry (pub. FOURIN,
- \* Article 29 of the Japanese Road Transport Vehicle Safety Standards

Consistently supplying the world market with high performance safety glass interlayer films

#### Saving energy and reducing CO<sub>2</sub> emissions while driving

Our high performance interlayer films are more sound insulating than others, helping to suppress in-car noise without the need

for thicker glass or extra sound insulation. This lowers fuel consumption by making vehicles lighter, thereby contributing to saving energy and reducing CO<sub>2</sub> emissions. Our interlayer films also have good solar control qualities, serving to keep vehicle interiors cooler in summer and raising fuel efficiency even further by reducing the need for airconditioning.



Roof-windshield I Front-windshield Side-windshield

#### Technology transfer through local production

To meet the demand for interlayer films, growing globally as the world automotive market expands, Sekisui Chemical is developing a worldwide local-production system led by its main plant, Shiga-Minakuchi Plant, and has already launched production sites in Mexico, the Netherlands,

Our high performance interlayer films are a vital component essential to the safety and security of laminated glass, and are films, or that add solar control features by distributing micro-



The most important consideration when manufacturing and supplying these interlayer films at local facilities throughout the world is to maintain consistently high quality at every production site. To do this, we have established a Global Support Center at Shiga-Minakuchi Plant, staffed with experienced engineers responsible for coaching personnel from our overseas production sites. The process from

Passing on the knowledge to overseas personnel

launching a site to getting its production lines operating stably is a particularly specialized task, and these engineers spend a long time on-site with the local personnel, ensuring that they understand every aspect of running, adjusting and maintaining their machines.

Sekisui Chemical Group's Overseas
Interlayer Film Production
and Marketing Facilities ● Divisions ▲ Sales sites ■ Plants



motivation while freely discussing matters such as how to improve product quality and work processes.

### Fulfilling our responsibilities as the leading manufacturer

To satisfy the rising worldwide demand for interlayer films for laminated-glass, Sekisui Chemical will bring a new raw-material plant in the Netherlands at the end of 2006 and plans to start up a new plant in the US in 2007. While accelerating our worldwide expansion in this way, we will make more effort than ever to employ, train and develop excellent local staff by means such as holding training courses in Japan for our overseas sites' senior managers. We also aim to raise quality even higher throughout the entire Sekisui Chemical Group by stimulating even more intensive interaction among our sites. Meanwhile, we will continue to work on developing new products designed to give the motorist an even more comfortable in-car experience.

The more automobiles there are in the world, and the more sophisticated they become, the greater the need to reduce their environmental impact and improve their safety. As the leading manufacturer of laminated-glass interlayer films for the automotive industry, Sekisui Chemical Group will continue to work toward a sustainable, highly-mobile society through the products offering even better quality, even more consistently dependable supply and even greater performance.

### Hiring and fostering locally, and promoting international communication among sites

Prominence in Human Resources

Sekisui Chemical Group actively trains and promotes locallyemployed personnel at all of its overseas sites. On launching a site, we invite local operators as well as managers to Shiga-Minakuchi Plant for training. Allowing a wide range of overseas staff to experience a Japanese production environment in this way helps us to foster the necessary skills and motivation for managing our overseas plants effectively and maintaining our high quality standards.

We also encourage our overseas sites to communicate with one another to ensure that the expertise they develop is shared throughout the Group. To help with this, we hold regular presidential and divisional global meetings. At the presidential meeting, held four times a year, the presidents of the group companies remind themselves of each division company's overall vision and strategy and discuss the extent

to which these have been achieved. At the divisional global meeting, held once or twice a year for staff in sales, production engineering, technical services, distribution and so on, people in similar roles rekindle their personal



One of our global meetings

#### The view of an overseas employee

### I can sense my skills improving as I exchange information with my colleagues around the world.

I joined the company in 2004 and am now working in technical service and quality control. I've had a chance to attend a training course or meeting in Japan every year since then, starting with my induction training at Shiga-Minakuchi Plant in 2004, followed by a divisional global meeting in 2005 and a Sekisui



Zou Rong, Sekisui S-LEC (Suzhou) Co., Ltd., Suzhou, China

Chemical Group Improvement Activities Group-wide Presentation Meeting at the beginning of 2006. I think it's great to have the opportunity to improve my abilities through all the different kinds of training. The Global Meeting of Technical Service Center held at Shiga-Minakuchi Plant, where technical staff from all the overseas sites got together to present their approaches to improving customer satisfaction, was a particularly valuable experience.

I'm going to make the best possible use of my skills to help make my plant the Group's premier overseas site in product quality and customer service—and I'd love to go and see one of our other overseas sites sometime in future, as well as our Japanese one.

### The CSR Management Structure

### We are strengthening our CSR management structure, with particular emphasis on internal controls and risk management

### **Group Management Structure**

### Group management built upon division company system

In order to raise the overall corporate value of the whole organization, Sekisui Chemical Group has established a management structure that is built upon a division company system.

Each division company oversees affiliated companies linked to its area of business. While promoting the individuality of each of these affiliated companies, management of division companies is conducted using principles of self-conclusion and self-responsibility.

Meanwhile, corporate headquarters is involved in the development of strategic plans and the monitoring of division companies.

### **Corporate Governance**

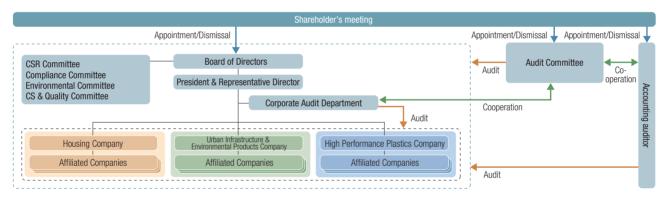
In refining our corporate governance system great importance is being placed on strengthening the auditor system and the

internal auditing system.

Our auditors endeavor to make governance work across the entire group by broadly identifying not only the business affairs of directors but also those of the division companies and the corporate headquarters, and at the same time, by working together with the auditors of the affiliates.

Furthermore, Corporate Audit Department, which reports directly to the President, visits many sites—including those overseas—and conducts internal audits.

Having reacknowledged the importance of internal control and risk management systems, we are taking measures to meet the needs of the times, in addition to bolstering our existing initiatives such as launching projects aimed at developing mechanisms and systems, enhancing internal audits, establishing a department that executes crisismanagement measures, stipulating internal regulations required to deal with various risks, and engaging in education and enlightenment activities.



### **CSR Promotion Structure**

Important management issues are addressed by four committees consisting of members appointed from among directors, where thorough discussions are held and basic policies are formulated: CSR Committee, Compliance Committee, Environmental Committee, and CS & Quality Committee.

CSR Committee works within the broad framework of CSR. while the other committees have more specific agendas. All committees exchange information and collaborate closely, in order to optimize the activities of the entire group. In fiscal 2005, the CSR Committee's major focus was on rewriting our Corporate Activity Guidelines.

#### A Message from One of Corporate Auditors



Noriaki Kano Corporate Auditor, Sekisui Chemical Co., Ltd. Former Professor of Tokyo University of Science Honorary Chairperson of Asian Network for Quality

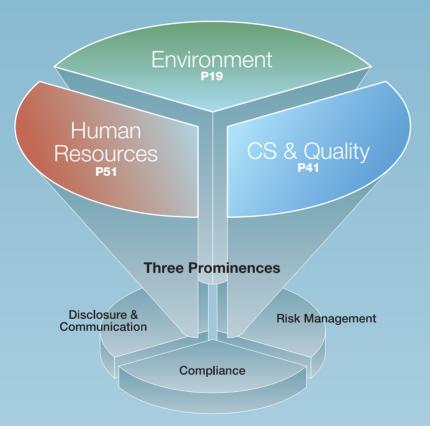
I think that CSR is being emphasized so strongly these days as a reaction to the tendency of companies to focus on profit rather than establishing and following clear guidelines governing how they should behave, and because they realize that fulfilling their accountability from a global perspective to all their stakeholders—including customers, the environment, shareholders and society—is the only way they will be able to achieve sustainable corporate growth.

From this perspective, CSR at Sekisui Chemical Group is commended for having: pursued sophisticated environmental activities to become a Top Runner in this field; developed a CS & Quality that makes good use of customer feedback; and firmly established a culture where employees positively set their own goals in the area of human resources.

In the course of deploying various business models ranging from "business to customer" (B to C) to "business to business" (B to B), which is one of the Group's distinguishing management traits, we need to look into dividing the roles between ourselves and our business partners with respect to environmental and CS & Quality efforts, and check compliance with various standards from a global perspective. Moreover, it is expected that global human resources development and women's employment will be pursued more aggressively as part of the CSR initiative, as not only ourselves but most Japanese companies lag far behind those in the rest of Asia in these areas.

# The Practice of CSR Management

This section introduces the "three prominences," which together constitute the core of Sekisui Chemical Group's CSR philosophy.

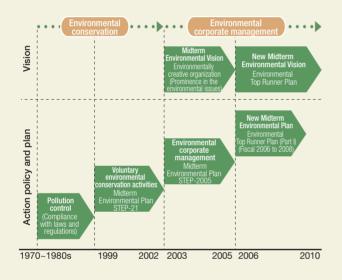


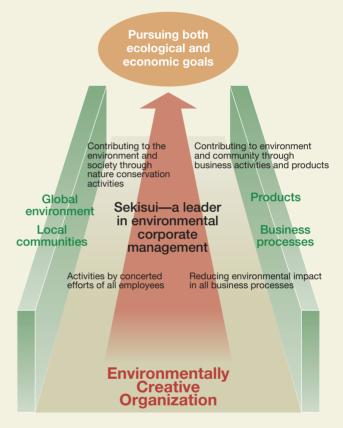
**Three Attitudes of Sincerity** 

### The Practice of CSR Management Prominence in the Environment

### We aim to be an environmental leader, prominent in our approach to the environment, pursuing both ecological and economic goals

To fulfill our aim of being a sustainably-growing "environmentally creative organization," we will apply the principles of ecology (caring for, contributing to the global environment, and living in symbiosis with local environment) and economy (ensuring that both we and our customers remain cost-effective). We intend to be a leader in the environmental field, because we believe that by pioneering environmental corporate management that is distinctively Sekisui Chemical Group's, this will enable us to win the enduring trust of society at large.





### Corporate Policy on the Environment and Safety

#### Philosophy

We, Sekisui Chemical Group, recognize that there can be no sustainable development without our total commitment to issues of environmental protection and safety. We are dedicated to the creation of a better environment by continually promoting environment and safety activities, enabling the structuring of a recycling-based society and global environmental protection through our businesses, products and contribution to society.

#### **Basic Policies**

It is our conviction that focus on the environment holds the key to our continued growth into the future, and therefore we are aiming to become an "environmentally creative organization," with a corporate culture based on our environmental concerns, in order to meet the expectations society has placed on us.

- 1. We have utmost concern for the environment and safety of all our products and business activities from the stages of research and development through procurement, production, sales, use, and to disposal of products, and comply precisely with all requirements on
- 2. We promote effective utilization, reuse, and recycling of limited resources to reduce the environmental impact.
- 3. We enhance positively the environmental performance and safety in handling chemical substances and minimize chemical risks.
- 4. We not only comply with international and national laws and regulations, but also proactively set our own objectives and targets to promote continual improvements and also to enhance environmental concern through the education of all our staff.
- 5. We endeavor to secure accountability in cooperation and collaboration with local communities and society as a whole and with governmental and industrial organizations through close communication with them.

Naotake Okubo President April 1, 2003

### Our Midterm Environmental Plan "STEP-2005" for fiscal 2003 to fiscal 2005

In April 2003, Sekisui Chemical Group mapped out its Midterm Environmental Vision and announced both internally and publicly that it intended to pursue an environmental corporate management policy aimed at achieving sustainable growth while promoting the coexistence of ecology and economy. In conjunction with this, we had formulated our Midterm Environmental Plan "STEP-2005," specifying action plans and targets up to fiscal 2005 (see p. 21).

As a result of conducting a diverse program of activities based on this plan and directed toward fulfilling our aspiration to become an "environmentally creative organization," we

were able in fiscal 2004 to attain some targets ahead of schedule—including, for instance, those for elevation of environment-friendly product sales ratio and achieving zero emissions at new house construction sites. This faster-thanplanned progress enabled us to revise our targets for fiscal 2005 upwards.

Although we failed to meet some of the targets specified in the plan—"energy saving at our production sites" and "issuing site reports," for example—we did succeed in hitting most of them.

### Development of the Environmental Top Runner Plan, our new Midterm Environmental Vision through to fiscal 2010

In April 2005, we, Sekisui Chemical Group finalized our Environmental Top Runner Plan, a new midterm environmental vision detailing the targets the Group must achieve by fiscal 2010, based on issues to become an environmentally creative organization, external evaluations and requests, and social issues. It shifts the emphasis from

"environmental friendliness" to "actively contributing to the environment"—i.e., greatly reducing the environmental impact not only of our own operations but also of our products when used by our customers, thus helping to reduce the environmental burden on society as a whole.

### New Midterm Environmental Top Runner Plan (Part I) (fiscal 2006 - 2008)

As the first step in realizing this vision, we formulated our new environmental plan global, covering the three years from fiscal 2006 through fiscal 2008.

This plan lays down specific activity guidelines and targets for all our business processes with the aim of achieving the kind of environmental corporate management that addresses environmental concerns and ensures cost-effectiveness, under the banner of "contributing to society and the global

environment through our activities, products and services." It also introduces further controls relating to matters such as reducing the environmental impact of distribution and conserving water resources, both of which have become serious social issues in recent years. At the same time, it widens the scope of our environmental corporate management to include our offices, overseas business sites and the supply chain.

### Environmental Top Runner Plan, Our New Midterm Environmental Vision

#### **Basic Thrusts**

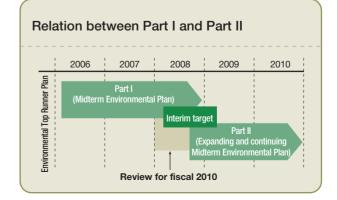
- We will create products that help reduce environmental impact when used by the customer, so as to help society and the global environment through our activities, products and services themselves.
- We accept our corporate responsibility for helping to meet the requirements of the Kyoto Protocol, and will execute the appropriate strategies.
- · All our employees will be highly environmentallyconscious and will act with initiative in the best interests of the next generation.

#### Targets for fiscal 2010

- · Increasing sales ratio of environmentally contributing products (see p. 30) to 50%
- Reducing CO<sub>2</sub> emissions in domestic manufacturing by 10% (compared with fiscal 1990 levels)
- Reducing waste generation to 1/3 of fiscal 1998 levels
- Doubling environmental efficiency through the Sekisui Eco Value Index (see p. 27), our indicator for evaluating environmental corporate management (compared with fiscal 2004 levels)

### Core Strategies in the Environmental Top Runner Plan (Part I)

- Constructing and operating systems to increase our contribution to the environment through our business and products.
- · Raising the intensity of our environmental activity and embedding it into all of our entire business processes including the supply chain.
- Making all of our employees highly environmentally-conscious.



### Results of Midterm Environmental Plan "STEP-2005"

### Achieved 29 of 33 targets, among them 11 were exceeded

Although we did not achieve all of the targets revised upwards during the course of the Midterm Environmental Plan "STEP-2005" (fiscal 2003 – 2005), we met 18 of the plan's 33 targets (including some additional ones introduced during fiscal 2005) and exceeded a further 11.

While we fell short of the upgraded target for "elevation of

environment-friendly product sales ratio," we succeeded in increasing our sales of such products—particularly from the SPR method and Zero Utility Cost House—to 30.4% of total sales, or 269 billion yen (120 billion yen more than in fiscal 2002). We were also able to reduce CO<sub>2</sub> emissions and waste generation from our production sites and construction operations to below

Corpo	rate Activity Guidelines		Projects		
	(1) Expansion of system and global activities for	Development, expansion and maintenance of the Environmental Management System (EMS)			
Structuring of environmental corporate	environmental corporate management	Extension to overseas affiliated companies			
management	(2) Implementation and continued accomment	Development of performance evaluation syste	m		
	(2) Implementation and continued assessment of environmental corporate management	Extension of the scope of business sites adopt accounting	ting environmental		
		Elevation of environment-friendly product sales	s ratio		
		Launch of new environment-friendly products			
	(1) Product supply and technical development paying attention to environment and safety	Countermeasures against Sick House Syndro	me		
2. Environmental	throughout lifecycle of products	Deployment of green procurement			
friendliness of products		Development of environmental/recycling techn	nologies		
		Introduction of LCA			
	(2) Collection and recycling of used products	Collection of used products and creation	PVC pipes and LP pipes		
	(z) collection and recycling of used products	and operation of recycle system	Housing units		
		Reduction in wastes generated at production sites			
		Increase in number of zero emissions business sites			
	(1) Promotion of 3Rs (Reduce, Reuse, Recycle) at production sites and construction sites	Zero emissions at house construction sites	New construction sites		
		• Zero emissions at mouse construction sites	Remodeling business		
3. Mitigation of		Promotion of recycling of demolition wastes			
environmental impact generated by production		Reduction of aggregate emissions of CO <sub>2</sub> at p	production sites		
activities and associated risks	(2) Promotion of energy-saving and reduction of greenhouse gas emissions	Energy saving at production sites			
		Energy saving at R&D institutes			
		Reduction in amounts of PRTR-designated substances to be emitted or transferred			
	(3) Adequate control of chemical substances and reduction of risks	Total abolition of hydro chlorofluorocarbons (HCFCs)			
	and reduction of risks	Total abolition of chlorinated solvent use in fabrication			
		Measures to control soil contamination by chemical substances			
4. Environment-friendly	(1) Promotion of reduction in environmental impact	Deployment of greener distribution			
distribution and sales		Deployment of greener company cars			
5. Environmental	(1) 2	Zero emissions in headquarters buildings			
conservation in offices	(1) Promotion of resource and energy saving	Energy saving in headquarters buildings			
	(1) Promotion of environmental conservation activities in cooperation with community,	Support for nature protection activities by NGC	Os		
6. Environmental	NPOs, and NGOs	Promotion of local community environmental contribution activities			
contributions and communication		Introduction of environmental labels			
	(2) Promotion of information and communication	Publication of site reports			
		Publication of site reports			

our targets, and achieved zero emissions at our Tokyo and Osaka headquarters buildings. These achievements demonstrate that we have already established a sound foundation of environmental corporate management.

Nevertheless, we are conscious that we did not meet all our targets, and are continuing to address matters such as

energy saving and the issuing of site reports.

#### "Evaluation" column

Explanatory note

··· Outperformed target

Performed close to target
 (achievement rate of about 90 to 110%)

Failed to reach target

■ ····· Items with fiscal 2005 targets upgraded from original plan

	Fiscal 2005 Targets (Targets for STEP-2005)	Performance Status (Results by fiscal 2005)	Evaluation	See Page
	Redevelopment at each level: of Headquarters, division company, branch, functional company	EMS themes established and promoted at each section	0	25
	Determination of actual environmental status and promotion of the action plan (13 production sites)	Environmental data collected at 13 overseas production sites; field surveys conducted at 11 overseas business sites	0	25,84
	Introduction and operation of the business site award system	Commendation programs introduced and implemented	0	26
	Extension to 39 business sites of housing sales companies	Introduced into all housing sales companies and reported in Environmental & Social Report	0	28,85
	Ratio of these products to consolidated sales: 38% or more	30.4% (269 billion yen) in fiscal 2005	×	87
	A total of 150 or more types of products in three years	Total of 161 products put on sale	0	87
	Achieving values set by Ministry of Health, Labour and Welfare guidelines at the time of delivery of houses to users	The goals of guidelines achieved and results of achievements maintained	0	_
	80% or higher green procurement ratio	91.5% in fiscal 2005	0	87
	Completion of 15 themes	Total of 16 targets completed	0	87
	Implementation of LCA for new environment-friendly products	Introduced in product environmental assessment mechanism	0	29
	Contribution to improvement in recycling ratio, in cooperation with industrial associations	Recycling ratio raised in cooperation with industry (to 60.5% for PVC pipes)	0	_
	Expansion of reuse system for collective houses and house extension purposes	80 detached houses (1,348 units) sold and basic examination of apartment house plans completed in fiscal 2005	0	_
	Reduction in basic production output units by 15% or more from fiscal 1998 levels	Reduced by 21.7% in fiscal 2005	0	35
	Zero emissions to be achieved at 5 more business sites	Attained at seven business sites (one domestic, 2 overseas, 4 laboratories) in three years	0	36
	Zero emissions to be achieved at all housing sales sites (in fiscal 2003)	Attained at all 40 housing sales companies in September 2003, 6 months earlier than planned	0	36
	All Fami S (refurbishing business) business sites to achieve zero emissions	Attained at all 38 Fami S sites in fiscal 2004, one year earlier than planned	0	36
	90% or higher recycling ratio for specific construction materials	Recycle ratio in fiscal 2005: 99.2%	0	_
	Reduction in CO <sub>2</sub> emissions to 306,000 tons or less	Emissions in fiscal 2005: 292,000 tons	0	33,34
	Reduction in basic production output units by 5% or more, from fiscal 2000 levels	Reduced by 3.2% in fiscal 2005	×	33,34
	Reduction in power consumption at institutes/laboratory offices by 10% or more, from fiscal 2000 levels	Reduced by 17.2% in fiscal 2005	0	89
	Reduction to 480 tons or less of emisson/transfer	Emissions in fiscal 2005: 461 tons	0	38,90
	Achievement of total abolition of HCFCs	Zero emissions attained in fiscal 2004, one year earlier than planned	0	38,90
	Total abolition of use in fabrication	Zero emissions attained in fiscal 2004, one year earlier than planned	0	38
	Completion of survey at applicable business sites	Investigations completed at five business sites	0	39
	Development of system to monitor CO <sub>2</sub> emissions volume	Checking and adding up methods determined; briefings on methods held at business sites	0	33
	70% or more of company cars to be compliant with green taxation plan	80.0% in fiscal 2005	0	33
	Zero emissions to be achieved in the Tokyo/Osaka headquarters buildings	Achieved zero emissions in the Tokyo/Osaka headquarters buildings	0	36
	Reduction in power consumption by 15% or more, from fiscal 2000 levels	Reduced by 16.1% in fiscal 2005	0	34,89
	To continue support for projects through Keidanren Nature Conservation Fund	Support given to five projects a year	0	80
	30 points or over activities indicator score* on cumulative basis	32.8 points in fiscal 2005	0	
	Introduction in fiscal 2005	Discontinuation of company-wide introduction decided	×	
	ISO14001-certified 35 production sites and laboratories; and 6 housing sales companies to publish site reports	Issued at 27 production sites and laboratories and 3 housing sales companies in fiscal 2005	×	_
	Cumulative total of 200 leadership candidates to be developed for leadership including 40 or more to participate in follow-up training	Total of 12 training courses held and 210 people trained, 40 of whom received follow-up training	0	_
-	* Activities indicator scores activities according to their particulars and size of parti-	icinants		

<sup>\*</sup> Activities indicator scores activities according to their particulars and size of participants

### Overview of Environmental Top Runner Plan (Part I)

### As the first step in reaching our fiscal 2010 targets, we formulated a new midterm plan to take us through to fiscal 2008

Our Environmental Top Runner Plan (Part I) is a new midterm plan covering the three years from fiscal 2006 through fiscal 2008, and is the first step towards achieving the environmental targets we have set ourselves for fiscal 2010 and becoming a leader in the field. We will review our progress towards those targets in fiscal 2008 and use the

results as a basis for our Environmental Top Runner Plan (Part II) for fiscal 2008 through to fiscal 2010.

Based on the basic thrust of the Plan, Part I sets out the implementation items we must undertake to achieve our basic goal of becoming an environmental leader (see p. 20), addressing it from the three standpoints of:

		5 : .		0 7 1 5 10000		
Improvement of env	ironmental efficiency	Projects Environmental Manag	ement Indicator	Group Targets for Fiscal 2008		
[Sekisui Eco Value II		(Environmental Manag	CHICITE INCIDATO	1.5 times (compared to fiscal 2004)		
Environmental contribution by	Increase selling of p	roducts contributing to	environmental improvement	Increase of percentage of consolidated net sales: 25 % or more		
products and business operation(s)	Increase of environn	nental flagship produc	ts and business operation(s)	Increase of percentage of sales of Zero Utility Cost House: 30 % Sales of lifeline renovation business: Increased by 10 billion yen Intermediate sales of solar control and solar control/sound insulation products: 4 billion yen		
		Preventing global warming and energy	Reduction in emissions of greenhouse gases	CO <sub>2</sub> emissions: Reduction of 8% (compared to fiscal 1990)		
		saving	Energy saving	Unit energy consumption: Reduction of 3% (compared to fiscal 2004)		
			Reduction of waste generation at production sites	Reduction of 25% (compared to fiscal 2004)		
			Maintaining and further promoting zero emissions standards	Achievement of zero emissions at 8 overseas production sites (Europe, US) Promotion of zero emissions at domestic production sites and five new production sites		
	Promotion of	Recycling of	Reduction of waste materials from new construction	Sekisui Heim: 45% reduction (compared to fiscal 2000) Sekisui Two-U Home: 62% reduction (compared to fiscal 2000)		
	environmentally friendly production and construction	resources	Recycling of waste materials produced during demolition and extension/renovation of houses	Increase of recycling rate of waste materials from house dismantlement: 100% (Zero emissions) Extension and reconstruction housing works outside house business Increase of recycling rate of waste materials: 50% or more		
			Reduction of costs derived from waste materials (Promotion of activities in all MFCA business sites)	5 billion yen (Accumulated amount from fiscal 2006 to 2008)		
Thoroughness of environmental friendliness of		Reduction in emissions of chemical substances	Reduction in VOC emissions (Legal and voluntary controlled substances)	40% reduction (compared to fiscal 2000)		
business operations		Efficient water use	Reduction of water intake	5% reduction (compared to fiscal 2004)		
	Green Procurement	Improvement and pro	motion of green procurement	Green-procurement rate: 90%		
	Green Distribution	Reduction of CO <sub>2</sub> em	issions in distribution of products	Unit CO <sub>2</sub> consumption: Reduction of 2% (compared to fiscal 2006)		
	Promotion of environmentally friendly office and business operations	Promotion of activities	s to reduce creation of waste materials	Headquarters building and laboratory: Maintains zero emissions target fiscal 2006: Grasping of actual situation in all offices and setting of target in fiscal 2008		
		Promotion of energy s (Headquarters, labora and Fami S)	saving initiatives tories, branches, sales companies	Headquarters building and laboratory: Power consumption; Reduction of 3% (compared to fiscal 2004) fiscal 2006: Grasping of actual situation in all offices and setting of target in fiscal 2008		
		Reduction of office pa	aper use	Headquarters building: Reduction of 10% (compared to fiscal 2004) fiscal 2006: Grasping actual situation in all offices and setting target for fiscal 2008		
		Using environment-fri	endly company cars	Rate of introduction of cars achieving baseline of green taxation plan of fiscal 2005: 60% or more		
		Promotion of EMS in business sites	supply chains, offices, and overseas	[Procurement] Acquisition of Eco Action 21 by all house material suppliers supplying materials of 1 million yen or more per month  [Office] Acquisition of environmental data in all offices and showrooms [Overseas] Promotion of acquisition of certification of ISO14001 in four new production sites in Europe and US		
	Promotion and	Promotion of environmental	Risk management of waste disposal	Compilation and management of database of subcontractors according to environmental information collection system		
	thoroughness of environmental	risk management	Management of soil contamination	Completion of investigation of 10 business sites Introduction and operation of overall company education system		
Cultivation of	management	Improvement of	Improvement of employee education for each classification	(e-learning, etc.) Rate of participation in education programs by all employees and board members in Japan: 100%		
eco-friendly business culture		education and development	Developing leaders for nature protection activities	Meeting of Sekisui Nature Study Course In 10 business sites or more (fiscal 2006 - 2008) Cultivation of leader: 200 leaders or more (Accumulated number of leaders 600 or more)		
		Communication with external	Publishing site reports	Publication of site reports at production site, laboratories, and housing sales companies which acquired certification of ISO 14001 (as of 2007)		
	Promotion of	organizations	Communication with local communities to improve environment	Continuous communication at 10 domestic production sites		
	social activities	Activities to improve	Support of nature conservation activities by NGOs	Support of nature conservation activities by NGOs: Five NGOs or more a year		
		environment	Nature conservation activities in collaboration with local communities	Nature conservation activities at 35 sites or more (fiscal 2006 - 2008)		

- Environmental contribution by products and businesses
- Thoroughness of environmental friendliness of businesses
- Corporate culture attending to environmental affairs It then sets targets for fiscal 2006, fiscal 2008 and fiscal 2010 for each item, and practical action is already in hand to achieve those targets.

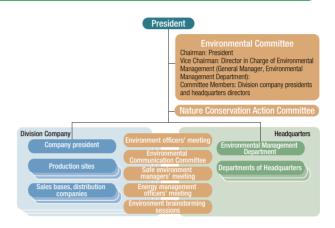
Group Target for Fiscal 2010	Targets for Fiscal 2006 and Future Projections
Doubling (compared to fiscal 2004)	
Percentage of consolidated net sales: 50% or more	Reappraisal of environmentally contributing products including external economic effects and expansion of sales in line with business plans
Re-setting of goals in fiscal 2008	Percentage of sales of Zero Utility Cost House: 20% Sales of lifeline renovation business: increased by 0.5 billion yen Sales of solar control and solar control/sound insulation products: 1 billion yen
CO <sub>2</sub> emissions: Reduction of 10% (Over 1990)	CO <sub>2</sub> emissions: Reduction of 6% (compared to fiscal 1990)
 Unit energy consumption: Reduction of 5% (compared to fiscal 2004)	Unit energy consumption: Reduction of 1% (compared to fiscal 2004)
 Reduction of 50% (compared to fiscal 2004)	Reduction of 8% (compared to fiscal 2004)
Achievement of zero emissions at all overseas production sites (in Europe, US, Asia and China)	Commencement of zero-emissions efforts at business sites concerned
 Sekisui Heim: 50% reduction (compared to fiscal 2000) Sekisui Two-U Home: 65% reduction (compared to fiscal 2000)	Sekisui Heim: 30% reduction (compared to fiscal 2000) Sekisui Two-U Home: 50% reduction (compared to fiscal 2000)
Recycling rate of waste materials from dwelling demolition and extension/ renovation: 100%	Achievement of zero emissions for demolition debris at model locations (of three housing sales companies)
	Completion of implementation of measures amounting to 900 million yen
50% reduction (compared to fiscal 2000)	Determination of reduction measures on division company-by-company basis
10% reduction (compared to fiscal 2004)	Periodic determination of amount of water taken in and setting of goals at reduction-affected business sites
Green-procurement rate: 100%	Reappraisal of suppliers who are concerned with green-procurement and affected requirements as well as assessment of vendors who have been recently added to green-procurement list
Unit CO <sub>2</sub> consumption: Reduction of 5% (compared to fiscal 2006)	Introduction of tabulation system to sum up CO <sub>2</sub> emissions that are produced while products are being transported Tabulation of actual CO <sub>2</sub> emissions in fiscal 2006
Promotion of reduction efforts in line with office goals	Headquarters building and laboratories: Maintenance of zero emissions Grasping actual situation at all offices and setting targets for fiscal 2008
Headquarters building and laboratories: 5% reduction in power consumption (compared to fiscal 2004) Promotion of reduction efforts in line with office goals	Headquarters building and laboratories: 1% reduction in power consumption (from fiscal 2004 Grasping actual situation at all offices
Amount of copy paper used: 20% reduction (compared to fiscal 2006)	Headquarters building: Reduction of 3% Grasping actual situation at all offices and setting targets for fiscal 2008
Rate of introduction of cars achieving baseline of green taxation plan of fiscal 2005: 70% or more	Rate of introduction of cars achieving baseline of green taxation plan: 53%
Extension of EMS (Environmental Management System) to overseas business sites Acquisition of ISO14001 certification at overseas production sites (in Asia and China)	[Procurement] Eco Action 21 acquisition rate of housing material suppliers each having transactions amounting to 1 million yen or more per month.  [Office] Commencement of acquisition of environmental data with environmental information collection system  [Overseas] Start of ISO14001 certification acquisition activities at production sites concerned
	Listing of subcontractors by means of environmental information collection system
 Completion of investigations at all affected business sites	Implementation of soil survey site of each division company
Percentage of employees and executives who have received environmental education, including those who are employed outside Japan: 100%	Introduction of e-learning system and enrichment of contents Commencement of system operations
Sekisui Nature Study Course shall be held at 34 major production sites and four laboratories by 2010.	Holding of Sekisui Nature Study Course at four new business sites
Continues publication of reports at ISO-certified production sites, laboratories, housing sales companies, and Sekisui Fami S companies.	Issuance at 35 ISO14001-certified production sites and laboratories
 Communication at all business sites publishing a site report	Communication at 3 business sites
Support of nature conservation activities by NGOs: 10 NGOs or more	Supporting of nature conservation projects of NGOs through WWF (World Wide Fund for Nature).

### The Foundation for Environmental Corporate Management

### We have developed a structure in which headquarters and division companies cooperate closely to strengthen corporate governance over our environmental conservation

### Promotional system and roles of environmental corporate management

Sekisui Chemical Group's environmental corporate management strategies and objectives are discussed and decided by Environmental Committee, and are communicated to headquarters and division committees which respectively develop and implement concrete plans. Performance by headquarters and respective division companies is summarized and reviewed by Environmental Committee on both semiannual and annual bases, with findings reflected in the plan for the following term. Furthermore, in an effort to enhance and promote these activities, we have set up crossfunctional meetings and committees comprising headquarters and division companies and also headquarters and business sites, in order to enforce group-wide strategies and measures, develop annual action plans, disseminate and share environmental information, and promote energy saving activities.



### Structuring and expansion of Environmental Management System

We, Sekisui Chemical Group have been developing our environmental management system (EMS) in an effort to effectively carry out environment-friendly activities, including preventing environmental pollution and reducing environmental impact.

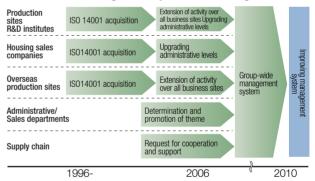
We have been progressively acquiring ISO 14001 certification for our business sites since fiscal 1996. First to acquire certification were plants with heavy environmental impact, followed by housing sales companies responsible for construction sites, and R&D institutes promoting the development of environment-friendly products. As a result, 91% of employees now work at business sites with ISO 14001 certification.

### Extension to overseas business sites

Production volumes at our overseas sites have risen in recent years, and we are pushing these production sites to acquire ISO 14001 certification by fiscal 2010. Meanwhile, our division companies conduct semiannual environmental performance surveys, collecting and collating their figures on environmental indicators such as energy usage, waste generation, chemical discharge, and water usage, etc.

Following on from the previous year, the figures (see p. 84) for 13 production sites were totaled for fiscal 2005 and on-site surveys were conducted at three production sites in Thailand and Australia. These investigations revealed no particular problems, but we intend to go on collecting data on our environmental impact and carrying out regular fact-finding tours.

#### **Environmental Management System Structuring**



### Rollout to offices

Although the environmental impact imposed by office environments such as headquarters and division company administrative and sales departments is relatively small, we also intend to make improvements here. Through environmental impact surveys and improvement initiatives such as energy saving, zero emission activities being carried out at our headquarters, we intend to expand our environmental management system in a format suitable to each of our administrative functions.

#### Rollout to the supply chains

We also plan to extend our environmental management system to contractors and supply chains by fiscal 2010. As part of this, Housing Company is requiring and supporting its small and medium-sized business partners to obtain certifications such as Eco Action 21.\*

#### \* Eco Action 21

The accreditation and registration system established by the Ministry of the Environment to provide the guidelines for small and medium businesses, schools, public organizations, and other entities for "creating, operating, and maintaining a system for effective and efficient environmental conservation activities, setting and acting to attain the goal of environmental conservation, and summarizing, assessing and reporting the results of the activities for environmental conservation.

### System and results of environmental audits

In addition to the internal audits and third party audits undertaken at our ISO14001 certified business sites, Environmental Management Department at headquarters regularly performs environmental audits to enhance continuous improvement of our environmental management system (EMS) and environmental performance.

### Environmental Audit by Environmental Management Department

Environmental Management Department audits the status of compliance with environmental laws and regulations, improvement of environmental performance and future plans for environmental corporate management. Audit results are reported to the top management while direction and guidance are provided for prompt improvement of any shortcomings (See p. 87 for fiscal 2005 audit results).

### Quantifying Evaluations with the Environmental Management Evaluation Sheet

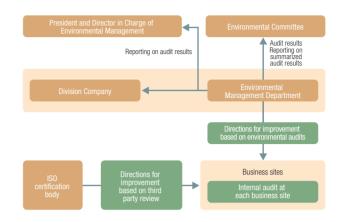
We have been using an Environmental Management Evaluation Sheet since fiscal 2003 to quantify each business site's activity status and standards of administrative practice.

The evaluation checks 72 items in three areas (EMS, preparedness against environmental risks, and performance improvement) and scores them at one of four levels between 0 (the minimum level required for ISO 14001 certification) and 3 (the level aspired to by Sekisui Chemical Group). The sheet is used not only by Environmental Management Department in conducting its audits, but also by each business site to asses its own performance: it helps our business sites to strengthen their administrative practices and identify the specific improvements they need to make.

### Environmental performance evaluation

In our drive to promote environment-friendly business activities, the Sekisui Chemical Group had, until fiscal 2005, been awarding prizes to business sites and sales departments that reached high targets in reducing their environmental impact and selling environment-friendly products.

In fiscal 2006 we added a number of environmental items to the list we use to formally evaluate each division company's performance. By monitoring their degree of attainment of targets for CO<sub>2</sub> emissions, waste generation, and sales of environmentally contributing products, we hope to push care for the environment even higher in all of our activities (see p. 58).



#### Adopting Documentation Review

The number of business sites that have received their second triennial ISO 14001 certification renewal audit has increased recently, indicating that the application of the relevant systems has become firmly established. Because of this, in fiscal 2004 we introduced a documentation review system for business sites registered under ISO 14001 for three years or more and having relatively little environmental impact, alternating these with on-site audits. Sites submit their Environmental Management Evaluation Sheet and other important management documents (such as their environmental policy, environmental targets, materials detailing how they have addressed the issues raised at their previous audit, a legal requirements chart, and control procedures for waste materials, chemicals and so on), and these are carefully checked to make sure that everything is in order.

### Introducing and utilizing the environmental information system

To raise the standard of our environmental corporate management even further, we introduced in fiscal 2005 and started operating a new database dedicated to gathering environmental information from our business sites. In its first year, the system was used only for our production sites and research laboratories in Japan, but we intend to roll it out to our administrative offices, sales departments, and housing sales companies, ultimately using it to give us an accurate picture of the entire group's environmental performance.

### Next steps toward becoming an Environmentally Creative Organization

Drastically reducing environmental risk and developing our people are the key issues facing the Group in our drive to become an environmental leader.

We are minimizing environmental risks in all our business activities by continuing to embed and upgrade the environmental corporate management and audit systems we have structured so far. At the same time, we are equipping our employees with the knowledge, skills and awareness they require in their respective roles by having them attend graded job training, basic environmental technology training for development staff, specialized training to foster internal environmental auditors, training to foster nature conservation leaders (through Sekisui Nature Study Course) and other courses.

In addition to these programs, we share environmental information via the Group's intranet and provide environmental awareness and training sessions at each business site.

Developing nature conservation leaders (Sekisui Nature Study Course) Since 1997, Environmental Management Department has been running Sekisui Nature Study Course for environmental awareness and training sessions with the aim of fostering leaders for nature conservation activities in their local communities. The sessions are designed to teach the basics of natural ecosystems and how to guide volunteer work, and the participants are engaged in nature conservation programs at their business sites.

### **Environmental Corporate Management Indicators**

### Applying environmental corporate management indicators effectively to improve our environmental efforts

### Using appropriate indicators to evaluate results

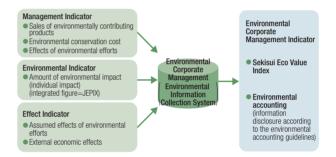
To further improve our environmental corporate management, we need suitable indicators to measure the results of our various initiatives. As a group, we are doing our utmost to maximize added value while minimizing our environmental impact by carefully selecting the most appropriate indicators for each of our environmental initiatives and using them to obtain an objective, accurate picture of the results

To measure the environmental impact of our operations at our production sites and house construction sites, we use indicators such as energy input, materials input, waste generation, waste recycle rate and CO2 emissions. We incorporate individual numerical targets for these indicators into our annual plans, periodically review the results, and use our findings to set the next year's targets and plans. We also use the JEPIX indicator (see inset below) to inform ourselves of the Group's overall environmental impact, keeping sight of the differences between our various businesses, and effectively reduce it.

While minimizing our environmental impact in this way, we use the sales revenue from environmentally contributing products and the expenditure of (or investment in) environment-friendly operations as indicators for our value-adding activities. We also

use other indicators such as "external economical effects." which computes the financial advantage afforded to society by our environmentally contributing products and services.

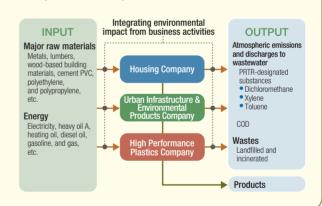
At Sekisui Chemical Group, we use these indicators in the most effective possible combination to gauge our environmental corporate management performance, by calculating the Sekisui Eco Value Index and drawing up environmental accounting. We prepare and publish our environmental accounting in accordance with the Environmental Accounting Guidelines issued by the Japanese Ministry of the Environment.



### JEPIX — an integrated indicator for assessing overall impact of multiple individual factors

JEPIX can calculate and show various environmental impact including quantity of principal raw materials consumed, power consumption, amount of hazardous chemicals used. and volume of waste incinerated or landfilled, by applying an integrated criterion called Environmental Impact Point (EIP). The use of a single indicator like this allows us to combine all our different individual impact and obtain a good idea of the overall environmental impact by our operations.

Since there is a wide variation in the environmental impact of the Sekisui Chemical Group's division companies, this kind of combined indicator is an effective measure of how well the corporation as a whole is managing itself environmentally.



### Sekisui Eco Value Index—a unique criterion for environmental corporate management

To measure its environmental corporate management effectiveness, Sekisui Chemical Group has devised a unique criterion named Sekisui Eco Value Index. This index is calculated by dividing "environmental added value" by "environmental impact," where "environmental added value" is calculated from figures such as the Group's total sales revenue from environmentally contributing products (see p. 30) and the overall "external economical effect" delivered to society by our products and services, while "environmental impact" is the Group's overall environmental impact as measured by JEPIX.

Our target is to double the Sekisui Eco Value Index by 2010

compared with its 2004 value—in other words, to make our environmental corporate management doubly effective. By using this indicator in conjunction with our environmentally contributing products standards, we intend to go on increasing the benefits we deliver to society through these products while reducing the adverse environmental impact of all our activities.

environmental added value les revenue from environmentally contributing products + external economical effect Sekisui Eco Value Index = group's overall environmental impact

### Sekisui Chemical Group's environmental accounting

\* For scope of calculations and data by division companies, see pp. 85-86.

We are pursuing efficient environmental corporate management while fulfilling corporate accountability, by adopting environmental accounting as a means of quantifying the costs and effects of environmental conservation activities. We organized environmental accounting by applying Sekisui Chemical Group's own concept in terms of estimated effects and customers' economic benefits to the basic framework provided in the Environmental Accounting Guidelines 2005 issued by the Japanese Ministry of the Environment.

### Major changes from previous year

- (1) We expanded the scope of housing sales companies covered by environmental accounting to 38 business sites by adding 10 further companies (13 business sites).
- (2) Costs relating to Reuse System House were added to the calculation.

### 2005 activities and results

**Table 1:** This table shows a expenditure increase of approximately 300 million yen over the previous financial year, if the increases due to adding the 13 business sites of

housing sales companies and Reuse System House to the scope of the calculation are excluded. Investment, on the other hand, decreased by around the same figure because of less investment in waste reduction and recycling.

**Table 2:** Although we were unable to reduce unit energy usage, which remained level, most other environmental performance indicators improved as planned. CO<sub>2</sub> emissions continued to decline thanks to progressive uptake of our photovoltaic generation system, with a total reduction of 95,000 tons since the system was launched.

**Table 3:** Most of our cost reductions were achieved by using energy saving activities such as cogeneration system together with waste reduction activities, including resource saving. The economic advantage to customers of living in a house equipped with our photovoltaic generation system is also estimated here (see p. 86).

### **Future strategies**

We intend to continue enhancing our environmental accounting to make it even more effective in promoting environmental corporate management.

Table 1: Environmental Conservation Costs (whole group)

(unit:million yen)

(unit:million ven)

	Items	FY2	:003	FY2	004	FY2005		
Category	Description of main activities	Costs	Investments	Costs	Investments	Costs	Investments	
	Prevention of air, water and noise pollution, etc.				172	1,872	375	
<ol> <li>Costs within business operations</li> </ol>	Countermeasures against global warming (energy-saving), etc	108	144	122	222	160	218	
	Waste reduction, recycling, disposal, etc	3,331	70	4,077	224	5,211	186	
2) Upstream/downstream costs	/downstream costs			153	392	600	124	
Administrative costs     Environmental education, EMS maintenance, organizing and maintaining environmental countermeasures, information disclosure			31	2,640	31	2,933	20	
4) Research & Development costs	arch & Development costs Research & Development on environmental conservation		301	1,195	182	1,347	82	
5) Social activities costs	Social activities costs Social contributions, etc.		0	136	0	108	0	
Environmental damage costs	Environmental damage costs Nature restoration, etc.				70	10	0	
	Total	8,447	1,056	10,014	1,293	12,241	1,005	

<sup>\*1</sup> Number of business sites of housing sales companies included in the scope of environmental accounting FY2003: 14 FY2004: 25 FY2005: 38

Table 2: Environmental Conservation Benefits (whole group)

	Environmental conservation benefits									Environmental performance criteria: per unit of output; To					
Descripti	Description of effects Item		Unit	FY 2003	FY 2004	FY 2005	Effects (2005-2004)	Reference pages	Item	Unit	FY 2004	FY 2005	Evaluation		
	Effects on invested	Amount of	(1) Electricity	TJ	3,570	3,670	3,649	-21	33	(1) Energy usage per unit of output	GJ/ton	1.91	1.91	×	
	resources	energy usage*	2 (2) Fuel	TJ	2,597	2,628	2,669	41	33	(electricity + fuel)*2	GG/TOTT	1.91	1.91	^	
Effects within		(3) CO <sub>2</sub> emiss	ions*3	1,000 tons	285.6	291.2	292.0	0.8	33	_	_	_	_	0	
			(4) Volume of pollutants of	environmental discharged*4	tons	529.8	522.3	460.9	-61.4	38	_	_	_	_	0
		(5) Wastes ger	nerated*5	1,000 tons	47.5	46.2	44.7	-1.5	35	(2) Waste generation per unit of output	kg/ton	43.8	43.4	0	
		(6) Outsourced	d disposal*6	1,000 tons	0.10	0.07	0.06	-0.01	88	(3) Outsourced disposal per unit of output	kg/ton	0.066	0.058	0	
Upstream/down- stream effects	Effects due to products/services	CO <sub>2</sub> reduction generation, etc	by photovoltaic c. (cumulative)	1,000 tons	58	77	95	18	_	_	_	_	_	0	
Other benefits on environmental conservation Others		IS014001	New acquisitions	No.	2	3	5	_	_	Number of business sites acquiring	Total number of	84	89		
		Certification	Renewals	No.	19	10	18	_	_	ISO14001 Certification	business sites	04	69		
		Number of but achieving zero		No.	18	41	5	_	36	Number of business sites achieving zero emission*7	Total number of business sites	113	118	0	

<sup>\*2</sup> Conversion into thermal units uses the coefficient published by the Ministry of Economy, Trade and Industry
\*3 Emissions at the time of manufacturing and conversion to CO2 amounts use the coefficient published by the Ministry of the Environment (calculated based on the coefficient for 2000)
\*4 Applicable to Class Lossingtad Chapitral Substances specified by PETR Law \*5 Applicable Amount disposed of at price Amount incingrated within own premises.

Table 3: Economical Effects Related to Environmental Conservation Measures (whole group)

	(*************************************									
Description of effects			FY2004	FY2005	Remarks					
Revenue	Revenue (1) Profit on sales of valuable resources		140	223	Profit on sales of valuable resources derived from functional recovery and promotion of recycling					
	(2) Savings from simplified packaging	7	7	14						
Cost-saving	(3) Cost-saving through energy-saving activities	479	298	319						
	(4) Cost-saving through waste reduction activities, etc.	744	851	841	Including resource-saving activities					
Sub-total (real effects)		1,327	1,296	1,397						
(5) Contribution to environmental conservation activities*8		6,051	5,855	5,977	Contribution of environmental conservation activities to added value at business sites*9					
(6) Contribution of Research & Development activities to environment-friendly new products*8		1,492	1,143	1,584	Sales turnover for environment-friendly new products x Ratio of environmental research costs to all research costs					
Sub-total (estimated effects)			6 998	7 561						

Total 8,870 8,294 8,958 \*\*8 Excludes housing sales companies \*\*9 (Added value at business sites excludes environment-friendly new products) x ((Costs within business operation areas + Administrative activities costs) / (Gross manufacturing cost excluding raw materials costs))

<sup>\*4</sup> Applicable to Class I Designated Chemical Substances specified by PHTI Law \*5 Amount discharged + Amount disposed of at price + Amount incinerated within own premises \*6 Simple incineration + Landfill \*7 A business site affiliated to multiple companies is counted as one.

### **Environmental Consideration in Products**

## Our mission is to pursue the environmental friendliness of products and create new products that contribute to environmental protection

### Our philosophy on environmental consideration in products

While Sekisui Chemical Group already pursues reduction of environmental impact in its business activities, in compliance with environmental legislations and social standards, we also believe that the products we deliver to the public should make their own contributions to global environmental conservation.

Accordingly, we work to reduce environmental impact

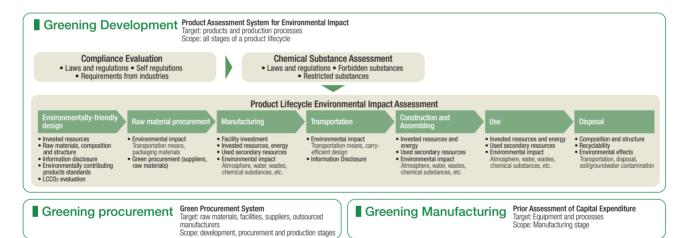
throughout the total product lifecycle, from development through procurement, manufacturing, sales/distribution, and use, to ultimate disposal. And, we seek to develop even more environmentally contributing products by enhancing recyclability, resource-saving and energy-saving features.

### System for environmental consideration in products (Three Greening Steps)

Sekisui Chemical Group is implementing the Three Greening Steps, which requires environment-friendly practices to be conducted at each of three early stages in a product's lifecycle: upstream development, procurement and manufacturing. To promote these activities, we operate such systems as Product Assessment for Environmental Impact,

Green Procurement, and Prior Assessment of Capital Expenditure.

By periodically revising these systems and finding more and better ways to protect the environment, we will incorporate thoroughgoing environmental friendliness into all of the products marketed by Sekisui Chemical Group.



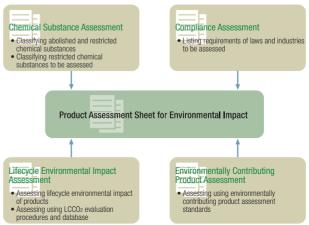
### Greening Development (Product Assessment System for Environmental Impact)

At the product development stage, Sekisui Chemical Group has introduced "Product Assessment System for Environmental Impact," which is designed to assess the environmental impact of all products and their manufacturing processes at all stages of a product lifecycle, from development to disposal. Based on this assessment, we develop products with reduced environmental impact and/or products that contribute to environmental conservation and improvement.

Since Sekisui Chemical Group started operating this system in fiscal 1993, in addition to formulating schedules of banned and restricted substances, we further improved our environmental friendliness by developing Green Procurement Guidelines and Approach Criteria for Environment-friendly Products.

In fiscal 2005, to help us do an even more thorough job of environmental friendliness, we redesigned the Product Assessment Sheet for Environmental Impact to enable us to identify environmental issues with our products and properly evaluate their impact on the environment at every stage of their life cycle. We also completely rewrote our environment-friendly product accreditation guidelines to make it even clearer exactly how we are helping the environment through our products, retitling them environmentally contributing products standards.

#### Layout of Product Assessment Sheet for Environmental Impact



### Greening procurement (Green Procurement System)

We have used our Green Procurement System since fiscal 2001 to evaluate our suppliers and contractors and select raw materials and equipment that impose lower environmental impact during development and manufacturing.

In fiscal 2005, we achieved our initial target with a green procurement ratio of 91.5%.

For office supplies and equipment, we are reducing environmental impact according to our in-house Green Purchase Guidelines (see p. 87).

### Greening manufacturing (Prior Assessment of Capital Expenditure System)

Sekisui Chemical Group is implementing Prior Assessment of Capital Expenditure to assess capital expenditure proposals planned and developed according to internal rules, including the Capital Investment Control Manual and Construction and Maintenance Standard from an environmental perspective. Through this assessment system, we pursue low-environmental-impact manufacturing processes by analyzing the environmental impact of proposed capital expenditure in order to determine feasibility in terms of preventing pollution and measures to deal with chemical substances and waste materials.

### Environment-related capital expenditure (excluding production of environment-friendly products)

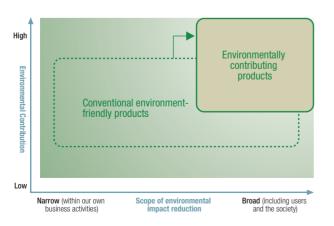
Number of investment subjects: 34 Amount invested: 0.67 billion yen

	Subject of investment	Business sites	Estimated effect
Housing Company	Introduction of photovoltaic generation system (20 kW)	Higashinihon Sekisui Industry Co., Ltd.	Reduction of electricity usage by approxim ately 20 MWh per year
Urban Infrastructure & Environmental Products Company	Chip-less production of decking materials	Shikoku Sekisui Industry Co., Ltd.	Zero chip from production process (6 tons reduction/year)
High Performance Plastics Company	Introduction of co-generation system using highly-efficient gas	Musashi Plant, Sekisui Chemical Co., Ltd.	Reduction of CO <sub>2</sub> emissions by approximately 4,000 tons/year

### From "Environmental Consideration" to "Actively Contributing to the Environment" our environmentally contributing product standards

In our drive to contribute to society by expanding the range of our environmentally contributing products and services, Sekisui Chemical Group established a set of environment-friendly product accreditation guidelines in fiscal 2003 and began using the number of such products launched on the market and their sales revenues as indicator for environmental corporate management.

In fiscal 2006, we completely rewrote these standards with the aim of dramatically lightening the environmental impact placed on society by our products and operations, renaming them environmentally contributing product standards. We began trialing these in the first half of the year, and plan to start using them throughout the Group in the second half of the year.



### **Environmentally Contributing Product Standards**

### Sekisui Chemical Group's Definition of an Environmentally Contributing Product

- Demonstrably helps to reduce the environmental impact on its user or on society as a whole
- Reduces the environmental impact by more than a certain amount, in comparison with similar conventional products or systems (but it is essential that all products and systems should exhibit low levels of environmental pollution, safety/quality shortcomings and environmental risk)

### Scope of Application

- Reduction in environmental impact and resource depletion at point of use, user disposal and recycling (excluding production and transportation within Sekisui Chemical Group)
- Reduction of impact on the natural environment, e.g. reduction in greenhouse gases (CO<sub>2</sub>, etc.). waste reduction, resource conservation, and water conservation/recycling

#### Assessment Method

- Use Product Assessment Sheet for Environmental Impact to measure reduction in environmental impact in comparison with conventional products and systems
- For each category of environmentally contributing product or service, assess the level of those that demonstrate a reduction in environmental impact of more than a certain amount, in light of current market conditions
   Limitations:

Do not define a product or service as environmentally contributing if:

- 1) Others demonstrating similar performance are readily available
- 2) The environmental benefits are not clearly measurable
- 3) The environmental benefits are only projected ones

### **Examples of Environmentally Contributing in Products**

### Enabling repeated re-use of wood resources, our Recycle Engineered Wood (REW)

### REW — meeting society's need to recycle wood scrap

Japan's Construction Material Recycling Law\*1 stipulates that construction and demolition sites must recycle 95% of their waste wood by fiscal 2010. But, since wood scrap has a limited range of applications, the recycling rate had only reached 61%\*2 by fiscal 2002. The amount of wood recovered is expected to increase in response to the new law, but we urgently need to close the gap by expanding the range of applications for this material in our





drive to promote the effective use of natural resources.

Responding to this need, Sekisui Chemical developed in 2001 a new material called Recycle Engineered Wood (REW). We found a way of turning wood scrap into a material strong enough to be used for the main structural components of wooden houses (pillars, beams, joists, etc.), one of wood's major applications.

- \*1 Japan's Construction Material Recycling Law (full title: Law Concerning Recycling of Materials from Construction Work): Enacted in May 2000 as part of a package of legislation designed to promote a recycling society and made fully operative in May 2002, this law makes it obligatory to segregate, recover and recycle four classes of construction materials including wood
- \*2 Source: Ministry of Land, Infrastructure and Transport

### REW — enabling wood to be recycled for use as a structural housebuilding material

To ensure that scrap materials are employed effectively, it is important to enable them to be re-used as many times as possible ("cascade" re-use) by applying a suitable combination of re-use, material recycling and thermal recycling. Until now, however, the main methods of re-using wood scrap have been limited to pulverizing it to make materials such as particle board for use as floorboards and fascia panels (material recycling) or burning it as a fuel in sawdust boilers (thermal recycling).

REW technology greatly extends the application of wood scrap by turning it into chips for compression molding into the required shapes. By paying careful attention to chip orientation and molding techniques, we have succeeded in creating an engineered wood strong enough to be used not only for floorboards and fascia panels but also for structural building components. It is ISO 9001 and AQ\* certified (as a building material, and for its rot-proof, termite-proof properties). Its quality is guaranteed, as it is also the first engineered wood produced in Japan to have been approved as possessing the quality for a structural material under Japan's Building Standard Law.

\* AQ certification: A certification scheme operated by the Japan Housing and Wood Technology Center for assuring the quality of construction materials not covered by Japanese Agricultural Standards.

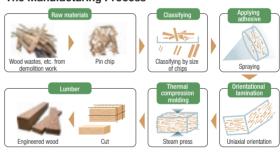
### REW's outstanding environmental performance

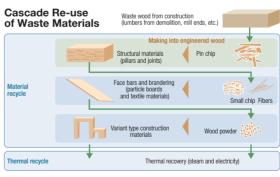
Since used REW can be broken down and reconstituted, REW technology promotes "cascade reuse" (the use of a material several times over), greatly extending the lifetime of the original natural wood. Formaldehyde-free adhesives are used in order to improve the living environment.

Our life-cycle assessment\* of REW showed that its lifetime CO<sub>2</sub> (the total amount of CO<sub>2</sub> generated throughout a product's life) is 8% less than that of conventional particle board. REW is an innovative material that not only utilizes scrap wood more effectively but also affects the global environment less during its production and use.

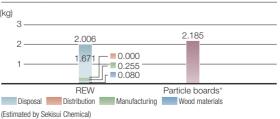
\* Life-Cycle Assessment (LCA): An evaluation of a product's environmental impact at every stage of its life, from raw material through processing, transportation and use to final disposal.

### The Manufacturing Process





#### LCCO<sub>2</sub> Evaluation Results (amount of CO<sub>2</sub> generated per kilogram of product)



\* The LCCO2 Evaluation results for particle boards are summed figures of material, manufacturing, distribution and disposal stages.

### **Examples of Environmentally Contributing in Products**

### Sekisui Chemical Group offers a wide range of products and services that help to reduce strains on the environment

### Solar Control Interlayer Film

By blocking infrared (heat) radiation, these films help to keep the interiors of parked cars cool (particularly around the steering wheel) and save energy by reducing the excessive need for air conditioning (see pp. 15-16).

[fiscal 2005 production: enough for 700,000 vehicles]





### **Recycled Container**

We have introduced waste-free recycled plastic containers that its customers return for remolding into new ones by sandwiching with fresh material.

[fiscal 2005 production: 370,000]

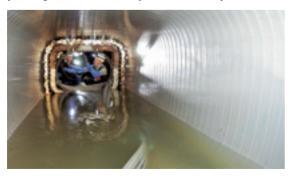




### Rehabilitation Method (the SPR Method)

The SPR method, a technique for renewing old sewer pipes without digging them up, greatly reduces construction waste and materials usage during sewer renovation, as well as minimizing noise and traffic disruption (see pp. 13-14).

[Length of sewers renewed in fiscal 2005: 41 km] [Total length of sewers renewed by fiscal 2005: 393 km]



### Rainwater Storage System

Rainwater storage systems are used to control the amount of rainwater flowing into sewers and rivers and prevent them from becoming overloaded. Our system minimizes the amount of excavation work and concrete required to install the tanks.

[fiscal 2005 production of water storage material: 800,000 sheets (installed at approximately 300 locations)]



### Zero Utility Cost House

With their better building performance, highly-efficient appliances and photovoltaic energy systems, our houses dramatically reduce the amount of CO<sub>2</sub> produced by the power consumption in everyday life and cut utility bills (see pp. 11-12).

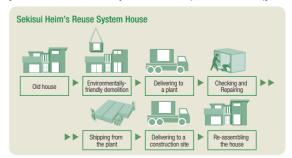
[Percentage of homes fitted with photovoltaic generation systems in fiscal 2005: 52%]
[Percentage of Zero Utility Cost House constructed in fiscal 2005: 17%]
[Total number of houses fitted with photovoltaic generation systems by fiscal 2005: 47,500]



#### Reuse System House

These are houses made by dismantling Sekisui Heim. returning the units to the plant for repair, and reassembling them for sale as new houses. Most of the components are effectively re-used, helping to reduce construction waste.

[Number constructed in fiscal 2005: 80 (1,348 units reused)] [Total number constructed by fiscal 2005: 144 (2,276 units reused)]



### **Environmental Consideration in Business Activities: (1) Responding to Global Warming Concerns**

# We have cut CO<sub>2</sub> emissions at the production stage to 3% less than the fiscal 1990 level, and we now intend to set ourselves even more challenging targets in our drive to minimize our greenhouse gas emissions

### Helping to prevent global warming

While Sekisui Chemical Group develops, manufactures and markets a wide range of socially useful products, these operations also consume fossil fuels and produce greenhouse gases such as CO<sub>2</sub>.

Our mission as a manufacturer is to provide our customers and society at large with useful products, and our goal is to offer not just product with minimal adverse effects on the environment but also product actively helps to improve the environment. On the other hand, we recognize that our most

important responsibility in doing this is to minimize the volumes of greenhouse gases emitted during our development, manufacturing and marketing operations, etc.

To this end, we have a comprehensive program for controlling the emission of greenhouse gases during all of our operations, at production sites, overseas business sites, offices, distribution centers and other facilities both in Japan and abroad.

### Results of and reflections on the STEP-2005 Midterm Environmental Plan

#### Action at the production stage

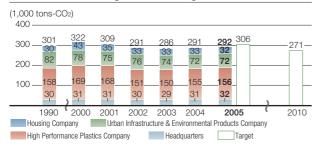
In STEP-2005, we set ourselves targets for unit energy consumption (energy used  $\div$  production volume), which indicates how energy-efficient our production is, and amount of CO<sub>2</sub> emitted as a result of using energy during production, and did our best to meet them.

So far, we have saved energy by means such as switching from heavy oil A to city gas to run our large boilers, introducing co-generation systems and other energy-saving equipment, and concentrating production of Sekisui Two-U Home into six sites instead of eight. Thanks to these initiatives, we succeeded in cutting our  $CO_2$  emissions in fiscal 2005 to 9% less than their fiscal 2000 level, greatly exceeding our target of at least 5%. Current levels are around 3% below fiscal 1990 levels (the Kyoto Protocol reference year).

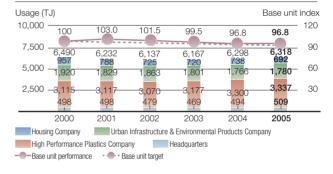
Unfortunately, we failed to meet our unit energy consumption target for fiscal 2005 (5% below that of fiscal 2000), only managing to reduce it by 3.2%. This was because of changes in our product lineup, which now includes a higher proportion of products requiring more energy in their manufacture.

We used to use the CFC substitute HCFC (like CO<sub>2</sub>, also a greenhouse gas) when making our foamed products, but discontinued it in fiscal 2004 because it damages the ozone layer. We now use a new CFC substitute called HFC, which does not harm the ozone layer, but this is also a greenhouse gas, so we intend to eliminate it by developing alternative technology.

#### CO<sub>2</sub> emissions during manufacturing



#### Energy usage and unit energy consumption during manufacturing



### Action in distribution

Sekisui Chemical Group is working to reduce energy usage and pollution during distribution by means such as sharing delivery vehicles with other companies and sending goods by sea instead of by road. We also decided in fiscal 2005 on systems and methods\* for collecting statistics on CO<sub>2</sub> emissions during transportation of all our products (since we previously only had the figures for the transportation of houses) and briefed every business site on this.

We now intend to set clear reduction targets based on the results of this exercise, and start working toward them. We will appeal to the distribution companies that handle our deliveries to make sure that all their drivers save energy by driving ecologically (switching off their engines when stationary, and so on). We are also introducing low-pollution vehicles that meet the Ministry of Land, Infrastructure and Transport's Green Taxation Plan for use by our sales staff and other employees, and in fiscal 2005, these made up 80% of Sekisui Leasing Co., Ltd.'s fleet, beating the 70% target by 10 percentage points.

\* We will use the appropriate method (the fuel-consumption method or the revised tonkilo method) specified by the government, depending on the product and mode of transport.

#### Action in offices

We are doing our best to save energy and reduce greenhouse gas emissions not just in our production sites but also in offices at our research laboratories, headquarters and elsewhere. In fiscal 2005, we ran a determined campaign to ensure that everyone switches lights off after use and sets air-conditioners to appropriate temperatures (28°C when used for cooling and 20°C when used for heating). As a result of these and other initiatives, we exceeded our targets at our research labs (target 10% less than in fiscal 2000; result 17% less) and our headquarters (target 15% less than in fiscal 2000; result 16% less).

### Meeting our Environmental Top Runner Plan (Part I) target

Sekisui Chemical Group's Environmental Top Runner Plan (see p. 20), pledges to reduce its greenhouse gas emissions by fiscal 2010 to 10% less than they were in fiscal 1990. As the first step toward this, we have set ourselves an

intermediate target of 8% of the 1990 level in Part I of our Environmental Top Runner Plan to be achieved by fiscal 2008, and are now working toward it.

### Switching to city gas knocks 10,000 tons off annual CO2 emissions

In fiscal 2002, Sekisui Chemical's Shiga-Minakuchi Plant changed its two fuel-oil boilers entirely from heavy oil A to gas and introduced a co-generation system that also runs on gas. This resulted in an annual reduction in CO<sub>2</sub> emission of around 10,000 tons for the same amount of production.

As well as the new gas-fired co-generation system, the plant has a co-generation system using heavy oil A which it plans to replace with a gas-fired one by fiscal 2007. It estimates that this will produce a further annual reduction in CO<sub>2</sub> emission of around 7,000 tons for the same amount of

production.

Elsewhere, Sekisui Chemical's Musashi Plant, which had already had a gas-fired co-generation system for some time, replaced it with a type that generates electricity more efficiently. The new system came fully on-stream in fiscal 2006 and is predicted to cut the plant's CO<sub>2</sub> emissions by around 4,000 tons per year for the same amount of production.

Sekisui Chemical will continue to explore the possibility of switching to gas in areas where a piped gas supply is available.

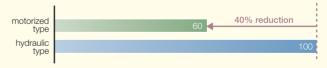
#### Newly developed low-energy production equipment cuts power consumption by 40%

Kyushu Sekisui Industry Co., Ltd. used to make PVC pipe fittings (one of its flagship products) in hydraulic injection molding machines. But these machines use a lot of electricity, so the company joined forces with the equipment manufacturer to develop a new motorized injection molding machines. The new machines have been in use since fiscal 2003 and have reduced the amount of power required to make these pipe fittings by around 40%, as well as substantially decreasing noise and vibration.

We make many other products by injection molding, not

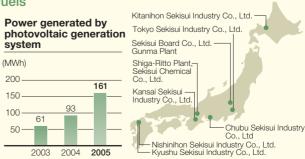
just PVC pipe fittings, so it plans to replace its injection molding machines for other products with electrical ones.

#### Comparison of power required to make 1 kg of product



### Photovoltaic generation systems to replace fossil fuels

Housing Company is leading the drive to equip our production sites with photovoltaic generation systems, which emit no CO<sub>2</sub> at all. These systems generated a total of 161 MWh in fiscal 2005 and had been installed at eight business sites by March 2006. We intend to keep going until we have installed the systems at each of our production sites.



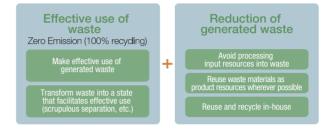
### **Environmental Consideration in Business Activities: (2) Using Resources Effectively**

## While moving steadily closer to our goal of zero emissions, we are also working to reduce waste

### The "3 Rs" (Reduce, Reuse, Recycle) at our production sites and construction sites

As a manufacturer of industrial products, Sekisui Chemical Group inevitably consumes a variety of resources and generates wastes at its production sites and construction sites. As part of our zero emission campaign, we have always tried to use our resources as effectively as possible by recycling waste. We intend to go on doing this at the same time as retracing our steps to the point of origin so as to effectively reduce and reuse the volume of our wastes. We are also creating Resourse-recycling housing system, as exemplified by the introduction of REW (recycle engineered wood, made from scrap – see p. 31) and Reuse System

House (see p. 32).



### Reducing waste at our production sites

Because Sekisui Chemical Group believes that reducing unit waste generation (the amount of waste generated in producing a given amount of product) is the best way of using our resources more effectively and making our operations more efficient, we have set ourselves targets for this parameter and are doing our utmost to achieve them.

Thanks to the various initiatives undertaken by our production sites to raise their efficiency (such as reducing the volume of mill ends, reducing raw-material packaging,

### Some of the waste reduction initiatives undertaken by our production sites since fiscal 2003

Production Efficiency Improvements

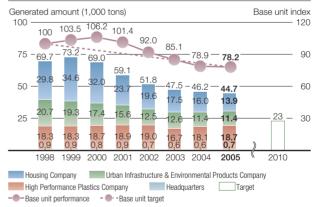
- Overall improvement of production efficiency
- Reducing Transportation Supplies
   Recovering materials used for protecting parts in transit and reusing them on building sites
- Reducing component packaging and using more reusable shipping containers
- Using unneeded timber components as battens for use

during transportation

- Recycling Offcuts and Sawdust
- Using mill ends to make blockboard
- Collecting and recycling sawdust from cutting extruded items
   Other
- Leasing fluorescent lights and mercury lamps
- Reducing paint splatter by keeping pressure low and application discontinuous

recycling mill ends without compromising quality, and reusing materials used for transporting products), we were able in fiscal 2005 to reduce unit waste generation to 22% less than it had been in fiscal 1998, beating our fiscal 2005 target of 15%

#### **Total Amount of Waste Generated and Unit Waste Generation**



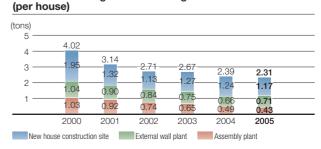
### Reduction activities at house construction sites

Since over 80% of each Sekisui Heim or Sekisui Two-U Home is made in the plant, the amount of waste generated at the building sites is far less than that produced by other construction methods. However, although this is an important feature of our method, the interior finishing work and other jobs carried out at the building site still produce mill ends, which can end up as waste, so our construction sites and plants work closely together to reduce this.

One way we are doing so is to reduce waste packaging by reusing cardboard boxes as many times as possible, or switching to plastic containers that can make more trips. Another is to identify and reduce the surplus supplies that plants send out to construction sites and make sure that any

leftover materials are returned for use in the next job.

### Volume of waste generated during new construction



#### Using wastes effectively

One company's waste is another's valuable resource, and we have been running a "zero emission" campaign since 1998, seeking ways of recycling all of its wastes in an effort to use them as resources.

#### Zero Emission Campaign and Future Plans

Production sites and R&D institutes	37 business sites	Expansion to all business sites	
New building and refurbishing	Accomplished by all sites	Maintenance and improvement (creating attractive sites)	
Demolition	Improvement of recyclin	g rate	
Offices	Headquarters building	Expansion to branch offices	
Overseas production sites		Expansion to all business sites	
	1998~ 2005		2010

#### Zero Emissions from Headquarters Buildings

Our environmental campaign, originally spearheaded by its production sites and laboratories, was subsequently extended throughout the Group, to every department and every activity. As part of this rollout, we wanted to achieve zero emissions from our headquaters buildings in Tokyo and Osaka and did so on schedule in fiscal 2005. We are now in the process of applying what we have learnt to the rest of our offices.

#### VOICE

We succeeded in eliminating emissions from our head office by getting every individual to recognize the importance of what we are doing.

The first thing we did in our headquarters zero emission campaign was to replace individual waste-paper baskets with communal bins for different types of waste in each area. We began by testing the new system with 19 different waste types. To start with, people found it hard to understand what the different types were, so we checked



Taro Ninagawa Sekisui Chemical Co., Ltd. (Housing Company)

the bins and gave daily reports floor by floor every day, but we were still not getting the results we wanted. So we tried to increase people's awareness and understanding of the segregation method and what we were trying to achieve by bringing together all the bins for each floor into recycling stations which we called "R-Depots" (short for "Recycling Depots") by writing instruction manuals and providing other information.

The outcome of all these activities was zero emissions in March 2006, and we intend to go on making thorough improvements to our waste segregation and reductions to the amount of waste we generate.

#### Zero emission at house construction sites

#### New house construction and renovations

All our new house construction sites hit their zero emission targets in September 2003, while zero emission from repair and renovation work was achieved at the end of fiscal 2004, a year earlier than planned.

#### Demolition

We are also focusing on recycling the waste generated when demolishing our houses, with the aim of achieving a 100% recycling rate by fiscal 2010. In fiscal 2005, the recycling rate for designated building materials such as concrete and wood chips was 99.2%.

## Zero emission from production sites and laboratories

In fiscal 2005, Hinomaru Corp.'s Tosu Plant, Sekisui Alveo B.V. and the High Performance Plastics Company's R&D center achieved zero emission. Together with the four business sites that did so in fiscal 2004, this brings the number of business sites that have reached this since launching the STEP-2005 Midterm Environmental Plan to seven, which is two more than the five originally targeted. To date, a total of 39 of the Group's business sites (33 production sites in Japan, two production sites abroad, and four laboratories) have eliminated their emissions.

#### VOICE

We employees put our heads together and came up with creative solutions for reducing waste and its treatment cost.

The first thing we did on starting our zero emission campaign was to replace the material we purchase for food trays, which consisted of a paper and aluminum foil laminate, with one made of paper only but processed to have the same shiny color as aluminum, so it could be recycled.



Shichiro Inoue Safety and Environment Section, Tosu Plant, Hinomaru Corp.

The next thing we did was to appoint Hinomaru Corp.

a leader for each of the three plants on our site, with their different products and production processes, to lead the campaign in a way suited to their own plant. By taking the initiative in raising everyone's environmental awareness and stamping out infractions, these people helped to speed up the campaign.

Our efforts paid off, and we achieved zero emission status in March 2006, but we regard this as only a milestone on our journey. We want to make our plant that always provides high-quality products and which is trusted by the local community as an environmental leader.

Zero emissions at our overseas business sites In September 2005, Sekisui Alveo B.V., our polyolefin foam plant in Holland, became the second overseas business site to achieve zero emissions.

#### VOICE

#### We achieved zero emissions by working together.

In 2003, Sekisui Alveo B.V. began thermal recycling (i.e. burning as fuel) the waste materials from our production processes instead of sending them to landfill. This was a major first step on our path toward zero emissions. Now, in the second year of our campaign, we have met the remaining targets on the Zero Emission Audit Sheet.



Joyce Vlieks Environment, Safety and General Affairs Department, Sekisui Alveo B.V.

Apart from changing the way we dealt with our waste materials, the most important aspect of our zero emission campaign was teamwork. We succeeded in achieving zero emission in such a short time because we selected the best methods for processing each of our waste streams and because all our employees joined forces to work toward our targets. Zero emission activities are now firmly embedded in our environmental management systems and are an integral part of all our employees' daily work routines.

#### Meeting the targets of our Environmental Top Runner Plan (Part I)

Sekisui Chemical Group's Environmental Top Runner Plan aims to reduce the amount of waste generated in fiscal 2010 to onethird of its fiscal 1998 level — that is, from 69,700 tons to 23,000 tons. To accomplish this target, we began to use the Materials Flow Cost Accounting Method group-wide in fiscal 2005 and started a fundamental review of our production processes with

the aim of eradicating all kinds of waste. We have put together an action plan for reducing waste by 20% of its fiscal 2005 level, and have started looking at ways to improve.

#### \* Materials Flow Cost Accounting:

One of the accounting methods used in environmental management accounting. A method for achieving simultaneous reduction of environmental impact and costs by focusing on losses incurred in production.

#### Working to utilize water resources more effectively

Sekisui Chemical Group uses water mainly to cool metal molds and extruded products, and as a solvent in synthesizing resin. Water is a precious resource, and all our business sites have been working on recycling more and more of it. We now recycle almost all the cooling water we use in molding our plastic products and so we only have to top up the system with enough water to replace that lost by evaporation from the cooling towers during recycling

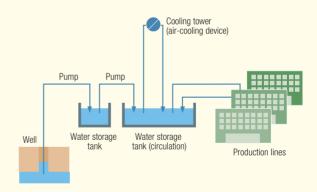
Our target in the Environmental Top Runner Plan (Part I) is to reduce the amount of groundwater extracted for use as cooling water to 5% less than its fiscal 2004 level by fiscal 2008. Although some business sites cannot immediately reduce their water intake because of contractual obligations to their water suppliers, we are keeping these business sites' recycling arrangements and usage conditions under review with the aim of achieving reductions.

#### Reducing water intake at Sekisui Chemical's Tokyo Plant

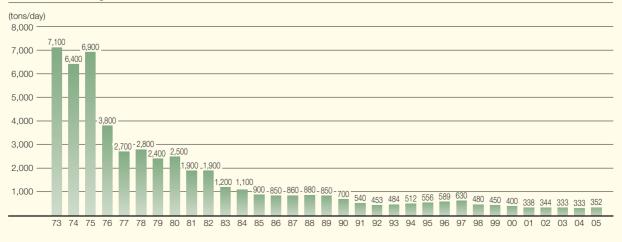
Sekisui Chemical's Tokyo Plant makes fittings for plumbing products for PVC pipe, and building supplies such as gutters and accessories, by injection molding and extrusion. It uses a lot of water to cool the molding machines, the molds, and the molded products.

It uses water extracted from the ground for this, but in 1970 it constructed a cooling-water recycling system in order to use this limited resource more effectively and help prevent subsidence in the area around the plant (Asaka City, in Saitama Prefecture), which had become a problem. This system recovers the water used in the cooling process and recycles it, only using groundwater to replenish the amount lost by evaporation and other causes. The amount of groundwater extracted is now only approximately 350 tons a day, compared with around 7,000 tons before the system was installed. The plant has

also signed an agreement with the Asaka municipal authorities that allows them to use the water stored in the plant's tanks during water shortages or fires.



#### **Groundwater Usage**



#### **Environmental Consideration in Business Activities: (3) Proper Control of Chemical Substances**

## Emission and transfer of chemicals have been reduced to 461 tons. We will continue to work toward further reduction of environmental impacts

#### Risk reduction of chemical substances

Sekisui Chemical Group uses a large variety of chemical substances as raw materials and secondary resources for products. Therefore, we regard as important social responsibilities the pursuit of product safety, occupational safety and health, prevention of environmental pollution, and reduction of environmental impact through proper management of chemical substances.

Accordingly, we strive to prevent health damage and environmental pollution caused by chemical substances by focusing on controlling them at the development and production stages, which is the basic of chemicals control; and also by using the Product Assessment System for

Environmental Impact and the Green Procurement System. Moreover, our production sites have set their own targets for reducing emission and transfer of chemicals into the environment, abolishing the most critical substances, and carrying out soil investigations of their premises.

In fiscal 2005, we reviewed the list of controllable chemicals and greatly increased the number of candidates for designation as prohibited substances. During the first half of fiscal 2006, we plan to survey all our raw materials to find out what chemicals they contain, and will start to apply the new system fully in the second half of the year.

#### Development

- Product Assessment System for **Environmental Impact** Check on prohibited substances
- Check on substances prescribed by law
- Formulation and operation of the **Chemicals Management Regulations**

#### Procurement Green Procurement

Evaluation sheet for procured products

System

#### Production Prior Assessment of Capital Expenditure

- Check on safety and environment
- Check on energy Implementation of various
- maintenance activities
- Formulation and operation of the Chemicals Management Regulations

#### Transportation Information disclosure Issuing of vellow cards

 Information disclosure Issuing of MSDS

#### Reduction of discharge and transfer of chemicals into the environment

We are working to reduce discharge and transfer (disposal) into the environment of Class I Designated Chemical Substances specified by the PRTR Law\*.

Because we had substantially improved on the original fiscal 2005 target by the end of fiscal 2003, the fiscal 2005 target level was reduced from 760 tons to 480 tons. As a result, we completed the switch from chlorinated solvents and hydrochlorofluorocarbons (HCFCs) earlier than planned, and were able to reduce the level to 461 tons, 96% of the target for fiscal 2005.

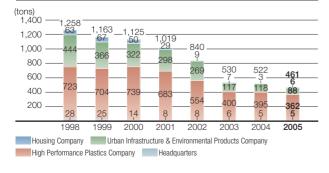
There were 25 substances designated in 2005, and their combined discharge and transfer volumes were 461 tons with a usage volume of 127,000 tons (see pp. 89-90).

Changes to the Air Pollution Control Law call upon our discharge of volatile organic compounds, so we will be switching our focus to reducing these.

Law Concerning Reporting, etc., of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

## industry to introduce its own rules from fiscal 2006 to limit the

#### Emission and transfer of chemicals into the environment



#### Total Abolition of Chlorinated Solvents Use in Fabrication

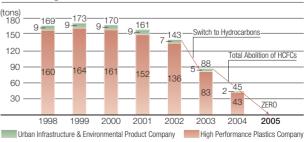
We have been studying alternative materials in a bid to totally abolish dichloromethane use in the production process. Usage increased in fisical 2004 as a result of increased production, but we completed the switch to an alternative substance earlier than planned, in March 2005.

#### **Total Abolition of Fluorocarbons Use**

We have also been studying alternative materials in a bid to totally abolish use of HCFCs as foaming agents for products such as foamed polyethylene and foamed polyurethane. By the end of fiscal 2004, again earlier than planned, we had completed the switch to hydrocarbons and HFCs, which do not harm the ozone layer.

However, although the HFCs we currently use are not designated as greenhouse gases under the Law for the Promotion of Measures against Global Warming, their global warming index is several hundred times that of CO2, so we will be doing our best to develop alternatives.

#### **HCFC** usage



#### Environmental Consideration in Business Activities: (4) Other Environmental Risk Reduction Activities

## We will reinforce the observance of the law and strive for further pollution control and risk reduction

#### Controlling air pollution

Sekisui Chemical Group strives to comply with prescribed legal and regulation values by carrying out regular inspections and relevant maintenance of facilities.

In fiscal 2004, the flue gases from the incinerator at Sekisui Chemical's Shiga-Minakuchi Plant were found to contain more than the legally-permitted levels of dioxin, so in fiscal 2005 we dismantled and removed it. We are still using two small incinerators at Sekisui Chemical's Shiga-Minakuchi Plant and one at Tokuyama Sekisui Industry Co., Ltd., but the dioxin levels from all of these are far below the legal limit. Nevertheless, while continuing to ensure that these incinerators are always properly managed and operated, we will look for ways of doing away with them.

Business sites	Dioxin concentration (ng-TEQ/m <sup>3</sup> N)		
DUSINESS SILES	Regulation value	Measured value	
Shiga-Minakuchi Plant (1), Sekisui Chemical Co., Ltd.	10	0.046	
Shiga-Minakuchi Plant (2), Sekisui Chemical Co., Ltd.	5	0.1	
Tokuyama Sekisui Industry Co., Ltd.	10	3.7	

#### Controlling water pollution

Although we always strive to prevent water pollution by rigorously maintaining and controlling our water treatment facilities, 20 kg of resin slurry escaped in the discharge from one of our premises in December 2005. We reported the incident to the authorities and ensured that it could not recur by replacing the plastic pipes that had caused the problem with metal ones and installing a shutoff gate.

Our COD discharge for fiscal 2005 was 70 tons.

### Use and storage of machines that use PCB

Currently, transformers and condensers that use PCB are held in 17 business sites, and are used by one business site. The stored machines are kept under lock and key to prevent loss. While strictly managing such machines, we are preparing to properly dispose of them as soon as the treatment environment is ready.

#### Business site soil investigations

In fiscal 2005, Higashinihon Sekisui Industry Co., Ltd. surveyed the soil on its site in accordance with the Soil Contamination Measures Law. Although all the soil samples taken in the survey were within the prescribed standards, the upstream groundwater on the site was found to contain up to

1.8 times the maximum permitted levels of arsenic and its compounds at three sampling points. However, the groundwater at all the upstream sampling points in the vicinity of the site's boundaries met the standard.

Survey item	Survey substance	Survey findings(excess of the standards)
	Lead	Zero
0.1	Arsenicum	Zero
Soil	Cadmium	Zero
	Hexavalent chromium	Zero
	Lead	Zero
	Arsenicum	Exceeding the limit at 3 sites 0.014mg/L, 0.116mg/L, 0.018mg/L
Groundwater	Cadmium	Zero
	Hexavalent chromium	Zero
	11 other Class I Designated	Zero
	Chemical Substances	

#### **Emergency response**

In order to prevent occurrence and spread of environmental contamination in the event of an emergency, our business sites carry out simulated emergency response training at least once a year. Training addresses hypothetical cases relevant to the nature of each business site. The following major training took place during fiscal 2005:

Simulated emergency situation	Number of exercises
Leakage and outflow of oils	40
Atmospheric discharge of solvents	3
Fire	69
Earthquake	17
Emergency communication training	8

#### Environmental incidents and complaints

We received five complaints in fiscal 2005.

	<u>'</u>	
	Details of complaints	Countermeasures
Noise	Complaints about noise from cutting sand being dropped off from vehicles late at night during construction works inside a plant	Apologized to local residents, conducted surveys at other similar facilities, and made amendments to plant management procedures
е	Complaints about noise from tools when products are adjusted outside of the plant late at night	Completely eliminated this type of outdoor work and made amendments to environmental conservation manuals.
Odors and Other Complaints	Complaints about odors by nearby residents	Conducted a facility inspection and a survey of the surrounding area (a report has been made to the local government).
Other Con	Complaints about leaves from trees near site borders blowing into nearby residents' properties	Removed the problem trees.
plaints	Complaints about a leak of cooling water from a break in a U-shaped gutter resulting in water discharges on a nearby property	Installed tubing for cooling water discharges and repaired the U-shaped gutter.

#### **Examples from Each Division Company's Initiatives**

## **Operational characteristics and environmental focus**

The three division companies that constitute Sekisui Chemical Group have different operational characteristics, and their products affect the environment in different ways throughout their life cycles. Each division company therefore tries to identify the particular environmental issues it needs to address within its environmental conservation program in order to reduce its environmental impact as effectively as possible.

#### **Housing Company**

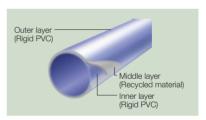
Housing Company tries to reduce the environmental impact of the modular housing it manufactures and markets (like Sekisui Heim and Sekisui Two-U Home) over their entire life-cycle from manufacture, construction and residence to renovation, scrap or rebuilding, seeking to build houses that recycle resources. It focuses particularly on curtailing energy costs during the decades-long residence stage, the longest part of a house life-cycle. In addition to offering Zero Utility Cost House (see p. 11) and the installation of low-energy appliances when a house is repaired, it also provides a periodic inspection and maintenance service designed to extend the house life.

Reducing waste generated at building sites is another urgent issue, and Housing Company is working hard on this, as well as on decreasing manufacturing and construction waste and recycling resources.



#### **Urban Infrastructure & Environmental Products Company**

Urban Infrastructure & Environmental Products Company's product range centers on piping systems for the water environment. It also deals with plumbing supplies for water mains and sewers, rehabilitation pipes, construction materials for houses, etc. Because it operates in a highly public sector, dealing in social infrastructure and environment-related equipment, it focuses closely on addressing issues raised by central government and local authorities. One example of this is its development of SPR method (see p. 13), which helps to solve the problem of how to replace ageing sewer pipes, a common concern of towns and cities worldwide. It is also advancing the recycling of PVC pipes to reduce energy consumption and reduce waste.



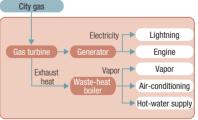
PVC pipe (Eslon 3-layer pipe)

#### High Performance Plastics Company

High Performance Plastics Company uses its core expertise in the field of material science, molding, processing and testing to supply intermediates and functional components to a wide range of industries.

Since its environmental impact during production is higher than that of the other two division companies, this is where it directs most of its environmental efforts. Its current initiatives include reducing waste from its production sites, installing co-generation systems to reduce CO2 emission, and minimizing the use of environmentally-harmful substances such as organic solvents and CFC substitutes. Because most of its customers are other companies, it also tries to reduce the environmental impact of its customers' products and operations — for example, it has cooperatively developed high performance interlayer films (see p. 15) offering higher environmental performance, and recycled containers that reduce waste (see p. 32).

### How a Co-generation System Works





#### Implementing CS & Quality Management for **Quality of Products**

Sekisui Chemical Group has been engaged in management with the priority on Customer Satisfaction (CS) since 1999. In fiscal 2004, we newly established CS & Quality Management Department, and have since been implementing CS & Quality Management as our distinctive approach to management.

With the core value being that manufacturers provide "Products = Quality of Products," Sekisui sees the Quality of Products system for satisfying customer needs and expectations as the central concept of management — this is the CS & Quality Management of Sekisui Chemical Group.

#### Meeting customer's ever more diverse and sophisticated needs

To improve the quality of our products, it is also important to improve the quality of the personnel and systems that produce those products. Our customer's needs are changing moment by moment, as well as becoming ever more diverse and sophisticated, and we must anticipate those needs and reflect them in our products. We need to improve our systems and our personnel because we believe that innovating System Quality (which includes information systems, business processes, etc.) and Personnel Quality (which manifests itself in the behavior of our employees) will lead to higher Quality of Products and enable us not merely to satisfy our customers but to impress and delight them as well.

#### Helping to make society more sustainable

Recognizing this, Sekisui Chemical Group aims to impress and delight its customers by following an uncompromising in pursuit of Quality of Products in line with its Midterm CS & Quality Management Plan (fiscal 2004 - 2008).

To enable us to do so, we have installed systems for obtaining extensive feedback from our customers, and are building an organization and culture in which each of our employees is attuned to social trends and our customers' changing attitudes and needs and can respond appropriately. We believe that by continuously adjusting what we do in light of what our customers tell us, we will be able to keep on offering them the products and services they really want, and that this in turn will enable us to contribute to society's sustainable development.

#### Fundamental Concept of CS & **Quality Management**

We will consistently innovate to maintain the Quality of Products, continuously provide value that meets customer expectations, strive for selection by our customers on an ongoing basis, and develop and grow with the customer over the long term.

#### Midterm CS & Quality Management Plan (fiscal 2004 - 2008) Road Map



Our Midterm CS & Quality Management Plan, launched in October 2004, is a three-stage strategy for improving Quality of Products.

We can achieve superb Quality of Products by having all management teams and employees constantly think, understand and take action based on the value we are providing to customers, customers' evaluation of that value, and any change in market trends. In Stage 1 of this plan, over the two years from fiscal 2004 to fiscal

2005, we got to grips with innovating the quality of our systems, people and products. The two-year period starting in fiscal 2006 (the third year of the plan) is taken as the plan's second stage. During this period, we intend to promote "innovation in culture" and its approach to "manufacturing development innovation" from Stage 1, by making thorough use of customer feedback.

#### Progress of Midterm CS & Quality Management Plan and Future Policy

## Improving the Quality of our Products, Personnel and Organizations by thorough use of customer feedback

#### Summary of Stage 1 (fiscal 2004 - 2005)

As a result of pursuing our activities, with innovating quality in the three areas of systems, products and people as the issues, everyone in the Group became steadily more aware of the importance of CS & Quality Management. On the other hand, the process brought to light a number of problems, such as the slow speed of the innovations and the way we addressed customer complaints.

#### **Innovating System Quality**

We established stronger systems for gathering customer feedback and reflecting them in the design and development of our products and services, based on existing systems such as customer interfaces like our Customer Information and Consulting Services and the customer satisfaction surveys already carried out by each of our division companies.

In fiscal 2004, we set up a group database called Feedback Alert Network (see p. 45) that allows staff in the responsible departments and senior management to share customer feedback in real time. Then, in fiscal 2005, we enhanced the Feedback Alert Network with an alarm-point system (see p. 45) for flagging complaints and claims still unresolved after a certain length of time.

#### **Innovating Quality of Products**

In fiscal 2004, we introduced a new CS & Quality Audit (See p. 50), auditing Sekisui Home Techno in the same year and Nagoya Sekisui Heim and Sekisui Heim Chugoku in the following year. We now intend to continue CS & Quality Management by auditing more and more of our division companies and using the results to help plan their strategies.

Continuing the ISO 9001\* push that we have been implementing since before fiscal 2003, six more of our business sites obtained certification in fiscal 2005 (see p. 47). Our group improvement activities, in which employees at our business sites seek to make their production and administrative work more efficient and to improve product quality, are penetrating the entire group, with 99 more teams and 157 more participants in fiscal 2005 than in the previous year.

\* ISO 9001: An international standard for quality assurance and quality management

#### **Innovating Personnel Quality**

In a drive to improve the quality of our people, we are running a program called STAR 55 (see p. 49) to foster a more customer-oriented culture throughout the Group. In fiscal 2004, we completed a leader development program at all our business sites as originally planned, and since fiscal 2005 we have been running job-specific training programs tailored to the particular characteristics and circumstances of each business site.

We have also extended our STAR 55 program at Sekisui Fami S Chugoku (one of the companies responsible for Housing Company's after-sale services) to include the preparation of a set of after-sale service standards that will constitute a new set of behavioral guidelines for the employees. These standards are aimed at raising the level of satisfaction of customers after they have taken ownership of our houses, and include actions taken by teams at each of our four branches in the Chugoku region, with their leaders playing a central role, as they themselves decided.

#### Policy at Stage 2 (fiscal 2006 - 2007)

In Stage 2 of the Midterm CS & Quality Management Plan, we will take over and develop the three thrusts of Stage 1, ensuring that the "innovation in culture" and our "manufacturing development innovation" are firmly embedded throughout the Group. To do so, we will use the systems we have so far constructed to ensure that the customer feedback are reflected in all our corporate activities.

#### Thorough use of customer feedback

We will use the Feedback Alert Network even more widely to ensure that customer feedback is passed on to all relevant departments as and when required and so as to improve the quality of our products.

We will also collect our customer feedback even more assiduously by using methods adapted to the particular characteristics of each of our division companies' lines of business. At Housing Company, we will continue the CAT (Customer and Top) Meetings (see p. 46 and 77) that we use to enable our senior executives to hear customer feedback face to face. At Urban Infrastructure & Environmental Products Company and High Performance Plastics Company, each business unit will use a range of techniques to ascertain how satisfied our customers are with our products (see p. 46). We also plan to extend these activities to our overseas affiliated companies.

## Innovating manufacturing development — making our business more competitive by raising Quality of Products

We will strive to become more profitable while targeting zero claims and defects, zero accidents and zero waste by improving the safety and productivity of our production lines and construction sites, where all our manufacturing activity starts. We will also rapidly develop manufacturing professionals and leaders through our manufacturing training programs (see p. 47). Our new Manufacturing Development Innovation Center (see p. 48), completed in April 2006, will promote this while linking up and collaborating with our division companies.

CS & Quality Management Department will periodically check the progress of these activities (see p. 44) and provide information to the whole Group on problems faced in implementing the strategies, and ideas for solving them.

## Innovating culture in order to improve the quality of our Personnel and Organizations

We intend to establish a CS & Quality Management culture running from top to bottom of our organization, from our most senior executive to our most junior employee. As a means of doing this, in April 2006 we introduced a new indicator—the CS & Quality Management Indicator (see p. 50)—to the list of indicators we use for evaluating the results achieved by our division companies. This indicator is designed to be used not just for evaluating results but also for motivating all our employees by breaking down the overall objectives for each company into individual targets for each individual. By using the indicator to quantify and periodically measure and monitor our customers' evaluations of (i.e. their level of satisfaction with) the Group's business, we will make it possible to see how much value each of our division companies is delivering to its customers. The entire group will then use the results as a basis for working together to raise the level of its CS & Quality Management.

#### CS & Quality Management System

## **Building a system for driving CS & Quality Management** from headquarters level down to each division company

#### CS & Quality Management promotion system

We, Sekisui Chemical Group established a CS & Quality Committee as a decision-making body and a Company-wide CS & Quality Conference as an implementation tool, in order to achieve CS & Quality Management.

#### **CS & Quality Committee**

The president chairs the committee, and the presidents of each division company, General Manager of CS & Quality Management Department, General Manager of Corporate Management Strategy Department, and General Manager of R&D and Technology Center of headquarters, etc. are the committee members. This committee meets twice a year, and as needed, to discuss and decide basic policy and action plans for CS & Quality. In addition, it reviews activities and gives appropriate instructions and advice. Each committee member keeps respective division companies/departments under his/her control informed of the decisions made.

#### Company-wide CS & Quality Conference

The conference comprises responsible operational departments promoting CS & Quality Management of the division companies and the headquarters. It meets once every two months, to establish basic policy, in addition to preparing and implementing the CS & Quality action plan.

#### **CS & Quality Management Department**

CS & Quality Management Department is responsible for promoting CS & Quality Management throughout the Group. It works to establish a CS & Quality Management culture by means of activities such as monitoring the quality produced by all of our business sites, issuing monthly and quarterly reports, and running the STAR 55 program.

The department also has Customer Information & Consulting Services Section, which fulfills the key function of handling all kinds of customer feedback and ensuring that the information collected is communicated throughout the Group and is reflected in the development and improvement of our entire range of products and services.

#### Organization for promoting CS & Quality Management within each division company

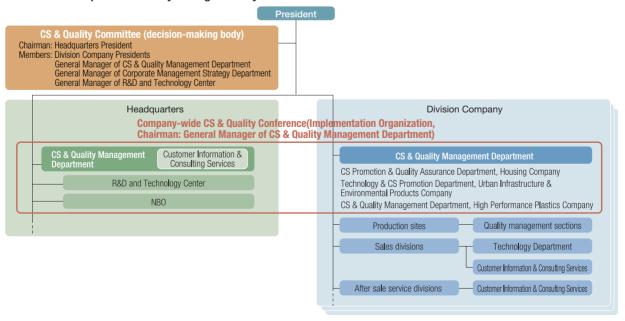
CS & Quality Management is promoted within our division companies by CS Promotion & Quality Assurance Department at Housing Company, Technology & CS Promotion Department at Urban Infrastructure & Environmental Products Company, and CS & Quality Management Department at High Performance Plastics Company. These departments attend the Company-wide CS & Quality Conference, where they share information on CS & Quality Management for the Group as a whole, after which they carry out activities for solving problems and maximizing results at their respective division companies.

Then, to drive the CS & Quality Management initiative right down to the workplace level, each division company has set up "manufacturing development innovation unit" and other promotional sections within its marketing, development and other departments, on the production lines and construction sites of its production companies, and at its affiliated companies, as well as Group Improvement Activities and other programs.

CS & Quality Company-wide Slogan

We take customer opinions as the seed for manufacturing development.

#### Sekisui Chemical Group's CS & Quality Management System



#### Monitoring quality to stay abreast of the situation and identify problems

CS & Quality Management Department routinely checks quality in order to monitor progress against the Group's Midterm CS & Quality Management Plan and drive the activities forward.

It assesses the status of the activities at each of the Group's business sites including its 26 overseas ones by using three indicators, based on monthly reports submitted by each division company. These three indicators are: 1) External loss costs (cost of settling claims and other disbursements arising from product quality problems) 2) Number and nature of complaints and claims 3) Serious quality problems. It sends each business site a monthly CS & Quality Report summarizing these results, as well as analyzing the results from various angles to identify current problems and proposing and implementing strategies for solving them. It also issues a quarterly CS & Quality Report summarizing these analytical results, problems, and strategies. By staying abreast of the

situation in this way, and constantly identifying and solving problems, and tying them to improvement activities, Sekisui Chemical Group ensures that its plans stay on track.



Monthly CS & Quality Report

#### Senior executives meet for thorough discussion of how to improve customer satisfaction

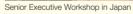
In fiscal 2005, we held a workshop for senior executives to reinforce their awareness of and commitment to CS & Quality Management. Its purpose was to enable senior managers to exchange information on current issues concerning safety and compliance as well as CS & Quality and discuss how to resolve these issues within the framework of the Group's CS & Quality Management program.

Approximately one 150 General Managers, Plant Managers and presidents from the Sekisui Chemical Group's companies in Japan met for two days and one night at a residential conference venue in December 2005. The workshop was in two parts: Part 1 (Raising Your Concerns) on the first day, and Part 2 (Discussing them Thoroughly) on the second. In Part 1, Sekisui Chemical's President talked about the Group's future direction, and the directors in charge of safety and compliance explained the importance of their respective areas of responsibility. The participants then voiced their concerns about these areas, saying what kinds of change they thought should be made. In Part 2, the participants from each company met separately for exhaustive discussions on the issues raised in Part 1.

Then, in March 2006, a similar workshop was held for the presidents of the Group's overseas affiliated

companies. This was the first time that so many presidents and other top executives (31 of them) from 29 of overseas affiliated companies were able to get together at one time. After the keynote speech by our Corporate Auditor Noriaki Kano (former professor at Tokyo University of Science and Honorary Chairperson of the Asian Network for Quality), participants from division companies belonging to the same group discussed how to improve customer satisfaction, reporting back at the final plenary session. The conference helped everyone to reach a common understanding of the importance of improving customer satisfaction as a platform for business expansion, regardless of country or industry.







Senior Executive Workshop for overseas affiliated companies

#### VOICE

It was a very useful workshop which allowed us to exchange views with other affiliated companies in the Group and gave us a fresh perspective on customer satisfaction.



James Madalie, Kleerdex Company, LLC

Attending the conference reminded me that driving the awareness of customer satisfaction into every corner of our organization is my top management priority. We must put customer satisfaction first, and work to delight our customers.

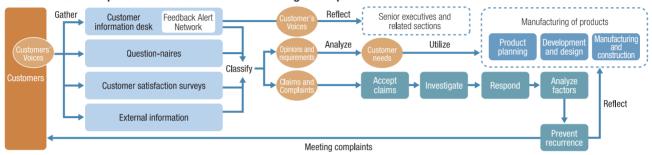
Being able to exchange ideas and information with people from other overseas affiliated companies was also a very significant benefit of this workshop. In future, I would like to have more opportunities to discuss not just customer satisfaction but also other management issues such as hiring, and employee development and advancement. It was also very useful to hear from Sekisui Chemical's president and the each division company president at the policy briefing held on the following day. I hope that this kind of opportunity will be provided every year from now on.

#### Status of Activities (1) Thorough Use of Customer Feedback

Using our systems to listen to customer feedback and identify latent needs, sharing the information throughout the Group and reflecting it in product development and quality improvement

#### Systems for gathering information and reflecting it in the Group's activities

#### We take customer opinions as the seed for manufacturing development



Sekisui Chemical Group has established a range of systems and methods such as customer contact points like Customer Information & Consulting Services Section within CS & Quality Management Department for gathering, analyzing and utilizing information about our customers' evaluations, dissatisfactions and expectations. We intend to make good use of customer feedback in Stage 2 of our Midterm CS & Quality Management Plan, utilizing it effectively to improve the design and development of our products and services.

## Strengthening Customer Information & Consulting Services and Feedback Alert Network

Customer Information & Consulting Services makes every effort to immediately respond to inquiries and complaints from customers, and to resolve problems. Information from customers is immediately passed to appropriate departments and utilized for improvement of products and services. For this purpose, we have established an internal database, Feedback Alert Network, which collates customer responses. Customer feedback is registered in real time to the Feedback Alert Network, from where the information is accessible at any time to relevant departments, e.g. the Product Development Department and management executives.

In fiscal 2005, we added an Alarm Point Function to our Feedback Alert Network to make it even more effective. Now we can use the system to attach yellow cards, red cards or other warnings to complaints and claims that remain unresolved

after a certain length of time in order to make everyone aware of the problem and do their best to solve it quickly.

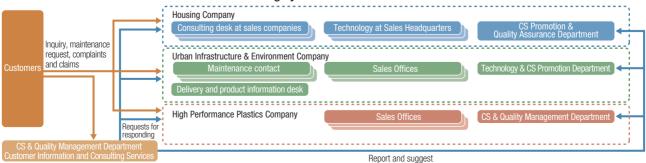
We also began a new activity in fiscal 2006, called Employee H-TFC\* Interviews. This is a system for interviewing employees and their families of affiliated companies belonging to Urban Infrastructure & Environmental Products Company and High Performance Plastics Company who have bought and are living in Sekisui Heim or Sekisui Two-U Home. The interviews are usually conducted by members of Customer Information & Consulting Services Section, who listen to these honest ideas and proposals coming from Group employees' unique perspective, and make suggestions to Housing Company and the relevant sales companies based on them

\* H-TFC: Heim Two-U Family Circle
An association of owners of Sekisui Heim and Sekisui Two-U Home produced by
Housing Company

## CS & Quality Bulletin Board set up to poll employees' opinions

In fiscal 2005, CS & Quality Management Department set up a CS & Quality Bulletin Board on the Group's intranet, freely accessible to all the Group's employees, to allow them to exchange their opinions. The idea of this is to seek views from within the Group, not just from external customers, on matters such as the quality of its products and services. We plan to compile and communicate the information received throughout the Group and use it to improve our products and services.

#### Sekisui Chemical's Customer Information & Consulting System



#### **Examples from Each Division Company's Initiatives**

# Initiatives undertaken by division companies to obtain customer feedback for implementing CS & Quality Management

#### **Housing Company**

In fiscal 2005, Housing Company introduced a program of CAT (Customer and Top) meetings to allow senior executives from Housing Company itself and from our housing sales companies throughout Japan to meet customers and hear their opinions face to face. 107 of these meetings were held in the first year, with 574 groups of customers (see p. 77).

Housing Company also continues to send questionnaires to homeowners one year and five years after they have moved in, asking mainly how satisfied they are with their house and the after-sale service we provide. We also gather customer feedback from other sources such as the Questionnaire for Homeowners of Prefabricated Houses administered by the Ministry of Economy, Trade and Industry.

Housing Company rapidly disseminates the customer feedback gathered directly and indirectly from its customers in this and other ways to its sales companies and its development department, utilizing it to develop even better products and services.



Gathering customers' opinions at a CAT Meeting

#### **Urban Infrastructure & Environmental Products Company**

Urban Infrastructure & Environmental Products Company sells a wide variety of different products to many different customers — from other enterprises, through government agencies, distributors and contractors to the general consumers. Each of its business units therefore polls the views of its customers by using its own questionnaires, with different formats for different products. In addition to gathering customer feedback via these questionnaires and via websites, representatives and senior managers of the business units actively seek other ways of obtaining customer feedback. Some plants also ask visitors to complete questionnaires asking what they think of the plant itself, in addition to carrying out surveys of how satisfied their customers are with their products and services.

Each business unit collates the information it obtains from these customer surveys and stores it on a database, sharing it among the relevant people and using it immediately to improve the products it offers.



Plant visit by representatives from a manufacturer in a different industry

#### **High Performance Plastics Company**

At High Performance Plastics Company, which manufactures and markets a diversity of products, each business unit has very different operating characteristics depending on the products it handles, so each carries out its own kinds of customer satisfaction survey. In addition to, of course, asking our customers (distributors and dealers who regularly order our products or who have made claims against them, contractors who use our products on construction sites, and so on) what they think of our products, we also investigate how pleased they are with our response to claims, and how satisfied they are with our lead times, supply capability and other aspects of our performance as a supplier. We do this by a variety of methods suited to the purpose and the other party, such as questionnaires, face-to-face meetings with those responsible at our customers, and surveys of their purchasing departments' evaluations.



Typical summary of results of customer satisfaction survey

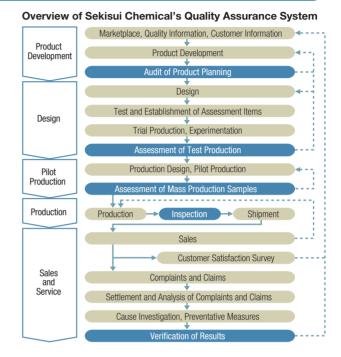
#### Status of Activities (2) Manufacturing Development Innovation

### Targeting zero claims and defects, zero accidents and zero waste through rigorous group-wide manufacturing development innovation

#### Quality Management System for a foundation of Quality of Products

To fulfill its basic responsibility as a manufacturer, Sekisui Chemical Group strives to ensure the quality of its products at every stage of the production and marketing process, from the development of a product right through to its use by the customer. In our business operations, we follow the management cycle, Plan (make plans) - Do (implement and operate) - Check (monitor the result and take corrective action) - Act (improve and review) to ensure that we implement our plans and solve important problems consistently. We have done this by setting up quality assurance systems for our products and services that suit the requirements of each of our businesses and comply with all relevant legislation, and by managing our work routines on the basis of clear quantitative quality targets for each process.

In order to respond to demands from our customers and society as a whole, we have included evaluations based on customer feedback in our product safety reviews and we carry out thorough environmental impact assessments of all our products. To ensure that we keep on strengthening these quality assurance systems, we are also pushing our business sites to become certified under the ISO 9001 international quality assurance and quality management standard. 53 of our business sites in Japan and overseas had been certified under this standard by the end of fiscal 2005.



#### Midterm Plan for developing people and strengthening the human resource system — a foundation for good manufacturing

There has been serious concern in Japan in recent years over the fact that its industry will lose many of its experienced engineers and craftspeople as part of the Year 2007 Problem, when a large number of people baby-boomers reach retirement age. To make product of superb quality under the circumstances, we must continuously train and develop people, equipping them with the skills and knowledge they need to possess. We therefore launched a Midterm Manufacturing Training Plan in October 2005, which aims to strengthen our human resource systems and develop the people who will support the quality of our products.

Under this four-year plan, covering fiscal 2005 through fiscal 2008, we will put together a graded training and development scheme covering everyone from senior executives to front-line employees, clarify the role that each individual must play in making our products, and systematically train everyone in the skills they need to fulfill those roles. We plan to train and develop our people in line with the basic approach described below, and

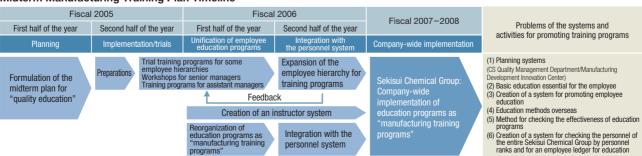
we have already (in fiscal 2006) started trial operation of various methods including e-learning, sending people on external courses, and introducing an instructor scheme.

#### Our Basic Approach to Manufacturing

- 1) Carefully identify the basic skills that each employee must have, and train them systematically.
- 2) Make the training practical, based on Sekisui Chemical Group's actual situation.
- 3) Use sustainable training methods.

Sekisui Chemical has established a Manufacturing Development Innovation Center (see p. 48) responsible for implementing the Midterm Manufacturing Training Plan. This Center has taken the lead in creating detailed training curricula, starting in April 2006, and plans to begin delivering the new training in the second half of the year.

#### Midterm Manufacturing Training Plan Timeline



## New Manufacturing Development Innovation Center established to strengthen our manufacturing systems by enhancing the entire value chain

Sekisui Chemical's new Manufacturing Development Innovation Center was set up in April 2006 within the headquarters R & D Technology Center. It is staffed with people picked from the development and technology departments of our division companies, and is tasked with building a manufacturing system for achieving the objectives of Manufacturing Development Innovation — that is, respect for the customer (zero quality defects and claims), respect for the employee (zero accidents) and respect for the environment (zero waste) — while ensuring that every department and individual in the Group works together to implement the Midterm Manufacturing Training Plan.

Our goal is to greatly improve our manufacturing competitiveness through effective initiatives to increase customer satisfaction, improve safety and productivity, and reduce environmental conservation cost etc., across the entire value chain from design and development through manufacturing and construction to sales and after-sale service. It is estimated that Sekisui Chemical Group could achieve cost savings of around four billion yen in fiscal 2006 as a result of the initiatives it is undertaking to build this system.

The staff of Manufacturing Development Innovation Center will focus their activities on the areas that could be described as the "grassroots" of manufacturing — that is, the production line and the construction site — and will work closely with the employees there to devise concrete strategies for improving the situation and achieving their own targets. They will raise the skills and

expertise of the employees in all our workplaces including the production lines, boost the pace of improvement, and raise customer satisfaction, while maximizing the synergies between their activities and the training and development programs now being put together in accordance with the Midterm Manufacturing Training Plan.

#### The Manufacturing Development Innovation Center's Targets



Employee-oriented manufacturing Manufacturing environment where everyone (including women, people with disabilities, elderly people, and novices) can work continuously, effectively (focusing their attention on quality and safety), and with a minimum of labor (safely, enthusiastically, and industriously).

Zero accidents

Environmentally friendly manufacturing
"Production site" where attention is paid to the environment and to the reduction of waste materials that

adversely affect the environment

Zero waste

#### Toward securing basic quality

#### **Housing Company**

At our production sites, employees who possess outstanding expertise, skills and knowledge in welding, nailing and testing, and who also have sufficient ability and enthusiasm to advise and teach their juniors, are certified as *Meister* (Master Craftspeople) and will be made responsible for developing skills and maintaining quality. We also hold a Skill Contest where specially selected craftspeople from plants around Japan meet to compete for their abilities, and an Improvement Symposium where teams present examples they have implemented for improving quality or raising the productivity of a production process.



A welding demonstration at the Skill Contest



A presentation at the Improvement Symposium

## Urban Infrastructure & Environmental Products Company

We have been carrying out a new production reform program since fiscal 2006, under the slogan "Ultimate Quality and Speed In Every Process up to Delivery to the Customer." We are aiming for superb quality and utmost efficiency



Launch event for Manufacturing Development Innovation Project at Sekisui Chemical's Gunma Plant

through our Production Technology Strengthening Project (a cross-organizational program for reinforcing our proprietary technology and equipment in extrusion, injection and FRP molding) and our Manufacturing Development Innovation Project (a project launched at Sekisui Chemical's Tokyo and Gunma Plants under the banner of "flow production").

#### **High Performance Plastics Company**

Although we do our utmost to ensure the high quality of our products, we are equally painstaking in other factors such as cost, delivery performance and supply capability. As a result of the initiatives we have undertaken in these areas, our customers — mainly other manufacturers — evaluate our products highly, and in fiscal 2005 our Fine Chemicals Division received an LCD Award (in the delivery section) from Sharp Corp. and a Best Supplier Prize from the Taiwanese LCD manufacturer Wintek Corp. Sekisui Chemical's Musashi Plant was presented with a testimonial by Bridgestone Corp.'s Seki Plant for improving the quality of crosslinked polyethylene foams.



Receiving the Best Supplier Prize from Wintek



Testimonial received from

#### Status of Activities (3) Cultural Innovation

## Fostering a customer-oriented culture to strengthen the foundation of CS & Quality Management by improving the quality of our people and organizations

#### Enhanced STAR 55 program for CS penetration

#### Program implementation proceeding as planned

Sekisui Chemical Group has been rolling out a CS penetration program called STAR 55 since fiscal 2002. STAR 55 is the collective name for a number of activities designed to develop a customer-oriented culture — what we call a "CS culture" throughout the Group. Our intention is to penetrate the entire group with a CS culture by having every individual who works for us pledge to act at all times in such a way as to win our customers' trust (we call such behavior "trust action") — and we aim to do so by giving our employees opportunities to think about our business and the work we are doing from the customer's standpoint and providing them with a program through which the common language they need to develop their CS awareness can be developed.

The basic thinking behind STAR 55 is that every department has its own particular objectives or raisons d'être aligned with our business principle of putting customer satisfaction at the center of everything we do, and that every employee has a particular role to play in line with the objectives of his or her department. We conduct various programs designed to ensure that our business principles and department objectives are shared by all, and that each individual promises to act in the customer's best interests and actually does so. In fiscal 2004, we completed our Leader Program (a program designed to change the mindset of department leaders) on schedule, and in fiscal 2005 we commenced a number of programs targeted at different job functions, such as Sales Program and After-sale Service Program for employees who make direct contact with the customer.

#### **Enhancing our After-sale Service Standard** program and other job-specific programs

As a development of the STAR 55 initiative, the after-sale service division of Housing Company has been promoting the compilation of After-sale Service Standards that bring together all of the "trust actions" that each individual has promised to undertake and will constitute a set of guidelines indicating what should ideally be done. Team leaders at Sekisui Fami S Chugoku's four branches in the Chugoku Region played the central role in starting to apply these standards in fiscal

2005 with the aim of improving the satisfaction of customers after they have taken ownership of our houses, by actions such as raising the appropriateness of repairs and inspections.

Sekisui Chemical Group intends to continue enhancing its job-specific programs by incorporating such ideas from its business sites under the STAR 55 banner. As for After-sale Service Standards, we will look for even more effective approaches, based on the results of the activities carried out in fiscal 2005, and will roll out the program at four Housing Company's business sites and one Urban Infrastructure & Environmental Products Company's business site in fiscal 2006. We also plan to develop job-specific programs for everyone in other departments, from our sales and service representatives (who come into direct contact with the customer) to our technical and development staff, and we plan further deployment in our overseas affiliated companies.

We've got a virtuous circle going, where improving the quality of what we do will enhance our reputation with our customers.

Things didn't go as well as we thought they would when we began our After-sale Service Standard initiative in April 2005 because the participants initially felt that they were being forced into it. But after a number of meetings, when people began to come up with their own actions and get to grips with them, they began to see that there was a lot of inconsistency in the quality of what they were doing. As everyone worked to



Akira Yokota Customer Information and Consulting Services, Sekisu Heim Chugoku's Hiroshima Branch

correct this and began to carry out the actions they had decided on, a virtuous circle started rolling, where the employees' outlook changed, the quality of their work improved, and consequently our customers' evaluations of us also improved. I want to carry on applying these After-sale Service Standards and identifying and solving the issues we need to address in order to produce a step change in customer satisfaction.

#### CS Seminars held to raise awareness of CS

CS Seminars delivered by outside lecturers with a specialized knowledge of CS and quality have been held regularly since fiscal 2003 to raise awareness of CS among Sekisui Chemical Group's directors and employees.

At the fiscal 2005 seminar held on the theme of "Holding a Complaints and Claims Expo," the lecturer was Hiroaki Shimada of the Fukui Chamber of Commerce and Industry. Mr Shimada introduced the participants to a highly original activity in which information sent in to the Chamber of Commerce and Industry on the dissatisfaction and inconvenience suffered by consumers from all over Japan in regard to a wide range of goods and services is treated as a precious resource for product development and published on the Internet to use in developing new products and improving their services. His talk was all

about turning complaints and claims, which no one wants to deal with, into something positive by tackling them head on and making active use of them in company activities.

More participants attend this twice-yearly seminar each

time it is held, and over 100 people came to each of the fiscal 2005 ones, indicating a high level of interest in CS. We plan to continue holding these seminars, keeping a close eve on their content in order to ensure that they remain useful.



A typical CS seminar



Leaflet describing the "Complaints and Claims Expo" organized by the Fukui Chamber of Commerce and Industry

#### CS & Quality Audits incorporating the opinions and evaluations of customers

Sekisui Chemical Group has been carrying out CS & Quality audits since fiscal 2004 in order to ensure that all its activities are based on the CS & Quality Management philosophy. These audits adopt a multi-faceted approach designed with reference to the Japan Quality Management Award\*1 criteria and the Company Quality Management Survey\*2. CS & Quality Management Department uses them to heighten awareness of particular points by evaluating the status of the activities at each of the Group's business sites and advising the sites on matters such as what they need to improve.

In fiscal 2005, the business sites of the two housing sales companies Nagoya Sekisui Heim and Sekisui Heim Chugoku were audited. The principal feature of the audits of these housing sales companies was that they did not just cover on-site hearings and documentation checks but also included customers' viewpoints and evaluations among the items audited. For example, their opinions and evaluations of how they were treated when they visited the model home showroom where they met our representatives, the way the place is organized and how clean it is, and what they think of their Sekisui Heim if they are already living in one, were also utilized as audit documentation. In other words,

the audits also checked whether or not the sites were engaged in the particular activities they need to perform in order to satisfy their customers in line with management policy. As a result, it was reconfirmed that, to turn the company into the sort of company it ought to be, it is essential to analyze the issues from the customer's perspective and work out how the company should be organized in a way that its customers can easily understand. The audits also highlighted the issue of how the companies' senior management should manage internal organizations such as sales and administration that have slightly different values depending on their roles. Once a business site has received a CS & Quality audit, that is not the end of it - a follow-up audit is conducted the next year to check what kinds of improvements have been made to resolve the issues identified. Five business sites are due to receive such audits in fiscal 2006.

- \*1 The Japan Quality Management Award: Established in 1995 by the Japan Productivity Center for Socio-economic Development, this prize is awarded to companies whose overall management satisfies the Center's assessment criteria.
- \*2 Company Quality Management Survey: A survey commenced in 2004 jointly by the Union of Japanese Scientists and Engineers and the Nihon Keizai Shimbun, in which the approaches to quality activities of companies mainly in the manufacturing industry are evaluated and ranked in six separate categories. In the fiscal 2005 survey. Sekisui Chemical ranked 86th out of the 239 companies surveyed.

#### **CS & Quality Audit Implementation Steps**

#### First Step

#### Pre-inspection (interview)

- · Recognition of present status (interview)
- Based on the pre-inspection
   Set up an assumption of "advantages" and "weaknesses" of the organization
- Identify issues for innovation based on the assumption

#### Second Step

#### Full-scale Audit

- · Validation of assumptions (discussion)
- · Agreement on innovation agenda
- · Development of audit report

#### Third Step Follow Up

· Devising innovation plan · Confirmation of progress of innovation and

identifying new issues

#### CS & Quality Management Indicators for quantitatively evaluating the value we deliver to our customers

In fiscal 2006, we introduced a set of CS & Quality Management indicators for measuring and assessing the extent to which each of our division companies is practicing CS & Quality Management. By quantifying, measuring and monitoring customers' evaluations of what each division company does, these indicators make it possible for us to see how much value we are delivering to our customers.

When we designed the indicators, the first thing we did was to clarify the "values" that each company intends to offer to its customers, based on its business objectives, management vision and so forth. We then abstracted the essential elements that directly and indirectly indicate what our customers experience when they deal with Sekisui Chemical Group during the process of our providing them with those values, how they felt during this process, and what kind of action they took (or will take) as a result, and used these elements as criteria for measuring our customers' evaluations.

In addition to "number of complaints and claims." other specific elements on which we base our measurements include "number of introductions" (the number of new prospective housebuyers introduced by existing customers) in the case of Housing Company, and "repeat product purchase rate" in the case of both Urban Infrastructure & Environmental Products Company and High Performance Plastics Company.

Sekisui Chemical Group believes that, by setting itself the goal of raising the level of these CS & Quality Management indicators, it will be able to ensure that the business activities it undertakes and the individual actions performed by each of its employees will lead to

raised customer satisfaction. Going forward, it intends to develop CS & Quality Management throughout the entire group by adding these indicators to the list of items used for assessing the performance of each of its division companies. And, since it believes that raising customer satisfaction will create new demand, it also intends to treat the CS & Quality Management indicators as leading indicators for forecasting future sales revenues and profits, and it will tie them to the long-term development of the business by continuing to monitor them while continuously improving its products, services and business processes.

#### Categories of CS & Quality Management Indicators

- •CS & Quality Effect Indicator: Measures the results of customer loyalty behaviors leading to customer retention, which has a major effect on future business results.
- •CS & Quality Drive Indicator: Measures customers' advance behaviors, sentiments and intentions that link the CS & Quality Effect Indicator with the CS & Quality Behavior Indicator.
- CS & Quality Behavior Indicator: Measures the level of attainment of strategies and actions (the output from Sekisui Chemical Group to the customer) for increasing the value and improving the quality of products and services.

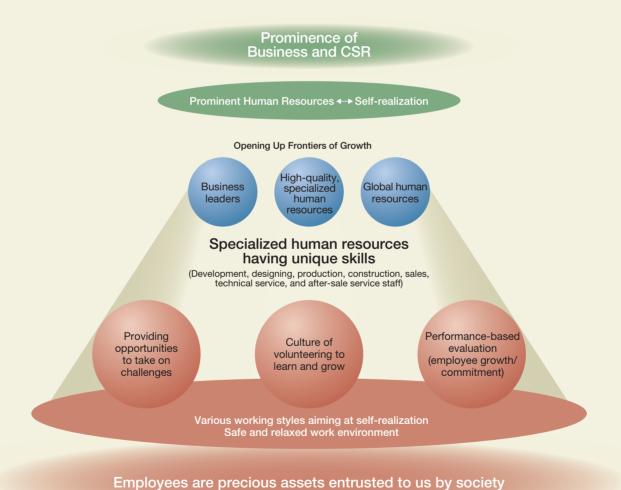


## Encouraging prominence and self-realization by each individual and contributing to society through our business activities

Japan is currently experiencing a declining birth rate and an aging population as well as the diversification of employee' values and lifestyles. Therefore, Sekisui Chemical Group considers employees to be precious assets entrusted to us by society. Based on this idea, we strive to create environments where employees can work with enthusiasm and a sense of security and to provide a variety of opportunities and systems that

support the refinement of each individual's unique skills and personal growth.

We believe that encouraging the prominence and self-realization of each employee through these measures leads to organizational and business development, and in turn, to contributing to society through our business activities.



#### Actively supporting the prominence and self-realization of each individual and creating environments for active human resources

Sekisui Chemical Group's objective of the "GS21-Premium 600," Midterm Management Vision, which entered its final year in fiscal 2005, was to create an organizational culture that makes the most of human resources and promotes the growth of the individual. The vision addressed three specific areas: creating a culture of volunteering to take challenges. perfecting the performance-based evaluation, and creating safe and relaxed work environment.

As a result of these measures, open invitation systems such as the Intra-group Job Posting System or Open-type Training programs, which emphasize employee autonomy in recruiting and training, have become firmly established. In addition, a culture of volunteering to take on challenges has spread through the Group alongside an awareness of commitment to achieving goals that employees set themselves, and take responsibility for achieving. Systems for reemployment of employees at retirement age as well as for childcare and nursing care support are also being developed.

On the other hand, measures to refine the unique skills of employees on the front lines of manufacturing and sales, as well as each individual's unique skills are still inadequate. There are also outstanding issues concerning the development of environments that can respond to Japan's declining birth rate and the creation of workplace that make full use of the capabilities of female employees.

Therefore, "GS21-Go! Frontier," a new Midterm Management Vision, was adopted in fiscal 2006 to continue achievements and issues of the prior vision while adding new core activities to provide opportunities to take on challenges and a culture of volunteering to learn and grow.

As part of our efforts to create a safe and relaxed work environment, we will also continue and augment our efforts to respond to the declining birth rate, create workplaces that make full use of the capabilities of female employees, and maintain and improve the physical and mental health of our employees.

#### Review of the Midterm Vision through Fiscal 2005

	Culture of volunteering to take on challenges		Thorough application of the performance-based evaluation	Various working styles and a safe and relaxed work environment
Goals	Create a culture of volunteering to take on challenges by increasing opportunities for volunteering such as open invitations (e.g. Intragroup job posting or Open-type training)		Enhance the motivation of employees by treating and rewarding them based on the fulfillment of their goals and achievements	Allow each employee to select a job and manner of working according to their sense of values and life plan
Achievements	Increase in the number of employees who apply and volunteer for	(Organization)  Increase in the programs for inviting employee participation  → The programs for inviting employee participation are established as an effective means to reinforce the organization	Commitment consciousness is widespread among the employees     The practice of assessing business performance by division company is established	Work location selection system is established     Systems for reemployment of employees at retirement age are improved
Problems	Reinforcement of work skills of manufacturing and sales staff     Reinforcement of activities for refining the unique skills of employees		Further improvement in employee understanding and in the transparency of the performance evaluation system	Steps to cope with the declining birth rates/offering opportunities for women/creation of a workplace where employees can work in good health and with security

#### Guidelines and Goals for the New Midterm Vision Starting in Fiscal 2006

	Providing opportunities to take on challenges	Culture of volunteering to learn and grow	Refining the performance-based evaluation	Various working styles and safe and relaxed work environment
Goals	Applying human resources on a priority basis in business that is expected to grow     Increase opportunities for employees to experience the challenges of "working with people from various companies"	Clearly define growth (development) goals for all employees Refine and upgrade unique skills of employees Encourage greater communication between supervisors and subordinates to increase productivity at the manufacturing site	Continue to attach great importance to employee commitment and further improve their appreciation for performance appraisal     Encourage employees to develop long-term perspectives     Promulgating the idea of "contributing to society through business activities" to employees	Strengthen the steps to cope with the declining birth rates Creating a workplace where every employee can work actively Promoting employee health and strengthening their mental health care Create a safe workplace
Main measures	Division company-specific recruiting     Job-specific Recruiting     Intra-group Job Posting System     Dispatch to overseas and global training program     Career development scholarship     Ambition School	Age-wise career plan training     Training to improve supervisors' capability     Open-type Training programs     Division company-specific efforts to enhance work skills	Monitoring of the appraisal system     Improvement in the "human development-oriented interviews"     Appraisal from the viewpoint of the Environment and CS & Quality	Lengthening of the periods for which employees can take childcare and work shortened hours     Support for employees who return to work     Increase the ratio of female employees newly hired     Expand the counseling room to business sites     Promoting the five pillars of occupational health and safety and accident-prevention activities

#### **Providing Opportunities to Take on Challenges**

# We support employees who positively set their own goals and provide more opportunities to take on challenges

Hiring and placement are determined with an emphasis on individual preferences and wishes

## We seek to avoid job mismatches by letting recruits choose their placement and job descriptions when they are hired

According to the White Paper on the Labour Economy 2005 released by the Ministry of Health, Labour and Welfare, the separation rate by college graduates in the first three years of employment is 35.4%. A common reason for early separation is "the work was not what I wanted to do."

To avoid this type of job mismatch between employee preferences and actual post-recruiting placements and job descriptions, Sekisui Chemical has implemented division company-specific and job-specific recruiting based on individual preferences since fiscal 2000. This enables each employee to work with a sense of fulfillment.

Candidates can select their desired placement and job description during the time between the corporate information session and the preliminary interview. This process serves to maintain and increase motivation after the candidate commences employment, as illustrated by our 4.1% separation rate within the first three years of employment in fiscal 2005, much lower than the national average.

## Number of new graduates hired and their separation rate in the first three years of employment

	Fiscal 2003	Fiscal 2004	Fiscal 2005
New graduates (persons)	26	43	48
Separation rate within the first 3 years (%)	7.7	2.3	4.1

## Transfers and promotions are also determined according to voluntary application

In October 2000, Sekisui Chemical Group instituted an Intragroup Job Posting System that allows employees to apply for transfer to the department and position of their request. This system encourages employees with the enthusiasm to try their hands in different areas and who aspire to higher achievement in a job of their choice. If the needs of the department with the job opening and the wishes of the applicant match, the employee can transfer without approval from his or her current supervisor.

13 housing sales companies recruited new personnel in fiscal 2005 in an effort to bolster their sales teams, and overseas business sites posted openings including production, sales, and construction leaders for the rehabilitation pipe business in the US and a sales representative for Asia in the interlayer film business. A total of 17 employees made successful transfers under the system, bringing the cumulative total to 99 over five years. Active internal recruiting will continue, particularly in highly promising business areas.

Sekisui Chemical Group has also instituted a program of voluntary applications for promotions. Employees who wish to be promoted make a presentation on their work performance, and if approved, the employee is promoted to the desired position. The elimination of automatic, across-the-board annual promotions and the ones made without clear standards has resulted in greater transparency and higher employee satisfaction.

## We provide opportunities to take on challenges not only to employees, but to students as well

Sekisui Chemical holds forums and offers internships to give students opportunities to consider their futures and the paths they want to take. These programs, which are open to everyone, are completely independent of the recruiting process.

#### Sekisui Network-building Forum

During the recruiting process, students often tell us that they are worried because they lack a clear understanding of the objectives and significance of obtaining employment.

To address this situation, we held the Sekisui Network-building Forum in November 2005 to support the job hunting activities of students in their penultimate year of studies. Approximately 400 students participated in the forum. At the forum, Sekisui Chemical employees and students discussed the objectives and significance of employment and exchanged ideas and opinions, but there were no explanations on Sekisui Chemical or the screening processes of recruiting.

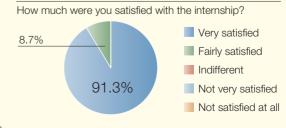
#### Passion for Work Internships

In fiscal 2004, Sekisui Chemical started an internship program for students to experience the corporate working world during their summer vacations. A total of 24 student interns worked at research labs and other business sites in fiscal 2005.

During internships, students perform actual work just like other Sekisui Chemical employees. It is occasionally necessary to provide strict guidance to the interns, but their opinions and ideas are actively taken into consideration.

One participant commented, "I learned how fascinating manufacturing is, and also how difficult it can be." Another said, "The internship provided me with the opportunity to think carefully about my future."

#### **Results of Intern Questionnaires**



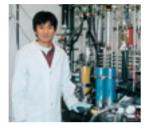
#### Encouraging employees who want to refine their knowledge and skills

#### Providing opportunities globally

Sekisui Chemical has been actively participating in collaborative research and development with universities in Japan and overseas since it began assigning engineers to university research institutes in 1978.

As another means of providing opportunities to take on challenges, in fiscal 2004 we began dispatching young, ambitious engineers to overseas labs that are recruiting

personnel for collaborative research. We also conduct overseas language training and a global training program as well as personnel exchanges with overseas business sites to foster understanding of different cultures and personal growth and to cultivate human resources that can conduct business anywhere in the world.



A Sekisui Chemical engineer assigned

#### Scholarship program newly created for employees seeking specialized knowledge with socially recognized value

The number of employees who wish to leave work for a year or two and devote themselves to study in a professional school\* or other course to gain the highest levels of specialized knowledge recognized outside the workplace is growing. In response to this situation, Sekisui Chemical created a scholarship program in April 2005.

Employees who seek scholarships apply by submitting a statement of their objectives and the research topics they wish to study along with a letter of recommendation from a supervisor. Accepted employees are granted a scholarship and can take leave from work to attend school.

In fiscal 2005, the first year of the program, one employee from a legal department received a scholarship to attend a graduate school of law. In fiscal 2006, two employees were selected to attend a graduate school of accounting and a domestic MBA program, respectively.

#### \* Professional School

A type of master's program intended to provide employees with practical skills and advanced knowledge in a specialized field. Amendments to the School Education Law adopted in 2003 allow universities to create a variety of professional schools.

I will be able to put the knowledge I gain in professional school to immediate use in my work, which further kindles my desire to learn.

I have been studying at a graduate school of law since April of 2005 with the support of a career development scholarship. It was impossible to work and study at the same time, and the risks of leaving work to take the national bar examination, which is said to be one of the most difficult hurdles to overcome, left me confused and uncertain about going to graduate school. At just the right time, the career development



Yuko Minami General Affairs & Human Resources Department, Sekisui Chemical Co., Ltd.

scholarship program was created, which made it possible for me to keep my job and engage in studies for personal development. I was extremely fortunate to have been selected as the very first scholarship recipient. In my studies, I am also looking ahead to the day when I return to work two years from now, thinking about how I will be able to use the knowledge I have gained in graduate school in my work.

Ensuring that I can go back to my previous job and immediately apply the knowledge and experience I have gained for personal development supports a high level of motivation to study. I think that this is truly a wonderful program.

#### Ambition School created to foster the desire to create new business

We launched the Ambition School, an internal entrepreneurship program, in fiscal 2006 to support the creation of new business lines that can become pillars of the company in the future and to cultivate the human resources that will drive the company's growth.

The Ambition School is for employees under 35 years old who have been with the company for at least three years and want to tackle the challenges of creating new businesses. The president, a human resources manager, and Professor Kazuhiro Mishina of Kobe University Graduate School of Business Administration interviewed the 44 candidates and recommended employees and selected 10 to attend the school in fiscal 2006.

The 10 students left work for a certain period to study the basis of management and entrepreneurs under Professor Mishina's direct guidance and to plan and propose new businesses for the future. The students will present their proposals to the Board of Directors, and if approved for implementation, the proposer will be placed in charge of establishing the new business.



Professor Mishina and President Okubo



A scene from a general assembly of the Ambition School

#### A culture of volunteering to learn and grow

## We create a culture of volunteering to learn and grow for employees so that they could refine their unique skills through our business activities

Sekisui Chemical Group supports the efforts of all employees to achieve personal growth, gain outstanding skills as members of society, and enhance their employability through their work. We provide various opportunities and programs for employees to examine their skills, growth, and ambitions and solicit participation in Selective Open-type Training programs that allow employees to take courses that they see as essential to their personal growth. The skills acquired from these programs are put to practical use and growth through work is encouraged.

This system and its applications are available to employees throughout the Group via the corporate intranet.

#### The Cycle of Learning and Growth



#### We provide opportunities and programs for employees to examine their skills and growth

#### The Age-wise Career Plan Training covers all Group employees

The Age-wise Career Plan, which targets employees who are at ages considered to be career turning points, namely 30, 40, and 50 years old, gives each of these employees an opportunity to review their work and life achievements to date.

Under the plan, topics relevant to the participants' ages are addressed, encouraging employees to reflect on their work and life achievements by asking "What can I do?," "What have I done so far?" and "What will I do in future?" Participants then prepare their own subsequent career and life plans.

This valuable program also affords employees opportunities in the same age groups across a range of posts and job types to share information. In view of its popularity, in fiscal 2004 the program was extended to the entire group, and each year a large number of employees participate.

#### Age-wise Career Plan Participants by Age Group

	30 years old	40 years old	50 years old	Total
Number of Age-wise career plan participants until 2005	1,133	706	478	2,317

#### Career Plan Topics in Fiscal 2005

	Thirties	Forties	Fifties
Orientation	What is the career?     Environment of the career	Need for career and life plans	What is "active service throughout our life"?
Analysis of the present situation	Market value analysis     Analyze the insights, abilities, skills gleaned from previous successful experiences/initiatives     Analyze career resources, including time and personal contacts	Market value analysis     Employees analyzes their own ability and skills     Analyze conflicts between work and family commitments     Analyzing what employees hope to attain in their dreams and work	Employees see their strengths and weaknesses in a new light     Employees analyze their skills and abilities     Sense of values and ideas that employees want to pay greater attention to while working
Drawing up a career plan	Course of action for the career     Ideal career for the future	Necessary funds and estimated income in the future     Improvement in overall "professionalism:" for higher employability	Life plan with an 80-year life span in mind Action plan to realize an ideal active service throughout life  Life plan with an 80-year life span ideal active service throughout life  Life plan with an 80-year life span ideal with an 80-year life span ideal active service throughout life span ideal with an 80-year life span ideal with an 80-year life span ideal with an 80-year life span in mind.

I underwent the training with a positive attitude and learned the importance of remaining active in my entire life.

I applied to participate in the Career Plan program in the summer of 2005, one year behind schedule because of business travels and other factors.

Even though the program was short—just two days—it was extremely meaningful to me to have the time to think carefully about the issues that have come up in my life for which I've never really considered in a serious way. I am extremely grateful to the seminar instructor and my co-workers.



Kazuhiro Tanno Packaging Tape Group Sekisui Musashi Kako Co., Ltd.

I recalled the youthful enthusiasm that I applied to my work when I first joined the company and thought about what I want to do in the future. I learned that instead of just waiting for it to happen, I need to make a plan for the future and carry it out so that I can be active throughout my entire life. I left the training with a very positive outlook. I hope to always remember the importance of leading an active life.

Circumstances are sure to change in the future, and I hope that the company will provide a variety of information and accounts of the experiences of others who have already left the company that will be useful to me.

#### Close communication between supervisors and employees enhances work skills

Achieving personal growth through work requires supervisors in management positions to establish medium-to long-term development policies that meet the needs of each employee and to provide appropriate evaluations and guidance. Sekisui Chemical believes that doing so will also serve to enhance work skills.

To meet this need, we provide the Career Interview System (CIS). Under the CIS, employees meet with their supervisors once a year to discuss their careers. Starting in fiscal 2006, we plan to increase the number of supervisors who can provide regular mentoring and coaching to employees and to conduct supervisor education and training to promote employee growth and career development.

#### Providing programs and opportunities for learning

#### Implementing Selective Open-type Training

Sekisui Chemical established a Selective Open-type Training that allows each employee to choose from among various educational and training programs and take those that will provide the knowledge and skills necessary for personal growth and self-realization.

The programs are divided into those operated by headquarters and those conducted by each division company. Headquarters programs offer a broad range of curriculum including basic business skills training and leadership development training.

Division company-specific training programs are designed to meet the needs of each division company's business activities.

In addition, Sekisui Chemical Group operates a training posting system that allows employees group-wide to participate in their choice of Open-type Training programs. Employees are not assigned to these training programs by their supervisors; instead, they are given opportunities to learn.

There are two types of training programs: internal and external. Internal training programs conducted in fiscal 2005 include a Management School, which helps participants acquire the management literacy needed by leaders, and a Workshop for Self-innovation conducted by a director of the company and aimed at developing leadership aspirations in participants.

External training programs include the Business School

program, which hones business skills through exchanges with businesspeople from other companies, and a Chinese language training course designed to train future leaders for our business in China.



A scene of a training program

#### Major Selective Open-type Trainings and Number of Participants

•Business School Program (created in fiscal 2002) Employees attend courses at external business schools. It gives them opportunities to have business skills and close interaction with personnel from other companies.

Number of participants from fiscal 2002 to 2005: 122

#### •Chinese Language Training Course (created in fiscal 2003)

Employees leave their jobs for one year to study Chinese at a university in China. The objective is to train future leaders for Sekisui Chemical Group's business in China as required by our global deployment. Number of participants from fiscal 2003 to 2005: 15

•Management School (created in fiscal 2002) Intensive lectures given by university professors are combined with practical training to refine management sense, knowledge, and skills. The course is designed to find and cultivate future leaders from among today's younger employees.

Number of participants from fiscal 2002 to 2005: 110

#### Workshop for Self-innovation

The workshop, led by a director of the company, is conducted like a cram school and encourages the director and students to learn together. It is designed to cultivate the company's future leaders and also serves as a forum for interaction among personnel from different divisions and posts.

Number of participants from fiscal 2003 to 2005: 318

#### Sekisui Chemical Group Education Training System

Skill/Knowledge Acquisition		Company Training Programs			
Common Skills	Technology/Manufacturing	Open-type Trainings	Housing Company	Urban Infrastructure & Environmental Products Company	High Performance Plastics Company
Open Seminars  Coaching  Logical thinking, etc.  Training by Stage  Career management training Goals and Objectives, etc.  Cross-cultural Competence  Training Basic Skills  Language (Chinese/English) Bookkeeping/Safety, etc.  New Employee Training Three-year training programs for young employees Development of global human resources (general workers and leaders)	Courses on production control and management skills  Quality Engineering  SQC/IE, VE  Equipment Diagnostic Technology  Education on the safety of manufacturing work  Equipment maintenance skills, etc.  Basic Technology Course  Polymer Molecule Property  Chemical Engineering  Equipment Introduction  Electrical System Design, etc.  Basic Technology-related Training	External Training Posting  Business School  Japanese MBA, etc., Open-type Training programs  Management School "Saijuku"  Workshop for Self innovation Chinese Language Training Course	Job-specific Training Programs (Designing, construction, after-sale service, remodeling, sales, and production)  Basic Technology Course  House performance and equipment  Foundation designing  Construction technology, etc.  Acquiring Qualifications  Architecture, Real Estate and Building  FP Artisan  Housing and Environment Welfare Coordinator  Various In-house Qualifications, etc. e-learning	Nurturing Sales Leaders  Pipe Renovation School  Courses on direct demand sales  Basic Skills Course  Vinyl Resins  Material Mechanics  Casting Technology, etc.  Acquiring Qualifications  Construction Managing Engineers  Renovated Pipe Installation  Development of global human resources	Building Management Minds  Marketing Workshop  Management Game  Management strategy planning courses  Basic Technology Course  Adhesive control  Analysis Check Technology  Technological Research Workshop  Fine Particles  Nano-dispersion Technology  Technology Management Educatio  Global Employee Training  Courses on sales at overseas dealers  Business writing courses

#### **Examples from Each Division Company's Initiatives**

## Measures to enhance workplace skills

Sekisui Chemical Group's division companies are implementing the distinctive measures described below to enhance production site work skills. Some of the measures have just started, but the goal is to raise workplace skills by taking action step by step.

#### **Housing Company**

#### Meister (Master craftspeople) system launched in production companies

Housing Company launched the Meister System for young employees in seven housing production companies nationwide (including employees of cooperating companies) from fiscal 2005. The Meister System is an original skills certification program created to foster top-class manufacturing people. Employees who are certified under the system devote themselves to enhancing their own skills so they can support the development of the next generation. They cooperate with one another on measures such as providing technical guidance at assembly lines and holding study groups, producing training videos, and establishing skill evaluation systems.



Training junior employees under the Meister Syst.

#### **Urban Infrastructure & Environmental Products Company**

#### Ritto Innovation School 2005

Sekisui Chemical's Shiga-Ritto Plant, an Urban Infrastructure & Environmental Products Company production plant, created the Ritto Innovation School for all plant employees (including contract and part-time employees) in fiscal 2004. Middle managements of the plant serve as the "instructors," and "students" who enroll freely discuss and debate their ideas and opinions concerning their jobs and the worksite with the objective of cultivating personnel who can use their own skills to find problems and resolve them. Many of the students who participate in the school comment that they have "learned new ways of looking at things." In addition to the existing Innovation School, a new Safety School and a Manufacturing Improvement Skills School will also be created in fiscal 2006 to support the development and growth of even more employees.



A scene of employees debating work issues in the Innovation School

#### **High Performance Plastics Company**

### Global training at Shiga-Minakuchi Plant

Technical training for engineers working at overseas sites and other programs are conducted at Sekisui Chemical's Shiga-Minakuchi Plant to foster employees with a global perspective and to ensure the transfer of technology and expertise developed at the plant to overseas production sites. The plant is positioned as the interlayer film production mother plant of High Performance Plastics Company. An information infrastructure will be built to allow real-time sharing of information concerning technology issues and results at each plant, and there are also plans to implement personnel rotations among plants in Japan and overseas.



Training overseas engineers at Shiga-Minakuchi Plant

#### **Refining Performance-based Evaluation**

## Refining performance-based evaluation raises individual skills and organizational results

#### Enhancing the fairness and credibility of assessments

Performance-based evaluation is not intended to create distinctions among employees. Rather, each employee works with a sense of individual growth and job-satisfaction and translates this into concrete results. The company impartially evaluates these results and rewards them appropriately. This system encourages the setting of higher, more challenging targets, which in turn leads to personal growth and the development of the company. These are the objectives of Sekisui Chemical Group's performance-based evaluation.

For such a policy to be put into practice and take root, however, it is essential not only that the impartiality of evaluations be maintained and their credibility enhanced, but also that the company support employee efforts to achieve ever higher goals.

In consideration of this, the new personnel vision incorporates individual interviews into the existing system of performance evaluations and remuneration. These interviews are intended to encourage the personal growth of each employee from a medium- to long-term perspective.

### Sekisui Chemical Group's Conception of Performance-based Evaluation



#### Companywide Operating Income and Average Annual Employee Compensation



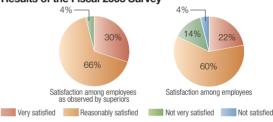
\* Assuming the annual income for fiscal 2001 to be 100 (Performance in one year is reflected in remuneration for the following year.)

## Creating systems that link achieved targets (results) with remuneration and produce fair and transparent evaluations

Sekisui Chemical has created a system that links achieved targets (results) with remuneration in the belief that superior performance can be obtained if each employee is satisfied with the treatment he or she receives and finds work satisfying and rewarding. Bonuses are calculated on the basis of the performance of the individual employee as well as the overall division company's and corporate business results, while salaries reflect not only business results, but also personal growth and progress in achieving targets.

We believe that enhancing the fairness and credibility of performance evaluations requires us to consider the opinions of both the evaluators who actually operate the system and the employees to be evaluated. Consequently, we conduct regular questionnaire surveys of both. The Evaluation System Council, established for labor-management discussions, uses the results of the surveys to improve the system and its operation.

#### Results of the Fiscal 2005 Survey



#### Enhancing training and education of evaluators

The results of a questionnaire survey of evaluated employees indicate that virtually 100% of employees participated in interviews with their supervisors concerning their performance. Many respondents indicated that in addition to confirming the results of their work, they would also like supervisors to evaluate the actions taken to achieve those results.

In response, we reviewed training and education of supervisors who perform performance evaluations and introduced instruction on interview methods that facilitate discovering and reinforcing the strengths of subordinates, methods for developing plans for personal growth from a medium- to long-term perspective, and other items were added to the curriculum in fiscal 2006.

This training and education will be used to enhance the training and evaluation and coaching skills of supervisors and to raise the fairness and credibility of the performance-based evaluation as a whole.

#### Environment and CS & Quality added to results-based division company evaluation

Sekisui Chemical reviewed its methods of linking salaries and bonuses to performance evaluations in fiscal 2006 and added Environment and CS & Quality evaluations to reviews of individual division company results (see pp. 26, 50).

Environmental performance is evaluated based on emissions of CO<sub>2</sub> and waste generation, the degree of attainment of sales goals for environment-friendly products, the extent of

improvement from the previous year, and other factors. CS & Quality is determined on the basis of standards for measuring the degree of CS for each business such as numbers of introductions and recommendations by customers.

These evaluation methods are intended to encourage changes in employee awareness and to increase our corporate value to society.

#### **Creating a Safe and Relaxed Work Environment**

## We are creating safe and relaxed work environment where each employee can work with enthusiasm in accordance with their individual values and life plans

Sekisui Chemical Group has established systems that allow each employee to choose jobs and ways of working that are in accordance with their individual values and life plans. We also conduct thorough workplace safety and disaster response activities. Our objective is to create a safe and

relaxed work environment where each employee can perform their job with enthusiasm without regard for age, sex, nationality, or disability. In particular, we are taking active measures to address the increasingly-serious declining birth rate in Japan.

#### Responding to a declining birth rate

#### Childcare leave allowances and support systems are reviewed and enhanced based on employee questionnaire

According to population statistics released by the Ministry of Health, Labour and Welfare, the number of births in Japan in 2005 was 1.067 million, the lowest ever. Against this backdrop of an accelerating decline in the birth rate, Sekisui Chemical Group believes that taking measures to create work environments that enable employees to devote themselves to having and raising children with a sense of security is among its most important societal responsibilities as an enterprise.

In November 2005, we conducted a survey of employees who had taken childcare leave in the past with the aim of reviewing and enhancing the systems and regulations affecting childcare.

The results indicated strong desires among employees for various improvements including the development of work environments that facilitate the taking of childcare leave, greater understanding in the workplace concerning working mothers, subsidies for the use of external daycare facilities, and the introduction of a system for shortened working hours.

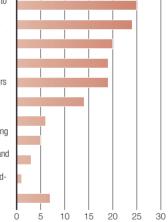
Based on these results, in fiscal 2006 we began investigating the lengthening of the periods for which employees can take childcare leave and shortened working hours. We also plan to create a childcare-related intranet as a forum for exchanging information on returning to work and to institute a specialized consulting service to oversee these policies.

We will continue our efforts to improve childcare-related systems and to create environments that facilitate childbirth and childcare by employees.

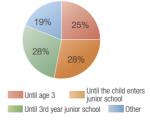
#### **Questionnaire for Those Taking Childcare Leave**

<40 respondents. Multiple Answers= 143>

- 1. What support would you like to see from the company in order to continue working while rearing a child? (people)
- A work environment that makes it easier to take time off, etc.
- Better understanding of working mothers within the company (workplace)
- . A system of working from home
- Subsidies for non-company daycare
- · A fuller system of shortened working hours
- · Establishment of in-company daycare facilities
- · Limits on overtime work
- · Services that support not only child-rearing but also housework
- An office where milk could be prepared and
- A service that would provide care for childrearing stress
- Others



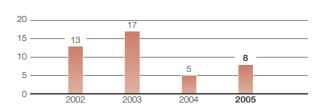
## 2. For how long a period would you like to work shorter hours?



#### 3. Open-ended Responses

- Would like to see the time lag between when child-rearing leave ends and when it becomes possible for the child to enter daycare facilities (in April) eliminated.
- It would be good if continuing to work while child-rearing could be seen as nothing special, with company-wide understanding and cooperation taken as only natural.

#### **Number of Employees Taking Childcare and** I have yet to keep up with the faster pace of my new life and I **Nursing Care Leave**



#### I am combining work with raising my child thanks to the support of my colleagues

After I decided to have a child, I opted to take childcare leave without thinking much about my work after the birth. I was encouraged by a number of colleagues around me who are raising children while working. After my leave, I returned to work in a different department, but I am very grateful for being accepted in the new department and for the ability to work shortened hours.



Mieko Otani Corporate Communications Department Sekisui Chemical Co., Ltd.

feel that I am constantly running around both on and off work, but I do feel I have achieved a very varied life. Although I am away from my son only for a matter of hours each day, when I go home I am extremely happy to see new evidences of growth. I did return to work a little early, however, and I tend to be unwell rather often, and as a result I worry about causing inconvenience to my co-workers when I have to take time off. I am concerned about it, but I have been able to coordinate well with my colleagues, and I am determined to press on as best I can.

#### Creating work environments where all employees can feel enthusiastic about their jobs

## Creating environments that facilitate opportunities for women

Sekisui Chemical conducted two surveys of its women in fiscal 2005: the Career Development Awareness Survey and the Good Work Environment Survey.

The former survey indicated that 75% of respondents aspire to a management (section leader level or above) or specialist position, but at the same time, 67% of respondents find it difficult to balance work and family responsibilities.

The latter survey revealed that as many as 60% of the respondents desire training to improve their skills or to acquire specific qualifications. Many of the respondents also expressed valuable opinions concerning improvements to the work environment in areas such as uniforms and smoking in the office.

Based on these results, we can conclude that overall management including understanding of the workplace is still inadequate to create favorable work environments for women. To improve this situation, Sekisui Chemical set a goal of women accounting for 30% of new employees hired in 2008 to increase the denominator.

From survey results, a fulltime coordinator will be appointed to advance such measures including policies to foster the development of the next generation, training and education, and improvement in the work environment.

#### **Career Development Awareness Survey**

#### Survey Issues

- Personal thoughts on career development at the time of hiring
- Current personal thoughts on career development
- Reasons for wanting a management (section leader level or above) position
- Reasons for not wanting a management position
- Most important reason for deciding to seek a management position

#### Respondent Comments

- I would like to see a system that allows employees to choose their working style following marriage or childbirth.
- I want supervisors to evaluate women who seek to develop their careers in the same way as men.
- The company should be more proactive about employing women.

#### **Good Work Environment Survey**

#### Survey Issues

- How cigarette smoking in the workplace affects the work environment
- Uniforms (the uniforms that the company currently provides to female employees)
- Systems for supporting personal career development
- Qualifications sought in the future
- Company support with respect to childcare and nursing care
- Use of the childcare and nursing care leave systems and the nursing care shortened working hours system

#### **Respondent Comments**

- I want to try work that is different from what I am doing now to enhance my career.
- I am married, and therefore, I would definitely participate in training programs that were more accessible to women such as ones that would not require overnight stays.
- The company should create systems to raise men's awareness concerning childcare.

## Work environments that facilitate opportunities for seniors

Against the backdrop of a rapidly aging society, when the revised Law Concerning Stabilization of Employment of Older Persons came into effect in April 2004, employers became obligated to take measures to effect the stabilization of employment for older workers including raising mandatory retirement ages and introducing systems for continued employment.

Sekisui Chemical has established and operated a reemployment system for workers up to age 65 years since fiscal 1993, and with the adoption of the revised law, all group companies introduced such systems.

In addition to extending employment periods, we also plan to develop systems that will utilize throughout the entire group the extensive expertise that employees have acquired throughout their long careers and ensure it is handed down to the next generations.

We are also taking a variety of measures to ensure that employees enjoy comfortable lives after reaching retirement age by creating work environments that allow for a variety of working styles including the option to work shortened hours.

## Handing down technical skills through one-on-one training— Tokuyama Sekisui Industry Co., Ltd.

This program, introduced in 2005 to prepare for an anticipated increase in the number of retiring employees in 2006, pairs up rehired veterans with young employees in performing actual work together. The program is intended to stabilize the lives of workers who have passed retirement age and to ensure the steady acquisition of skills by younger workers through having

them work with veterans. The veteran employees carefully instruct their partners with a strong sense of the importance of handing down their unique skills to the next generation of workers in engineering departments.



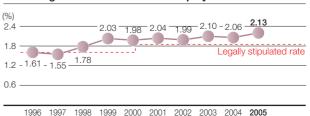
A veteran worker instructing a younge employee

## Work environments that facilitate the employment of disabled persons

Sekisui Chemical is committed to creating safe work environments for disabled persons where they can maximize their skills.

In fiscal 2005, disabled persons accounted for 2.13% of our total workforce. The entire Group remains committed to raising this percentage still further.

#### Percentage of Disabled Persons Employed



## Many peoples, in many different nations, are

Sekisui Chemical Group is an enterprise that operates businesses on a global scale. The number of employees active in 11 nations totals 2,500. Regular meetings for employees are held for the various sectors of business to encourage exchanges across national and regional boundaries, gathering together members from each and every nation. Such opportunities for exchanges are expanding every vear, and in March 2006, representatives from our overseas affiliated companies attended the meetings to explain corporate policy.

In future, as the opportunities for non-Japanese to work in Japan are gradually increasing, we intend to pursue actively the employment of non-Japanese nationals.

#### **Number of Employees in Each Region**



My First Impression of Sekisui Chemical was of the Strong Cooperation between Employees and their Sense of Responsibility

I was born in Oklahoma, and I came to Japan from the US in 1987, when Japanese management was beginning to attract the world's attention. I remember thinking what a very strange country it was, standing mid-way between western and oriental cultures.



James McGill International Business Department, High Performance Plastics Company Sekisui Chemical Co., Ltd.

Since joining Sekisui Chemical, I have been working in International Business Dept. of High Performance Plastics Company and the Corporate

Communications (CC) Dept. My work in International Dept. was to facilitate and enhance two-way communications between headquarters and our overseas sales companies and affiliated companies. In practical terms, I have been engaged in managing the intranet, and translating into English and distributing the information generated by International Business Dept., each division company and President Okubo. In CC Dept. I have been translating into English information for IR, CSR and advertising. In addition, as a medium to long-term project, I have been involved in improving the design of our corporate website and once a week I have been working as a volunteer by opening an English conversation class outside of normal working hours.

My first impression of Sekisui Chemical Group was of the strength of their spirit of cooperation and sense of responsibility. And it was a company virtually unaffected by problems of sexual harassment and compliance. If I had to look for something to criticize in the corporate culture of the Group, it might be that it is over cautious. I think we ought to change from the attitude "We absolutely must not make a mistake," to "Let's go all out for victory in the main chance!"

#### Labor relations based on dialogs

Sekisui Chemical Group, to ensure good labor-management relations based on dialog and cooperation, has the President himself explain management vision in informal Presidential Management meetings, and similar informal Division Company Management meetings are held by the division company presidents to explain their management situation.

In 2006, with the aim of strengthening group management, the labor unions of group companies participated in exchange of opinions with the President and the division company's presidents on the present situation and the issues faced by each division company.

#### $\bigvee \bigcirc |\bigcirc \vdash$

Aiming for Corporate Operations with a Sense of Solidarity, Seeking More Opportunities for Speaking Frankly to Managers.

The Sekisui Chemical Labor Union consists of approximately 3,200 people working in the Group. Currently, about half of these are dispatched to group companies. The labor unions of the various companies are linked together in Zensekiren (the Association of Sekisui Chemical Labor Unions).

Currently, the prime concern of both



Koji Nakayama Vice Chairman Central Executive Committee Sekisui Chemical Labor Union

the Sekisui Chemical Labor Union and the Association of Sekisui Chemical Labor Unions is to ensure that the opinions and expectations of employees concerning business operations are frankly conveyed to the company senior executives. Through these activities, the sense of participation in management and business operations within union members will be enhanced, giving every individual a sense of pride and satisfaction in life and work. This, in turn, will lead to a sense of solidarity, and this is what I would like to encourage from the position of our labor union.

We have the company's understanding of this, and we are exchanging opinions from many different directions. Last year, when CS activities and compliance were prioritized, the union was asked to perform the function of thoroughly checking corporate operations from its own point of view. In future we ourselves, who are most familiar with the actual situation in the workplace, will be required to hold firmly to the proper stance.

#### Improving employee physical health and mental healthcare

Sekisui Chemical Group, as part of activities for occupational health, safety and welfare and accident prevention, has been working to reduce the number of illness requiring long absence and the incidence of lifestyle related diseases, and in October 2004 established a counseling room in Tokyo headquarters to provide mental health support for employees.

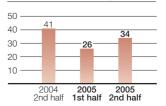
The counseling room is open twice a month, staffed with an outside counselor. To deepen employee understanding of mental health issues, mental-health seminars are held at headquarters and production sites within Japan.

From fiscal 2006, more counseling rooms will be opened at locations outside Tokyo headquarters, and the contents and frequency of mental health

seminars will be improved.

The Labor Union has created a mental health Web site. The site supports the mental health of employees through the provision of a wide range of mental health information and selfdiagnosis charts.

#### Number of Employees Who **Used the Counseling Room**



#### Five pillars of occupational health, safety and accident-prevention activities

Sekisui Chemical Group conducts occupational safety and health and accident-prevention programs based on its Philosophy on the Environment and Safety adopted in April 2003. The five pillars of these programs are Management, Education, Equipment Improvement, Risk Prevention, and Auditing.

## Sekisui Chemical Group Philosophy on the Environment and Safety (April 2003)

We, Sekisui Chemical Group, recognize that there can be no sustainable development without our total commitment to issues of environmental protection and safety. We are dedicated to the creation of a better environment by continuously promoting environment and safety activities, enabling the structuring of a recycling-based society and global environmental protection through our businesses, products and social contributions.

#### Occupational Health and Safety Management System (OHSMS) promotes continuous improvement activities

Sekisui Chemical Group constructed Occupational Health and Safety Management Systems (OHSMS) at all 36 domestic production sites and R&D institutes through fiscal 2004 and conducts continuous improvement activities using the PDCA (Plan – Do – Check – Act) cycle.

In fiscal 2005, we conducted employee education and training designed to ensure that operation and use of the OHSMS takes root in all business sites and to raise employee awareness of health and safety issues. We also conducted activities to enhance the safety of facilities by making sure that suitable safety and accident-prevention policies have been adopted and implemented.

#### Main Activities in Fiscal 2005

Main Activities in Fiscal 2005		
Five pillars	Main activities	
Proper operation of the OHSMS	Assessed proper operation of the OHSMS at 36 business sites where the system is established	
Development of personnel with strong safety skills	Conducted safety education programs for each personnel rank     Conducted Senior Executive Workshop	
Promotion of intrinsic safety of equipment	Established the Group-wide Equipment Safety Design Standards     Conducted intrinsic safety of electrical equipment auditing	
Promote greater risk assessment and prevention	Minimized risks through risk assessment, KY (risk detection), and HH (risky act prevention) activities at the business sites	
Implementation of auditing and safety checks	Production plant: conducted safety, sanitation, and accident-prevention auditing     Construction site: conducted safety checks	

### Five Pillars of Occupational Health, Safety and Accident-prevention Activities



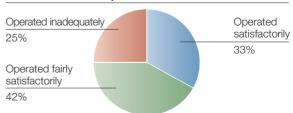
## Assessment of OHSMS operation and use at all business sites

Sekisui Chemical Group formed OHSMS at all 36 domestic production sites and R&D institutes over three years from fiscal 2002 to 2004. In addition to systematically reconstructing the existing occupational health and safety and accident-prevention systems, since then we have continuously implemented improvement activities to enhance performance.

In fiscal 2005, members of the headquarters division involved in safety matters toured each business site with an OHSMS to assess the status and use of the systems. The assessments uncovered a number of problems including inadequate risk discovery, identification, and assessment at 25% of the business sites, failure to oversee and implement management programs according to the prescribed procedures, and inadequate internal auditing.

In response to these results, we plan to take further measures in fiscal 2006 to promote the proper operation of the OHSMS at all business sites.

#### **Results of OHSMS Operational Assessments**



 These are the assessment results of the four items that are important to OHSMS operation: risk assessment, goals and programs, progress management and internal auditina.

#### Systematic education and training activities at all levels from production line workers to management

Sekisui Chemical Group believes that true safety can be achieved only when top-down activities and bottom-up activities are carefully coordinated. Based on this belief, we conduct employee education activities tailored for all personnel ranks.

In fiscal 2005, we held Senior Executive Workshop for senior executives from Japan and abroad so that senior managements of the Group and managers of each business site could take safety measures on an intense and concrete level.

Preventing occupational and equipment-related accidents within the Group requires us to train personnel with strong safety skills including the ability to discover safety-related problems and take corrective actions. In light of this, we plan to reconstruct our safety education systems and address these issues.

#### Main Education and Training Programs Conducted in Fiscal 2005

1 13Cai 2000	
Target	Educational program
Senior executives	Conducted Senior Executive Workshop at home and abroad     The participants were 142 executives from the three division companies and 72 domestic companies under headquarters jurisdiction, and 31 executives from 29 overseas companies.
Safety staff at production sites	Safety education programs for each personnel rank (1) "Safety training session" held for the managers at all the production plants and R&D institutes (twice a year) (2) Inspection tours of the businesses pioneering the safety activities (3) Safety education for deputy managers Training courses for OHSMS internal auditing staff 68 people were recently qualified as internal auditing staff in 2005 (As a result, the total number of internal auditing staff increased to 583)
Leaders at the production/ construction sites	Leaders at the production sites     A risk assessment training (KYT) program held with 217 participants     Leaders at the construction sites     Foreman education, KYT and special education on asbestos held with 676 participants, including safety managers, construction managers, cooperative companies, and construction workers

<sup>\*</sup> The above programs are hosted by the headquarters office and the division companies of Sekisui Chemical Group. Each of the business sites carries out its own educational and enlightening activities in addition to those listed in the table



Senior Executive Workshop

#### Activities to ensure the intrinsic safety of new and existing equipment

Intrinsic safety that includes the implementation of appropriate safety and accident-prevention measures relating to equipment is essential for preventing occupational and equipment-related accidents.

Sekisui Chemical Group conducts intrinsic safety activities based on the idea that equipment should be fool-proof, meaning that even if an employee operates equipment incorrectly he or she is not subject to any risk of harm, and fail-safe, meaning that equipment is designed to minimize harm in the event of failure.

Safety measures implemented in fiscal 2005 included the start of full-scale application of A standards for the installation of new equipment manufactured in the previous year as well as creation of B standards as shared safe design standards (see figure below). We will begin full application of the B standards in fiscal 2006.

With respect to existing equipment, we have been conducting equipment safety auditing with the primary objective of bolstering accident prevention (including fires and explosions) and taking intrinsic safety measures since fiscal 2004.

Inspections of electrical equipment—one of leading causes of fires and fire-related accidents—were conducted at 10 business sites in fiscal 2005. Safety auditing of electrical equipment at the remaining production sites will be conducted over the three years from fiscal 2006.

#### Sekisui Chemical Group's Equipment Safety Design Standards

The standards that define, among others, the most fundamental A standards concepts and ways of doing (Basic safe standards) business activities applicable to all equipment The standards that define the aspects of common safety not B standards affected by, among others, the (Shared safe design standards) type of process or equipment concerned The standards that define the individual aspects of safety C standards derived from or related to, among others, the type of process or (Individual safe design standards) equipment concerned

#### **Equipment Safety Auditing Results and Planned Inspections**

	-	-
Fiscal 2004	Fiscal 2005	Fiscal 2006-Fiscal 2008
Equipment safety auditing conducted at the 13 business sites that use hazardous materials and high- pressure gas	Electrical equipment safety auditing conducted at 10 business sites	Electrical equipment safety auditing planned at all production sites in three years from now

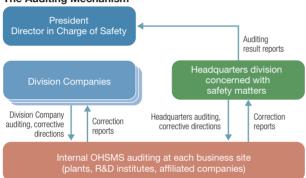
<sup>\*</sup> The "C standards" are scheduled to be established in fiscal 2006

#### Health, safety, and accident-prevention auditing conducted at all production sites and R&D institutes

Health, safety, and accident-prevention auditing are conducted at all production sites and R&D institutes each year to verify that appropriate occupational health and safety activities are being conducted in accordance with the OHSMS.

People in charge of headquarters safety visits each site and assesses the status of occupational health and safety activities according to the Health, Safety, and Accidentprevention Assessment Booklet prescribing 74 items. The auditing results are reported to the President and the director in charge of safety matters.

#### The Auditing Mechanism



#### Unique safety checks implemented at house construction sites

Sekisui Chemical Group conducts safety checks at all house construction sites to ensure the safety of our employees and those of partner companies working there as well as that of customers and others in the vicinity of the sites.

These activities include searching for potential causes of work-related accidents in day-to-day activities and taking preventive measures. In fiscal 2005, we performed safety checks at six companies in the new construction companies and 39 Fami S (refurbishing business) companies.

#### Safety Checks at Construction Sites

	daily	undertaken in the course of business for prevention of ents/investigation of causes	Creation of an effective cycle of Safety checks, Corrections, Corporate safety checks	
	In-house checks	Division Company/ Headquarters checks		
New Construction sector	In-house checks implemented at each division company	Division Company/Headquarters safety checks Implemented at 6 companies (Housing sales company, construction site)	In-house Corrections	
Fami S	In-house checks implemented at each division company	Division Company/Headquarters safety checks Implemented at 39 companies (Fami S Company, construction site)	Division Company/ Headquarters checks	

<sup>\*</sup> Sales companies, Fami S companies, and construction sites conducted in-house safety activities in addition to the above

#### Safety performance from January to December in 2005

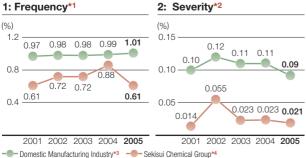
#### Safety performance at production sites and R&D institutes

#### The number of work-related accidents remained flat, but the frequency and severity improved over the previous year

The number of work-related accidents in Sekisui Chemical Group during fiscal 2005 remained approximately the same as the previous year, but both the frequency and severity of accidents improved over the previous year. We believe this is the direct result of performing risk assessments under the OHSMS and placing priority on improving those potential sources of harm with the highest level of risk.

In fiscal 2006, we will bolster risk reduction activities and day-to-day management to reduce the number of accidents and will promote the development of personnel with strong safety skills.

#### 1: Frequency\*1



- \*1 Frequency = (number of casualties per each closure of business due to a disaster/total work hours) x 1,000,000
- \*2 Severity = (days of labor lost/total work hours) x 1,000
- \*3 Source of information for Japanese manufacturing industry: Ministry of Health,
- Labour and Welfare "Survey on Industrial Accidents"

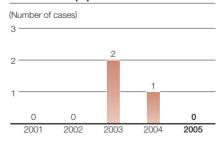
  \*4 Sekisui Chemical Group data: 33 production sites, and 3 R&D institutes

#### Working towards zero equipment-related accidents through regular maintenance and intrinsic safety measures

As a result of exhaustive regular equipment maintenance and intrinsic safety measures as well as periodic renewal of aging equipment, we were able to achieve zero equipment-related accidents in fiscal 2005.

Equipment-related accidents such as fires and explosions pose considerable risks not only to employees but also to local residents in the vicinity of production plants, and consequently we must take all possible measures to prevent such accidents. We perform regular inspections and thoroughly implement intrinsic safety measures and will work to maintain our zero equipment-related accidents.

#### Number of Equipment-related Accidents\*



- **Definition of equipment-related accident:** Any accident that meets one or more of the following conditions (Sekisui Chemical Group standards):
  - (1) Personnel-related damage: 30 or more days of loss, and closure of business (2) Damage related to goods: 10 million yen or more

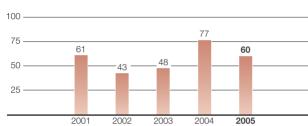
  - (3) Loss of Opportunity: 20 million yen or more

#### Commuting-related accidents were reduced but continuous greater awareness and analysis of accident causes are still needed

There were 60 commuting-related accidents (including personal injury, damage to property, and disability incurred while commuting to or from work) in fiscal 2005, an improvement from 2004 when we experienced the highest number of accidents in the last five years.

Despite the improvement, we see this is an unacceptably high-total. Accordingly, to lower the number of accidents, we will conduct comprehensive training and guidance designed to raise individual awareness of risks, analyze the causes of accidents at specific business sites with high accident rates, and implement improvement measures.

#### Number of Commuting-related Accidents\*



\* Total number of cases including cases of both damage inflicted and damage incurred. Includes damage to both persons and goods

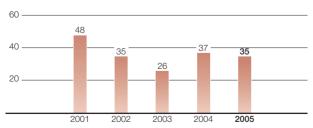
#### Extended absence due to illness unchanged since 2002

The number of extended employee absence due to illness has remained at approximately the same level since 2002.

Despite a decline in lifestyle-related conditions, among employees in their 40s and 50s, which was a major cause of extended absence, the number of employees absent for extended periods because of psychological conditions is increasing.

In response to this development, we are taking measures to increase the percentages of employees undergoing regular and special health checkups and conducting thorough postcheckup follow-ups. In addition, we are complying strictly with the Industrial Safety and Health Law as revised and enacted from April 1, 2006, which imposes on employers the duty to improve mental health measures. We are also promoting better communication within the workplace and developing structures for early treatment by specialists.

#### Number of Long Absence Due to Illness\*



"Long absences due to illness" refers to health-related employee absences that last 30 days or more (according to the Sekisui Chemical Group standards)

#### Safety performance at construction sites

#### The number of work-related accidents increased but accidents resulting in worker absence fell sharply.

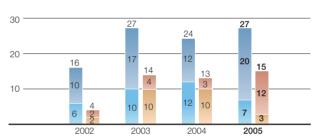
Housing construction often entails work under demanding conditions including working at heights and in occupied buildings, which means that rigorous safety management is essential.

Consequently, Sekisui Chemical Group conducts safety checks, training, and education at housing construction sites and is working to reinforce safety management for the prevention of work-related accidents.

In fiscal 2005, safety activities focused on reducing the number of accidents requiring time off work, and a reduction of 12 accidents from the previous year was achieved, but new construction companies and Fami S (refurbishing business) companies experienced a total of 42 such accidents, an increase of five from the prior year.

To reduce the number of work-related accidents in the future, we will introduce risk assessments and take additional measures to reinforce safety management systems at construction sites.

#### **Number of Accidents at Construction Sites**



Number of accidents for which work did not have to be shut down in the New Construction sector Number of accidents for which work had to be shut down in the New Construction sector Number of accidents for which work did not have to be shut down in the Fami S sector Number of accidents for which work had to be shut down in the Fami S sector



A safety check is performed at a construction site



#### Calculating and analyzing the cost effectiveness of health, safety, and accident-prevention measures

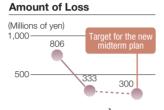
Sekisui Chemical Group has been using health, safety, and accident-prevention accounting since fiscal 2002 to determine the costs and benefits of health, safety, and accident-prevention activities and to develop more efficient measures.

The costs related to health, safety, and accident-prevention in fiscal 2005 increased by 10.0% from the previous year, investment grew by 29.6%, and expenditures as a percentage of total investment was similarly up 1.4 points to 6.9%.

We also conducted a review of the calculation methods of loss in fiscal 2005, which dropped 59% compared to the previous year. In light of this, we plan to take additional health, safety, and accident-prevention measures to meet the goal set in the new midterm plan (see table below) of not more than 300 million yen

in loss, which were 800 million yen in fiscal 2004.

We are also implementing equipment improvement, work procedures, and employee training measures in response to work-related accidents that occurred during fiscal 2005.



2005

2004

#### Health, Safety, and Accident-prevention Costs

fillions of ye

	Entire group*1		
Classification	Expense amount	Investment amount	
1) Costs within business site area	Health and safety measures, rescue and protective-equipment related, determination of work environment, monitoring health, workers' accident compensation insurance, etc.	730	984
2) Cost of supervision	Establishment and implementation of OHSMS, safety education, labor costs, etc	1,152	_
3) Other	Awards, etc.	2	_
	1,884	984	
Total investment	_	14,171	
Proportion of he investment with	_	6.9%	
Amount of loss*	30	33	

<sup>\*1</sup> This includes 36 production sites/R&D institutes + all departments of headquarters + back-offices of division companies.

#### New Midterm (fiscal 2006 - 2008) Health, Safety, and Accident-prevention Plan

FY2008

In conjunction with the start of the "GS21-Go! Frontier," Midterm Management Vision in fiscal 2006, Sekisui Chemical Group also adopted a new Midterm Health, Safety, and

#### **Group-wide Policy**

"Safety Takes Priority Over Everything Else" Making Safety an Unshakeable Key Management Policy Accident-prevention Plan (covering the period from fiscal 2006 to 2008) to establish solid safety foundations, one of the Group's key management principles.

#### Key Issues for Achieving Zero-Hazards Workplaces

_			
Workplace	Priority problem		
Production sites/ R&D institutes  • Reinforcement of risk assessment and the promotion of intrinsic sa • Implementation of thorough daily monitoring of the production site			
Construction sites	Reinforcement of safety management at the construction site     Introduction of risk assessment		
Overseas business sites	Monitoring and subsequent auditing and recommendations		

#### Health, Safety, and Accident-prevention Activities—Overview of the New Midterm Plan (fiscal 2006 - 2008)

	Fiscal 2008 goals	Main activity themes		
	(vs. fiscal 2004)	Priority activity	Main activities	
Production sites/R&D institutes	(1) Work-related accidents  * Zero accidents requiring suspension of business  * Reduce accidents requiring no suspension of business by 50% (2) Zero equipment-related accidents (3) Commuting-related accidents  * Zero accidents requiring suspension of business (that inflict injuries on others and on those causing accidents)  * Reduce accidents requiring no suspension of business by 50% (4) Reduce long absences due to illness by 50%	1) Enhancement of OHSMS operation	Reinforce risk assessment and enhance intrinsic safety of equipment	
		2) Development of personnel with strong safety skills	Reconstruct the systematic education and conduct education and training activities based on the reconstructed system Introduce learning by experience (into the model sections at each company)	
		3) Promote intrinsic safety of equipment	Create the Equipment Safety Design Standards system     Implement electrical equipment safety inspections	
		Strengthen safety auditing and daily management at business sites	Conduct auditing at all the business sites (five new business sites added)     Organize the "one-two-ten (twice a day, for 10 minutes) patrol movement at the sites"	
		Encouraging activities for reducing commuting- related accidents	Analyze the cause of accidents and implement preventive steps at business sites that have frequent accidents.	
	* Reducing the loss costs by ¥500 million	6) Promote mental-health exercises	●Monitor adherence to Industrial Safety and Health Law as revised ●Implementing company-wide mental-health activities	
	(1) Work-related accidents  * Zero accidents requiring suspension of business  * Reduce accidents requiring no suspension of business by 50%  (2) Zero equipment-related accidents	Strengthen safety management at the construction site	Strengthen the safety management system at the construction site     (at Housing Company and at Urban Infrastructure & Environmental Products Company)	
Construction		2) Conduct safety checks	•Create a mechanism for conducting safety checks and keeping tabs after improvements have been made	
sites		3) Introduce risk assessment	Carry out priority tasks at the construction site and perform the tasks in other areas, too	
		Promoting the "development of human resources strong in safety"	Reconstruct the safety education system and carry out educational and enlightening activities based on the reconstructed system	
Overseas business sites	(1) Work-related accidents * Reduce the occurrence of accidents by 50%	1) Carry out monitoring activities	Continue monitoring activities	
		2) Conduct fact-finding surveys and auditing	Conduct fact-finding surveys (2004-2006) Conduct periodical auditing (from 2007 onward)	
	(2) Zero equipment-related accidents	3) Enhancement of intrinsic safety of equipment	•Apply Sekisui Chemical Group's Equipment Safety Design Standards system overseas (from 2007 onward	

<sup>\*2</sup> The calculation method of loss was reviewed and changed Before the review: the cost of work-related accidents and damage to equipment plus the amount of losses of man-hours due to work-related accidents. After the review: the cost of the steps taken to cope with accidents during commutation and long absences, and the amount of lost man-hours due to these accidents and damage are added to the amount of the cost calculated by the method before the review.

#### **Examples from Each Division Company's Initiatives**

## Health, safety, and accident-prevention activities at production plants and construction sites

#### **Housing Company**

#### Wind and Flood Damage Response Manual compiled

Housing Company interviewed employees about the knowledge and expertise they have acquired through their experiences in dealing with wind and flood damage in the past and organized the information into the Wind and Flood Damage Response Manual.

Incidents of large-scale damage caused by typhoons and torrential rains have occurred in numerous regions in recent years. Various research into the causes of such damage is being conducted, and the least we can do is to prepare for the occurrence of natural disasters. which are often unpredictable, and take measures to minimize damage in the event that one does occur. We believe that rapid and appropriate action immediately after the occurrence of a natural disaster will provide a significant sense of security to customers living in houses constructed by Sekisui Heim and Sekisui Two-U Home.



Wind and Flood Damage Response Manual

#### Urban Infrastructure & Environmental Products Company

#### Plant manager conducts Safety Tour Stamp Rally

Executives and managers at Sekisui Chemical's Shiga-Ritto Plant conducted a safety tour stamp rally starting in July 2005 to spread an atmosphere of safety and security throughout the plant by leaving evidence of their visits at worksites.

Managers toured the plant, pointing out any unsafe conduct or conditions they noticed and providing guidance on improvement measures. By communicating directly with employees in the workplace, managers can oversee and provide guidance on more reliable and effective safety measures.

In fiscal 2005, the stamp rally was conducted at 10 production lines. The program will be extended to back-office divisions such as logistics in fiscal 2006, bringing the total number of sites to 16.

#### Performance (fiscal 2005) (Number of times) 900 712 661 263 300

**Monthly Safety Tour Stamp Rally** 

Jul. Aug. Sep. Oct. Nov. Dec. Jan. Feb. Mar.

#### **High Performance Plastics Company**

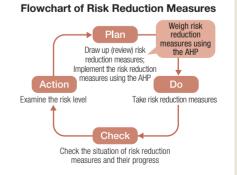
### Analytic Hierarchy Process employed to reduce risks

Sekisui Chemical's Shiga-Minakuchi Plant has employed the analytic hierarchy process (AHP)\* since fiscal 2003 to reduce risks (workrelated accidents, equipment-related accidents, and environmental risks). The plant is promoting across-the-board risk reduction not just theoretically, but is taking specific risk-reduction measures based on rankings of risks.

As a result of these activities, if the risk level in fiscal 2003 when the AHP was introduced is used as a benchmark of 100, the risk level at the end of fiscal 2005 had dropped to 38.

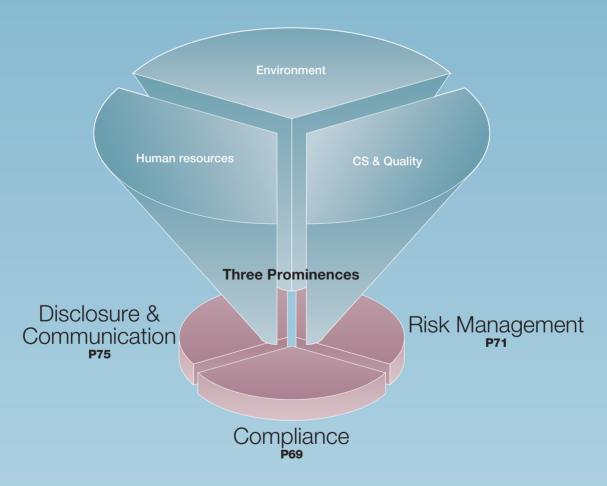
In addition, we presented a risk assessment model developed by Sekisui Chemical at the 2005 conference of the Portland International Center for Management and Engineering Technology (PICMET).

The analytic hierarchy process is a branching decision-making and process analysis method that uses mathematical engineering and psychology proposed by Thomas Saaty in the 1970s.



# Foundation of CSR Management

Introducing the "three attitudes of sincerity" that form the basis of Sekisui Chemical Group's CSR Efforts



#### **Compliance-oriented Management**

## To move forward as a sustainable company trusted by all members of society, we are continuing to build a framework and conduct employee training to foster sound corporate management

#### Basic philosophy and promotion system

In March 2003, Sekisui Chemical Group decided to adopt compliance as an essential component of CSR management and declared that it would promote compliance-oriented management. This compliance-oriented management involves not only complying with laws and regulations, but with corporate ethics and international business rules as well.

Since then, we have been striving to develop a compliance regime with the goal of becoming a company trusted by all members of society, in which honesty and integrity are the guiding principles for every employee. The objectives are to raise employee awareness of compliance issues, prevent potential problems, and introduce education and training programs that develop a compliance-oriented workplace culture.

In April 2003, Sekisui Chemical Group set up Compliance Committee to ensure the successful introduction of complianceoriented management. Compliance Committee, which convenes twice a year, is responsible for:

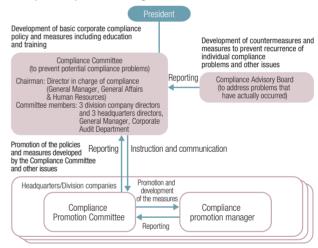
- (1) Establishing the basic corporate compliance policy,
- (2) Discussing, determining and monitoring the progress of compliance action plans, and
- (3) Determining policies and countermeasures regarding major company-wide compliance issues.

The policies and measures decided by Compliance Committee are initially communicated to the compliance promotion manager at each operations site through Compliance Promotion Committee set up within each division company and headquarters, and are then promulgated throughout Sekisui Chemical Group.

In addition to Compliance Committee, Compliance Advisory Board is in place to discuss countermeasures and measures to prevent recurrence in the event a compliance problem actually takes place.



#### Compliance promotion regime



#### Development of a compliance-oriented culture

In November 2003, Sekisui Chemical Group developed a "Compliance Manual" and distributed it to all Group employees (including employees of affiliated companies and temporary staff) to help individual employees comply with laws, regulations, rules and corporate ethics.

The company is also holding compliance seminars and conducting biannual monitoring surveys to check the compliance status in each department toward raising employee awareness of this issue.

#### Compliance Manual

The "Compliance Manual" highlights 20 items involving laws, regulations and rules that must be followed in four main areas: (1) relationships with society, (2) relationships with customers, business partners and competitors, (3) relationships with employees and (4) relationships with the company and company assets.

The manual provides a Q&A section for each item to help employees understand the issues. The guidance

includes references to S.C.A.N. (p. 70) that has been set up as a company office contact that employees can consult to prevent compliance problems from occurring. We plan to continuously improve the manual through ongoing content review and revision.



## Compliance training tailored to employee grade and subject matter

Compliance training consists of three basic categories: (1) Regular seminars for specific employee groups, (2) Ongoing seminars for all employees and (3) Seminars on individual laws, regulations and incidents.

These seminars are organized according to employee grade and subject matter and conducted according to a yearly schedule.

#### Compliance seminars in 2005

Description	Number of participants
Regular seminars for specific employee groups	
<ul> <li>Sekisui Chemical Group Directors Seminar</li> </ul>	160
<ul> <li>Newly Appointed Key Staff Seminar</li> </ul>	120
<ul> <li>New Recruits Compliance Seminar</li> </ul>	50
Ongoing seminars for all employees	
E-learning Course	5,020
Seminars on individual laws, regulations and incidents	
Antitrust Law Seminar	210
Subcontracting Law Seminar	100
House Construction Contract Seminar	20
<ul> <li>Seminar for People Involved in Overseas Operations</li> </ul>	40
Other seminars are held as needed	100

#### Implementing an e-learning course

Sekisui Chemical Group posts on its intranet compliancerelated questions for Group employees to answer as a part of their compliance training.

These questions are based on the 20 items identified in the

Compliance Manual. All employees of Sekisui Chemical Group are instructed to complete the questions although some questions may not relate directly to every employee's scope of responsibility.

This e-learning course was conducted over four sessions in 2006, in March, April, May and July.

## Biannual monitoring of activity status at each business site

To follow-up the circulation of the Compliance Manual, we conduct monitoring surveys across Sekisui Chemical Group. The purpose of these biannual surveys is to assess the status of implementation and the achievements of the critical agenda (priority measures to prevent legal violations) prescribed for each department and group company.

We also plan to develop a way for Sekisui Chemical Group employees to conduct self-assessments on compliance using e-learning methods.

#### Results of monitoring survey conducted in October 2005

Self evaluation	Headquarters	Company	Affiliates	Total
Excellent	8	11	21	40 (17.3%)
Sufficient	17	38	99	154 (66.7%)
Borderline	0	6	25	31 (13.4%)
Insufficient	0	1	4	5 ( 2.2%)
Poor	0	0	1	1 ( 0.4%)
Total	25	56	150	231

<sup>\*</sup> Results of self-assessments on the implementation status of the critical compliance agenda in the first half of fiscal 2005 as selected by each workplace and group company during the previous monitoring survey.

#### Development of S.C.A.N.—whistleblowing program

In March 2002, Sekisui Chemical Group developed S.C.A.N. (Sekisui Compliance Assist Network) to prevent employees from violating laws, rules and corporate ethics. This program went a step ahead of the Whistleblower Protection Act enforced in fiscal 2005.

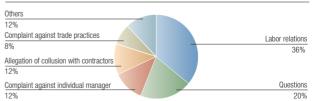
The fiscal 2004 revision of the system included formally prescribing in the internal rules "protection for whistleblowers" and "the confidentiality obligations on employees who become privy to information provided by such persons." Furthermore, employees can now consult with external lawyers' offices (one each for Tokyo and Osaka), as well as the company's internal S.C.A.N. Office. Employees can now anonymously contact an external lawyers' office. Notification and consultation is also accepted via e-mail. S.C.A.N. guidelines are displayed on the screen to promote their use in keeping with employee requirements.

In future, we will disseminate a system using the Group newsletters and the Group intranet as well as sending guidance via e-mail to Group employees.

#### Mechanism of S.C.A.N.



### Reported irregularities by category (cumulative total of 2002~2005)



#### Risk Management

## Recognizing the various risks associated with corporate management, we have implemented both preventative measures and procedures to mitigate after-effects of unexpected events

#### Consolidation of a risk management system

In October 2000, Sekisui Chemical Group prepared a report, "Current State of Risk Management and Associated Problems" and established a management system for each of the three risk categories: management risk, accident/disaster risk and social

Subsequently, a series of major disasters, terrorist incidents, corporate scandals, etc., encouraged us to reinforce our risk management procedures resulting in the preparation in March 2004 of a booklet "Sekisui Chemical Group Risk Management Guidelines 2004." This publication consists of Basic Rules for Dealing with Emergencies and an Emergency Response Manual, covering such potential emergencies as natural disasters, fire and explosions, environmental pollution, product-related issues, intimidation and crime, information-related incidents and overseas incidents. Copies of the booklet were distributed to key staff members of the Group to ensure everyone knew and understood the content.

#### Efforts in fiscal 2005

In fiscal 2005 we focused our efforts on information security such as antivirus measures and reinforced PC control to protect personal information while implementing measures to address concerns about asbestos, which is contained in products and major business sites of Sekisui Chemical Group.

In addition, we worked to ensure fast and accurate communication to top management in the event of emergencies by revising our emergency contact network. We also continued our efforts to communicate and establish the "Sekisui Chemical Group Risk Management Guidelines 2004" across the entire Group.

#### **Future Tasks**

In the future, we will revise the "Risk Management Guidelines" and better tailor them to actual situations by collecting information and feedback on the guidelines.

We also plan to build and establish a framework for implementing risk management measures as well as strengthening our responsiveness to the media, including mass media channels.

In addition, we will review the three risk categories identified in "Current State of Risk Management and Associated Problems" considering such factors as degree of impact, and possibility of occurrence, while incorporating new risks associated with the handling of personal information or overseas business development. The Business Continuity Plan (BCP) particularly needs to be reviewed to cover a broader supply chain, including materials and components suppliers and subcontractors. In fiscal 2006, we plan to begin setting up model business sites.



#### Implementing crisis management training

Risks that companies previously could not foresee have been increasing in recent years. In some cases, failure to adequately respond to crises has seriously damaged the public trust in the companies involved.

Although the primary objectives of crisis management are prognosis and prevention, we recognize the first steps required by a socially responsible company should an emergency occur are appropriate information disclosure and prompt response. Recognizing this, Sekisui Chemical Group stipulated its information disclosure system for

emergencies in the Corporate Information Disclosure Rules established in 2005.

In addition to these rules, crisis management training was conducted for our directors in April 2006 to confirm the actions they should take when faced with a real crisis. Exercises including a simulated press conference were included in the training to prepare for effectively responding to the mass media to ensure prompt and adequate information disclosure in the event of an crisis.

# Implementation of information security measures

Since fiscal 2004, Sekisui Chemical Group has been implementing measures such as introducing IT asset management software solutions and using electronic employee ID cards to authenticate login to PC or network access as a part of our risk management.

In fiscal 2005, we conducted monitoring surveys with an emphasis on thorough implementation and penetration of these measures. In addition, the "Security Action Guideline" for employee compliance was established in April 2005.

### Major security measures

We implemented measures to protect against viruses and the leakage of information including personal information under a policy of thoroughly implementing visual, easy-to-understand instructions.

In concrete terms, we ensured the introduction of the designated software solutions (antivirus measures and asset management) for PCs and mandated the installation of anti-theft cables and locks for PCs that contain personal or confidential information. These steps were taken for all PCs in

Housing Company that handles personal information associated with their customers.

In addition, security education for employees was reinforced to utilize the previously established elearning system.



PC lock

# Internal auditing of information security

To confirm these measures are fully implemented and managed according to the Security Action Guideline, an internal auditing of information security was initiated in the second half of fiscal 2005.

During fiscal 2005, the auditing was conducted in 13 major affiliated companies in Japan and 8 Chinese affiliated companies as part of our global response, followed by recommendations for problem solving and monitoring to make sure these measures are sufficiently implemented. Through these times of auditing we will maintain and continuously improve the security management system we established.

In fiscal 2006, we will not only continue auditing in Chinese subsidiary companies but also expand their usage to other business sites, mainly in Western countries and Europe.

## Response to Winny problem

Starting from the end of fiscal 2005, Winny (a peer-to-peer file-sharing program) repeatedly caused information leaks and generated public concern. In response, we have improved the measures in our Security Action Guideline measures to reach outside the division company, including the safe use of mobile terminals and PCs used at home.

In addition, we have introduced a monitoring system called SmileStat (see column below) to reinforce internal controls as well as to track the cause of a problem.

#### Eradicating viruses through network visualization

As a prime security action, Sekisui Chemical Group has been working to establish a system for strictly controlling information on personnel by introducing such tools as electronic employee ID cards across the Group. We have also implemented office entry/exit control using electronic locks in major operating sites as well as both PC control using PC locks for physical security, and network access control through login certification and firewall protection against unauthorized access for system security.

From the system logs, recorded through these measures, we can view who and how the PCs on the network are used.

Therefore in fiscal 2005, we introduced SmileStat, a network monitoring system that allows tracing information on personnel, physical security and system security.

#### Two kinds of visualization through SmileStat

SmileStat features two visualization functions: one function automatically detects virus infection and network anomalies, while the other reveals who is accessing the network, from where and how frequently.

These two kinds of visualization allow us to more quickly solve the security-related problems and understand the level of IT utilization.

### Antivirus measures through visualization

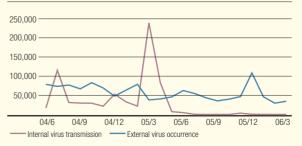
SmileStat is especially effective as an antivirus measure.

Being able to visualize the PCs connected to the network and their users has enabled prompt problem slolving.

Since monitoring of the Group network started in April 2005, incidences of virus infections have dropped sharply, to nearly zero in June, and it has been close to zero up to the present (see graph below).

SmileStat can detect and visualize the malicious filesharing software and unknown viruses that might attack us in the future, therefore we can take prompt action against them. We are convinced that SmileStat will significantly contribute to our risk management.

#### Number of internal virus transmission and external occurrence



# Report on response to asbestos concerns

As a natural resource that exhibits outstanding resistance to water and fire, asbestos was previously used in reinforced cement and plastics used primarily for building materials. However, as symptoms of health hazards, including lung asbestosis and malignant mesotheliomas, have appeared dozens of years after exposure to asbestos, the impact of asbestos on the general public living in the vicinity as well as on employees has recently become an object of grave public concern.

In the past, Sekisui Chemical Group also produced and sold products—mainly building components—that contained asbestos.

Therefore, Sekisui Chemical Group has been advancing the following actions to address asbestos concerns. Currently there is no process that uses asbestos to produce products or components in Sekisui Chemical Group

#### **Kev actions**

- (1) Disclosing the sales period and characteristics of asbestos-containing products, etc.
- (2) Providing notification of the use of asbestos-containing components to the customers who purchased Sekisui Heim or Sekisui Two-U Home as well as responding to customer inquiries
- (3) Providing construction contractors and partner companies with information on how to handle asbestos-containing products of Sekisui Chemical Group
- (4) Carrying out health surveys and medical examinations for employees, including retirees, who handled asbestoscontaining products in the past
- (5) Surveying the status of asbestos use in the building of business sites and removing sprayed asbestos

### Asbestos-containing products and products with asbestos-containing components

The following table shows the asbestos-containing products and products with asbestos-containing components.

Having been incorporated into cement or plastic or covered with mortar or other materials after installation, the asbestos in these products will not be released through normal use

#### Impact on the area surrounding the plants

There has been no reported impact on the environment or public health due to asbestos in the areas surrounding Sekisui Chemical Group plants, including plants that have already been closed.

Within Sekisui Chemical Group, asbestos was handled in plant buildings accompanied with dispersal prevention measures. Based on the statements of employees who handled asbestos, we believe that dispersal into surrounding areas is very unlikely.

#### Status of the use of asbestos-containing building material in the housing business

As companies engaged in the house production and sales business, Sekisui Heim and Sekisui Two-U Home previously used asbestos-containing components, which were primarily incorporated into outer walls, fireproofed kitchen walls, bathroom walls and roof tiles. During normal use, the asbestos content is not released into the air or associated with any health hazard.

However, a tiny amount of asbestos can be dispersed when these asbestos-containing components are exposed during renovation work. In addition, depending on how building structures are handled, their dismantling or disposal may shake loose asbestos from exposed surfaces, and as a result this kind of work must be done in compliance with public regulations, such as the Asbestos Disorder Prevention Rules (Ministry of Health, Labor and Welfare) and Technical Guideline on Handling Asbestos that Can Be Dispersed (Ministry of the Environment). Therefore, we encourage anyone involved in processing or demolishing Sekisui Heim or Sekisui Two-U Home to contact Sekisui Chemical Group's Customer Support Room through our website or other means.

#### Asbestos-containing products and plants that produced them

Business sites	Product name	Intended use	Production period	Type of asbestos (content ratio)
Shiga Minakuchi Plant	Oil sealant	Caulking agent	1961-1993	White asbestos (1.5%)
Sekisui Chemical Co., Ltd.	Drain tight, joiner W	Adhesive for engineering	1965-1993	White asbestos (33-58%)
	Youtile	Vinyl chloride flooring	1963-1971	White asbestos (not known)
Okayama Sekisui	Asbale	Inner wall material	1970-1994	White asbestos (10%)
Industry Co., Ltd.	Sekisui Roof Tile U Sekisui Roof Tile CITY	Residential roof tile	1975-1990	White asbestos (10-15%) Brown asbestos (0.7%)

#### Products with asbestos-containing components

Product name (component using asbestos)	Intended use	Sales period	Type of asbestos (content ratio)
NS fittings (packing)	Fittings for HTLP (high-temperature hard vinyl chloride lining steel pipe)	1982-1992	White asbestos (75%)
UX fittings (packing)	Fittings for HTLP (high-temperature hard vinyl chloride lining steel pipe)	1992-1995	White asbestos (75%)
Plastic sash (attached insulation)	Plastic window frame for reinforced concrete building	1984-1998	White asbestos (99%)
Electric water heater (packing at piping connections)	Residential hot-water supply equipment	1972-2004	White asbestos (67-85%)

<sup>\*</sup> Typical types of asbestos used in Japan include white asbestos (chrysotile) of the serpentine family and blue asbestos (crocidolite) and brown asbestos (amosite) of the amphibole family In 1995, production and use of products that contained highly harmful blue asbestos and brown asbestos were prohibited. In 2004, other types of asbestos were also banned with

#### Notification letters sent to individual customers who purchased our houses

In order to increase the sense of security of those living in houses we have sold, we sent personal notification letters to inform customers who had purchased their houses from us about the status of asbestos-containing building materials. These notifications listed such information as the type and location of asbestos-containing building materials and included related drawings. A total of 400,000 personal notice letters have been sent since September 2005.



Notification letter (for individual home owners)

#### Number of inquiries received (July 1 to November 12, 2005)

Content	Number of inquiries
Where is asbestos used?	884
Is asbestos used in glass wool, rock wool or plaster board?	70
How harmful is asbestos?	216 (6)
I want to fix (or have fixed) the house by myself. Is it OK?	37 (1)
I am planning to rebuild or remodel. How should this be handled?	50 (3)
How will you respond to the general public?	15
How will you respond to residents?	65 (2)
How will you respond to employees?	3
I live in housing from Sekisui Heim (or Sekisui Two-U Home). Explain the daily precautions I should take.	96 (16)
I would like to ask about articles I read in Harmonate magazine.	605 (605)
Other inquiries	49 (13)
Total	2090 (646)

Note: Figures in parenthesis represent number of inquiries from customers who contacted us after reading the notification letter, which are included in the total numbers.

# Health survey of employees involved in producing asbestos-containing products

From August to September 2005, Sekisui Chemical Group carried out a health survey of 469 employees (including retirees) who handled asbestos in two business sites (Sekisui Chemical's Shiga-Minakuchi Plant and Okayama Sekisui Industry Co., Ltd.) that formerly produced asbestoscontaining products and provided medical examinations for applicants. As a result, symptoms believed to be associated with asbestos were found in six retirees. As of April 2006, none of them has developed any asbestos-related disease or applied for a Healthcare Notebook.

Other than these cases, we found one former employee of Sekisui Chemical's Osaka Asahi Plant (closed in 1966), which had used asbestos sheet in its molding process, was undergoing mesothelioma treatment. He claimed and was approved for worker's compensation in February 2006. We subsequently conducted a health survey from March to May 2006 of 533 former employees of the plant. Medical examinations are underway for 117 these employees.

We regret to report that one former employee who had been undergoing mesothelioma treatment passed away in April, 2006.

#### Addressing the use of asbestos used in business sites and offices

In order to ensure the safety for our employees, we conducted a survey on asbestos used in our business sites and offices and found sprayed asbestos in seven business sites. We have already completed removal at five business sites, excluding asbestos under roofs or in fully enclosed structures. Removal for the remaining two business sites is scheduled for completion by August 2006. For building materials that contain asbestos in a form that makes dispersal unlikely, we will ensure thorough implementation of asbestos exposure prevention measures during future dismantling or removal operations.

In the offices, we found sprayed asbestos in 11 tenant buildings. However, we confirmed that the asbestos is enclosed or sealed and posed no risk to employee safety.

#### Response to sprayed asbestos in buildings

Business sites	Location and structure	Action			
Shiga-Ritto Plant Sekisui Chemical Co., Ltd.	Above the ceiling of the second floor of the sixth plant	Already removed			
	Beams and pillars of the engineering workshop	Already removed			
Tokyo Plant	Ceiling of the offices on the main building first floor	Already removed			
Sekisui Chemical Co., Ltd.	Above the ceiling of the offices on the first and second floors of the main building	Already enclosed and asbestos concentration in the air is regularly measured			
Musashi Plant Sekisui Chemical Co., Ltd.	Behind the north wall of the foam processing plant	Removal scheduled in August 2006			
Higashinihon Sekisui Industry Co., Ltd.	Above the ceiling of the Heim assembly plant	Already removed			
Chubu Sekisui Industry Co., Ltd.	Hanging firewall of Buildings A and C of the second plant	Already removed			
Kansai Sekisui Industry Co., Ltd.	Above the ceiling of the production office in Building B	Removal scheduled in August 2006			
Shizuoka Plant Sekisui Aqua Systems Co., Ltd.	Upper part of the slate wall in Plant C	Already removed			

# Information Disclosure and Communication

# Sekisui Chemical Group's business activities reflect our policy of providing all stakeholders with ongoing information disclosure and opportunities for communication

### Establishment of information disclosure system

Sekisui Chemical Group recognizes the importance of adequate, proactive information disclosure and two-way communication based on this disclosure for promoting mutual understanding and developing trusting relationships with all

Our Information Disclosure Principles were clearly stated in December 2005 as a group-wide guideline for putting this concept into practice. In addition, such basic items as the concrete content to be disclosed and the framework for disclosure were stipulated in the Information Disclosure Rules in order to construct an internal framework for information disclosure

Starting in fiscal 2006, Information Liaison Meetings have been convened by persons responsible for company information liaison at individual workplace to ensure these principles are thoroughly understood and that information is actively disclosed. Through these efforts, we are working to disclose information on Sekisui Chemical Group's business activities in a timely, adequate, fair and easy-to-understand

#### Promotion of communication with stakeholders

Sekisui Chemical Group strives to deepen mutual understanding and develop trusting relationships with stakeholders through efficient communication. To this end, we have been creating a variety of opportunities to communicate interactively with each group of stakeholders.

As a part of these efforts in fiscal 2005, we set up a forum for exchanging opinions with employees. Sekisui Chemical Group's approach to CSR was explained and employees freely expressed their thoughts on past activities.

In addition, Sekisui Chemical's Shiga-Minakuchi Plant invited local residents to its first environmental forum.

In regard to Housing Company, executives visited customers' houses for Customer and Top (CAT) Meetings to learn first hand how customers feel about Sekisui Heim or Sekisui Two-U Home.

We also exchange opinions and promote mutual understanding with labor unions, sales agents, CSR experts, external enterprises, and others as needed.

#### Contact offices communicating with various stakeholders

Stakeholders	Main stakeholder-related functions	Means of dialog and information disclosure, philosophy and examples of dealing with stakeholders
Customers and business connections	CS & Quality Management Department	Use of customer feedback in product development
Shareholders/ investors	Corporate Communication Department	Annual report, statements of operations, briefing sessions, visits to investors
Employees	General Affairs & Human Resources Department	Management advisory panel, employee attitude surveys, Intranet, Group bulletin
Local communities	Business sites Environmental Management Department	Participation in community activities, plant tours, participation in cleanups, nature conservation activities, environmental site report
Global environment	Environmental Management Department	Environment-friendly business activities, reducing environmental burdens through products and business activities
Government and municipal offices, public administration	Corporate Communication Department	Council, committee activities, personal calls
Education/Research institutions	R&D Technology Center	Joint research, joint grants
NPO/NGO	Environmental Management Department	Support for environmental NGO activities through Keidanren Nature Conservation Fund, cooperation with local nature conservation activities
General public	Corporate Communication Department	News releases, mass-media advertisements, websites, pamphlets, exhibitions



Exchanging opinions with employees Meeting with the President: The Path to a Premium Company'



Dialog session with labor union

# Feedback on the past information disclosure into the Group

Sekisui Chemical Group believes that information disclosure cannot be only in one direction, but must develop into two-way communication.

Therefore, we are working to build a framework for actively gathering stakeholder responses to disclosed information so that we can incorporate their feedback into our business activities.

For example, Corporate Communication Department, the contact office for the general public, compiles monthly reports on how Sekisui Chemical Group was covered in newspapers and magazines, the perspectives of reporters, analyst responses and the content of analyst reports, etc., and submits these reports to executives and project managers as feedback into business activities.



# Communication with stakeholders: Shiga-Minakuchi Plant Environmental Forum

An environmental forum was held at Sekisui Chemical's Shiga-Minakuchi Plant in April 2006 under the title, "Thinking together about our environment."

The plant mainly manufactures products that contribute to the saving of energy, including solar control interlayer films, although some products using comparatively high levels of energy are also manufactured there. The plant has been actively explaining its environmental impact and activities to local residents. The environmental forum was held to encourage greater understanding of the plant's environmental efforts as well as to think together with the community about a sustainable society.

For this reason, the plant invited a large number of stakeholders, including local government officials and representatives of educational institutions as well as community residents, the prefectural assembly members and business partners.

The forum included presentations on Sekisui Chemical Group's environmental and social activities, a keynote speech on the regional environment and a sustainable society by the head of the Lake Biwa Environmental Research Institute of Shiga Prefecture, explanations of the products and environmental efforts of Shiga-Minakuchi Plant and a plant tour followed by an open discussion.

During the open discussion, Shiga-Minakuchi Plant was highly praised for the environmental friendliness and its efforts to disclose information and it was asked to further promote environmental efforts as a leader in the local community.

At the same time, there was a lively discussion about local community challenges, including statements on the

importance of facing these challenges and building a trusting relationship to tackle them together along with a call for initiatives that integrate the efforts of industry, government and academia.

Sekisui Chemical Group is planning to hold similar forums at other business sites using the model of Shiga-Minakuchi Plant.



Keynote speech by Masaaki Naito, the head of the Lake Biwa Environmental Research Institute of Shiga Prefecture



Open discussion session



Presentation on the environmental efforts of Shiga-Minakuchi Plant



Commemorative photo of participants, including plant employees

# Foundation of CSR Management

#### Communication with stakeholders: Management briefing for shareholders and individual investors

In November 2005, Sekisui Chemical held a management briefing in Tokyo for shareholders and individual investors. The session was attended by about 260 people.

We had in the past held results briefings for institutional investors, but had never provided briefings on Sekisui Chemical Group's management for individual investors.

The November briefing included a slide presentation on management policy and a business summary followed by a discussion, where shareholders and investors expressed their opinions on the stock price and asked questions about such issues as the dividend distribution policy, management policy, and the results of the term.

Through a post-briefing questionnaire survey, we received a variety of comments, including critical opinions as well as supportive messages to Sekisui Chemical

Group, which demonstrated strong interest in the business of Sekisui Chemical Group.

A briefing for individual investors is also scheduled in fiscal 2006. Beyond the information we disclose on our website, we will continue to set up forums for direct communication with our investors.





the briefing

Director in charge of IR summarizes business activities

#### Communication with stakeholders: CAT (Customer and Top) Meeting

Since November 2005, in an effort to be No.1 in customer satisfaction in the housing industry, Housing Company has been listening to firsthand opinions of customers who live in Sekisui Heim or Sekisui Two-U Home in order to raise the overall level of its services, from initial negotiation with customers through after-sale service.

During these CAT (Customer and Top) Meetings, the division company president and directors or senior managers of nationwide housing sales companies and branch offices deepen their dialogs with customers through personal calls or group gatherings. Under the slogan, "we take customer opinions as the seed for manufacturing development," top executives listen to

At CAT Meetings, we receive customer feedback not only on product information and construction quality but also on future product development and overall management. The company will exert its best efforts to incorporate these opinions in its management to offer

environment-friendly houses that can be lived in safely and comfortably for at least 60 years.



Gathering opinions at a CAT Meeting

#### Communication with stakeholders: Briefing and discussion with employees on the Sekisui Chemical Group's environmental and social activities

Briefings and discussions on the Sekisui Chemical Group's environmental and social activities were held from November 2005 through February 2006 so that employees could fully learn the approach and measures of the Group's environmental and social activities as well as offer their comments and views.

Sessions were held at 13 locations nationwide, mainly sales departments, with the participation of more than 600 employees in total. In Tokyo and Osaka headquarters, discussions with 300 female employees including temporary staff were held along with a questionnaire survey on creating a better work environment.

Typical comments from the participating employees included, "It helped me learn about the efforts of the entire group that I had not had the opportunity to hear about before," and "This prompted me to think about my own position and job."

In fiscal 2006, we will continue holding briefings and discussions with an expanded scope and involving participants at many levels. Results of the questionnaire will be posted on the intranet and frequently expressed concerns will be addressed during and after fiscal 2006.







Briefings and discussions with employees

### Communication with stakeholders: "Meeting with the President: The Path to a Premium Company"

Every year since fiscal 2002, the president has personally visited workplaces to communicate his vision as well as to listen to the opinions and suggestions of employees.

In fiscal 2005, a total of eight meetings were held under the title, "Meeting with the President: The Path to a Premium Company," to discuss what could be done to make the company a blue-chip corporation with an operating income ratio in excess of 10%.

Each of the three division companies—Housing, Urban Infrastructure & Environmental Products, and High Performance Plastics—held discussions under the themes of "The division company we want to be," and "What we should do to realize this." Each session gathered about 20 people by accepting applications from all group companies.

Participating employees, many in their thirties, represented diverse positions and career paths. They engaged in a lively discussion with the top management regarding the problems they face in daily business as well as their solutions.

Detailed content of the sessions, including past results, is posted on the intranet, which our employees can view anytime. This not only serves as information disclosure for all employees but also provides employees with clues for solving problems at their workplaces and helps to increase the number of employees who wish to participate in future discussions.

These sessions are also precious opportunities for the top management to have conversations with employees who are in front-line jobs. Opinions presented in these sessions were beneficial for developing the new Midterm Management Vision, GS21-Go! Frontier, which started in fiscal 2006.



A scene from a discussion





Presentation on a "Premium Plant" at a business site where a session was held

## External evaluation of our activities

We received the following external evaluations for our various involvements and communication activities.

#### Major recognition

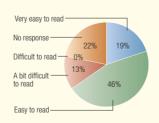
- Awarded Sustainability Reporting Award, at the Green Reporting Award (jointly presented by Green Reporting Forum and Toyo Keizai Inc.) for our Environmental & Social Report 2005
- Awarded Excellent Environmental Report Award at the Environmental Communication Awards (presented by The Global Environmental Forum) for our Environmental & Social Report 2005
- Rated AA in the Tohmatsu Environmental Rating by the Tohmatsu Evaluation and Certification Organization
- Incorporated in these Socially Responsible Investment (SRI) Indices:

Morningstar Socially Responsible Investment FTSE4Good Global Index

#### Results of the questionnaire on the Environmental & Social Report 2005

We received feedback from 46 readers of our Environmental & Social Report 2005. We drew upon these opinions to make this year's report.

#### How easy is the "Environmental & Social Report 2005" to read?



### Opinions received

#### Items that were easy to read:

- Environment-friendly Products—Serving the Environment through our Products
- CSR of Sekisui Chemical Group
- From pollution control to environmental protection, then to environmental corporat management

#### Items that were difficult to read:

- Midterm Environmental Plan "Step-2005" and its Progress
- · Environmental Accounting

#### Items necessary for CSR:

- Compliance-oriented Management
- Risk Management
   Sekisui Chemical's Activities for Nature Conservation

# **Activities for Nature Conservation**

# Each Sekisui Chemical Group company is cooperating with NPOs and NGOs to preserve the natural environment and educate the next generation

# Local community contribution activities through nature conservation

Sekisui Chemical Group identified three areas of effort for becoming an Environmentally Creative Organization: Social Contribution in Environmental Areas. Environment-friendly Business Activities, and Serving the Environment through our Products. Recognizing that community-based nature conservation activities are an important part of our CSR activities, we are working to create a culture and climate of caring for the environment through the volunteer participation of individual employees.

Therefore, we organized the Nature Conservation Action Committee to promote understanding and to encourage participation in these activities. In addition, we plan to expand our nature conservation efforts by providing support and collaborating with NPOs and NGOs involved in nature conservation activities.

### Observing wild birds in winter with children from the community (Shikoku Sekisui Industry Co., Ltd.)

Sekisui Nature Study Course (see p. 26), which develops leadership for nature conservation activities, not only educates employees on the importance of nature but also provides opportunities for actually contributing to the community. As a part of these efforts, Shikoku Sekisui Industry Co., Ltd., based in Saijo City, Ehime Prefecture, invited children from the community to enjoy bird-watching in February 2006.

Blessed with a rich natural environment, people from the community of Saijo City can enjoy close contact with nature in their daily lives. This event was organized with plant employees serving as teachers providing personal contact in the hope that children would deepen their appreciation of nature through watching familiar wildlife.

On the day of the event, 21 pupils in the neighborhood of the plant were invited, with the cooperation and support of the local government and board of education, along with the participation of 21 employees who had practiced working with children. They observed the behavior of birds along with the children. For lunch after the tour, local ingredients were used to learn about produce grown locally.

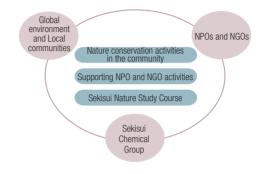
We will continue these kinds of efforts to build up trusting relations as a company that has a face in the community.



Children watching ducks



Listening to a story of wild birds' migration



We will continue to provide opportunities that help children from the community experience the wonder of nature

We had previously experienced a program that Sekisui Nature Study Course had organized at a different plant. Impressed with the innocence of the children who are curious about everything, we had so much fun with them, at that time, we completely forgot this was a company event. Later when our boss said I would



Tomohiro Ito (left). Yohei Yamaguchi (right) CS Management, Planning & Control Department, Shikoku Sekisui Industry Co., Ltd.

also like to have Sekisui Nature

Study Course at Shikoku Sekisui, we volunteered to be on the planning team. We hoped that participants would experience the same fun we had and that children of the community would feel the wonder of nature around them.

We cleaned up a field during the preparation stage at the same time we were visiting the environment division of the city government, the board of education and the local primary school to explain the plan and ask for their participation. Thanks to the support of the board of education, school teachers and parents were won over to the project and brought a large number of children on the day of the event.

The children were a bit nervous at first but smiled, full of wonder, when they started to to look for ducks with the field glasses. Watching them brought back the joy I had felt at the previous event.

At the end of the event, a primary school teacher asked us to hold another similar event, which made us realize "we made it!" We were very happy. Now we are envisioning holding the next project while participated in a local outdoor school that is held once a month.

# Other activities involving experiencing nature with children from the community (fiscal 2005)

- · Watching wintering birds at the Sea of Birds (Higashinihon Sekisui Industry Co., Ltd. at Watari-Cho, Miyagi
- Sea turtle watching at the Omotehama seashore (Chubu Sekisui Industry Co., Ltd. at Toyohashi City, Aichi Prefecture) and others.

#### Creating an onsite copse: Sekisui Chemical Gunma Plant

Sekisui Chemical Group owns a large number of production sites in many parts of the country. Of these sites, those with extensive property holdings have been utilizing their land to preserve the area's natural environment and ecosystem.

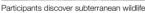
For example, Sekisui Chemical's Gunma Plant at Isezaki City, Gunma Prefecture, has a 250 m by 20 m forest at the northeast part of its property. The plant started a project to make the woods a place where both employees and community residents could get close to nature.

Sekisui Nature Study Course, held at the plant in May 2005. encouraged the project to create a bright copse while promoting preservation of the woods.

During the two-day session, participants thinned the woods under the guidance of an NPO and invited 19 children from the local Shimofuchina-6 Youth Development Association. They enjoyed talking and playing in the woods, including such activities as searching for subterranean wildlife, tree climbing, and lying in hammocks.

We plan to develop this project into a preservation activity to make the woods a bright copse filled with wildlife through the cooperation of all plant employees. In addition, we hope to stimulate exchanges with local residents through creating the copse and developing project activities that contribute to the global environment and the local community.







"Let's plant trees

#### Restoring Tanada (graded rice fields) — ricefarming agriculture

Tokyo Headquarters Family Nature Study Course Sekisui Chemical Group has also started nature conservation activities at business sites where there has been little opportunity for directly experiencing nature as well as those in the heart of natural environments.

In fiscal 2005, for example, Tokyo headquarters held a series of activities named "Tokyo Headquarters Family Nature Study Course: Restoring Tanada—Rice-farming Activities" in a satoyama (semi-natural ecosystem) in Tochigi Prefecture. The project consisted of three sessions.

Employees of the Group and their families participated in rice planting, weeding and rice harvesting, a continuous series of activities, not just a one-time task, with the guidance and cooperation of an environmental NPO. By participating in all these activities during the course of growing rice, they were able to learn about natural cycles, the growth of life and the preciousness of food, which is almost forgotten in everyday life.

We will continue this project to help Group employees raise their awareness of environmental issues.



Rice planting (May)



Presentation on the rice paddy activities

#### Other activities for protecting an area's nature (fiscal 2005)

- Participation in beech planting activities with a local NPO (Higashinihon Sekisui Industry Co., Ltd., at the foot of Minami Zao, Mivagi Prefecture)
- · Creating a copse on the sloped woods of the plant (Sekisui Chemical Tokyo Plant in Asaka City, Saitama Prefecture)
- Development of Sekisui-no-Mori (Sekisui Woods) in a municipal
- (Tokuyama Sekisui Industry Co., Ltd., in Shunan City, Yamaguchi Prefecture) • Creating a biotope on the plant site with community participation (Kyushu Sekisui Industry Co., Ltd., in Chiyoda-Cho, Saga

# Supporting the nature conservation activities of NPOs and NGOs

Since 1997, Sekisui Chemical Group has cooperated with a charitable trust, the Keidanren Nature Conservation Fund, to support activities including aid for foreign and Japanese environmental NGO-administered nature conservation projects at home and abroad. Apart from our support for a total 57 projects, one employee of Sekisui Chemical has been assigned to the Nippon Keidanren Committee on Nature Conservation since March 1997 to support nature conservation activities.

The president of Sekisui Chemical Co., Ltd., who currently serves as chairman of the committee, has actively participated in observation trips for overseas nature conservation projects, international symposiums involving nature conservation organizations, and workshops organized by NGOs.

We also hold regular reporting sessions within the company on the status of activities of NGOs we support, while many of our employees are deepening their interest in environmental issues by participating in exchange meetings between businesses and NGOs, international nature conservation conferences, and NGO project sites.



Prefecture) and others

regeneration site in



Children gathered at the Conference in Uganda



Employees and forme employees cleaning industrial waste at the foot of Mt. Fuji

#### Examples of supported projects (fiscal 2005)

	Name of project	Name of NGO (country)
Continuing for 3 years	Development of forest diversity restoration model (China)	Green Earth Network (Japan)
Continuing for 4 years	Asian Wetland Initiative (Asia-wide)	Ramsar Center (Japan)
Continuing for 2 years	Proposal of a model combining natural resource management and regional revitalization in the western region of Lake Biwa	Nippon International Cooperation for Community Development (Japan)
Continuing for 2 years	Promotion of eco-tourism in Shiretoko National Park (Japan)	Shiretoko Naturalists' Association (Japan)
New	Project to Help Toki (Nipponia Nippon) return to the wild (Japan)	NPO School of Killifish (Japan)

# Support for Development of Next Generation Technologies and Human Resources

# We provide research grants and educational support for the people who will become the core of the next generation.

### Sekisui Chemical Grant Program for Research on Manufacturing Based on Learning from Nature

Sekisui Chemical Group has been operating Sekisui Chemical Grant Program for Research on Manufacturing Based on Learning from Nature to provide support for universities and research institutions that are researching practical applications of basic scientific knowledge learned from

The grant program started in fiscal 2002 as a part of our 55th anniversary project. In fiscal 2005, we approved and awarded grants to five research proposals out of record 271 applications. We also awarded encouragement prizes to 10 research proposals. The rising number of reapplications and inquiries even prior to a formal public announcement indicates this program has taken root in the academic community.

#### Research proposals awarded grants in 2005

Scientist	Affiliation/Title
Tomokazu Iyoda	Professor, Tokyo Institute of Technology
Tsutomu Yokozawa	Professor, Kanagawa University
Hideki Ishida	Professor, Tohoku University
Hiroshi Imahori	Professor, Kyoto University
Yuzuru Sugita	Professor, Nagoya University

#### Number of applications and grant awardees for the past four years

	Applications	Awardees			
1st year (2002)	124	13			
2nd year (2003)	215	13			
3rd year (2004)	231	14			
4th year (2005)	271	15			

#### Hosting forums

To provide an opportunity for academic interaction, we host forums involving awardees and other researchers involved in related research fields

In October 2005, we hosted a forum at Sekisui Chemical's Kyoto Research & Development Laboratories that was attended by 277 guests from universities, research institutes and business firms.

Keynote speeches were delivered by Mr. Shunji Yamanaka, President of Leading Edge Design, and Professor Takashi Nagao of Kanazawa Institute of Technology. Poster sessions featured awardees in fiscal 2004 and members of Nagoya University's 21st Century COE Program.

### Cooperation with outside organizations and aroups

Cooperation with outside organizations is taking root, including Nagoya University's 21st Century COE Program started in fiscal 2004.

We will provide ongoing support for the development of next-generation technologies and human resources under the philosophy of "Manufacturing starts from nature and people."

#### Key outside partner organizations

- Nagoya University's 21st Century COE Program (Nature-guided Materials Processing)
- Osaka University's 21st Century COE Program (Creation of Integrated Eco Chemistry)
- Doshisha University Biomimetics Research Center
- NPO Japan for Sustainability

#### Information transmission

- Serial advertisement in the science magazine, Newton
- Publication of booklets







Professor Takai of Nagoya University presents his keynote speech

#### Transmitting information to high-school and college students through serial advertisements

Focusing on high-school and college students who are interested in the natural sciences, we have been running advertisements in a science magazine, "Newton," since its July 2004 issue.

Our objective is to publicize Sekisui Chemical Grant Program for Research on Manufacturing Based on Learning from Nature as well as to help readers rediscover the wonder and fun of nature's workings.



Advertisement in "Newton"



"Manufacturing Based on Learning

# Children's Class for House Development as an opportunity to learn about residence

Sekisui Chemical sponsors the Children's Class for House Development, which utilizes integrated study periods or elective courses in middle schools, by providing miniature models of Sekisui Heim.

The goal of the class is to help children learn the basics of residences through planning room arrangements and house miniature models by themselves to solve environmental problems at hand as well as to address issues of barrier-free access and family life based on knowledge learned in school and through diverse experiences.

In fiscal 2005, second graders from Nishihama Municipal Middle School in Chigasaki City and third graders from Kazahaya Municipal Middle School in Kashiwa City participated in the program.

### Participation in the Quest Education Program

From fiscal 2004, Sekisui Chemical Group has participated in the Quest Education Program promoted by the Nihon Keizai Shimbun, with the Children's Class for House Development as the theme.

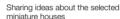
The Quest Education Program aims to help high-school

and middle-school students learn about real-life corporate activities by working on a variety of tasks assigned by sponsor companies. In fiscal 2005, 75 schools and 7 corporations participated in this program.

Teams that had chosen Sekisui Chemical Course were given the task of designing a house that is friendly to the community and the environment. The students came up with many ideas for room arrangements that took advantage of local characteristics or utilized natural energy.

In February 2006, we organized a presentation by the teams whose projects had been selected as excellent.







Presentation by the winning teams

# Interactive environmental communication: ECO Talks

Sekisui Chemical Group participated in Eco-Products 2005, an exhibition of environment-friendly products that was organized in December 2005. In its booth, the Group held an interactive communication event titled, "Let's Talk About Ecology! Eco Talks Between a King and his Old Steward: Which Side Do You Take?"

The program evolved from "Everybody's Eco Proposal: Collecting Environment-friendly Ideas," presented at the previous year's exhibition, into a more interactive style of communication.

At the event, musicians played the roles of the king of the Ecology Republic and his old steward, and raised questions about waste, water and energy through their comical performance. Members of the audience then used flip cards to indicate who they supported, the king or the steward, and why. The session concluded with comments by Doctor Environment, Professor TORI.

The event was a great success and enjoyed the participation of about 300 people representing a wide range of age groups, from primary school children to adults. The content of the event has been recreated on the website of Sekisui Chemical to continue the debate between the king and the steward. The large number of people participating in the discussion on the website also indicates the high level of interest in environmental issues.



Let's Talk About Ecology! Eco Talks http://sekisui.stadiams.jp (In Japanese)



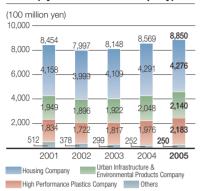
The king and the steward explain their points of view



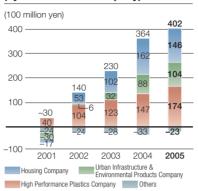
Participants in the Eco Talks

# Management benchmarks (consolidated)

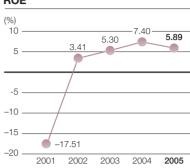
#### Sales (by each division company)



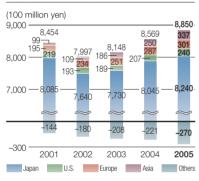
# Operating income (by each division company)



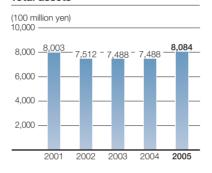
#### ROE



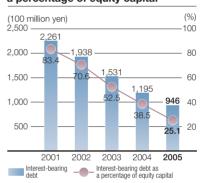
# Composition of sales by geographical segments



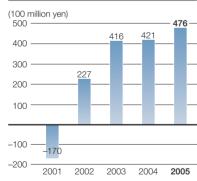
#### **Total assets**



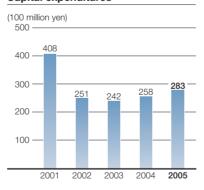
Interest-bearing debt and Interest-bearing debt as a percentage of equity capital



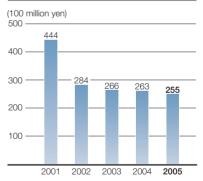
#### Free cash flows



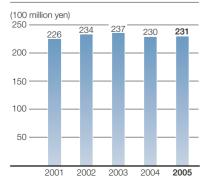
### Capital expenditures



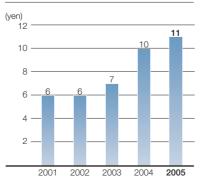
Depreciation and amortization



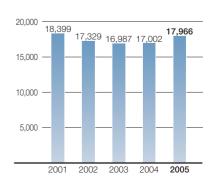
#### R&D costs



#### Annual dividend per share



#### Number of employees



# Scope of the report: coverage of the environmental performance data (in Japan)

#### **Housing Company**

1 company and **R&D** institutes 1 business site

Tsukuba R&D Site

13 companies and 10 business sites Production plants

Tokyo Sekisui Industry Co., Ltd

Kansai Sekisui Industry Co., Ltd.

Sekisui Board Co., Ltd., etc.

54 companies and Sales companies 77 business sites

Sekisui Heim Sales Companies

Construction and Service Companies

68 companies and 88 business sites in total

1 company and **R&D** institutes 1 business site

Kyoto R&D Laboratory

20 companies and 10 business sites **Production plants** 

Shiga-Ritto Plant

Tokvo Plant

Gunma Plant

Sekisui Chemical Hokkaido Co., Ltd.

Okavama Sekisui Industry Co., Ltd., etc.

20 companies and 11 business sites in total

#### **High Performance Plastics Company**

1 company and **R&D** institutes 1 business site

R & D Institutes

11 companies and 12 business sites Production plants

Amagasaki Plant

Musashi Plant

Shiga-Minakuchi Plant

Sekisui Technol Molding Co., Ltd.

Sekisui Film Co., Ltd., etc.

11 companies and 13 business sites in total

#### **Headquarters**

1 company and **R&D** institutes 1 business site

New Business Office Development Center

**Production Plants and** 3 companies and Headquarters 4 business sites

Tokuyama Sekisui Industry Co., Ltd.

Hinomaru Corp.

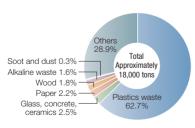
Tokyo Headquarters and Osaka Headquarters

3 companies and 5 business sites in total

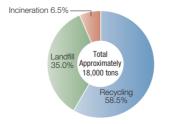
# Fiscal 2005 performance data survey results for overseas business sites

Sekisui Chemical Group is currently moving ahead with globalization of its environmental management. In order to make continuous improvements in areas associated with overseas production, such as environmental impact, we began monitoring the status of environmental activities and performance data on a regular basis, from fiscal 2003. The scope of fiscal 2005 data covers the following 13 business sites (10 business sites in fiscal 2004).

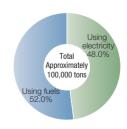
# Volume of waste generated\*1



#### Waste treatment method\*1



#### Amount of CO<sub>2</sub> emissions\*1\*2



<sup>\*1</sup> Objects of summation: Voltek, LLC. (Lawrence Plant), (Coldwater Plant), Sekisui TA Industries, LLC. (California Plant), (Tennessee Plant), Kleerdex Company, LLC., Sekisui S-Lec Mexico S.A. de C.V., SEKISUI S-LEC B.V., Sekisui-Alveo B.V., Sekisui (U.K.) Ltd., Eslon B.V., Thai Sekisui Foam Co., Ltd., SEKISUI S-LEC (THAILAND) CO., LTD., Pilon Plastics Pty. Ltd.
\*2 For CO<sub>2</sub> emission index by energies, indexes provided by the Ministry of the Environment of Japan have been used. For natural gas, data for Japanese city gas 13A has been used.

Total: 99 companies and 117 business sites

<sup>\*</sup> The total number of companies and business sites is different than the total number included in the report because some companies have more than one business site while one business site may belong to multiple companies. Sekisui Chemical Co., Ltd., is included in the company list.

# Environmental accounting (data summation by each division company)

#### Scope of environmental accounting

- (1) Summation period: April 1, 2005 to March 31, 2006
- (2) Scope of summation: 34 target production sites (as listed on p. 84) + 4 R&D institutes + each department of headquarters + back offices of division companies + 27 housing sales companies

#### (3) Principle of summation

- Depreciation amounts are the same as those for financial accounting.
- Investment amounts are based on budget approvals during the summation period.
- Expenditure and investment that contain other than environmental conservation activities are distributed pro-rata by 10% increments.

#### Environmental conservation cost (by each division company)

(million yen)

	Items	Housing C	ompany *1	Urban Infra Environmental Pi	structure & roducts Company	High Perf Plastics	formance Company	Entire Company *2		
Category	Main projects	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment	
1.Within business area	Prevention of air pollution, water contamination, noise	1,187	39	326	53	357	281	1,872	375	
	Prevention of global warming (energy saving)	25	13	27	76	107	129	160	218	
	Waste reduction, recycling, disposal, treatment	4,158	5	485	86	563	55	5,211	186	
2.Up/downstream	URU, Reduction of environmental impact in containers and packaging. Payment difference by Green Purchase	434	0	102	59	52	65	600	124	
3.Administration	Environmental education, EMS maintenance, information disclosure, personnel	1,103	0	293	0	257	20	2,933	20	
4.R&D	Research and development on environmental conservation	45	16	761	20	323	29	1,347	82	
5. Social activities	Contribution to society	48	0	36	0	13	0	108	0	
6.Environmental remediation Restoration of nature		0	0	0	0	10	0	10	0	
Total	7,000	73	2,030	294	1,682	579	12,241	1,005		

ltems	Housing C	ompany *1	Urban Infra Environmental Pr		High Perf Plastics (		Entire Company *2	
ILEHIS	R&D expenditure	Investment	R&D expenditure	Investment	R&D expenditure	Investment	R&D expenditure	Investment
Total amount of R&D costs and investment in the fiscal period (million yen)	4,882*3	4,535	5,882*3	4,196	8,985*3	5,963	23,077*3	15,728
Ratio of amount related to environmental conservation activities to total (%)	0.9	1.6	12.9	7.0	3.6	9.7	5.8	6.4

<sup>\*1 38</sup> business sites of housing sales companies included \*2 Total of 3 division companies and departments of headquarters \*3 R&D cost is the total for all consolidated companies.

### Environmental conservation cost (by environmental conservation measures)

(million yen)

Items			company *1	Urban Infra Environmental P	structure & roducts Company	High Perf Plastics	formance Company	Entire Company *2		
Category	Main projects	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment	Expenditure	Investment	
1.Prevention of global warming	Reduction of CO <sub>2</sub> emissions, etc.	41	29	52	74	112	129	275	248	
2.Ozone layer protection	Reduction of Chlorofluorocarbon emission, etc.	6	0	0	2	20	0	26	2	
3. Conservation of air quality	Prevention of air pollution by reducing pollution substances	333	10	141	1	237	116	712	130	
4.Prevention of noise and vibration	Prevention of noise and vibration pollution	5	0	9	5	3	10	18	15	
5.Conservation of water environment, soil environment, ground quality	Preservation of water quality, prevention of subsidence	225	29	92	46	169	45	496	120	
6.Waste reduction and recycling	Reduction and treatment of waste, recycling	4,729	5	1,224	166	648	55	6,692	266	
7.Reduction of chemical substance	Risk management of chemical substances, etc.	530	0	6	0	205	204	741	204	
8.Conservation of natural environment	Nature protection, etc.	93	0	48	0	29	20	173	20	
9.0thers	Others	1,038	0	458	0	259	0	3,108	0	
Total	7,000	73	2,030	294	1,682	579	12,241	1,005		

#### Environmental conservation benefits (by each division company)

Environmental Conservation Benefit Categories		Items		Unit	Housing Company*1			Urban Infrastructure & Environmental Products Company			High Performance Plastics Company			Entire Company *2			See
		Itellis			Fiscal 2004	Fiscal 2005	Effect (05-04)	Fiscal 2004	Fiscal 2005	Effect (05-04)	Fiscal 2004	Fiscal 2005	Effect (05-04)	Fiscal 2004	Fiscal 2005	Effect (05-04)	page
	Input of	Energy	1. Electricity	TJ	538	496	-42	1,562	1,573	11	1,318	1,319	1	3,670	3,649	-21	33
	resources	consumption*4	2. Fuel	TJ	200	196	-4	204	207	3	1,982	2,018	36	2,628	2,669	41	33
Within		3. CO <sub>2</sub> emission*5		Ktons	33.4	31.5	-1.9	71.8	72.3	0.5	155.1	156.5	1.4	291.2	292.0	0.8	33
business area	Environmental	4. Pollutants emission*6		Tons	3.3	5.8	2.4	118.3	88.0	-30.4	395.3	362.0	-33.3	522.3	460.9	-61.4	38
	burdens and waste	5. Waste generated *7		Ktons	16.0	13.9	-2.1	11.4	11.4	0.0	18.1	18.7	0.6	46.2	44.7	-1.5	35
		6. Outsourced disposal *8		Ktons	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.07	0.06	-0.01	88
Up/down stream	Goods and services	CO <sub>2</sub> emissions reduction by photovoltaic energy generation, etc		Ktons	77	95	18		_	1		_		77	95	18	_
Other		No. of workplaces with	New	Numbers	0	0	_	0	0	_	2	3	_	3	5	_	
environmental conservation	Others	ISO14001 certification		Numbers	6	3	_	2	7	_	2	5	_	10	18	_	_
benefits		No. of zero emissions b	usiness sites*9	Numbers	39	0	_	1	0	_	0	2	_	41	5	_	36

<sup>\*4</sup> Coefficients are officially announced by the Japanese Ministry of Economy, Trade and Industry as calorific value conversions.

\*5 Coefficients are officially announced by the Japanese Ministry of the Environment as emissions from production and CO<sub>2</sub> conversions (Coefficients for fiscal 2000 are used for calculation.)

\*6 Chemical substances specified as Class 1 in Japanese PRTR law \*7 Emissions + volume of saleable materials + internal incineration \*8 Simple incineration + landfill

\*9 A business site belonging to more than one division company is calculated as one single workplace

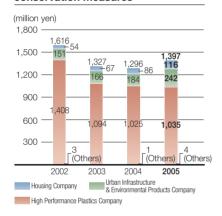
#### Economic effects related to environmental conservation measures (by each division company)

(million yen)

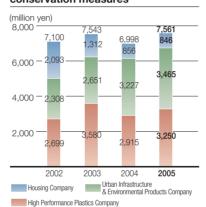
	Category of effects	Housing Company*1	Urban Infrastructure & Environmental Products Company	High Performance Plastics Company	Entire Company *2	Sources
Income	1. Income from sales of valuable materials	20	34	167	223	Segregation and recycling of waste
	2. Cost reduction from packaging savings	2	8	4	14	
Cost Reduction	3. Cost reduction from energy-saving activities, etc.	23	60	234	319	
	4. Cost reduction from waste reduction activities, etc.	71	140	630	841	Including resource-saving activities
Sub-total (actual effect)		116	242	1,035	1,397	
5. Contribution portion of environmental conservation activities *10		549	2,753	2,675	5,977	Contribution portion of environmental conservation activities against added value of business sites *11
6. Contribution portion of R&D on environment-friendly new products *10		297	712	575	1,584	Sales of environment-friendly new products x ratio of environmental R&D expenditure to total R&D expenditure
Sub-total (estimated effect)		846	3,465	3,250	7,561	
Total		962	3,707	4,285	8,958	

<sup>\*10</sup> Excluding housing sales companies \*11 (Added value of business sites excluding environment-friendly new products) x ((Costs within plants + management activities cost) / (Total production cost excluding materials cost)

# Trend of actual economic effects related to environmental conservation measures



# Trend of estimated economic effects related to environmental conservation measures



# Economic effects related to environmental conservation benefits (economic benefit to customers)

The electricity generated in the houses equipped with Sekisui Chemical Group's photovoltaic generation systems amounts to an annual total of 172,632 MWh, and the power-saving effects (reduction in electricity purchases from power companies) for our

customers' (occupants') households are worth, on aggregate, 4 billion yen per year. Converted into volume of CO<sub>2</sub> emissions, the equivalent to the volume of CO<sub>2</sub> produced by burning is approximately 1.4 million 18-liter cans of kerosene.

Category of effects	Eff	ect	Sources
Power-saving effect in houses equipped	Annual power generation	Amount saved	Annual generated power in houses equipped with photovoltaic generating
with photovoltaic generation systems	172,632 MWh per year	3,971 million yen	systems x Power unit price (¥23/KWh; based on standard for energy saving effect set by The Energy Conservation Center)

## **Environmental management**

Number of issues of concern in environmental auditing for fiscal 2005 (for production plants and R&D institutes, as of end of March 2006)

			Number of cases	Correction completed	Undergoing correction
		Issues of concern	163	121	42
	dquarters nental auditing*	Issues to work on	222	106	116
	isiness sites)	Proposals	16	9	7
,		Total	401	236	165
		Nonconformity (major)	0	0	0
	Renewal (17 business sites)	Nonconformity (minor)	42	31	11
		Observations	59	43	16
Auditing by certification		Total	101	74	27
body	Surveillance (24 business sites)	Nonconformity (major)	0	0	0
,		Nonconformity (minor)	19	17	2
		Observations	132	87	45
		Total	151	104	47
Internal auditing of business sites		Nonconformity (major)	0	0	0
		Nonconformity (minor)	158	127	31
	usiness sites;	Observations	385	240	145
40 times of auditing)		Total	543	367	176

<sup>\*</sup> Category of instructions for headquarters environmental auditing Issues of concern: Matters recommended for immediate improvement Issues to work on: Matters recommended for improvement within one year Proposals: Matters to be considered for improvement, advice

#### Number of persons with qualifications

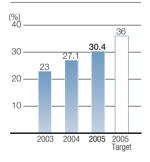
					Those who acquired qualifications during fiscal 2005	Aggregate total
	participants in	Number of	internal training	g course participants	104	598
	al Management ) internal auditor		external trainin	g course participants	36	126
	training course	Total			140	724
	participants in	Number of	internal training	g course participants	58	517
	Health and Safety	Number of	external trainin	g course participants	16	111
Management Systems (OHSMS) internal auditor development/ training course		Total			74	628
	Registered ex			Lead Auditor	0	6
	of the Cent Environmental		Qualifications	Auditor	0	3
	Registration	(CEAR)		Provisional Auditor	0	4
				Air Classes 1-4	0	35
				Water Classes 1-4	1	87
Number of	Pollution control	manager	Qualifications	Noise	2	39
persons				Vibration	0	23
with major				Dioxins	0	3
qualifications	Certified Environr	1	2			
	Qualified Person Plant Heat man	0	54			
	High-pressure Ga	1	208			
	Olfactory Measur	ement Ope	rator		0	1
	Environmental Co	0	2			

# **Environment-friendly products**

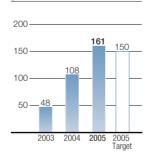
### Sales performance of environment-friendly products

We had been working toward the target of placing on the market over 150 environment-friendly products in cumulative total from fiscal 2003 through fiscal 2005 and achieved the target with a record of 161. The sales ratio target was not achieved.





#### **Number of products** placed on the market



### Performance in environmental/recycling technology development

Technology Development of environmental conservation and recycling is one of the most important factors for environmentfriendly products.

With a target of accomplishing 15 development themes by fiscal 2005, Sekisui Chemical Group had been working on the development of core technologies and applied technologies and has met the target, completing a total of 16 themes.

### **Green Procurement**

We had been working to meet the fiscal 2005 target of a green procurement ratio\* of over 80%. As a result, we have reached 91.5% in fiscal 2005, accomplishing our initial target.

 $\ensuremath{^{\star}}$  Green procurement ratio: Proportion of the materials, etc., that meet our green procurement standards out of the total procurement amount controlled by Purchasing Department at headquarters.

#### **Green Purchases**

Photocopying paper

Other office supplies Office automation equ

Total

Sekisui Chemical Group is committed to green purchasing of office supplies for all its departments and branches.

# Green purchases in fiscal 2005

i iiscai 2000	(TTIIIIOTT YET)
	Purchased amount
	58.8
	153.05
uipment	423.82
	635.67

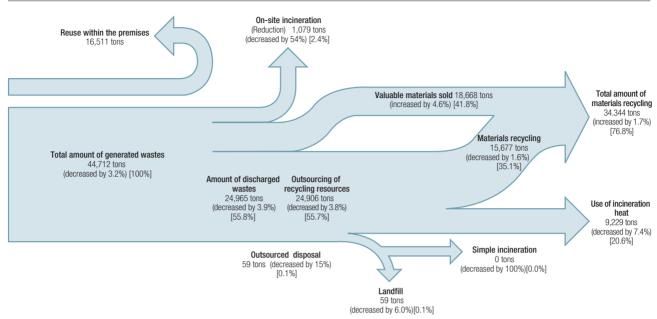
#### **Evaluation criteria in Green Purchase Guidelines**

Criteria	for business accounts	Criteria for products			
IS01400	1 certification acquired				
Internal organization	5 criteria including appointment of an environmental management officer	Product assessment	3 criteria including assessment carried out during product development		
Compliance with laws and regulations	5 criteria including recognition of environmental laws relevant to business	Conditions at the times of use and disposal	9 criteria including introduction of products with longer lives compared to previous lines		
Management system	5 criteria including internal auditing	Design and structure for recycling	5 criteria including use of recyclable materials		
Voluntary activities	8 criteria including capability to make suggestions regarding environmental burden reduction	Information disclosure	2 criteria including capability to provide environment-related requirements and relevant information		
Information disclosure	Disclosure of information regarding own environmental conservation activities	Packaging materials	8 criteria including reduced quantities of packaging materials compared to previous lines		

	Criteria for business accounts subject to Green Procurement Guidelines	Green Procurement Guidelines not applicable
Procuring office	Headquarters + Divisions, plants, group manufacturing affiliated companies	Housing sales companies, construction contractors and offices
Business accounts	Manufacturers of production materials, trading companies, importers, outsourced manufacturers of our products	Service-oriented manufacturers providing office equipment, software, printing services, etc.
	Equipment manufacturers (including manufacturers of equipment for buildings, civil engineering, construction works)	Outsourced manufacturers using materials exclusively designated or supplied by the procuring office

# Various environmental performance data

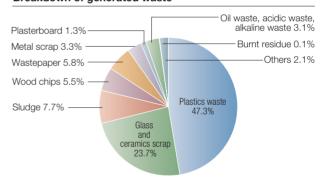
Waste generation and treatment (disposal) status of 34 production sites in fiscal 2005. Status of waste generation and treatment (disposal) Change over the previous year is in ( ) and proportion of the total generation in [ ].



# Zero emission achievement criteria and accreditation system of Sekisui Chemical Group

- (1) All outside incineration must include thermal utilization, and no landfill outside or inside of facilities (Recycling ratio 100%).
- (2) If the waste quantity is small and it is a type of waste that has never been recycled before, recycling methods and relevant contractors must be identified and a service agreement must be executed. We have also established uniform evaluation criteria named "The Zero Emission Achievement Evaluation List." In addition to the above standards, we conduct our internal examination according to this list on strict compliance with relevant laws and regulations, complete rules and systems for waste segregation as well as clearly legible signs, adequate facilities for waste treatment and planning for and control of waste reduction. The list obliges us to conduct inspection of outside contractors and to clarify treatment routes in order to enhance the management system through these activities.

#### Breakdown of generated waste



### Waste subject to reduction in "STEP-2005"

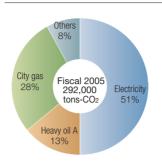
	Waste subject to reduction	Reason
Components of volume generated	Waste excluding the items below, and valuable materials sold	Even if it were possible to sell valuable materials at a price, the fact that these are not value-added products, together with fluctuations in market prices, could prevent sale of such resources.
Excluded from volume generated*	Waste generated from used products, etc. that have been accepted into the company, such as replacements for Reuse System House	It is important to make effective use of used products, as a separate form of usable resource. This type of activity should be expanded in future.
	Residual material from construction work carried out by business sites (excluding on-site), as well as waste that results from upgrading or disposing of office automation and other equipment	We need to use equipment and hardware for extended periods, while recognizing that timely renewal of equipment and hardware is an unavoidable aspect of maintaining business efficiency.

"Excluded items, with the exception of those cases where disposal methods are stipulated by law, are also subject to zero emission (100% recycling).

#### Breakdown of energy used

# 6% City gas Fiscal 2005 6,318TJ 28% Flectricity 58% Heavy oil A

#### Breakdown of CO2 emissions



#### CO<sub>2</sub> emission coefficient

The conversion coefficients listed below have been used across all business sites to calculate volumes of and reductions in CO2 emissions.

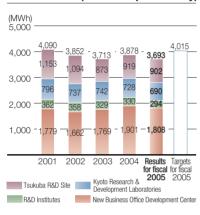
Purchased electricity 0.378 tons of CO<sub>2</sub>/MWh

(purchases from general electric power suppliers) 0.602 tons CO<sub>2</sub>/MWh Purchased electricity

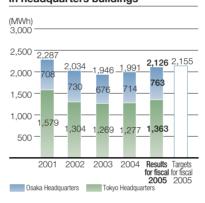
0.602 tons CO2/MWh (purchases from other suppliers) 2.77 tons CO2/KL 2.51 tons CO2/KL 2.64 tons CO2/KL 2.31 tons CO2/KL 3.02 tons CO2/Iron 2.15 tons CO2/Iron 0.200 tons CO2/Iron Heavy oil A Gasoline LPG City gas Purchased steam

Source: "Comprehensive report detailing results of the study regarding calculations on volume of greenhouse gas emissions" (August 2002, Japanese Ministry of the Environment Greenhouse Gas Emissions Volume Calculation Method Study Team)

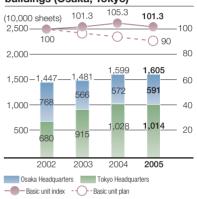
#### Power consumption used by R&D institutes (office-use portion only)



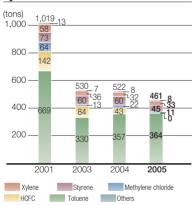
#### Power consumption used in headquarters buildings



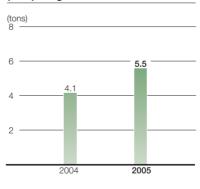
# Trend of office automation paper volume used at headquarters buildings (Osaka, Tokyo)



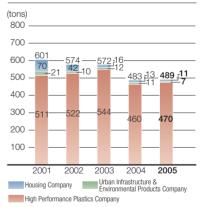
#### Trend of emission and transfer volume by substance



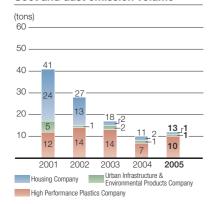
#### Change in new alternative freon (HFC) usage



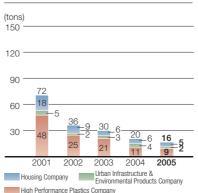
#### NOx emission volume



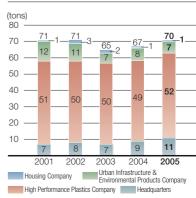
## Soot and dust emission volume



#### SOx emission volume



#### COD discharge volume

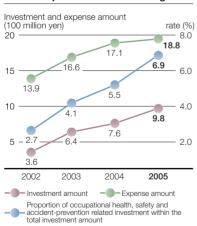


# Summation results based on the PRTR Law

	(tons)									
Government		Transaction		Emission	volume			ransfer volume		
ordinance notification	Items	Transaction volume	Emitted	Public area	In-house	In-house	Sewage	Transfer	in waste	Detoxification
number			gases	water-zones	soil	landfill	system	Disposal	Recycling	
3	Acrylic acid (monomer)	59.5	0	0	0	0	0	0	5.8	0
7	Acrylonitrile (monomer)	26.9	0.058	0	0	0	0	0	0	0
9	Bis (2-ethylhexyl) adipate	5.7	0	0	0	0	0	0	0.0057	0
11	Acetaldehyde	306.4	0.22	0	0	0	0	0	0	92
25	Antimony and its compounds	7.6	0	0	0	0	0	0	0.9	0
30	Bisphenol A epoxy resin (liquid form)	270.2	0	0	0	0	0	0	0	0
40	Ethylbenzene	1.2	1.2	0	0	0	0	0	0	0
43	Ethylene glycol	6.5	0	0	0	0	0	0	0	7
63	Xylene	122.6	33	0	0	0	0	0	4.3	35
77	Vinyl chloride (monomer)	118362.0	4.4	0.80	0	0	0	0	0	0
100	Cobalt and its compounds	1.1	0	0	0	0	0	0	0	0
145	Dichloromethane	812.3	11	0	0	0	0	0	1.3	0
176	Organic tin compounds	73.4	0	0.0004	0	0	0	0	0.54	0
177	Styrene (monomer)	4056.1	45	0.17	0	0	0	0	0.0010	0
197	Decabromodiphenyl ether	96.2	0	0	0	0	0	0	11.5	0
205	Terephthalic acid	73.0	0	0	0	0	0	0	0	0
227	Toluene	1952.3	364	0.26	0	0	0	0	38.0	460
230	Lead and its compounds	713.1	0.0004	0.0032	0	0	0.0010	0	3.0	0
270	Di-n-butyl phthalate	6.7	0	0	0	0	0	0	0	0
272	Bis-(2-ethylhexyl)phthalate	48.2	1.2	0	0	0	0	0	2.3	0
310	Formaldehyde	5.4	0	0	0	0	0	0	0	2.3
314	Methacrylic acid (monomer)	44.1	0.022	0	0	0	0	0	0	0
320	Methyl methacrylate (monomer)	299.5	0.34	0	0	0	0	0	0.18	0
321	Methylacrylonitrile (monomer)	14.5	0.065	0	0	0	0	0	0	0
	Total	127364.5	459.7	1.2	0	0	0.0010	0	67.7	595.9
179	Dioxins (Unit: mg-TEQ)		5.9	6.7	0	0	0	0	3.0	0

# Occupational health, safety and accident-prevention accounting and auditing results

# Occupational health, safety and accident-prevention accounting



#### Occupational health, safety and accident-prevention auditing results for fiscal 2005

		Number of cases	Correction completed	Under correction
Headquarters Health, safety, and	Issues of concern	396	254	142
accident-prevention auditing (36 business sites +	Issues to work on	189	78	111
1 development department)	Proposals	79	61	18
	Total	664	393	271

- Issues of concern: Issues to be resolved as soon as possible.
   Issues to work on: Issues to be resolved within next 12 months.
- Proposals: Issues requiring consideration of resolution methods and/or advice.

# Independent Review Report

(TRANSLATION)

Independent Review Report

July 22nd, 2006

Mr. Naotake Okubo President, Sekisui Chemical Co., Ltd.

> Tohmatsu Environmental Research Institute Ltd. Chief Executive Officer, Komuro, Masamitsu

#### 1. Subject and Objective of Review

We have performed a review of certain significant environmental information stated in the "Environmental & Social Report 2006" ("Environmental & Social Report") prepared by Sekisui Chemical Co., Ltd. ("Company"). The purpose of our review was to provide conclusions from an independent standpoint about whether such information in the "Environmental & Social Report" was accurately measured and calculated in accordance with calculation methods, etc. adopted by the Company with reference to Environmental Reporting Guidelines 2003 (issued by the Japanese Ministry of Environment) and GRI 2002 Sustainability Reporting Guidelines. Since our review is commenced in FY2004, it is to be noted that information before FY2003 is not included to our subject of review.

2. Responsibility of Management and Persons Reviewing the Environmental & Social Report
The "Environmental & Social Report" is the responsibility of the Company's management. Our responsibility is to provide our conclusions with respect to the "Environmental & Social Report" from an independent standpoint.

#### 3. Summary of Review

To obtain an adequate and valid standard of basis for providing limited assurance with respect to our provided conclusions, we performed our review with reference to the International Standard on Assurance Engagements (ISAE) 3000 (issued by the International Federation of Accountants in December 2003), Proposed Environmental Report Review Standard (issued by the Japanese Ministry of Environment in March 2004) and Environmental Information Review Practices Guidance (issued by The Japanese Association of Assurance Organizations for Environmental Information in January 2006).

With respect to the significant environmental information stated in "Environmental & Social Report", our review did not identify items which were acknowledged to not be accurately measured or calculated in accordance with calculation methods, etc. adopted by the Company with reference to Environmental Reporting Guidelines 2003 (issued by the Japanese Ministry of Environment) and GRI 2002 Sustainability Reporting Guidelines

There are no interests between the Company and Tohmatsu Environmental Research Institute Ltd. or its engagement personnel, requiring disclosure based on the rules of The Japanese Association of Assurance Organizations for Environmental Information.

# Comments and expectations for CSR activity of Sekisui Chemical Group

# 1. CSR clearly stated in the Midterm Management

Practice of CSR is clearly stated in the 2006-2008 Midterm Management Vision, demonstrating the strong commitment of top management under President Okubo to their aspiration to become a true premium company through CSR activities. Its environmental management also presents an action plan for implementing the 2010 Environmental Top Runner Plan.

#### 2. Reliable response to last year's issues

Issues stated in last year's comment were firmly addressed.

- (1) Expanded scope of CSR activities
  - The scope of CSR activities was steadily expanded by adding partner relationships with their business associates to the Corporate Philosophy and holding training sessions for overseas group companies to share the Corporate Philosophy, among other measures.
- (2) Reinforcement of dialog and information disclosure Placing emphasis on dialog with stakeholders, Sekisui Chemical promoted communication with various stakeholders including customers and employees. In the future, it would be desirable to clarify their commitment to its stakeholders based on the results of this communication.
  - In terms of information disclosure, detailed reports on Sekisui Chemical's response to the asbestos issue in this report as well as on its website indicate the sincerity of their efforts.
- (3) Introduction of the environmental information gathering system Full-fledged introduction of a system for environmental information management improved the reliability of information.

In the future, it will be important to strengthen coordination between the rules of the system and the rules for business sites as well as to create a clear mechanism for passing down operational rules and system concepts to subsequent generations.

#### (4) Reinforcement of proactive measures

At Sekisui Chemical's Shiga-Minakuchi Plant, which had exceeded the accepted value for dioxins, the related incinerators were removed to eliminate the source of risk. We found that preventive actions had been established as a policy and put into operation in the plant we visited. It is hoped these kinds of efforts will be deployed throughout the Group.

#### 3. Sekisui Chemical Group works toward further prominence by enhancing its ability to respond quickly to public concerns

This report includes special features on the activities of Sekisui Chemical Co., Ltd. and Sekisui Chemical Group toward realizing a sustainable society. It is especially impressive that President Okubo emphasized in his interview the importance of enhancing the ability to respond quickly to public concerns. It is important on the external side to continuously launch the best products and services in terms of both quality and customer satisfaction and at the same time contributing to the environment while internally creating an organization in which employees can work with pride and confidence. It is strongly hoped Sekisui Chemical will enhance its ability to respond quickly to public concerns through continuing communication with its stakeholders and increase its efforts to earn recognition as a prominent company.

# History of Sekisui Chemical Group

4047	Falabilish and a Coding Common On The
1947	Establishment of Sekisui Sangyo Co., Ltd.
1948	Started first injection molding business in Japan. Change of company name to Sekisui Chemical Co., Ltd.
1950	Began selling cellophane tape.
1952	Started full-scale production of PVC pipe (Eslon Pipe).
1953	Listed on Osaka Stock Exchange.
1956	Developed Japan's first plastic rain gutter
1000	(Eslon Rain Gutters).
1959	Established Sekisui Sponge Industries Co., Ltd.
.000	(now Sekisui Plastics Co., Ltd.) with co-financing from
	Shin-Nippon Chisso Hiryo Co., Ltd., Asahi Kasei
	Corporation and others, to commercialize plastic foam.
1960	Established Sekisui House Sangyo Co., Ltd.
	(now Sekisui House Co., Ltd.)
	and started the house business.
1962	Launched "Movement for Cleaner Towns" featuring our
	plastic garbage bins (Poly-pail), as a campaign to mark
	the company's 15th Anniversary. Cleaning revolution
	subsequently spread nationwide.
1963	Started producing plastic bathtubs (first in Japan).
	Modular toilet tank commercialized, paving the way for
	production of modular-style equipment.
1970	Exhibited modular house (Sekisui Heim) at the
	International Good Living Show in Tokyo.
1971	Started producing and selling Japan's first modular
4070	house, Heim M1.
1972	Launched company-wide commitment to pollution
	control.
	Established original Environmental Management Department.
1979	Awarded Deming Prize for quality management in
1373	recognition of results of aggressive TQC activities.
1981	Adopted twin-headquarters system (Osaka and Tokyo),
	and established Tokyo Headquarters at Toranomon,
	Tokyo. Began producing and selling timber-framed
	modular house, Two-U Home.
1991	Established Basic Policies on environmental issues.
1993	Introduced divisional system. (Pipe & Related Products,
	Building Materials, Chemicals, Techno-products, Molded
	Products, Medical Products, and Housing)
1994	Began ISO 9000 series certification acquisition activities.
1996	Excess paid-in capital of 100 billion yen.
	Adopted new headquarters logo.
	Announced Top Management Policy for Environment and
	Safety. Began ISO 14001 certification acquisition
	activities.

**1997** 50th Anniversary of company foundation. Launched nature protection support activities within and outside Japan, such as Sekisui Nature Study Course and nature protection activity in cooperation with Keidanren Nature Conservation Fund. Created Women's Athletic Club.

1998 Instituted "Corporate Activity Guidelines." Initiated zero emission activities. 1999 Launched Management Vision, "GS21."

Instituted "Corporate Philosophy." Concentrated business into three domains: Housing, Urban Infrastructure and Environmental Products, High Performance Plastics. Launched Midterm Environmental Plan, "STEP-21." Began publishing Environmental Reports.

2001 Launched division company system, i.e. Housing Company, Urban Infrastructure & Environmental Products Company and High Performance Plastics Company. Achieved zero emission in all house production plants and all plants of Sekisui Chemical Co., Ltd.

2003 Launched "GS21-Premium 600," our Midterm Management Vision. Established Environmental Management Promotion Department (now Environmental Management Department). Launched new Midterm Environmental Plan, "STEP-

Achieved zero emission at all house construction sites. 2004 Introduced CS & Quality Management Department. Developed CS & Quality Management Midterm Plan. Achieved zero emission in all constructions of house renovation companies.

2005 Introduced CSR Committee. Published Environmental and Social Report.

2006 Launched "GS21-Go! Frontier," our Midterm Management Vision. Launched "Environmental Top Runner Plan, Part I," our Midterm Environmental Plan.

# **Editor's Notes**

The 2005 Environmental & Social Report was divided into the "three prominences" and the "three attitudes of sincerity" based on the Sekisui Chemical Group's approach to CSR. We felt some level of uncertainty concerning reader acceptance of this unique organizational style. The results of questionnaires concerning the report and of dialogs with various stakeholders indicate that the majority of readers generally understood the report, giving us confidence that our unique approach has been accepted.

We are about to enter the second year since the launch of full-scale CSR activities, and the true value of our activities will

start to come into question. We have made every effort to report concrete details of progress in this report, but there are some variations in the level of detail depending on the chapter and content. We are also aware that we need to raise the levels of our activities themselves.

We welcome your candid comments and opinions and hope to take them into account in our future CSR activities and in preparing future CSR reports.

> June 2006 CSR Office

# SEKISUI CHEMICAL CO., LTD.

4-4 Nishitenma 2-chome, Kita-ku, Osaka 530-8565, Japan URL http://www.sekisui.co.jp

#### For further information contact:

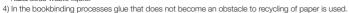
Environmental Management Department 2-3-17 Toranomon, Minato-ku, Tokyo 105-8450, Japan

FAX: +81-3-5521-0519 E-mail: csr@sekisui.jp

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1) 100% recycled paper of 70% white chromaticity (uncoated paper) is used.

<sup>3)</sup> Soy ink is used in the printing processes because it generates little VOC (volatile organic compound) and is excellent in biodegradability and deinking property. Further, "waterless printing" is adopted that generates no hazardous waste liquid.









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