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Our First CSR Report Published in Fiscal 2005

This is the first CSR Report on corporate social responsibility (CSR) activities engaged in by the AGC (Asahi Glass Company) Group since we published our Environmental Report in 2000 and subsequently changed the name to Sustainability Report.

This report was prepared based on the concept of Our Shared Values of the AGC Group Vision “Look Beyond.” To encourage as many stakeholders as possible to read this report, we introduce the Group’s policy and major CSR activities in an easy-to-understand way on the Bright Focus on Sustainability page. In wanting to respect the opinions of our stakeholders outside AGC as well, we have included an interview between Mr. Toshihiko Goto, Chair, Environmental Auditing Research Group and Masahiro Kadomatsu, Asahi Glass President and CEO as the front-page feature article, while you will find an observer’s opinion from the Valdez Society at the end of the report.

We would be most grateful if you could provide your opinions and other feedback to us.

[About the AGC Group CSR Book]
We published the AGC Group CSR Book, aiming at promoting stakeholder awareness of the AGC Group’s ideas for CSR. It contains the Group’s commitment as described by CEO Kadomatsu, as well as messages to the AGC Group from Independent Directors. We hope you will also take a look at the AGC Group CSR Book along with the CSR Report and Annual Report. All of these publications can be downloaded from the Asahi Glass official website by entering the relevant URLs.

[Scope of reporting]
This report covers the CSR activities of the AGC (Asahi Glass Company) Group in fiscal 2004 (from January to December 2004). The report also mentions some important activities from fiscal 2005. In the text, “Asahi Glass” generally refers to the parent company, Asahi Glass Co., Ltd.

[Reference publications/guidelines]

Future perspectives described in this report are based on the information available to Asahi Glass during the preparation of this report. Nevertheless, results and consequences may vary with fluctuations in the business environment. We ask for the understanding of our stakeholders in this.

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Look Beyond is registered by Asahi Glass in Japan.

Asahi Glass website
URL http://www.agc.co.jp/english/

Asahi Glass website (Environment section)
For inquiries about the AGC Group CSR Book and CSR Report
URL http://www.agc.co.jp/english/environment/

Asahi Glass website (Investor Relations section)
For inquiries about the Annual Report
URL http://www.agc.co.jp/english/ir/

Cover: 21st Century Museum of Contemporary Art, Kanazawa
Goto: Could you tell me what the AGC Group, which is centered around Asahi Glass, basically thinks about CSR?

Kadomatsu: Companies are now required to develop their business while becoming more involved with society in various aspects. In addition to promoting business in an environmentally friendly manner, they are also expected to disclose corporate information, establish corporate ethics, and make social contributions. Briefly, CSR is an integral element of business activities: without incorporating this element into its activities, no company will be able to win the trust of society and grow itself in a sustainable manner.

However, I am not passive in regard to these changes in our business environment. Rather, I see them as an opportunity for a company to make progress in society and to become a more valuable asset for society in general. CSR usually stands for corporate social “responsibility.” I, however, interpret CSR as corporate social “reliability.” We must make proactive and comprehensive efforts to be more socially reliable, rather than merely passively fulfilling our corporate social responsibility.

Goto: Recently, some English-Japanese dictionaries list a translation that interprets “responsibility” as “reliability,” and I totally agree with you regarding CSR. What measures has the AGC Group taken to win the trust of society?

Kadomatsu: We have embodied our concept of CSR in our Group Vision “Look Beyond” established in 2002, and in Our Shared Values stated in this Vision. All employees of the AGC Group need to share these Values as the basis for all their actions. Specifically, we have four Our Shared Values: “Innovation & Operational Excellence”; “Diversity”; “Environment”; and “Integrity.” “Innovation & Operational Excellence” represents our commitment to the pursuit of innovation in technology, products, and services, and to our constant search for optimal efficiency and quality. This is indeed the basic principle of Asahi Glass, upon which the company was founded: “Never take the easy way out—address the difficulties.” This value is one source of the AGC Group’s competitive advantage. “Diversity” is indispensable for the AGC Group to continue its growth to become a truly global enterprise. We are

We must make proactive efforts, interpreting CSR as corporate social “responsibility.”
The AGC Group is committed to its Group Vision “Look Beyond” and making efforts to attain this vision in its daily operations. “Look Beyond” aims to “make the world a brighter place” through the concerted effort of its 57,000 employees all over the world. We are improving CSR through “Look Beyond,” and are contributing to the sustainable development of society in cooperation with many people, aiming to be consistently respected and trusted by society at large. In this report, Masahiro Kadomatsu, CEO of the AGC Group, describes the challenges that the Group is taking on in an interview with Toshihiko Goto, Chair of the Environmental Auditing Research Group.

committed to fair human resource management through adopting measures such as placing the right people in the right jobs, without prejudice against their nationality, gender, or background, while also respecting the cultural diversity in race and ethnicity. Through “Environment,” we aim to contribute to developing a sustainable society by consistently promoting environmental activities and the occupational health and safety of our employees. Finally, “Integrity” demonstrates our attitude to form open and fair relationships with every stakeholder with society at large, not to mention our customers and employees. For compliance, which is one element of integrity, we are trying to set high social and ethical standards, not simply to comply with the law.

I believe that we can make the world a brighter place if employees of the AGC Group vigilantly practice the Group Vision “Look Beyond” in all their activities.

Goto: What measures are you implementing at workplaces to back up “Our Shared Values” with experience and increase their depth?

Kadomatsu: Concurrently with taking office as President & CEO in April 2004, I started a new management policy we call, “JIKKO”—Execution for Excellence. Our commitment to managerial reform made under the previous management policy, “Shrink to Grow,” led to the...
Establishing Commitment to CSR and Deepening Communication

development of our Group Vision “Look Beyond” for the AGC Group, and the policy “JIKKO” has been newly formulated to achieve this vision. Subsequently, in January 2005, we announced a new medium-term management plan “JIKKO-2007” as a specific plan to implement “JIKKO”. For everyone to make concerted efforts for “JIKKO,” top management and employees need to discuss the issues time and again. Last year, to this end, I visited 12 plants during my six overseas business trips, as well as 15 sites in Japan, to explain the “JIKKO” and encourage employees to re-recognize the significance of Group Vision “Look Beyond”. I asked them what “Innovation & Operational Excellence” and “Diversity” meant to them, because I wanted them to implement “Our Shared Values” in their daily business operations.

In 2005, based on the re-recognition of our basic stance, I asked the presidents of four In-house Companies and the Heads of the six Strategic Business Units (SBUs) to incorporate the “Our Shared Values” into their business missions. Specifically, we have introduced a mechanism whereby the Group Corporate management can regularly evaluate the progress of each In-house Company and SBU based on key performance indicators (KPIs) set out for their business activities. The KPIs are numerical targets that represent the commitment made by each of the In-house Companies and SBUs to the Group’s top management. The In-house Companies and SBUs can present detailed missions to their individual employees based on these KPIs.

I think it very important to ensure that the Plan-Do-Check-Act (PDCA) cycles are functioning properly and establish a commitment to CSR as an integral part of our mission in business management. Focusing our efforts on implementing Group Vision “Look Beyond” will directly lead to the better fulfillment of CSR by the AGC Group.

Goto: It is also important to communicate your efforts to society at large and receive frank opinions from the public, isn’t it?

Kadomatsu: Under the management policy “JIKKO”, we also aim to win more trust from customers by further improving customer satisfaction (CS). For example, we regularly conduct questionnaire surveys on customer satisfaction to obtain their opinions on our activities, as well as to help them deepen their understanding of our direction. Also, in order to raise public awareness of the Group, we started to broadcast TV commercials in September 2004 for the first time in six years. The AGC Group is mainly engaged in B-to-B business and therefore we have difficulties in communicating what kind of company we are to end users. As a prerequisite for us to better fulfill CSR and become an enterprise trusted widely by society at large, including our customers and business partners, we first of all need to make more people aware of the activities of the AGC Group. I hope that as many people as possible will read this report to deepen their awareness of the AGC Group. We formed a CSR committee in April 2005, thereby establishing a CSR management system covering all the Group companies. We will further promote interactive communications between the AGC Group and society and make continual improvements to our CSR activities.
AGC Group established its basic policy concerning the corporate governance structure in order to strengthen its oversight functions by clearly separating these from management functions. Also, to promote speedy decision-making in the execution of business we clearly distinguish corporate functions from business operations functions. Specifically, in June 2002, Asahi Glass reformed the structure of its Board of Directors, positioning it as a body to approve basic policies and oversee the management of the AGC Group. As part of these reforms, the number of directors was reduced from 20 to 7, of which two were appointed from outside the company. (Following the March 2005 annual general shareholders’ meeting, the number of outside directors was increased to three.) Also, their term of office was shortened to one year. At the same time, Asahi Glass introduced the so-called executive officer system, under which executive officers (with a one-year term of office) are clearly distinguished from directors as defined in Japan’s Commercial Code, and these officers are responsible for the execution of the AGC Group’s management and business operations.

In June 2003, Asahi Glass voluntarily established two board committees: the Nominating Committee and the Compensation Committee, in order to further strengthen its corporate governance system by improving objectivity in the evaluation, nomination, and remuneration of directors and executive officers. Further, Asahi Glass adopts the corporate auditor system, comprising four auditors, including two outside auditors. These auditors, according to the auditing policies determined by the Board of Corporate Auditors, attend the meetings of the Board of Directors and other important meetings, examine important documents, audit the departments of the head office as well as other offices and plants, investigate subsidiaries, and report the results to the Board of Corporate Auditors. For the management system, the In-house Company system was introduced in April 2002. With the introduction of this system, we changed our business operation system from locally-focused operations to a globally integrated management system. Coinciding with these moves, each In-house Company and SBU was entrusted with substantial responsibility and authority for business operations.

At Asahi Glass, business units that conduct business operations on a global scale and have net sales of roughly 200 billion yen are classified as In-house Companies. At present, we have four In-house Companies: the Flat Glass Company, the Automotive Glass Company, the Display Company, and the Chemicals Company. Business units of a smaller size than such In-house Companies are defined as Strategic Business Units (SBUs), of which there are six at present.
Establishing the Project Team to Define AGC Group’s Policy for CSR

CSR dictates that companies should build trust while assuming their corporate responsibilities.

Business entities, as members of society, should contribute part of their profits to the communities they belong to, while endeavoring to work with citizens towards a sustainable society. In recent years, this idea is referred to as corporate social responsibility (CSR).

CSR is becoming increasingly important against the background of the sense of crisis around the belief that the environment will deteriorate further if no changes are made to present economic activities as well as intensified criticism of companies that focus only on profit and ignore social standard.

CSR basically aims at building good relationships with all kinds of stakeholders, gaining trust and a favorable reputation from society through enthusiastic efforts that go beyond simply making a profit and paying taxes. These efforts extend to various areas, namely, compliance, environmental conservation, quality management, occupational health and safety, employee satisfaction, respect for human rights, fair competition, and social contribution.

In other words, companies should be qualitatively evaluated by society without taking into account their financial situation, unlike in the past, when they were only evaluated quantitatively and financially. No matter how much profit is being made, companies cannot be accepted by society if their businesses operate from anti-social, anti-humanitarian mechanisms and actions. The reason for their existence is only appreciated after they prove that they are engaged in trustworthy business areas, and are contributing to sustainable development.

Verifying that the AGC Group Vision “Look Beyond” includes important CSR factors

Under these circumstances, the AGC Group took up “bolster corporate social responsibility (CSR) activities in AGC Group.” as a theme, viewing it as one of the important issues arising from their AGC Management Policy, “JIKKO” – Execution for Excellence. “Look Beyond”, the AGC Group vision, represents our drive to anticipate and envision the future, have perspectives beyond our own fields of expertise and pursue innovations, not becoming complacent with the status quo.

“Look Beyond” is comprised of the following: Our Mission, Our Shared Values, Our Objectives, and Our Principles.

In structuring our ideas on CSR, the AGC Group compared its Group Vision with a variety of guidelines on CSR to convince ourselves that following the “Look Beyond” will improve our CSR. We continue to tackle diverse issues based on the vision.

First of all, following the Group CEO’s instructions, a project team was established in August, 2004 to pursue CSR improvements as a priority initiative. This team was to examine CSR from scratch, including what CSR for the AGC Group should be, or what concept we should have. The initiative team checked major CSR requirements to improve CSR against four external standards and organized them into 13 categories, which contain about 70 groups; 300 factors.

Comparison between CSR external standards and the AGC Group Vision: “Look Beyond”

* The external guidelines are chosen on a global basis.

In structuring our policy on CSR, the AGC Group compared its Group Vision with a variety of guidelines on CSR to convince ourselves that following the “Look Beyond” vision will improve our CSR. We continue to tackle diverse issues based on this vision.

70 groups classified into about 300 factors. Furthermore, these elements were crosschecked with diverse policies and approaches shown in “Look Beyond.” In other words, this process was conducted to verify whether “Look Beyond” included relevant issues necessary for CSR improvements.

We were able to confirm that our Group Vision “Look Beyond” contains almost all the CSR factors required of enterprises. For instance, in protecting human rights, the vision specifies our principles of conduct in which we respect cultural diversity in race, ethnicity, religion, language, nationality, gender and background, while, in environmental conservation, it also makes a clear declaration that we contribute to the development of a sustainable society.

To improve our CSR, the first priority for the AGC Group is to make our efforts to put the content of the Group Vision “Look Beyond” into practice, rather than starting on a new activity.
To put the goals and processes for CSR improvements into practice, the AGC Group is carrying out the following on the organizational level.

In April 2005, Asahi Glass established their CSR Committee, chaired by CEO Kadomatsu, with the CSR Task Force as a subordinate organization. The CSR Task Force further drives CSR improvements while monitoring the progress of specific activities at In-house Companies and Strategic Business Units (SBUs). It consists of CSR Committee chairman, Management Committee members, GMs in charge of CSR from relevant Group Corporate divisions, Shared Service Reorganization brings improvements in CSR Centers, and Initiatives, Presidents/Heads of In-house Company and SBU.

In April 2005, “Corporate Environment & Safety” was reorganized into “Environmental & Social Responsibility”, aiming at expanding the corporate value of the AGC Group in CSR, in addition to environmental conservation and occupational health and safety. CSR and the Environment also serves as the Working Office of the CSR Task Force to lead in a Groupwide direction, share relevant information and encourage coordination among divisions.

Such efforts have started at Asahi Glass, and will be expanded to the AGC Group as a whole from 2006.


**Starts with four major issues for future development**

To improve CSR, the AGC Group analyzes the current situation and constantly studies and devises specific solutions. As a result, the following four priority issues have been identified.

1. Customer Satisfaction (CS)
2. Employee Satisfaction (ES)
3. Environment (global and social environment)
4. Compliance (legal compliance and corporate ethics)

For these four agendas, the CSR Committee monitors the Plan-Do-Check-Act (PDCA) cycle to identify the best approach.

With the aim of surpassing stakeholders’ expectations, the AGC Group has made its best efforts to continuously pursue becoming a more reliable corporate entity with improvements to CSR by putting into practice the content of our Vision “Look Beyond”.

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*Organization for the CSR Promotion*

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*CSR Committee (chaired by CEO)*

Members: Management Committee members, GMs in charge of CSR from relevant Group Corporate divisions, Shared Service Centers, and initiatives, Presidents/Heads of In-house Companies and SBUs

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*Progress monitoring*

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*1* SBU: Strategic Business Unit
Reduces Environmental Impact Over the Life Cycle: Asahi Glass’s High-Performance Glass Products

Use of high-performance window glass reduces CO₂ emissions

Asahi Glass Flat Glass Company, Japan/Asia Pacific is putting its energies into developing mado2™, a window insulation unit, and their Sun Balance™ high-performance glass, use of which can contribute to reducing environmental impact, along with activities to reduce the environmental impact of CO₂ emissions and industrial waste generated during the manufacturing process.

At present, there are 50 million residences in Japan, of which 27.5 million are houses and the rest are apartments. Furthermore, 560 thousand houses and 650 thousand apartments are being constructed every year. All types of housing need windows, which let in heat in summer and lose it in winter. We are thus dependent on using air conditioners and emit large levels of CO₂ without being aware of it.

Under these circumstances, the attention of the general public and industry is increasingly focusing on high-performance glass, which helps us live comfortably by reflecting heat in summer and absorbing it in winter and therefore saves energy used in air conditioning, resulting in a reduction in CO₂ emissions and electricity consumption. Sun Balance™, the next-generation high-performance glass developed by Asahi Glass, is able to satisfy these requirements with its environmental consciousness and economic efficiency. mado2™ is a high-performance window unit that fits on the inside of the existing window frames in a house and increases the thermal efficiency.

As a result of these efforts, CO₂ reductions during usage of a product exceed the CO₂ emissions during the manufacturing process at a certain point. The chart below shows a comparison of the CO₂ reductions during usage estimated from mado2™ and Sun Balance™ sales results in and after 2000 against CO₂ emissions during the manufacturing process.*1 It has been found that CO₂ reductions during usage exceed CO₂ emissions during the manufacturing process for the several years since the introduction of those products. If all housing units in Japan were equipped with mado2™ or Sun Balance™, this would greatly contribute to achieving the CO₂ reduction goal of about 62 million tons required for Japan under the Kyoto Protocol.

Actually, we had already started developing products that contribute to CO₂ reductions during usage in 1992, when the Flat Glass Company started developing and marketing these kinds of products. The Company is working to continually improve the eco-efficiency of windows.

*1 Boundary of life cycle assessment – prerequisite of CO₂ analysis

- LCI data from mining through transportation of flat glass materials and fuel:
  Quoted from Introduction to LCA Practice (3. LCI case study of glass bottles; 3.4.1 Raw materials manufacturing process; Table 3-7)
- Flat glass manufacturing, cutting, sputtering, and double-glazing unit manufacturing processes:
  Calculated from fiscal 2003 actual data from the Flat Glass Division of Asahi Glass’s Kashima Plant and AGC AX Co., Ltd. Kashima Plant
- Raw materials for sash (aluminum, PVC, etc.), spacer and sealant for doubled-glazing units
  Quoted from and referred to http://www.yasuinv.net/CREST/lca-thinking/useful/gentann_menu.htm (Japanese)
- Energy-saving efficiency during usage
  1) Single-pane glass window → Pair Glass™, ordinary double-glazing unit
  2) Single-pane glass window → Sun Balance™ (high insulating performance double-glazing unit):
  Quoted from Energy Conservation by Improvements in Housing Window Structures, Plastic Window Promotion Committee
  3) Inner Window™, double-layer glass windows, installed; 4) mado2™ installed (using double-glazing unit); 5) mado2™ installed (using high insulating performance double-glazing unit): Quoted from the reduction estimates in the high-performance housing/building energy system promotion program promoted by NEDO, March 2005 (energy saving in home improvements for thermal insulation)
In addition to their efforts to reduce the environmental impact during manufacturing, Asahi Glass also develops and markets window glass products that will contribute to reductions in environmental impact during usage. Due to their excellent eco-efficiency, these innovative products achieve CO₂ reductions that exceed CO₂ emissions during the manufacturing process at a certain point, compared to ordinary single-pane glass window.

**mado²™**, put on the market in February 2004, is a high-performance Inner Window™ unit that fits on the inside of the existing window frames in a house and reduces the environmental impact. If a customer chooses one application of the unit based on his or her preference, it cuts noise, increases thermal efficiency and guarantees security.

For instance, choosing a high insulating performance double-glazing unit is best for the most effective insulation. If a customer uses a unit consisting of a 3 mm glass sheet, a 12 mm air gap, and a 3 mm glass sheet coated with a special metal film, it will save 25% of air-conditioning energy, compared to single-pane glass (District III, the entire Japan except for the northeastern region, according to the reference materials provided by the Plastic Windows Promotion Committee). A customer may also choose a laminated glass, which will enhance soundproofing and house security.

**Inner Window™**, marketed to provide better sound and thermal insulation, has been selling for over 20 years. As a glass manufacturer, Asahi Glass is proud of **mado²™**, developed based on the technologies and experience obtained from Inner Window™. It consists of high-performance glass in an advanced sash frame giving improved thermal and sound insulation.

**Sun Balance™**, made to be fitted in new houses, reduces CO₂ emissions by about 35%, compared to single-pane glass

Sun Balance™, a product fitted in new houses, is a high insulating performance double-glazing unit, in which the side facing the dry air layer is coated with a special metal film. It satisfies the Next-Generation Energy-Saving Standards Japanese Ministry of Land, Infrastructure and Transport, stipulated to reduce the energy consumed by air conditioning by about 20%.

Sun Balance™ reflects sunlight to prevent rising room temperature in summer, increasing air-conditioning efficiency. In winter, it prevents radiant heat from being wasted, increasing heating efficiency. One example of the unit consisting of a 3 mm glass sheet, a 6 mm air gap, and a 3 mm glass sheet transmits 41%, in other words, it blocks 59% of solar radiation. Single-pane glass is able to block only 12% of radiation. In winter, when we do not wish to let the warmth out, a Sun Balance™ unit with the above structure has a heat transmission coefficient (U value) of 2.6 W/m²·K, while it is 6.0 W/m²·K for single-pane glass, which means that it lets out more than twice as much heat. Sun Balance™ is also highly effective in cutting down UV rays and preventing condensation.

In annual CO₂ emissions from a house in Tokyo, a house with Single-pane glass windows emits 1,903 kg of CO₂ while that fitted with Sun Balance™ windows emits 1,246 kg of CO₂. This means a reduction of 35%, equivalent to 657kg of CO₂, and saving about ¥43,000 on electricity bills.

We continue to expand our marketing of Sun Balance™ and **mado²™**.

### Comparison of thermal insulation (heat transmission coefficient: U value)

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<tr>
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<th>Single-pane of glass (3 mm)</th>
<th>High insulating performance double-glazing unit (3 mm + 6 mm air gap + 3mm)</th>
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</thead>
<tbody>
<tr>
<td><strong>U Value</strong></td>
<td>6.0 W/m²·K</td>
<td>2.6 W/m²·K</td>
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**Inner Window™**

*Inner Window™* is a set of windows to be installed in addition to existing single-pane windows from inside of the house to increase thermal and sound insulation and security.
The Kyoto Protocol, coming into effect in February 2005, stipulates a mandatory reduction in greenhouse gases (CO₂, methane, nitrous oxide, HFC, SF₆, PFC) by the start of the period from 2008 to 2012 at a given percentage (6% for Japan, 7% for the United States, and 8% for the EU) over 1990 levels. Figures for the Global Warming Potential (GWP), the index used to translate the level of emissions of various gases into emission of one kilogram of carbon dioxide, are high for HFCs (140-11,700) and SF₆ (23,900). As a manufacture of fluorinated greenhouse gases (GHGs) such as HFCs and SF₆, Asahi Glass is searching for how to achieve the mandated goals under the Kyoto Protocol and assume their corporate social responsibility (CSR). The Company has already started research and studies into this issue and had developed its own measures for preventing global warming even before the Kyoto Protocol was adopted.

Our Chiba Plant especially focused on reducing fluorinated GHG generated during manufacturing. As for HCFC-22, about 2% of HFC-23 is generated during the manufacturing process. Our Chiba Plant therefore constructed a facility to collect HFC-23 for destruction while developing the technology to reduce the amount of HFC-23 generated. At the destruction facility, fluorinated GHG are burned in an incinerator and turned into moisture and CO₂. The Chiba Plant and Kashima Plant are equipped with two incinerators each.

As a result, we succeeded in drastically cutting down on fluorinated GHG emissions. The chart on the 13 page shows the changes in fluorinated GHG emissions at Asahi Glass. According to the chart, we have reduced emissions by about 94% compared with 1995. Regarding the targets on a CO₂ basis for fluorinated GHG reduction set by the Japanese industry associations, we achieved –97% for HFC-23 (target: –70%*1), and –92% for SF₆ (target: –75%*2). It is clear that Asahi Glass has outdistanced its competitors with such significant progress.

We are not fully satisfied with these results yet. At the Chiba Plant, more efforts are being made. They include paying careful attention to routine management, promoting employee awareness of global warming, and thus saving electricity and fuel consumption. We continue to strive to increase global environmental conservation. Starting from what we know we can achieve, we continue to take on new challenges. We are sure that you will be convinced that our management policy “JIKKO” is working
Among the greenhouse gases (CO₂, methane, nitrous oxide, HFC, SF₆, PFC) stipulated in the Kyoto Protocol, Asahi Glass manufactures fluorinated greenhouse gases such as HFC, and SF₆. Reviewing the existing manufacturing process, the Company is trying to reduce emissions into the air and to prevent leakage. Asahi Glass collects, destroys and recycles fluorocarbons after use, and the amount collected is increasing year by year.

Abbreviations

CFC: Chlorofluorocarbon
HFC: Hydrofluorocarbon
HCFC: Hydrochlorofluorocarbon
PFC: Perfluorocarbon

Properly within the PDCA cycle.

**Destroying and recycling of fluorocarbons**

In 1997, Asahi Glass started to collect fluorocarbons (CFC, HCFC, HFC) from customers to destroy them at our fluorocarbon destruction facilities. It was decided under the Montreal Protocol that usage of CFCs, which have had significant adverse effects on the ozone layer, would be phase out. The AGC Group manufactures CFC alternatives (HCFC, HFC) to provide them to such customers as home appliances and automobile manufacturers. The Protocol mandated that fluorocarbons, which are used for refrigerants in air conditioners and refrigerators, be collected after use for appropriate disposal pursuant to the Law for Recycling of Specific Kinds of Home Appliances (“Home Appliance Recycling Law”) and the Law concerning the Recovery and Destruction of Fluorocarbons (“Fluorocarbons Recovery and Destruction Law”). As a fluorocarbon manufacturer, we consider the destruction of used fluorocarbons to be part of our CSR efforts, and so Asahi Glass has constructed the industry’s largest destruction facility with a capacity of 1,000 tons/year to dispose of fluorocarbons collected from customers. HCFC-22 is recycled into fluorspar or fluororesin at the facility.

Fluorocarbons collected from customers are put into one-ton cylinders for gas chromatography analysis and subsequent sorting (to be destroyed or recovered). Sorted containers are carried to the facility for pyrolysis, which uses a liquid injection method approved by the United Nations Environmental Programme (UNEP). Then vaporized fluorocarbons are blown into the incinerator together with fuel for pyrolysis at a high temperature of over 1,200°C. Pyrolyzed fluorocarbons are instantly cooled to prevent dioxins from being generated. The Chiba Plant destroyed 110 tons of fluorocarbons by this method in 2004.

In January 2005, when the End-of-Life Vehicle Recycling Law came into effect, Asahi Glass was designated as a contractor to collect CFCs used in automobile air-conditioning systems, and swung into full gear with this scheme. Asahi Glass is assigned the area including Tokyo, Kanagawa, and Chiba, which includes quite a number of vehicles registered, and we therefore expect to collect increasing amounts of fluorocarbons from now on. If we are able to improve the collection rates for business-use air-conditioning systems, freezers, and vending machines, which remain around 28%, we can expect to drastically increase the amount we deal with. Asahi Glass would like to increase the amount to 500 tons as soon as possible.

The AGC Group strives to be a globally outstanding environmentally-conscious enterprise by being fully responsible for the products offered to our customers up until the very end of the product life cycle, as well as restricting emissions of substances that may adversely affect the environment during manufacturing of the product.

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1. Japan Fluorocarbon Manufacturers Association
2. Japan Chemical Industry Association
As a member of the global community, we are committed to fulfilling our social responsibilities. We are providing products/services that can be used with satisfaction by our customers, and that free them from worry about environmental pollution. We are committed to creating corporate value and putting into effect transparent and proactive environmental management.

This is what Automotive Glass Company, Japan/Asia Pacific General Division declared in its environmental policy. This policy focuses on six agendas: namely, Complying with Laws and Declarations, Creating environmentally-friendly products and services, Providing the most advanced environmental products to our customers, Continuous improvement to reduce the Environmental environmental impact and prevent pollution, activities and information disclosure/sharing and Overseas activities. It is concluded that the Automotive Glass Company seeks to supply customers with eco-friendly products that contain reduced amounts of resources, have a lower environmental impact, and are more recyclable, as well as services and information.

The Automotive Glass Company, who purchases raw materials from his suppliers for added value and provides automotive manufacturers with products, stays focused on green purchasing to develop their Integrated Environmental Management system (EMS) activities. These days, restrictions have been put on raw materials used for automobiles, including the End-of-Life Vehicles (ELVs) Directive (2000/53/EC) in Europe and other domestic regulations. Automotive manufacturers use eco-friendly materials and also seek for parts that are manufactured by processes that have lower environmental impact. It is already common-sense among automotive manufacturers that environmental consciousness gives a competitive advantage.

As automotive manufacturers are our customers, “environmental consciousness is a competitive advantage” is also our motto. Purchasing raw materials in line with our basic environmental policy leads to us assuming our corporate responsibilities as a global citizen and also leads to customer satisfaction. The Automotive Glass Company lets his suppliers upstream know about their plans and involves them in further green Purchasing efforts.
The Automotive Glass Company encourages green purchasing of raw materials and parts. The Company provides its suppliers with guidelines comprising Asahi Glass’s own standards and those that customers wish to set in order to expand green partnerships for procuring raw materials with low environmental impacts.

Guidelines for Green Purchasing revised in March 2005
Green procurement is carried out in line with Asahi Glass Green Purchasing Guidelines. We disclosed the Automotive Glass Company’s green purchasing policy and guidelines for regulated substances to our suppliers, and then prepared the guidelines combined with Asahi Glass’s own policy, respecting relevant legislation in Japan, the Americas and Europe as well as the regional regulations of automotive manufacturers. After the original version was issued in September 2002, we have periodically reviewed the guidelines so that changes in relevant legislation in Japan, the United States and Europe, market needs, and other useful information can be incorporated. The third edition, for which the second revision was made in March 2005, is currently issued. An English version is also available for suppliers abroad.
In October 2003, the Company worked on establishing a database system to improve availability while revising the guidelines. In the database, we store data on the results of surveys on chemical substances contained in materials and LCA analysis, and results of the questionnaire on environmental management, all of which were offered by our suppliers. We are therefore able to establish a sustainable system environment accessible to our suppliers, Asahi Glass, and customers. At the second revision, we increased the number of substances subject to regulation so as to satisfy stricter requirements under the relevant legislation.
The Automotive Glass Company holds briefings for its suppliers whenever a revision is made. The Company explains revised items and asks its suppliers to clarify the characteristics of substances that come under the guidelines, use the substances in ways that comply with the required environmental standards, and pay attention to environmental conservation during the manufacturing and management processes. Fostering further understanding with suppliers by replying to all their questions, we are establishing green partnerships for a win-win relationship with them in environmental terms.
At the Automotive Glass Company we have already held three briefings on raw materials such as glass and interlayer for our suppliers. Briefings are also held in our Kitakyushu, Aichi, and Sagami Plants for secondary materials used in the manufacturing process, which have attracted hundreds of suppliers.

Providing customers with top environmental-quality products
Green purchasing is spreading throughout society as an effective measure for establishing a sustainable society. Globally, one out of three vehicles on the road has had the AGC Group’s glazing installed by now. As a leading automotive glass manufacturer and seller, the Automotive Glass Company is developing plans to further promote green purchasing, responding to the needs of society and our customers.
Revised guidelines for 2005 contain an item asking suppliers to acquire the environmental management system (EMS) certification by an independent organization. Automotive Glass Company Japan/Asia Pacific Headquarters distributes the cards to our employees including those working in our plants, encouraging them to fill in their own environmental goals and the roles they have, and carry them all the time during working hours. These cards are also distributed to partner firms for better collaboration. Thus, we continue our efforts to constantly provide top environmental-quality products to customers.

*1 See page 31 for integrated EMS
The AGC Group consists of Asahi Glass Co., Ltd. and 253 consolidated subsidiaries (including 186 outside Japan), active in four business areas: Glass, Electronics and Display, Chemicals, and Others. About half the sales come from overseas operations and the total workforce consists of 24% in Japan and 76% outside Japan. It is a fully global enterprise with a range of different cultures, capabilities, and human resources brought together from all over the world.

Committed to improving the corporate value, the AGC Group strives to excel as a highly profitable and fast-growing enterprise that globally supplies materials and components based on its core technologies in glass fluorine chemistry and their related fields.

### Company Profile

Name: Asahi Glass Co., Ltd.
Head Office: 1-12-1, Yurakucho, Chiyoda-ku, Tokyo 100-8405, Japan
Date of Establishment: September 8, 1907
Date of Incorporation: June 1, 1950
Paid-in Capital: ¥90,472 million
Stock Issued: 1,175,242,497 shares
Number of Employees: Nonconsolidated: 5,886; Consolidated: 56,776
President & CEO: Masahiro Kadomatsu

### Sales by Operating Segment (at the end of December 2004)

<table>
<thead>
<tr>
<th>Segment</th>
<th>In-house Company or SBU</th>
<th>Main Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>Flat Glass Company</td>
<td>Float glass, Double-glazing, Figured glass, Wired glass, Heat reflective glass, Heat absorbing glass, Fabricated glass, Mirrors</td>
</tr>
<tr>
<td></td>
<td>Automotive Glass Company</td>
<td>Automotive glass, Laminated glass, Tempered glass</td>
</tr>
<tr>
<td></td>
<td>Asahi Fiber Glass</td>
<td>Glass fiber products</td>
</tr>
<tr>
<td></td>
<td>Asahi Techno Glass</td>
<td>Speciality glass (i.e. fluorescent light glass)</td>
</tr>
<tr>
<td>Electronics &amp; Display</td>
<td>Display Company</td>
<td>CRT, CRT glass, FPD, TFT-LCD glass, PDP glass, TN/STN LCD glass</td>
</tr>
<tr>
<td></td>
<td>Optrex</td>
<td>Small- and medium-sized displays</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Chemicals Company</td>
<td>Fluorochemicals, Fluorinated resins/gases and solvents/water and oil repellent agents, Ion-exchange membrane, Pharmaceuticals and bulkproducts</td>
</tr>
<tr>
<td></td>
<td>Ise Chemical, etc.</td>
<td>Soda ash, Caustic soda, Caustic potassium, Hydrochloric acid, Vinyl chloride products</td>
</tr>
<tr>
<td></td>
<td>Urethane and others</td>
<td>Iodine-related products and others</td>
</tr>
<tr>
<td>Others</td>
<td>Asahi Glass Ceramics, etc.</td>
<td>Ceramic-related products and others</td>
</tr>
</tbody>
</table>
Asahi Glass carries out aggressive IR activities on a global scale, including meetings and briefing sessions, to ensure fair evaluation of our marketable securities (including shares and corporate bonds) and interactive communication between the management and the market.

Some 250 Meetings, Interviews with the Media, and Presentations Held Annually for Active IR

Our management policy “JIKKO” - Execution for Excellence aims for a continuous increase in shareholder value. To achieve this, we are engaged in active IR to make our business activities and changes in sales widely known to our investors.

Generally, we have some 250 inquiries from analysts and institutional investors in and out of Japan for interviews and meetings, and our IR staff respond to these requests. Of those inquiries, about 70 interviews and meetings are for overseas institutional investors. The current increase in the number of such opportunities indicates the fact that overseas institutional investors have a relatively high level of interest in the AGC Group as a global enterprise.

Considering this situation, we believe it very important to provide information to as many people as possible as per our policy of “fair disclosure.” To be specific, various tools used for IR, documents disclosed to participants in briefings and meetings to introduce our company or our account settlement and data distributed by streaming media, including video and audio, are available on the website both in Japanese and English.

Our CEO, CFO and other managerial staff directly visit institutional investors on a periodic basis to explain our business and financial conditions. Visits of our management to foreign institutional investors, which started in 2000, cover Europe, the Americas and Asia/Pacific every year.

We need to deal with individual investors differently, for the impression our group makes on them varies from general consumers and investors. For instance, it seems relatively difficult for end consumers to get an image of Asahi Glass because our status, as a materials and components supplier, does not give them any clear impression. Thus, we started IR for the general public by improving the periodical we issue to individual investors AGC Review and placing ads in the media, including TV commercials so that our name will be recognized by consumers and attract their attention.

Asahi Glass will further improve our IR activities and deepen mutual communication with investors and the market.

Presentations on our business activities

Please refer to the following URL for details of IR information.
http://www.agc.co.jp/english/ir/

Introduction to SRI (Socially Responsible Investment)

A new method to evaluate and select which companies to invest in is drawing attention mainly in Europe and the Americas, which emphasizes the evaluation of social responsibility in addition to the conventional financial analysis. Investment based on this idea is called “socially responsible investment.” Companies are evaluated based on the SRI index consisting of social responsibility items, including consideration of the environment, human rights, and compliance, and will be included in some SRI funds depending on the index. Our stocks are included in several SRI funds based on the SRI index.

Major SRI indexes in which Asahi Glass is included

FTSE (an index provider offered jointly by the Financial Times and the London Stock Exchange)

Dow Jones (US investment advisory company)

FTSE4Good
Customer Satisfaction (CS) and Quality Improvement

AGC Group CS Policy Guideline

In September 2004, we published the AGC Group CS Policy Guidelines, which is Asahi Glass’s statement to the public under the name of the CEO of the AGC Group and restated before commemorating the 100th anniversary in 2007. The Guideline announce our basic attitude to enhanced efforts in CS and quality improvement. The AGC Group introduced and practices the quality management system (QMS) under the banner of “Greeter CS and Quality Improvement Efforts.”

In our management policy, “JIKKO” - Execution for Excellence, the basic idea is to strictly follow the PDCA (Plan-Do-Check-Act) cycle in carrying out all our business activities and services in every aspect. The management policy states that the Group will “create a spiral of momentum that drives shareholder value continuously higher.” while improving customer satisfaction as well as employee job satisfaction, and pride in accomplishment (ES) and corporate social responsibilities (CSR). As specified in the AGC Group CS Policy Guideline, we will seek out for “Innovation & Operational Excellence” spelt out in “Our Shared Values” of the AGC Group Vision “Look Beyond” and provide customers with products and services that can give them full satisfaction.

All the past efforts in improving quality of products offered by each group company have been made in line with the AGC Group Quality Management Principle. This Principle, however, provides for the basic policies for QMS efforts on the part of each AGC Group company and thus fails to clearly show to our customers our commitment to greater CS and quality improvement efforts. Now the Principle has been given a substantial overhaul simultaneously with the publication of the AGC Group CS Policy Guideline. The revised Principle specifies a clear scope of application, which is all the products and services offered by every AGC Group company to customers and all the services related thereto, and articulately defines the responsibilities of CEO, division heads (i.e. President/Heads of In-house Companies/SBU), heads of Group Corporate Divisions, Service Centers, Research Center and the presidents of the companies affiliated to the foregoing. In addition, the roles of CEO and division heads are also specified. CEO and division heads hold each other responsible for establishment of an organization that should promote CS and quality improvement efforts, continuous improvement in QMS, and periodic management reviews (CMR). Division heads are responsible for monitoring customers, while the CEO is responsible for establishment and execution of processes necessary for QMS for the entire AGC Group by assigning corporate quality managers. Comments and opinions of customers and third parties are always incorporated to the process of continuous improvement of efficiency and effectiveness of QMS, thereby ensuring CS and quality improvement efforts.

Establishment of the Quality Improvement Division

We set up the Quality Improvement Division in April 2005 to ensure that the AGC Group CS Policy Guideline and the AGC Group Quality Management Principle spread widely through the Group and to achieve the best QMS. The executive officer in charge of corporate quality management representative was assigned as GM of the Division.

The Quality Improvement Division pays regular visits to AGC Group companies, including In-house Companies

AGC Group CS Policy Guideline

Management Policy “JIKKO” Execution for Excellence

—To achieve the new management policy “JIKKO” - Execution for Excellence,—

1) We will provide products and services that conform to the quality requirements of customers as well as regulatory.

2) We will incorporate the concept of CS into every working day and pursue “Look Beyond” - Innovation & Operational Excellence.” We will be thoroughly watchful and attentive in satisfying customer requirements in order to establish AGC by “far and away” as the top brand.

3) We will all participate in the continuous improvement of quality management effectiveness and efficiency and each of us will individually strive to increase the value of our work.

4) In order to ensure the above points are realized, we will establish a policy based on the business partners we will then do our best to realize customer satisfaction.

AGC Group Quality Management Principle

Responsibilities of CEO

1) Commitment to CS
2) Establishment of CS Guidelines
3) Execution of CMR
4) Internal communication
5) Appointment of Corporate Quality Management Representative (CQMR)

Responsibilities and roles of CQMR

1) Establishment and enforcement of the processes necessary for QMS
2) Reporting CEO on the necessity of QMS improvement
3) Ensuring that everyone knows the importance of complying with customer requirements

Responsibilities of the Division Heads

1) Responsibility for product quality
2) Establishment and continuous improvement of QMS
3) Setting and executing quality policies and quality objectives
4) Appointment of Division Quality Management Representative (DQMR)
5) Acquiring the necessary managerial resources
6) Executing the in-division management view
7) Monitoring customer perception
8) Transfer of authority

Quality Improvement Division
Our management policy “JIKKO—Execution for Excellence” aims to improve customer satisfaction (CS) and quality. We carry out our daily activities from the viewpoint of CS to achieve the best we can. The watchword is “incorporating the concept of CS into every working day”

and SBUs, interviews division heads regarding CS and quality improvement efforts, and distributes questionnaires to employees through the website. The purpose is to understand how much the management policies in the AGC Group CS Policy Guideline are understood by division heads and how smooth the current communication with customers is in order to lay down a clear path for the Division’s activities. Although each AGC Group company can develop the measures needed in general on their own, they are still poor at following the “Do-Check-Act” cycle. This drawback may be eliminated by each employee understanding the importance of CS and quality improvement efforts and participating in putting QMS into practice. The regular efforts being made by the Quality Improvement Division to this end includes establishing and implementing the processes necessary for QMS, evaluating the status of how CS and quality improvement is being carried out in each division, and providing education and training.

Incorporating the concept of CS into every working day

The AGC Group implements the “principle of greater CS and quality improvement efforts” with a shared slogan of “incorporating the concept of CS into every working day.” This translates as putting ourselves into our customers’ shoes, clearly understanding customers’ requirements, listening to customers’ evaluation of our work, and continuously improving our daily activities. The Quality Improvement Office formed Club QMS to better familiarize the Group with the idea of Incorporating the concept of CS into every working day. Any employee of the AGC Group can join Club QMS. With “learning together, growing together” as the keyword, the Club carries out publicity activities based on interactive communication, which mainly includes distribution of the newsletter. Currently, active exchange of notes and ideas is going on among the employees, with many division heads also being members. It is our firm belief that we can provide our customers with products and services that can give them full satisfaction by all AGC Group employees – some 57,000 people – working on the concept of Incorporating the concept of CS into every working day as the principle behind our daily activities.

Self-imposed Recall of Sodium Bicarbonate by Chemicals Company

On February 17, 2004, a pharmaceuticals firm, one of our customers, complained to our Chemicals Company that they had found a foreign material mixed in with the material supplied by us. Three days later, the Kashima Plant received the problem material, analyzed it, and found that the foreign material was part of the fluororesin packing and that it fallen off from a defective electromagnetic feeder and had become mixed with the product in the packaging process. As a result, on March 12 the Chemicals Company publicly announced a self-imposed recall of all baking soda – a total weight of 1,900 tons – shipped for use in pharmaceuticals and food additives.

This is one example of how our Chemicals Company coped with an abnormality. The Company took it very seriously, acted swiftly and successfully avoided the worst. This incident was a good lesson on how the AGC Group should think and act for CS. The lesson made us realize afresh the importance of, and our firm commitment to, never causing quality problems, which all employees should keep in mind. Listening to the complaint and handling it swiftly and accurately was a matter of course. We have again reassured ourselves that we are promoting CS in the field of material manufacture by continuously carrying out improvement and transforming quality control, as well as administrative management.

MESSAGE

Revolutionizing Corporate Culture by Incorporating the Concept of CS into Every Working Day

Toru Kawatsura
Executive officer and General Manager of Quality Improvement

Given its long history of operations as a material manufacturer, the AGC Group should be careful not to lose sight of customer needs without realizing it. When we visit various divisions and listen to the staff there, we notice the absence of the customer in what they see and do. It is time to change ourselves and become an organization that takes CS and quality improvement efforts seriously by improving our corporate culture. The mission of the Quality Improvement Office is to have all employees, including division heads, understand the importance of greater CS and quality improvement efforts and act from a viewpoint that incorporates CS into our daily activities.

The road is winding. The goal is still a long way away. Yet, as GM of Quality Improvement, I find my job very challenging and worth all the effort. I am proud of having taken on this job.
Global Human Resources Management

The AGC Group is promoting global human resources management (HRM) as one of the key issues in realizing and spurring the evolution of globally integrated management in the AGC Group. We have two programs to help capable people in our organization, acquire global leadership, regardless of nationality or home company. The first program is the AGC Institute launched in fiscal 2004. It has two courses: the Global Leadership Session and the Dynamic Leadership Session. The former is a three-day session for ten people, typically division heads and their equivalents in Japan, Europe, the Americas and Asia selected by the CEO, where the participants discuss various themes during the session to acquire the necessary knowledge as global leaders. The Dynamic Leadership Sessions started in September 2004, with 24 middle managers from Japan, Europe, the Americas and Asia/Pacific. They took part in a week’s training at a Swiss business school and, after the training, they carried out task force activities for about four months in teams with a mixture of nationalities. They submitted a report to the CEO in February 2005. The second program is the Asian University launched in 2003 intended for managers in Asia/Pacific. They learn the Vision, Shared Values and policies of the AGC Group and the latest management methods to improve their management capabilities. The second session of the Asian University was held in July 2004. Both programs are to be held this year, too.

HRM System of Asahi Glass

The HRM policy of Asahi Glass is to establish a culture and system in which diverse and independent individuals can contribute to improving the company and experience a sense of challenge, accomplishment and fulfillment, while exercising his or her abilities.

We have four specific goals for HRM: (1) to strengthen the individual, (2) to create a culture in which we can enhance our competitiveness and improve on our result-oriented mindset, (3) to develop and utilize people to respond to improvements in globally integrated management, and (4) to establish a culture and environment in which diverse people with different employment patterns and approaches to their jobs can demonstrate their abilities.

To achieve four goals, we have introduced a separate HRM system based on roles and functions for non-managers, divided into three courses as follows:

The E (Expert) Course intends to drive business strategies and enhance divisions for personnel who will play core roles in their own divisions. The S (Skill) Course intends to ensure smooth production by mastering productive techniques and skills and passing those on to the next generation of employees. The C (Clerk) Course helps employees carry out clerical operations accurately and speedily.

The average age of all employees is 42.7 years (43 for men and 35 for women), with the average length of employment being 20.3 years (at December 2004). We actively promote women to managerial positions, and there were 42 woman managers in December 2004, up four from the previous year.

Infrastructures of HRM System

Asahi Glass has two committees, the Human Resources Management Committee (HRMC) and the Human Resources Development Committee (HRDC), to support decision-makers in employee assignments, evaluation and compensation. HRMC focuses on senior managers, while HRDC focuses on managers and non-managers. These committees review the direction of HRM, and line managers, based on the feedback of the committees, assign jobs and missions to employees according to the capability classification.
The AGC Group has a fair HRM system with no bias in terms of to nationality or ethnicity in developing human resources, the driving force of our corporate power, in order to realize an integrated management system for all our operations across the world. The keywords for human resources development are selection and self-reliance. We offer training to our employees to encourage them to acquire global leadership capabilities and educational opportunities that take into account their own individual capabilities, aptitude and willingness. Please see pages 52 and 53 for occupational health and safety.

Asahi Glass uses the Mission & Achievement Management Program (MAP), an in-house scheme to ensure achievement of the stated targets of the organization through management of missions and objectives. To be specific, MAP makes a fair evaluation of the degree of contribution an individual employee makes to the organizational performance based on how much the employee has achieved the mission or target set based on the policy of the president, division or section. MAP consists of a series of processes, such as assignment of missions, setting of objectives/targets, formation of action plans, progress review and performance evaluation, and the processes are implemented annually. The MAP makes a fair evaluation of the degree of contribution an individual employee makes to the organizational performance.

Training/Development System

We train and develop people based on two key concepts: selection and self-reliance. Our system, therefore, is designed to match the employee's role or function, regardless of their length of service. Individual training is provided to all employees on the E Course (non-managers) and managers. They have a talk with their superior, a process known as “human resources development communication,” before taking the training. The line leadership education is provided for the S Course employees to enhance the technical capability of the production line. Managers also take manager training courses, including the Management Program for Senior Engineers or the Management Program for Senior Marketers, go on to receive educational programs for executive candidates at the AGC Management College, and are assigned to important positions. Our career development system provides career design assistance, self-development support and selective development programs. We will prepare a training/education and career development system that suits each trade or job and the capabilities and requests of each employee across the entire AGC Group to enhance the basic capabilities of our human resources.

<table>
<thead>
<tr>
<th>Relationship Between Policies, Systems and Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Processes</strong></td>
</tr>
<tr>
<td><strong>Assign and develop</strong></td>
</tr>
<tr>
<td><strong>Evaluate and reward</strong></td>
</tr>
<tr>
<td><strong>Others</strong></td>
</tr>
</tbody>
</table>

Training/Development System:

- **Selection**
  - Non-managers on the S Course
    - 3 days/month for 6 months (4 people per year)
    - Training to enhance productive techniques and skills of production line leaders
  - Managers
    - Management Program for Senior Engineers aimed at developing new project leaders
    - Management Program for Senior Marketers aimed at developing marketing leaders
    - MBA/Law school, etc.
    - Dispatch a few employees to business school or law school in Europe or the USA (for MBA courses, etc.)
- **Non-managers on the E Course**
  - AGC Management College
    - For development of executive candidates
    - 1. Lectures on management philosophy, etc.
      2. Action learning on management reform tasks
    - Assignment of people to important positions
  - Others
    - Self-reliance
      - Support for all managers and non-managers
        - Introduction to internal/external schools and programs plus grants (¥120,000 per year)
      - Basic training: Training in basic common knowledge necessary for all employees (e.g. compliance)

Career Skills Development:

- **Career planning**
  - Support autonomous planning for self-development
  - Career design assistance (E Course)
- **Human resources development**
  - Provide opportunities for an assignment or training that matches the individual aptitude and for regular communication with supervisors about career development
  - HDC, meeting with supervisors using communication sheet, etc.
- **Self-development support**
  - Communications training, E-learning
  - Course for external school, Internal training courses
- **Development**
  - Target key people in areas of high importance or urgency
    - AGC Management College, Advanced technical course
    - Advanced sales course
- **Challenging careers**
  - Help employees take the initiative in taking the job that can make the most of their skills, for assignment of the right people to new projects or to reinforce businesses and for greater organizational vitality
  - In-house voluntary recruitment system
  - In-house free agent system
- **Specialist careers**
  - Utilize employees who are excellent in very advanced skills as specialists for optimum evaluation and rewards
  - Specialist course

*1: Both programs are held 3 days/month for 10 months with about 20 people per year.
Creating a Sound and Comfortable Work Environment

Asahi Glass is developing systems in which people in a diversified and capable workforce can fulfill their abilities and further improve them. Moreover, we aim to create a culture in which all employees can work in a discrimination-free, sound and comfortable work environment with national, regional, ethnical and cultural differences of employees fully respected.

Career Development

Asahi Glass has in place the “Challenging Career System,” a flexible in-house career change scheme, to help employees make the most of what they have and carry out their activities with full satisfaction.

The system is a two-part scheme, an in-house voluntary recruitment system and an in-house “free agent” system. The scheme helps employees take the job that makes the best use of their skills of their own volition, thereby allowing the right people to be assigned to new businesses or focal businesses for greater organizational vitality.

The specialist course system is also available to utilize the capability of highly specialized people for fair evaluation.

Human Rights Education and Training

The Human Resources and Administration Center has a special section for human rights education and training to handle human rights issues for the entire AGC Group and promote the establishment of sound and fair work environments free of discrimination. Respect for human rights and the prohibition of discrimination are explicitly stated in the Asahi Glass Code of Conduct and Asahi Glass employee regulations. These principles are also shared by all employees through our periodic training programs.

Concerning sexual harassment, we run a counseling service and a hotline system as an accessible route of communication for any potential harassed employees and lose no time in acting to stop any harassment. In addition, we make efforts to prevent unintentional harm being caused to others by institutionalized gender discrimination, a situation whereby people are unconsciously biased against recognizing another gender as an equal partner in the workplace. Reported cases are treated through the retraining of perpetrators combined with an emphasis on reforming the consciousness of the whole workplace.

Employee Benefits

The policies guiding our benefits packages are:

1. Enrich individuals through self-selection and personal responsibility
2. Maintain fairness among people and address their changing needs

Based on these policies, we have operated a selective benefits package system (cafeteria plan) called “My Story” since 2002. This point-based system allows employees to choose from 25 menus of options which suit their needs, such as retirement, education, or child-rearing. They can receive up to 1,200 points per year, with 1 point equal to ¥100 in value.

Besides the optional menus, we also support the care of children or family members. The childcare leave system at Asahi Glass allows employees to take leave until their child reaches one year and six months old. Other systems permit employees to take up to 12 months’ leave to care for families or to work part-time for child or family care. After taking child care or family care leave, employees are able to resume the job they had when they left.

<table>
<thead>
<tr>
<th>Employees taking child care leave</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of people</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>No. of people</td>
</tr>
</tbody>
</table>

*1 including one male employee

<table>
<thead>
<tr>
<th>Employees taking family care leave</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of people</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>No. of people</td>
</tr>
</tbody>
</table>

Career Changes

In-house voluntary recruitment system
- Each division can advertise targeted positions on the Asahi Glass intranet to recruit voluntary employees willing to move to and assume those duties.
- Positions are open to non-managers (E, S, C Courses) and managers who have worked at Asahi Glass for at least 4 years (conditions depending on the position).
- Positions are posted once a month.

In-house “free agent” system
- Employees can apply directly to move to a certain division through interviews and appointments. Applications are sent directly to the head of the relevant division.
- This system is open to E Course employees and managers who have worked at Asahi Glass for at least four years.
- Applications can be submitted at any time.

Specialist Career Paths
- System for utilizing and properly evaluating certain employees as high-level specialists instead of line managers.
- Applicable to senior managers and managers. Applications are submitted and authorized once a year.
The AGC Group defines compliance as “following laws and regulations as well as social codes and rules, including business ethics, in carrying out business activities.” Compliance efforts lead us to “Integrity” in the Group Vision “Look Beyond.”

**Global Compliance Organization Launched**

The AGC Group has established a global compliance system, consisting of the Compliance Committees in Japan/Asia Pacific, Europe and the Americas. Each headed by a chairman, the three committees ensure compliance in their own region, while gathering information from In-house Companies and SBUs in their grounds. Newly added to this global system of compliance is the post of Global Compliance Leader (GCL), which was assumed by the Senior Executive Vice President of Asahi Glass, who also chairs the Japan/Asia Pacific Compliance Committee. GCL gathers information from the three regional through monitoring, regularly provides reports to the President & CEO in charge of legal compliance, and enhances the level of compliance for the entire AGC Group by determining the problems and issues in each area. We also formulated the Compliance Reporting Guidelines early in 2005. Laws and regulations to be complied with vary depending on the nation, culture and commercial practices. Working Office members of the three committees have clarified the standard and route of reporting with respect to information on compliance violations that should be swiftly notified to top management by listing up the various possible compliance-related risks, including those for which we must be responsible as a corporation or as an individual. The three-part Compliance Program, consisting of the Code of Conduct, the Help Line, and the Compliance Certificate, has been introduced across the entire AGC Group. The European version of the Code of Conduct was put together in 2004, in the last of the main three regions in the world. The overseas Codes of Conducts, which appropriately incorporate the laws, regulations and practices applicable in each region, are in line with Asahi Glass’s Code of Conduct that was fully revised in 2003. The Compliance Help Line system is undergoing improvement to cope with the unique characteristics of each region. For instance, many in Europe found it difficult to contact the line for consultation or reporting by means of e-mail or letters, and in response, a total of 14 compliance managers, two in each of the seven major countries, were assigned to ease the route of contact. The compliance certificate system has also been introduced at the sites of our major operations throughout the world. As of December 2004, all of the 1,453 main career track employees in North America and 50 executive class employees in Europe submitted their signed compliance certificates to the chairman of their respective Compliance Committees. True to the pledge of “Integrity,” the Compliance Committee is determined to establish a system to promote the process of PDCA in compliance at the international level so that all employees, carry out compliance-based activities on global basis.

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* SBU: Strategic Business Unit
Asahi Glass established guidelines governing the Code of Conduct in April 1998 and pledged that we will not carry out any illegal or anti-social activities, nor allow them to occur. This pledge was reflected in “Integrity,” one of “Our Shared Values” established in the Group Vision “Look Beyond” in April 2002 and has become the Code of Conduct applicable across the entire AGC Group after major revision. The booklet “Look Beyond - Our Principles and Code of Conduct” starts with “You must never do any activities that are illegal.” It is given to all employees and explains the principles based on “Our Shared Values” shown in the group vision. The Code of Conduct puts the principles into practice, and all systems and organizations ensure compliance with the Code of Conduct and help employees to attain understanding and self-awareness. The booklet also provides action guidelines for varying situations, including laws and regulations that must be complied with, relationships with customers, relationships with contractors, subcontractors and suppliers, and relationships with competitors, so that employees can readily get advice whenever they face problems during daily activities.

In September 2004, we distributed a Q&A with Commentaries for Our Principles and Code of Conduct to all employees. This illustrated booklet assumes various situations that AGC Group employees face and specifies what they are recommended to do and not to do in those situations. Information related to compliance is also provided to employees over the intranet in response to inquiries, questions and requests for advice received every day from employees.

Asahi Glass’s system to promote compliance was established in April 2002. The President & CEO assumed the role of Chief Compliance Officer, and under him the Compliance Committee was set up, chaired by the Senior Executive Vice President and with the Internal Audit Division serving as the Working Office. The committee members include group leaders that head up the various departments and centers, such as legal affairs or audit. The committee is held at least twice a year for reporting and exchanging information. The Compliance Committee is overseen by the Board of Directors. Opinions from a variety of viewpoints are expressed by board members, including external executives. Compliance officers are also assigned to various divisions of the head office and branches and plants to help to spread and encourage observance of the Code of Conduct. External consultation with outside lawyers is also available to ensure compliance. The staff of the Internal Audit Office, Working Office of the Compliance Committee, are busily engaged in promoting the three mainstays of the Compliance Program: the Code of Conduct, the help line and the compliance certificate, checking how use of the Code of Conduct is spreading, and investigating and correcting where necessary.

Asahi Glass’s Compliance Help Line is a system that allows all employees and external concerned parties to contact the Compliance Committee or other appropriate parties for
Whenever an employee finds some activity that is suspected of violating the Code of Conduct, they should basically go to their superior to report and consult. If this standard approach is unavailable for some reason, they can use a system outside their own immediate organization, which can be a similar system outside the company. We have a consultation service with external lawyers or woman specialists ready with advice so that employees can get answers to their problems, including complaints or concerns on sexual harassment and other work-related issues.

Employees should give their real names in principles when reporting or consulting. The Working Office always provides feedback to the informants contacted via the help line. Confidentiality is guaranteed for informants who give information, so no names or information shared will be let out or disclosed to any relevant party. No negative or unfavorable treatment is given to informants. If by any chance the informant experiences some retaliatory action, the retaliator will be disciplined as stipulated in the employment regulations.

When a problem is unearthed through anonymous reporting, it will be taken up in meetings or notified to employees as evidence of ongoing improvement so that the result can be known by the anonymous informant somewhere in the company. Matters that are the subject of these reports and consultations are periodically brought to the attention of the Chief Compliance Officer, or President & CEO. This system has already born fruit, leading to improvements to the Help Line consulting and organization and correction of the mere superficial system.

In 2004, hoping that small talk could bring serious problems to light, the secretariat visited plants and workplaces to explain about and to encourage use of the help line, asking people to feel free to contact the Working Office for consultation.

We also made a revised version of the portable compliance card, which folds down to name-card size, and distributed it to all employees. The card, which summarizes specific problems and cases discussed, the contact point, the flow of consultation, and the Code of Conduct, is compact enough for employees to carry in their ID holder.

As a result of these measures, the number of items that consulted through the help line soared from one or two per year before the revision of the Code of Conduct and one per month after the revision in 2003 to three per month in 2004. After the measures, the percentage of named consultations also soared from 25% to 60%. Use of the external lawyers’ office and sexual harassment hot line also increased. The Compliance Help Line has thus been accepted by employees as a reliable means of compliance.

**Procedure for Using the Help Line**

1. An activity that violated the Code of Conduct was carried out
2. Hot line to compliance officers or external lawyers (in the latter case, interview and investigation)
3. Interview and investigation by the compliance officer
4. Judgment on whether the activity violated the Code of Conduct
5. Recommendation for correction and notification to the parties involved
6. Action taken in line with the employment regulations or others
7. Writing up case notes to remove references to specific people and disclosing it in-house
8. Reporting to the Chief Compliance Officer and the Compliance Committee
9. Monitoring the result
This is the pledge from the annual compliance certificate that is signed and submitted by the employee to the executive officer in charge of legal compliance. All personnel are required to sign and submit this certificate via the intranet, e-mail or mail. Unlike a written pledge that is required to be signed to protect the company or the top management as often used in the US, our compliance certificate is regarded as an essential tool in encouraging the signatory to read the Code of Conduct again, be aware of what they represent, and to ensure that they fully comply with them, in addition to being a statement of the commitment made between the employee and the executive officer in charge of legal compliance.

A special feature of the compliance certificate is that space is provided for comments from the signing employee, under a header that says "If you have something that you need to discuss with us, please write it down here." In 2004, 45 signatories made comments on their certificates. These comments are sent to the President & CEO, in the same way as for the compliance help line, and each individual employee who makes a comment receives a reply. Sincere and honest replies to all employees who leave comments or write down their opinions is the key to full compliance.

In 2003, only managers and executive officers were required to submit the certificate, but in 2004 the roster was expanded to include general employees and presidents of consolidated subsidiaries directly run by Asahi Glass, including those overseas. The Working Office gave a total of 27 circuit presentations, mainly to new signatory candidates, in which they explained the purpose and gist of the compliance certificate. The number of signatories increased by about 1,400, from 2,415 in 2003 to 3,796 in 2004 (in 2004 all personnel listed in the roster were required to submit the certificate). The Working Office intends to gradually enlarge the roster.

Quiz for Understanding the Code of Conduct

In 2004, to deepen understanding of the Code of Conduct among employees, a quiz was given to young employees who joined Asahi Glass within the last two to three years to check how well they understood the Code of Conduct. The questions include "Please choose the answer that correctly describes the scope of application of the Asahi Glass Code of Conduct." These questions are not difficult to answer if the employee has read the Code of Conduct well and attended a compliance presentation. The quiz was started through a suggestion by one of the external executives. As it is an appropriate tool to gauge the level of understanding of compliance, we intend to incorporate the quiz results into our future educational programs.
AGC Group Basic Environmental Policy and Promotion Structure

The AGC Group is making a united effort in environmental activities in line with the AGC Group Basic Environmental Policy.

AGC Group Basic Environmental Policy

Revised on December 18, 2003
Basic Policy
Aware that its activities use relatively large amounts of resources and energy, the AGC Group has settled environmental activities as one of the core values in our group vision “Look Beyond.” As a leading company in the materials industry, we shall contribute to the creation of the sustainable society.

Slogan
Play your part as a responsible citizen in creating a better environment.

Guidelines for Environmental Activities
1. We will make continuous improvements based on the Integrated Environmental Management System.
2. We will comply with all regulations and standards prescribed by environmental laws, ordinances, treaties and agreements.
3. We will take steps to lower various forms of environmental impact and prevent pollution in every stage of our operations, while setting voluntary targets in a variety of areas, especially in respect of resource conservation, global warming countermeasures, waste reduction and recycling, and the proper handling of chemical substances. We will work to accomplish these goals while making further improvements.
4. We will develop and provide eco-conscious products, technologies, services and facilities for society in all areas of our activities.
5. We will actively communicate with society to foster a deeper understanding of all aspects of our environmental management activities.

The AGC Group Basic Environmental Policy is disclosed to the public.

The AGC Group positions “Environment” as one of the four Shared Values stated in the Group Vision “Look Beyond.” In the Vision we state that we will shoulder our responsibilities as a good global citizen by contributing to a sustainable society in harmony with nature. Implementation of specific environmental conservation activities is carried out in line with programs based on the AGC Group Basic Environmental Policy.

Environment is not our only concern. Occupational health & safety and industrial safety & security measures are also put into effect using the following organization for environment, occupational health & safety and industrial safety & security.

Coinciding with the introduction in 2002 of our In-house Company system, – a three-tier organizational structure – consisting of Group Corporate, In-house Companies/SBUs*, and branches, plants and affiliated companies, started to deal with the environment, occupational health & safety and industrial safety & security, with a dedicated body in each organization held responsible for those safety-related matters within their remit.

AGC Group organization for environment, occupational health & safety and industrial safety & security

* SBU: Strategic Business Unit
## Fiscal 2004 Plans, Results and Evaluation and Fiscal 2005 Plans

<table>
<thead>
<tr>
<th>Fiscal 2004 AGC Group Environmental Improvement Promotion Plan</th>
<th>Major fiscal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental management</strong></td>
<td>Establishing the Integrated EMS in</td>
</tr>
<tr>
<td>Establishment of an Integrated Environmental Management System</td>
<td>Asahi Glass achieved recycling target 95.4%</td>
</tr>
<tr>
<td>Preparation of a road map for the scope of global integration</td>
<td>Asahi Glass reduced CO₂ emissions target of 2,236 thousand tons, down</td>
</tr>
<tr>
<td>Development of the basis for an environmental information database</td>
<td>Voluntary site surveys and continuously carried out</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Development of a sustainable society, Reduction of environmental impact</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Making further progress toward Zero Emissions (aiming to achieve at the end of fiscal 2005)</td>
<td>Asahi Glass achieved recycling target 95.4%</td>
</tr>
<tr>
<td>Global warming countermeasures and energy saving measures (target set for execution by the Environmental Committee)</td>
<td>Asahi Glass reduced CO₂ emissions target of 2,236 thousand tons, down</td>
</tr>
<tr>
<td>Decontamination of polluted soil and groundwater</td>
<td>Voluntary site surveys and continuously carried out</td>
</tr>
<tr>
<td>Proper management of chemical substances, reduced chemical emissions, reduced toxic atmospheric and water emissions</td>
<td>Specific measures taken, including fluorocarbon, destruction and</td>
</tr>
<tr>
<td>Energy saving and environmental activities in the logistics field</td>
<td>Specific measures taken, including and recycling of packaging materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response to new issues</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Responses to new issues, such as emissions trading and environmental tax</td>
<td>Started in-house review for the</td>
</tr>
<tr>
<td>Improvement of environmental accounting and feedback to top management</td>
<td>Continuous evaluation and analysis</td>
</tr>
<tr>
<td>Promoting the environmental business</td>
<td>Continuous development and</td>
</tr>
<tr>
<td>Actions related to LCA (active participation in LCA together with customers)</td>
<td>Actions matching the characteristics</td>
</tr>
<tr>
<td>Green procurement (raw materials, components, etc.)</td>
<td>Continuous actions matching the</td>
</tr>
<tr>
<td>Green purchasing (office equipment and supplies, etc.)</td>
<td>Green purchasing ratio of 96%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information disclosure and communication</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuing a sustainability report</td>
<td>Sustainability Report 2004 issued</td>
</tr>
<tr>
<td>Intranet: to develop to use of the environmental &amp; safety website by the group</td>
<td>Scope of access expanded to affiliates</td>
</tr>
<tr>
<td>Internet: improvement of the Asahi Glass website (environment section)</td>
<td>The environment section pages Report 2004</td>
</tr>
<tr>
<td>AGC Group Environmental Forum: Promotion of environment-related communications inside the AGC Group</td>
<td>Disclosed specific activities being affiliates</td>
</tr>
<tr>
<td>Apply for CEO’s awards and external environmental awards</td>
<td>Energy Conservation Center Japan</td>
</tr>
</tbody>
</table>
The AGC Group follows the AGC Group Basic Environmental Policy and the AGC Group Environmental Improvement Promotion Plan, under which each In-house Company and SBU*1 carries out their own environmental activities. In fiscal 2005, the new mid-term management plan, JIKKO-2007, commits all of us to attaining the goals of environmental conservation in line with the AGC Group Environmental Improvement Promotion Plan.

*1 SBU: Strategic Business Unit

<table>
<thead>
<tr>
<th>Fiscal 2005 AGC Group Environmental Improvement Promotion Plan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continuously Improving Integrated EMS and its application to affiliates in and out of Japan</td>
<td></td>
</tr>
<tr>
<td>a. Expanding the scope of Integrated EMS in and out of Japan and steady implementation of PDCA</td>
<td></td>
</tr>
<tr>
<td>(1) Expanding the scope of coverage to affiliates in Japan (basically all domestic affiliates should participate by the end of 2005)</td>
<td></td>
</tr>
<tr>
<td>(2) Establishing the basis of Integrated EMS for overseas affiliates</td>
<td></td>
</tr>
<tr>
<td>b. Setting long-term objectives and improving environmental performance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Reducing environmental impacts and preventing pollution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Items for improvement</td>
<td></td>
</tr>
<tr>
<td>• Reducing GHG emissions</td>
<td></td>
</tr>
<tr>
<td>• Waste: expansion of Zero Emissions coverage</td>
<td></td>
</tr>
<tr>
<td>• Chemical substances: Proper management and reduction in emissions to air and water</td>
<td></td>
</tr>
<tr>
<td>b. Items for maintenance</td>
<td></td>
</tr>
<tr>
<td>• Air and water: planning and action based on the idea of local community and the long-term viewpoint</td>
<td></td>
</tr>
<tr>
<td>• Soil and groundwater: developing and implementing measures based on the long-term viewpoint</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Actively promoting positive environmental activities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Review of response to the enactment of the Kyoto Protocol</td>
<td></td>
</tr>
<tr>
<td>b. Review of internal environmental accounting as a managerial index</td>
<td></td>
</tr>
<tr>
<td>c. Planning and promoting the environment business</td>
<td></td>
</tr>
<tr>
<td>d. Promoting Green Procurement (including appropriate response to customers’ requests) and Green Purchasing</td>
<td></td>
</tr>
</tbody>
</table>

(Environment-related issues listed in JIKKO-2007 other than above)

| 1. Response to globalization |  |
| 2. Changing culture and employee mindsets and promoting communications |  |

### 2004 results

<table>
<thead>
<tr>
<th>Asahi Glass Co., Ltd.</th>
<th>Self-evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

### Fiscal 2005 AGC Group Environmental Improvement Promotion Plan

<table>
<thead>
<tr>
<th>2004 results</th>
<th>Self-evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ratio of 94.8% against the 2004</td>
<td>B</td>
</tr>
<tr>
<td>by 2,253 thousand tons against the 2004 34% over the 1990 level (nonconsolidated)</td>
<td>B</td>
</tr>
<tr>
<td>decontamination programs</td>
<td>A</td>
</tr>
<tr>
<td>full-scale commencement of recycling system</td>
<td>A</td>
</tr>
<tr>
<td>introduction of low-emission forklifts</td>
<td>B</td>
</tr>
<tr>
<td>Kyoto Protocol upon its taking effect</td>
<td>B</td>
</tr>
<tr>
<td>of environmental accounting conducted</td>
<td>A</td>
</tr>
<tr>
<td>promotion of energy component conducted</td>
<td>A</td>
</tr>
<tr>
<td>of each business taken</td>
<td>C</td>
</tr>
<tr>
<td>characteristics of each business taken</td>
<td>A</td>
</tr>
<tr>
<td>achieved for fiscal 2004</td>
<td>A</td>
</tr>
<tr>
<td>upon establishment of Integrated EMS</td>
<td>A</td>
</tr>
<tr>
<td>revised in line with Sustainability</td>
<td>C</td>
</tr>
<tr>
<td>carried out by AGC Group overseas</td>
<td>A</td>
</tr>
<tr>
<td>Energy Management Achiever Award</td>
<td>B</td>
</tr>
</tbody>
</table>
Relationship Between Asahi Glass Business Activities and the Environment

Asahi Glass continuously monitors, gathers and collects data on environmental performance. The data gathered is used to help develop plans to implement environmental improvements.

The market share of Asahi Glass in Japan and the ratio of environmental impact materials emitted by Asahi Glass to total emissions for Japan are shown in the table on the right.

Air pollutants, including CO₂, SOₓ, NOₓ, and soot and dust, increase with the rise in the market share. This is because these materials are generated from consumption of fuel oil used in melting the glass raw materials. We continue our effort to reduce these emissions by installing new, and improving existing, energy-saving equipment and desulfurization and denitration equipment.

Relationship between Environmental Impact and Asahi Glass Sales in Japan

<table>
<thead>
<tr>
<th></th>
<th>Asahi Glass (parent company, 2004)</th>
<th>Ratio of Asahi Glass (parent company) to total for Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>579.9 billion yen</td>
<td>0.11%</td>
</tr>
<tr>
<td>CO₂</td>
<td>2,253,000 tons</td>
<td>0.17%</td>
</tr>
<tr>
<td>SOₓ</td>
<td>819 t</td>
<td>0.14%</td>
</tr>
<tr>
<td>NOₓ</td>
<td>3,686 t</td>
<td>0.43%</td>
</tr>
<tr>
<td>Soot and dust</td>
<td>110 t</td>
<td>0.18%</td>
</tr>
<tr>
<td>COD</td>
<td>809 t</td>
<td>0.05%</td>
</tr>
<tr>
<td>Waste finally sent to landfill</td>
<td>11,146 t</td>
<td>0.03%</td>
</tr>
</tbody>
</table>

Scope of data: all Asahi Glass operating sites (including the data of former Building Materials Division (currently Asahi Tostem Exterior Building Materials Co., Ltd.) separated from Asahi Glass in December 2004)

Totals do not always match the sum of the individual figures because of rounding.

*1 PJ [peta joule] = 10¹⁵ joule

Source: Website of the Economic and Social Research Institute, Cabinet Office, Government of Japan Environmental burden: Environmental Statistics 2005 (Ministry of the Environment) except for those environmental load items not found in any 2004 statistical data, for which the latest relevant data were used
Environmental Management System

The AGC Group is working on establishing an Environmental Management System (EMS) based on ISO 14001. At the end of March 2005, a total of 72 operation sites of the Group acquired certification, which accounts for 39% of all the Group’s production sites around the world. The effort of each site in acquiring the ISO 14001 certificate gives only one picture of what we are doing for the environment; we started the challenge of EMS integration to ensure global compliance with environmental conservation.

Integrated EMS is a system where a single environmental management system is shared by the entire AGC Group with top management of the AGC Group leading the overall effort. Put another way, it is a framework that matches the flow of business activities to our environmental activities.

Integration of EMS was set as the target in 2002, and in December 2004, the EMS was integrated for Asahi Glass’s parent company, including the divisions at headquarters.

Domestic affiliates of the AGC Group started to join the Integrated EMS in 2004. Overseas affiliates also began participation in 2005. It is our plan to include overseas AGC Group companies in this single integrated EMS in 2006.

In January 2005, we formulated the AGC Group Environmental Principles, which contains guidelines instructing AGC Group companies yet to join Integrated EMS what environmental actions they should implement.

Environmental Audit of the AGC Group

In 1994, the AGC Group started an environmental audit with the Corporate Environment & Safety Directorate assuming the role of the main auditor. With the shift to an In-house Company system, the audits have focused on In-house Companies or SBUs since 2003.

Intending to clarify problems and improve environmental performance, environmental audits verify the effectiveness of the PDCA cycle depending on the status of environmental activities and institute corrective measures if any nonconformity are found. All operating sites of the Asahi Glass parent company and our affiliates controlled by In-house Companies or SBUs are audited mainly by In-house Companies or SBUs.

Environmental Education

The AGC Group is engaged in various kinds of environmental education, including highly specialized training intended for acquisition of environment-related qualifications, and forums and lectures intended for general employees. At In-house Companies and SBUs, environmental education is provided for their own specialties or businesses including products or production processes.

The AGC Group Environmental Forum, held once a year, invites external lecturers for keynote speeches and presents case studies of actual efforts and measures done by Group companies for greater environment-related communication within the AGC Group and to encourage the sharing of information.

The Forum in 2004 successfully promoted the sharing of information on an international level as participants presented environmental efforts in Japan, Thailand and Pakistan.

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### AGC Group's ISO 14001 Certification

<table>
<thead>
<tr>
<th>Location</th>
<th>No. of production sites</th>
<th>No. of certified sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asahi Glass (parent company)*2</td>
<td>10</td>
<td>10 (10)</td>
</tr>
<tr>
<td>Affiliates In Japan</td>
<td>65</td>
<td>21 (2)</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>31</td>
<td>17 (0)</td>
</tr>
<tr>
<td>The Americas</td>
<td>24</td>
<td>5 (0)</td>
</tr>
<tr>
<td>Europe</td>
<td>54</td>
<td>19 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>184</td>
<td>72 (12)</td>
</tr>
</tbody>
</table>

*2 For sites with ISO14001 certification for Asahi Glass (parent company), the Susono plant of the Lucina Business Development was counted as one site.

### Training Subjects

<table>
<thead>
<tr>
<th>Training subjects</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS internal auditor training course</td>
<td>55</td>
</tr>
<tr>
<td>Environment Seminar</td>
<td>92</td>
</tr>
<tr>
<td>AGC Group Environmental Forum</td>
<td>107</td>
</tr>
</tbody>
</table>

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To the AGC Group, “Environment” is one of our most important operational issues. Since 2002, the Group has been integrating our environmental management system (EMS) so as to ensure an integrated approach to environmental issues across the Group. In 2004, integration of EMS was completed for Asahi Glass, and we intend to apply it to the entire AGC Group worldwide.
Eco-Friendly Products and R&D

In the AGC Group Vision “Look Beyond”, the Group sets out a business portfolio for sustainable growth, specifying glazing, display, and electronics and energy (E&E) as the major business areas to channel resources to. Of the three, E&E is based on our proprietary glass and fluorine chemistry-related technologies and has a promising future. It is this field that is being strengthened from the ground up as the next mainstay of the display business. Energy components is a particularly essential field for its capability to contribute to improving the global environment, since those components are brought to consumers together with eco-friendly technologies, such as energy saving and clean energy. This report picks out topics that are drawing particular attention.

Environmental Contributions Achieved by Glass Technology

Looking for a Solar Cell with Excellent Resource and Cost Savings—Transparent Conductive Oxide Film (TCO) Substrate for Thin film Silicon Solar Cells

Solar cells are a clean new energy resource for power generation that can replace fossil fuels. The market for solar cells seems to be continually expanding now. The current mainstream technology is crystal silicon solar cells; however, it is expected to become more and more difficult to procure the special silicon, the main material of the solar cells, after a few years. An attractive alternative is offered by thin film silicon solar cells, which use about only one 100th the amount of silicon in a typical crystal silicon solar cell and are thus far less dependent on the availability of resources. The thin film silicon solar cell is regarded as the key technology to promote the spread of solar cells with low-cost.

The issue to be solved is that the thin film silicon solar cell has lower efficiency in converting the optical energy of the sun into electric energy than the crystal silicon solar cell. Asahi Glass developed type-U transparent conductive oxide (TCO) films that have established a favorable reputation as a core material for the thin film silicon solar cell. Sufficient light trapping efficiency, high optical transmittance and lower resistance of TCO films could lead to high conversion efficiency of the thin film silicon solar cell. Using the same coating technology, the Asahi Glass Research Center is continuously working on developing the next-generation of TCO substrates that will enable thin film silicon solar cells to have higher conversion efficiency.

Since the conventional TCO does not have a sufficient light-trapping efficiency at long wavelength, we have developed new type TCO with unique texture achieved by the CVD (Chemical Vapor Deposition). The new type TCO films can now effectively collect incident light across wide wavelength from visible light to near infra-red. Now that we can successfully enlarge the size of this new TCO substrate at a lower cost, we expect to make great improvements in the performance of the thin film silicon solar cell.
Fuel cells are the ultimate clean energy solution for producing energy efficiently without the carbon dioxide emissions that are thought to be responsible for global warming.

Take the polymer membrane fuel cell (PEFC) for instance. Its mechanism brings hydrogen, which is a fuel, into contact with a catalyst formed on a special proton exchange membrane that separates the hydrogen into protons (H+) and electrons (e−), and those electrons are used to form an electric current. The remaining protons pass through the proton exchange membrane to become water (H2O) as they are combined with atmospheric oxygen on the other side of the membrane.

The use of fuel cells has traditionally been restricted to relatively specialized areas, such as space travel. Recent advances in power generation technologies using fluoropolymer type proton exchange membranes open up the possibility of developing commercial clean-energy systems, such as home-use co-generation systems, portable electronic devices or even automobiles.

Applying in-house expertise in fluoropolymer type proton exchange membrane and electrode technology from the electrolysis of salt, Asahi Glass has also developed a membrane-electrode assembly (MEA) for use in fuel cells that combines the membrane and the electrodes in a single unit. However, conventional MEAs have one major shortcoming, which is that they are able to operate only under specific conditions (low temperature and high humidity) and if these conditions are not met, they cannot operate because of polymer decomposition.

We clarified the causes and mechanism of polymer decomposition and developed solutions by applying our core technology created through our development of fluoropolymer type ion exchange membranes used for the production of caustic soda (including fluorochemical technology, polymer synthesis technology, membrane technology, coating technology, and electrochemical technology). Finally, we successfully developed a new membrane-electrode assembly with high durability even in high-temperature and low-humidity environments.

In 2004, the world’s first fluoropolymer type MEAs successfully achieved continuous operation of over 4,000 hours under high temperatures of 120˚C. We have already asked a few automakers to evaluate our MEA so that we can solve problems that prevent commercialization. Now we are working on commercializing MEAs that can operate under various environments by further enhancing durability and improving power generation efficiency in low-humidity environments. We have also started working on a practical cost-saving technique to boost the commercialization process.

Structure of Membrane-Electrode Assembly (MEA) and fuel cell

A membrane-electrode assembly (MEA) consists of a proton-exchange membrane and electrodes in a single unit. Sandwiched between separators, these can be packed on top of each other to form a stack. Together with peripheral devices, the stack forms a fuel cell system for clean power generation.
Environmental Solution to Meet Global Demand

Boosting Energy Efficiency Using High-Capacity Electric Double Layer Capacitor

Accepted as the next-generation of capacitors used to charge and discharge electricity, the electric double layer capacitor has a great future as a new energy storage device for its capability of a quick charge and large-current discharge, excellent charging and discharging cycle, and almost eternal durability.

The new electric double layer capacitor developed by Asahi Glass features an energy density (which is the amount of energy stored per weight or volume) almost three times the conventional level as a result of applying our own techniques to the electrode and electrolyte. This new capacitor has potential applications in trains, construction machinery, elevators and copying machines.

In addition, Asahi Glass is studying full hybrid vehicles as one new application since these advanced energy-saving vehicles are able to exploit to the full the high durability and high energy production unique to the electric double layer capacitor.

More effective use of energy can be achieved by using the new capacitor to store the kinetic energy dissipated as these vehicles and machines decelerate and stop, converting it back into electricity, and reusing it as electrical energy as they start moving again.

Performance Target of the High-capacity Electric Double Layer Capacitor
How to Prevent the Black Smoke Emitted from Diesel Vehicles – Diesel Particulate Filters (DPF)

Many regulatory bodies are focusing on the environmental pollution caused by exhaust emissions from diesel-engined vehicles. High power output and durability make diesel engines a common choice in large commercial vehicles such as trucks and buses. Cheaper fuel prices and the development of the common rail diesel engine, which combines low fuel consumption with reduced CO2 emissions, have led to the increased use of high-performance diesel engines in cars as an eco-friendly alternative to gasoline engines. In Europe, 45% of all new vehicles are now powered by diesel engines because of the common notion that diesel engines are better than gasoline in terms of environmental impact until the substantial spread of fuel cells, the ultimate eco-friendly battery.

But one of the greatest problems with diesel engines is the black smoke in the exhaust gas emissions. Diesel particulate filters (DPFs) are an essential tool for diesel-engined vehicles to meet the very stringent environmental regulations planned to be enacted in 2008, although some improvement has been made. Conventional heat-resistant DPFs were developed mainly based on silicon carbide. Asahi Glass used their own technology to produce plugged honeycomb substrate (filtration structure with porous material) made of highly heat-resistant silicon nitride from inexpensive metal silicons, and developed new DPFs using silicon nitride. A patented technique, our DPFs have a number of highly-evaluated features, including high heat resistance, low thermal expansibility, high porosity ratio and high strength.

Asahi Glass is working on applying this technology to a much larger honeycomb structure that cannot be built using conventional materials and to systems that require coating with large quantities of catalysts. Our development effort also includes providing samples to catalyst manufacturers and automakers for performance evaluation tests to accelerate the process of commercialization and establishing mass production technologies.
Global Warming Countermeasures and Prevention of Air and Water Pollution

<table>
<thead>
<tr>
<th>Saving Energy and Preventing Global Warming</th>
</tr>
</thead>
<tbody>
<tr>
<td>The AGC Group is a global enterprise in the materials industry using large amounts of resources and energy. The total energy consumption of the AGC Group in fiscal 2004 was 169 PJ*3. The Asahi Glass parent company itself accounted for 39 PJ, 2% up on the previous year. With the increase in energy consumption, CO2 emissions also increased. Past efforts on the part of the AGC Group include the introduction of glass melting furnaces using the total oxygen combustion method, which uses only oxygen instead of air for combustion, in countries including Japan, Indonesia and Thailand, modification of glass melting furnaces to use natural gas combustion in regions and countries including Europe, the Americas, Thailand and Indonesia, application of the high-performance ion exchange membrane method in salt electrolysis plants, and step-by-step improvements in energy saving and global warming prevention for each production line.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reducing Air Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asahi Glass is involved in various activities to reduce the amount of air polluting emissions and to comply with the air control laws and regulations. One of these is the pollution prevention agreements signed with local governments at the location of our plants to promote reductions in NOx (nitrogen oxide), SOx (sulphur oxide) and soot and dust emissions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protecting Water Resources and Preventing Degradation in Water Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>While it uses copious amounts of water in production, both as a raw material and for cooling and cleaning purposes, Asahi Glass strives to reduce its water usage and emissions to protect water resources. Water, including cooling water, used mainly in glass manufacturing plants is recirculated and reused as part of our effort to save valuable water resources. When water is used, to prevent any degradation in water quality, the resultant wastewater is discharged after removing all toxic substances.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Accidents in Fiscal 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>We had two environmental accidents in 2004, which included a complaint from neighbors about the foul smell being emitted from the Wakinoura Final Waste Disposal Plant in Kitakyushu in March, and detection of a slight oil film near the stormwater discharge vent of the Keihin Site in November. These accidents were investigated, the causes were identified, and measures to prevent any recurrence taken.</td>
</tr>
</tbody>
</table>

*3 PJ (petajoule) equals 10^15 joules
Asahi Glass is actively involved in reducing environmental impacts, including saving energy, preventing air pollution, and protecting water resources, in order to ensure eco-friendly business activities.

*1 Data was annualized to correct for the irregular 9-month period in fiscal 2003, caused by a change in the accounting year-end.

*2 Subsidiary SBUs: Asahi Fiber Glass, Asahi Techno Glass, Asahi Glass Ceramics, Ise Chemicals, and Optrex

**CO2 Emissions** (Asahi Glass (parent + subsidiary SBUs))

**SOx Emissions** (Asahi Glass (parent + subsidiary SBUs))

**Soot and Dust Emissions** (Asahi Glass (parent + subsidiary SBUs))

**Total Wastewater** (Asahi Glass (parent + subsidiary SBUs))

**COD Emissions** (Asahi Glass (parent + subsidiary SBUs))

*6 HFC and SF6 are not included. See page 13 for HFC and SF6.

*7 COD in the wastewater (before wastewater treatment) sent to the sewage plant included.
Waste Reduction

Waste Reduction Toward Zero Emissions

The AGC Group set up an Environmental Committee headed by the General Manager of the Corporate Environment & Safety Directorate and composed of representatives of domestic In-house Companies and SBUs. The Committee sets environmental targets for Asahi Glass (parent) and Subsidiary SBUs*1 and supervises environmental activities.

Currently Asahi Glass (parent company) is engaged in the zero emission movement for effective reductions in waste. The target in fiscal 2005 is to bring the percentage of waste sent to landfills of the total waste generation down to below 1%. Put another way, this movement is aiming to recycle more than 99% of waste. The total waste generated from Asahi Glass (parent) in fiscal 2004 is 213,000 tons, with 11,000 tons of waste sent to landfill, which is a recycling ratio of 94.8%. Although there is not much time left, Asahi Glass is making every effort this fiscal year to reach the target.

Take flat glass for example. As it originally has a high recycling ratio, about 30 to 50% of the materials are recycled. Glass waste generated from the cutting process during manufacturing are also recycled. We also buy for recycling more than 100 tons of reused glass per day from construction companies and glass contractors via cullet contractors. Glass brought in to our sites comes in various types, with some including impurities. Advance sampling is made to check the glass composition for appropriate selection.

Sales, administration and sections other than manufacturing are also engaged in waste reduction. For example, our head office achieved a 2004 recycling ratio target of 94%.

Asahi Glass intends to apply zero emissions to the entire AGC Group in the future.

PCB Management

Asahi Glass (parent) will stop using polychloride biphenyl (PCB), which is under strict control, during 2005. Use of PCB will be totally abolished throughout the AGC Group by 2009. We will develop plans for the destruction and disposal of PCB by the end of 2007 and carry out disposal as determined by the Japanese Government until 2017.

*1 Subsidiary SBUs: Asahi Fiber Glass, Asahi Techno Glass, Asahi Glass Ceramics, Ise Chemical, and Optrex

*2 Data was annualized to correct for the irregular 9-month period in fiscal 2003, caused by a change in the accounting year-end.

Poster for Waste Reduction at Head Office (Japanese)

Cullet transporting truck

Waste Sent to Landfill and Recycling Ratio (Asahi Glass (parent + Subsidiary SBUs)*1)}
Asahi Glass Fine Techno Co., Ltd. (AGFT) produces glass substrates for flat panel displays (FPD). With their motto “Let’s create our own beautiful plant to match the beauty of nature in Azuma,” they are actively engaged in environmental activities, including certification for ISO 14001.

Reducing the amount of waste is one of their focal activities. Among the types of waste generated during the manufacturing process, sludge, which was one type of waste that had defied recycling, was finally added to the list of “zero emissions waste” after they successfully developed a route for recycling it. The plant divides the waste into some 30 kinds. Of these, waste oil, sludge and plastics could not be recycled. But in October 2004, they successfully developed a recycling process which turns them into materials for road beds, and eventually the recycling ratio, including thermal recycling (equivalent to 1%), for 2004 increased up to 100%. We have established a recycling flow within the AGC Group for some polishing sludge or cullets generated in large amounts during the manufacturing process.

In addition to the zero emissions effort, AGFT uses glass substrates in which arsenic, a toxic substance, is not intentionally added in the production process and is involving employees in a “Full of Flowers Movement” at the plant site, where they can cultivate green areas, including plants and vegetation.
Asahi Glass voluntarily investigates soil and groundwater for potential pollution on its premises and sites of its facilities and plants. If any pollution is found, we will immediately take appropriate actions to decontaminate the site under the guidance of the competent authorities.

### Results of Investigating Soil and Groundwater at the Former Funabashi Plant and Future Measures

Asahi Glass closed its Funabashi Plant at the end of March 2004 and pulled down. At the same time, we made voluntary tests on the ground in line with the Soil Contamination Countermeasures Law (for fluorine and hexavalent chromium, which are mandatory substances under the Law, and voluntary investigation of 24 other substances).

As a result, levels of some pollutants contained in soil were detected beyond the specified limits, including fluorine, hexavalent chromium, lead, and boron in addition to arsenic up to 3,800 times more than the standard limit. In groundwater and perched water layers*, arsenic to a maximum amount of 7,300 times the standard limit was found in perched water layers, and fluorine and lead were found in the groundwater to an amount exceeding the groundwater environmental standard.

Asahi Glass submitted a report on their investigation to Funabashi City on May 20, 2004. The site on which pollutants were found to be above the standard limits (30,000 m² in area) was announced as a designated contaminated area by Funabashi City on May 27.

We are determined to decontaminate the site polluted by the contaminants disclosed above in two to three years so that the designation of the site as contaminated will be lifted, and the entire site will be cleaned up to a level below the standard limit.

We held a joint briefing meeting on May 27 with Funabashi City to explain the result of the investigation and future measures to local residents.

---

#### Decontamination of Soil and Groundwater at Chiba Plant

Asahi Glass and its affiliate Asahi-Penn Chemical Co., Ltd. are aggressively working on decontaminating soil and groundwater polluted by volatile organic compounds at the Chiba Plant.

To be specific, we disclosed the results of our investigation and the measures we would take in May 2001 and continue to carry out the following measures under the guidance of the administration and academic experts.

- Installing shut-off walls to prevent the spread of contamination (completed in December 2002)
- Clarifying the mechanism of pollution to achieve efficient decontamination
- Prioritized decontamination of highly contaminated spots
- Monitoring groundwater flows and status of contamination
- Testing and reviewing new decontamination technologies
**Proper Management of Chemical Substances**

The AGC Group produces and uses a large number and variety of chemical substances. We manage all chemical substances properly in order to maintain a good local living environment and to protect the global environment.

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### Actions by the Chemicals Company

In carrying out the proper management of chemical substances, the Chemicals Company pays close attention to three factors: the environment, occupational health & safety, and chemical substance safety.

Specific actions at their plant include reducing the environmental impact associated with production activities, occupational health & safety in the production process of chemical substances, reporting in line with the PRTR (Pollutant Release and Transfer Register) Law to ensure the safety of chemical substances, and provision of safety information to customers.

Their special focus is on expanding the chemical recycling of substances that cause destruction of the ozone layer and global warming and reducing the amount of industrial waste put into landfill. The chemical recycling process for the recovery, destruction and reclamation of fluorocarbons is now in full operation, producing raw materials of fluororesin (pages 12 and 13).

To reduce substances that have environmental impact, efforts are being made with numerical targets incorporated into the mid-term management plan, JIKKO-2007, which started in 2005. We set our own numerical targets for fluorinated solvents developed by ourselves in addition to the substances regulated by the PRTR Law from the viewpoint of preventing global warming. In our capacity as a chemical substance manufacturer, the Chemicals Company is determined to carry out its business activities paying close and constant attention to the environment.

### Programs for Proper Management

The AGC Group implements various programs for the proper management of chemical substances.

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**Measurement of environmental concentrations**

**Changes in the Concentration of Methylene Chloride in the Air at the Site Boundary (annual average)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Concentration (µg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
</tr>
</tbody>
</table>

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**MSDS (Material Safety Data Sheet)**
Reducing the Environmental Impact in Logistics

Major products of the AGC Group, such as glass and chemicals, are often very heavy, imposing a high impact on the environment. It is therefore essential for us to reduce the environmental impact of our logistics.

Reducing the Environmental Impact during Cullet Transportation

Asahi Glass has an optimized production system, with plants located in various parts of Asia, and transports raw materials and products appropriately around this production network. Some flat glass substrates are colored, and these cannot be produced in melting furnaces that produce uncolored glass. Therefore, colored cullets, which are the major raw materials of glass, must be transported to the right production sites. Traditionally, products and cullets were separately transported, which resulted in empty containers moving around between production sites and warehouses. In 2005, we started using the containers which had become empty after unloading imported products to transport cullets, thereby reducing the environmental impact of Logistics. In fiscal 2005, we aim to Logistics about 300 containers’ worth of cullets using this system.

Reducing Pollution from In-plant Compact Forklifts

Asahi Glass launched a program to reduce the pollution generated by in-plant compact forklifts in 2003. To be specific, forklifts powered by diesel engines were replaced by battery- or LPG-powered ones. Diesel engines in general produce more particulate matter or NOx than gasoline engines or LPG engines, which is why we needed to change to a low-emission driving system to match the diesel vehicle regulations applying in the Tokyo Metropolitan area and the Kinki area. Although only 28% out of a total of 361 compact forklifts used at all the plants of Asahi Glass (parent) are low-emission ones, we plan to raise the low-emission ratio to 62% by 2008.

Future Efforts

With the revision of the Law Concerning the Rational Use of Energy, when using transporters larger than a certain operational size, we are required to prepare energy saving programs and notify the designated authority of energy consumption in 2007. We are implementing various programs to meet these requirements, including establishing a system to understand environmental performance data associated with transport, and developing plans to reduce CO2 in logistics.
Green Procurement and Green Purchasing

Electronic Materials & Products General Division Introduces Green Procurement

The Electronic Materials & Products General Division is promoting green procurement jointly with the affiliates under its control (Asahi Glass Koriyama Electronic Materials Co., Ltd., Asahi Fine Materials Co., Ltd., and Asahi Precision Circuit Co., Ltd.). To be specific, they introduced the Green Procurement Standard in April 2004 and examined the degree of environmental impact of the materials procured from our suppliers. This investigation will continue in 2005 so that the data will create better results in the PDCA cycle.

Optrex Totally Eliminates the Six Chemicals Designated in the RoHS Directive

To comply with the EU RoHS directive*1, Optrex Corp. decided to stop using six designated chemical substances*2 contained in LCD products that it manufactures and sells by March 2005. For standard items produced by Optrex, they will shift to producing/shipping RoHS-compliant products in April 2005. RoHS-compliant products for custom-made items will be introduced in line with the agreements we have with our clients for custom-made items. Optrex considers reducing environmental impact to be one of its major environmental activities. In 2000, they acquired ISO 14001 certification and formulated their own Green Procurement Standard in September 2003. They are continuing this policy and actively seek to develop and produce eco-friendly products.

Green Purchasing of Office Items

Asahi Glass introduced Green Purchasing Guidelines for office items in 2003. These add environmental impact to selection criteria such as price, quality, function and design. The Guidelines accord highest priority to items with the lowest environmental impact, given equality on other criteria.

In 2004, we failed to achieve the target for stationery and office supplies, but almost achieved the targets for other categories. The green purchasing ratio achieved in 2004 for the total of the four items was 96%.

In 2005, we introduce Green Purchasing Guidelines for work clothes (made of blended materials). That means 55% of polyesters mixed in the fabric will be replaced by recycled PET resins. The “green” work clothes have the same color, feel and anti-static performance as the previous ones.

Actions at the Automotive Glass Company

The Japan/Asia Pacific General Division of the Automotive Glass Company supports “green purchasing” for its raw materials and components. This effort is made in the form of a “green partnership,” in which the Automotive Glass Company has in place unique guidelines combined with the requests of customers and Asahi Glass’s own standards for presentation to suppliers, and compliant suppliers provide raw materials with lower environmental impacts. This activity is detailed on pages 14 to 15.

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*1 RoHS (Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) directive (2002/95/EC) issued by the EU in 2002 limits the use of six designated chemical substances in all such products launched in EU countries from July 2006.

*2 The six designated chemical substances are lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl) and PBDE (polybrominated diphenyl ether)

---

Green Procurement Targets and Results (Asahi Glass (parent))

<table>
<thead>
<tr>
<th></th>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing and copy paper</td>
<td>80%</td>
<td>98%</td>
</tr>
<tr>
<td>Office equipment (e.g., PCs and Copying machines)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Office supplies</td>
<td>80%</td>
<td>57%</td>
</tr>
<tr>
<td>Office furniture</td>
<td>100%</td>
<td>97%</td>
</tr>
</tbody>
</table>

Purchase value base
Environmental Accounting

Asahi Glass views accurate assessment of the costs and benefits of environmental activities as an essential part of performance improvement in this area. The Asahi Glass environmental accounting system is based on the Environmental Accounting Guidelines 2002 and Guideline for Classification of Environmental Conservation Cost 2003 issued by Japan’s Ministry of the Environment. Asahi Glass has also compiled its own manual on environmental accounting procedures and methods.

Accounting data is collected in each In-House Company and SBU*1 to enable its use as a management tool. The compilation of data by divisions began in 2003. Asahi Glass is also considering introducing Material Flow Cost Accounting*2 methods. In fiscal 2005, we intend to introduce material flow cost accounting to some of the production processes to verify the effectiveness of the new accounting method.

While the Asahi Glass environmental accounting system is still evolving, a working group is examining the issue of compiling consolidated environmental accounts and the role of the environmental accounting system as an environmental management tool. External specialists are also invited to in-house environmental accounting seminars as part of educating our employees and deepening their understanding.

*1 SBU stands for Strategic Business Unit.
*2 Material Flow Cost Accounting is a way of measuring how the flow of materials and energy absorbed by manufacturing processes generates outputs in terms of product volume and value.

Environmental Conservation Cost

Environmental conservation cost put a monetary value on efforts by Asahi Glass to reduce environmental impact. Such measures can prevent, constrain or avoid generating the original impact, eliminate related effects, and seek to restore any damage. Costs include capital investment in environmental facilities as well as running costs incurred in the operation of equipment designed to prevent pollution.

Changes with Time in Environmental Investments and Expenses

There are no major changes in environmental expenses with time. Unlike environmental expenses, environmental investments change year by year and those for fiscal 2003 are different from those for other years in terms of ratio. But there is no major difference in environmental investments for fiscal 2004 compared to those for fiscal 2002 or before.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Investment</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Business area</td>
<td>2,750</td>
<td>6,814</td>
</tr>
<tr>
<td>(1)-1 Pollution Prevention</td>
<td>1,231</td>
<td>3,805</td>
</tr>
<tr>
<td>(1)-2 Global Environmental Conservation</td>
<td>1,228</td>
<td>1,340</td>
</tr>
<tr>
<td>(1)-3 Resource Circulation</td>
<td>291</td>
<td>1,670</td>
</tr>
<tr>
<td>(2) Upstream/Downstream</td>
<td>0</td>
<td>1,038</td>
</tr>
<tr>
<td>(3) Administration</td>
<td>0</td>
<td>444</td>
</tr>
<tr>
<td>(4) R&amp;D</td>
<td>898</td>
<td>4,815</td>
</tr>
<tr>
<td>(5) Social Activity</td>
<td>21</td>
<td>115</td>
</tr>
<tr>
<td>(6) Environmental Remediation</td>
<td>443</td>
<td>3,540</td>
</tr>
<tr>
<td>Total</td>
<td>4,112</td>
<td>16,767</td>
</tr>
</tbody>
</table>

* Scope of calculation: Asahi Glass (parent)
Period of calculation: January 1, 2004 to December 31, 2004

![Breakdown of Environmental Investments](image1)

![Breakdown of Environmental Cost](image2)
Environmental accounting is a tool to disclose a company’s environmental conservation measures as accounting information for quantitative evaluation by investors, dealers, suppliers and local citizens. Asahi Glass uses the data for environmentally aware management.

### Environmental Conservation Benefit

Environmental conservation benefit measure volume-based changes in outputs. These effects reflect prevention, constraining or avoiding generating the impact, eliminating related effects, and restoring damage. Calculations of the environmental conservation benefits for fiscal 2004 indicate an increase in environmental impacts over the previous year.

### Economic Benefit Associated with Environmental Conservation Activities

Asahi Glass measures the economic benefits of its environmental conservation activities as the contribution to profit of net positive changes. This could be measured either in real, quantitative terms, or as a theoretical estimate. Asahi Glass prefers the former approach, based on collected data.

<table>
<thead>
<tr>
<th>Environmental Conservation Benefit</th>
<th>Reducing Impact</th>
<th>Simple Y to Y Change</th>
<th>Sales-corrected Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Usage</td>
<td>–15 million m³</td>
<td>–40%</td>
<td>–29%</td>
</tr>
<tr>
<td>CO₂ Emissions</td>
<td>–632,000 t-CO₂</td>
<td>–28%</td>
<td>–20%</td>
</tr>
<tr>
<td>Final Waste Disposal</td>
<td>4,000 t</td>
<td>31%</td>
<td>22%</td>
</tr>
<tr>
<td>Wastewater</td>
<td>–8 million m³</td>
<td>–31%</td>
<td>–22%</td>
</tr>
<tr>
<td>COD Emissions</td>
<td>–97 t</td>
<td>–12%</td>
<td>–9%</td>
</tr>
<tr>
<td>SO₂ Emissions</td>
<td>–409 t</td>
<td>–50%</td>
<td>–36%</td>
</tr>
<tr>
<td>NOₓ Emissions</td>
<td>–54 t</td>
<td>–1%</td>
<td>–1%</td>
</tr>
<tr>
<td>Soot and Dust Emissions</td>
<td>27 t</td>
<td>25%</td>
<td>17%</td>
</tr>
<tr>
<td>Benefits Corresponding to Upstream/Downstream Cost</td>
<td>Recycling of product shipment packaging materials (actual benefits listed in table below)</td>
<td>Cullet collection 218,000 t</td>
<td></td>
</tr>
<tr>
<td>Other Environmental Conservation Benefit</td>
<td>Benefits associated with transportation and other operations (not measured by Asahi Glass)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reduction in environmental impact = (fiscal 2003 output volume) – (fiscal 2004 output volume)
Sales correction factor = (1 – (1 – simple Y to Y change) / Y to Y sales ratio) 
Asahi Glass (parent) Y to Y sales ratio = (fiscal 2004 sales) / (fiscal 2003 sales) = 1.40

[^2]: PJ (peta joules) = 10¹⁵ joules

<table>
<thead>
<tr>
<th>Economic Benefit Associated with Environmental Conservation (actual benefit)</th>
<th>Value (Millions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Revenues from the recycling of waste generated by main business activities and the recycling of used products</td>
<td>380</td>
</tr>
<tr>
<td>Expense saving Effects of energy savings</td>
<td>628</td>
</tr>
<tr>
<td>Lower waste treatment costs due to resource savings and recycling</td>
<td>1,423</td>
</tr>
</tbody>
</table>
Environmental Communications

The AGC Group actively communicates on environmental issues with its stakeholders through the CSR Reports, the website and the direct dialogue.

Environmental Communications by the AGC Group

Asahi Glass started issuing an Environmental Report in 2000 and has been steadily disclosing environmental information since then. In 2004, we started disclosing the status of our social responsibility in the form of the Sustainability Report. This year we issued our first Corporate Social Responsibility (CSR) Report. Glaverbel S.A. in Europe issues their own environmental report, which is available on their website.

We also disclose information on environmentally sound products and technologies through environment-related exhibitions and other events.

We make constant efforts to keep in direct communication with our stakeholders. These efforts include holding regular gatherings with local residents and consumers for having discussions and inviting stakeholders to our plants so that they can get to know our environmental activities. We have a dedicated contact on the Asahi Glass website for inquiries from stakeholders.

The AGC Group strives to further promote environmental communications with stakeholders to deepen the relationship.

Environmental Communication at Plants

Kashima Plant

The Kashima Plant served as the coordinator for the Kashima District Responsible Care (RC) Liaison Meeting in fiscal 2004.

On February 18, 2005, the 4th RC Kashima District Dialogue Meeting was held by the Kashima District RC Liaison Meeting, at which local residents and the local municipalities were invited to Kashima Central Hotel for the dialogue.

The Liaison Meeting staff explained the safety and environmental efforts of the companies in the Kashima District to local residents and the local municipalities, followed by active discussion.

Chiba Plant

On February 29, 2004, students at elementary schools in Chiba Prefecture and their parents, 32 in total, visited the Chiba Plant as part of a family tour sponsored by the Chiba Prefectural Environment Foundation of companies who are active in combating global warming.

The General Manager of the plant and Environmental Safety office’s staff guided them around the fluorocarbons destruction facility, one of the substances responsible for global warming, and other environment-related facilities such as wastewater treatment plants.

The participants were very much interested in environmental matters and asked many questions after the tour.

One of the participants sent a thank-you email to the Chiba Plant. We felt anew how very important it is to keep in contact with members of society to foster mutual understanding.

Glaverbel Environmental Report

http://www.glaverbel.be/en/about/environment/
Main Flat Glass Producing Sites to Supply Products to Asian Countries

Thai Asahi Glass Public Co. Ltd. (TAGC), with its head office in Samutprakarn, Thailand, has some 1,200 employees including those in its three plants at Samutprakarn, Chonburi and Rayong. Mainly producing float glass, fabricated glass: construction tempered glass, Reflective Glass, Laminated Glass, Insulating Glass, Mirror Glass Sol-Gel Antiglare Glass TAGC is a major production site that supplies products to Thailand and other Asian countries.

TAGC was established in 1963 and incorporated with Asahi Glass’s investment in 1964. To focus on “Environment,” one of Our Shared Values in AGC Group Vision “Look Beyond,” TAGC has been actively involved in various programs for environmental conservation. Their efforts have further intensified since acquiring ISO 14001 certification in 2004.

Environmental Conservation Award Presented by the Thai Government

TAGC is engaged in a wide variety of measures and activities for environmental conservation. Reduction of environmental impact during production, which must be of highest priority in the environmental efforts of any top-ranking manufacturer, is achieved by installing electrostatic precipitators and using natural gas for fuel. Their emissions of environment-impacting substances has already been reduced to the same level as in our plants in Japan. TAGC also minimizes the amount of waste. They apply strict criteria for sorting refuse and reuse all items that are recyclable.

Some 750 trees have been planted in their compound for a material contribution to local greening. In addition, TAGC monitors groundwater levels on a regular basis to protect water resources.

Their external activities for the environment include forestation, restocking rivers with young fish, support for environmental education in schools, and neighbors’ and students’ visit to the plants, all of which are primarily centered around local benefits.

TAGC responded promptly to the devastating tsunami disaster caused by the gigantic earthquake off Sumatra. They dispatched employees for voluntary activities and provided monetary support and materials to the devastated areas. Their activity is characterized by a focus on direct connections with local people, such as support for school education and dialogue with local people, based on the belief that we are all neighbors. Their policy was highly evaluated by the Thai Government, who ultimately presented the Environmental Conservation Award to TAGC.

Every member of TAGC is dedicated to environmental conservation while always keeping close to local people to win their trust and meet their expectations.
AGC Automotive Thailand Co., Ltd. (Thailand)

AATH Aiming at Full Implementation of QMS and EMS

AGC Automotive (Thailand) Co., Ltd. (AATH) celebrated its 30th anniversary in 2004. It has been growing steadily and strongly as a top automotive glass manufacture with the growth of car manufacture in Thailand who aims to “become Detroit in Asia.”

In line with the Group Vision “Look Beyond” and management policy “JIKKO,” AATH’s mission is to “pursue comprehensive and global No.1 S (safety), E (environment), and QCDDM (quality, cost, design, delivery, and management).”

The company applies the PDCA cycle swiftly in all job aspects under the principle of 5-Gen Principle (Genri, principle; Gensoku, rule; Genba, site; Genbutsu, the product itself; and Genjitsu, fact) so that QMS and EMS can take root in its operation.

Various Activities for Implementing the EMS

The AGC Group is committed to an integrated EMS (see page 26). In line with this principle, AATH changed its status as an implementer of integrated EMS in February, 2005.

Aiming at reducing environmental impact, AATH is engaged in a variety of environmental activities, including reductions in the consumption of utilities, such as power and water, recycling of materials, mainly glass cullets, reuse of packaging materials, segregated management and reduction in industrial waste. They are also switching to lead-free ink and trivalent chromium components in response to restricted use of toxic substances, including hexavalent chromium and cadmium as spelt out in the ELV Directive (2000/53/EC).

The internal audit system for affiliates in Asia was launched in March 2005 to support information sharing and mutual improvement.

Occupational Health and Safety

AATH markedly increased the number of hours allocated to occupational health and safety education for employees in 2004 to boost safety awareness among employees. A thorough investigation of the causes of accidents and full implementation of preventive measures has also been incorporated into the standard procedure. As a result, AATH achieved 500 consecutive serious accident-free days of operation up to May 10, 2005. The accident rate is clearly going down.
Pacific Glass Corp., a member of the AGC Display Company, is making all-out efforts to become the world’s top plant for environment occupational health & safety, quality, cost and productivity.

Overseas Production Center in the CRT Production

Pacific Glass Corp. (PGC), a member of the AGC Display Company, was established in 1985 as the first overseas CRT plant in the CRT production. PGC used to produce and supply for customers in Taiwan panels and funnels, the parts used in CRTs.

Today, PGC produces high-precision CRT panels for PCs and supplies them to China, and serves as the AGC Group Display Company’s major overseas production site in the CRT production.

ISO 14001 Certification Obtained in February 2005

PGC acquired ISO 9001 certification in 1993. Since then, they have been making all-out efforts to achieve Total Productive Maintenance (TPM) for enhanced productivity and quality.

They reinforced their environmental efforts in 2000, including reductions in waste generation, savings on power and other utilities, and improvements in the recycling ratio. In February 2005, PGC established its own environmental policy, set up their environmental management system and also acquired ISO 14001 certification.

Today, they are adding a further boost to their efforts and all the staff at the plant are geared up to the challenge of becoming the world’s top for environment occupational health & safety, quality, cost and productivity.

Their efforts in waste reduction in 2004 include segregated collection of waste and employee education on waste reduction, which has resulted in the generation of a total 5,319 tons of waste and achievement of a recycling ratio of over 95%.

Cullet is an important raw material and it is being reused. The cullet generated at their own plant is collected and cullet from waste household electric appliances is also purchased from refuse collectors for reuse.

PGC also decided to use the grinding slurry disposed of as waste from the grinding process line in Asahi Glass Fine Techno Taiwan Co., Ltd (AFT), another member of the AGC Display Company. The Technology Division of the CRT Glass General Division analyzed the waste slurry and found it sufficiently pure for use at the CRT production. With the help of AFT, PGC started collecting and reusing the polishing slurry in 2003. The Taiwanese government approved this recycling concept under the reuse of byproducts, not waste. We intend to apply this scheme at other overseas plants.

Emergency Drill for All Employees

PGC holds an annual emergency drill for all employees to take part in; this involves a simulated drill to deal with fires, accidents and other emergencies.

The drill held in fiscal 2004 simulated a leakage of molten glass, and provided training in early detection, notification, firefighting and evacuation.

As a result of our promotion of outsourcing, the number of employees from contractors and subcontractors working in PGC’s compound has increased. To cope with this situation, PGC intends to enhance their preparedness in safety and disaster prevention by assigning a dedicated safety officer in the health and safety organization in fiscal 2005.

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P.T. Asahimas Chemical (Indonesia)

One of Our Major Chlor-alkali in South East Asia

P.T. Asahimas Chemical (ASC) is a chemical company with one plant at Chiregon, a city on the western tip of Java, Indonesia, facing the Sunda Strait. Their major products are caustic soda produced from electrolysis of salt water, vinylchloride monomer (VCM) which is formed by adding chlorine to ethylene, and polyvinylchloride (PVC) resin. Since its startup in 1989, ASC has reinforced their production equipment four times to become one of the major chemical plants in Southeast Asia that produces chlor-alkali products, from upstream to downstream.

Positive Actions for the Environment, Occupational Health & Safety and Industrial Safety & Security

ASC’s attitude to safety and the environment is to prioritize the safety and stability of plant operations in a way that addresses concerns for the environment. Their environmental efforts to minimize environmental impact include improved efficiency in the use of raw materials for reducing waste, improvement of the byproduct recycling ratio, reduction in the consumption of power and other utilities. In 2001, ASC acquired ISO 14001 certification. In 2003, they came up with a system to reuse treated PVC process wastewater in exhaust gas decontamination towers at other plants and installed the system. This helped them achieve an 80% recycling ratio.

ASC introduced a safety management system in compliance with OHSAS18001 to ensure organizational integrity on safety, support line management, and to conduct risk assessment of all the work and locations at each worksite. They also provide health and safety education and training to all employees as well as cooperating companies to enhance their safety awareness.

Activities concerned with industrial safety & security include a monthly firefighting drill for an assumed fire or explosion, and a practical disaster mitigation and prevention drill for the assumed leak of the types of hazardous substances that are unique to a chemicals factory. In addition, ASC shares relevant information at the monthly industrial safety meetings held by the disaster prevention organization formed by eight neighboring industrial complexes, of which ASC is a major member, and holds an annual joint extensive emergency drill with that organization to ensure smooth and effective joint activities to mitigate and prevent disasters and emergencies.

ASC also holds a communication meeting twice a year, inviting local residents, NGOs, and newspaper reporters, to explain to them the actions that ASC is taking on the environment, occupational health & safety and industrial safety & security.
Industrial Safety & Security Activities

The AGC Group makes all-out efforts with its activities for industrial safety & security, based on our own Basic Industrial Safety & Security Policy.

**AGC Group Basic Industrial Safety & Security Policy (Provisional Translation) (adopted February 7, 2003)**

The AGC Group carries out the following activities for industrial safety & security under the principle that industrial safety and site safety are part of our responsibility toward the local community as a corporate citizen.

1. Management of activities for industrial safety & security shall be based on proactive public relations programs aimed at gaining the understanding of the local community, and shall aim to promote harmonious coexistence.
2. The AGC Group shall comply with all laws, ordinances and treaties, and all self-imposed regulations concerning industrial safety & security based thereon, and shall strive to improve the level of management of such activities.
3. The AGC Group shall establish management systems, develop the necessary rules and planning frameworks, and invest in the required equipment to ensure industrial safety & security. The Group shall also strive continuously to execute and improve related activities.
4. The AGC Group shall undertake education and training activities to raise levels of awareness, knowledge and skills related to industrial safety & security, while also striving to reinforce accident prevention and our response capabilities.

**Special Industrial Safety & Security Audit Focuses on Fire**

Asahi Glass conducted a special industrial safety & security audit at nine plants, including the former Funabashi Plant, and one Research Center from July to August 2004. Particularly focusing on fire, this audit examined these facilities against a checklist of some 70 items. The Environmental & Social Responsibility Division not only checked documents, but also examined how well employees at production sites know the emergency contacts and how well they know about the causes of fires that occurred at other plants. The results of this investigation were fed back at Plant General Manager Meeting.

The investigation revealed both the excellent actions being taken and improvements that need to be made at these plants. For instance, at the Keihin Plant they paint easily-recognizable marks on the hard hats of the in-house firefighters for quick identification and enhancement of the mission awareness of the in-house firefighters themselves. The plant and runs an industrial safety system mainly composed of employees who can get to the plant within 30 minutes in case of emergencies.

One of the problems commonly found in these plants is the inconsistency in the procedure used to notify the fire department. The Environmental and Social Responsibility Division is undertaking to improve industrial safety at each of the plants in response to the findings of the special audit by analyzing the advantages and weaknesses revealed by the special industrial safety audit and identifying the tasks to be tackled. The checklist prepared for the audit has already been distributed to all affiliates for standardization in the AGC Group. We are continually reinforcing our industrial safety system.

**Industrial Safety & Security Seminar**

Asahi Glass gives an industrial safety & security seminar once a year for our own industrial safety & security officers and counterparts in our cooperating companies. Some 40 people attended the annual seminar held on October 22, 2004. The seminar usually discusses accidents that actually happened in Asahi Glass plants to teach people how to find causes, what to do immediately after the accident and what preventive actions to take. The 2004 seminar focused on a fire caused in the previous year at the Kashima Plant and people involved commented on the incident. A questionnaire is given to participants after the seminar to gather information for future seminars.

**Fires in Fiscal 2004**

In fiscal 2004, four fires occurred in Asahi Glass: at the Kitakyushu Plant in March, at the former Funabashi Plant in June, and at the Chiba Plant in October and December. The public fire department was called to the site for all these fires, but with the help of the in-house firefighters all the fires were put out quickly with the minimum damage. Each plant investigated the causes and has taken preventive measures. Fortunately no people were injured, but still it was a disturbance for neighboring residents and other parties involved.

In-house firefighters’ hard hat (person on the right) (Keihin Plant)  
Joint fire drill with the fire department (Kashima Plant)
Occupational Health and Safety (OH&S) Activities

AGC Group Basic Occupational Health and Safety Policy (Provisional Translation) (adopted February 1, 2003)

The philosophy of the AGC Group is to give high priority to all workplace-related occupational health and safety issues. The AGC Group tries to ensure that all employees understand and share this philosophy while working to create an atmosphere that promotes these values. OH&S activities focus proactively on upholding the following three pillars that underpin OH&S performance and its continuous improvement.

1. Top-down communication of OH&S policies to employees (Creating the motivation to prioritize OH&S issues)
2. Detailed management of OH&S related issues on all production lines (Ensuring production activities balance quality and productivity with health and safety)
3. Voluntary participation in OH&S activities by all employees (Ensuring all employees participate in OH&S activities willingly)

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<th>OH &amp; S Policy</th>
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<td>The AGC Group adopted the above AGC Group Basic OH&amp;S Policy in February 2001 and is acting positively to improve OH&amp;S, including maintaining safety and health for employees and improving the working environment and conditions. OH&amp;S activities are organized in three levels: Group Corporate functions, In-house Companies and SBUs, and individual operating sites. The Group Corporate level is responsible for sharing information on occupational accidents and establishing consolidated environmental safety and industrial safety that allows the AGC Group to carry out and evaluate consistent occupational health and safety measures (see page 27).</td>
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<th>Important OH&amp;S Tasks in the JIKKO-2007 Mid-term Management Plan</th>
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<td>JIKKO-2007 lists the following as essential challenges</td>
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<td>(1) Establishing an occupational health and safety management system (OHSMS)</td>
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<td>(2) Establishing inherent safety by design</td>
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<tr>
<td>(3) Ensuring a safe and healthy working environment</td>
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The first challenge involves operating an efficient management system and carrying out effective risk assessments. The second challenge focusing on safety for machinery, chemical substances and work involves reinforcing the concept of inherent safety by design for machinery in the equipment safety standard through the combined efforts of the Environmental & Social Responsibility Division, the Engineering Center and the Chemicals Company. The third challenge involves developing detailed and specific action plans, such as creating a corporate culture with a top priority on safety, improving the working environment, and integrating activities to prevent occupational accidents with cooperating companies.

<table>
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<th>Group-wide Application of OHSMS</th>
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<td>All Asahi Glass’s operating sites completed their occupational health and safety management systems (OHSMS) in compliance with the international standard OHSAS18001 or the Health, Labor and Welfare Ministry Guidelines in 2004. The Kehin Plant, Asahi Techno Vision Pte., Ltd. (Singapore), and Siam Asahi Technoglass Co., Ltd. (Thailand) obtained OHSAS18001 certification accredited by a third party organization. The AGC Group, including 28 companies in Japan and 23 overseas, continuously strives to develop OHSMS based on risk assessments, and two to three companies plan to establish their OHSMS within fiscal 2005. To support these active efforts, the Environmental &amp; Social Responsibility Division provides safety training. The division added a new training course: Hands-on Safety Experience Training in fiscal 2004 and continues to improve safety awareness and knowledge. Operating sites and affiliates that have launched their OHSMS work harder to take action to improve safety management, including improving the skills of internal auditors, strictly according to the PDCA (plan-do-check-act) cycle.</td>
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<th>Accident Reporting in a Common Global Format Throughout the AGC Group Identifies Accident Trends and Improvements</th>
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<td>A clear understanding of the causes, identification of the risk factors and the implementation of measures to reduce risk are all indispensable in reducing industrial accidents. All the members of the AGC Group start in 2005 to apply the standardized format, which has been used for all Asahi Glass (parent) operating sites, for reporting and analyzing industrial accidents to achieve a more solid implementation of these three stages. The important points to remember when using the</td>
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</table>
standardized format for reporting and analysis are: (1) workers’ movement (unsafe actions), (2) unsafe condition of equipment (things), and (3) management issues. In addition, we formulated detailed Accident Classification Judgment Criteria for the AGC Group to provide a consistent set of standards for items such as types of accidents or partial damage. These criteria allow us to accurately determine accident frequency rates and what they actually means, thereby helping to reveal the trend in the AGC Group in terms of industrial safety.

Reports and analyses prepared in the standardized format are disclosed on the intranet. Data on serious accidents that have caused workers to take time off work are also translated into English and disclosed on the intranet. This system now allows all members of the AGC Group to see the types of occupational accidents that have happened at operating sites or subsidiaries and affiliates and the safety management activities employed to prevent or reduce those accidents. The AGC Group is committed to improving and maintaining the level of its safety management.

### OHSMS Set Up to Reduce Risks

In 2004, there were seven accidents causing absence from work and nine accidents involving light injuries in Asahi Glass (parent), with accident frequency rates of 0.27 and 0.34 respectively, an improvement over the previous year. There were two fatal accidents in 2004, one at a domestic affiliate and the other at a foreign affiliate.

All occupational accidents are reported to the CEO regardless of the degree of seriousness. The CEO said emphatically in his 2005 New Year Message that “we must make ourselves fully aware of the fact that there is no sustainable growth for a manufacturer with no safe workplace”. Whenever the CEO visits an operating site or an affiliate, he always asks them to do their best to ensure health and safety on the site. His request is based on the idea that a serious attitude to occupational health and safety will lead to improvements in CSR.

Occupational health and safety activities are primarily meant for employees. The occurrence of an industrial accident is the materialization of a risk in the working environment. Finding invisible risks and eliminating them are the actions that achieve a safe working environment. With the ultimate goal of zero-accident, the AGC Group is engaged in a detailed risk assessment to establish OHSMS.
Social Contribution Activities

The AGC Group contributes to the betterment of society through business activities as well as being engaged in a variety of social action programs, including support for artistic activities, awarding scholarships through the Foundation, award programs and promoting research.

Asahi Glass’s Social Action Program

The AGC Group is engaged in a variety of social action programs to contribute to the growth of the whole of society through various activities that respect harmony with society. Asahi Glass supports artistic activities, including glass art, organizes athletic events at the plants, and provides access to site facilities for youth baseball teams as part of supporting local community activities.

Having been the first to mass-produce flat glass and considering our deep historical relationship with glass, Asahi Glass supports exhibits at the Modern Glass Museum at the Koganezaki Crystal Park as its sole cosponsor. The town of Nishi Izu, Shizuoka Prefecture, where the park is located, is deeply associated with Asahi Glass as one of the sites for the silica sand, the basic material of glass. We have been extending cooperation to the Koganezaki Crystal Park since its opening in 1997 out of a desire to let people know more about the attractiveness and potential of glass and we cosponsored three exhibits at the Museum in 2004. Of these exhibits, the Glitter of Crystal Glass Exhibit was particularly highly evaluated by visitors.

In the field of support for the arts, Asahi Glass cosponsored the Monet and Renoir: Two Great Impressionist Trends held at the Bunkamura Museum of Art, Tokyo, in 2004. We continue our support for arts activities, centering on glass art, as part of our rapport with society in the fields of culture and art.

Asahi Glass Scholarship Foundation

The Asahi Glass Scholarship Foundation was established in 1957 to commemorate Asahi Glass’s 50th anniversary with the mission to foster talent. The foundation provides economic assistance to deserving students learning in Japan, regardless of their nationality.

Social Action Programs in Foreign Countries

The Asahi Glass Thailand Foundation and Asahi Glass Indonesia Foundation were established in 1982 as one of the means to return profits to overseas. These foundations provide scholarships to university and high school students in those countries.

Support for Victims of the Sumatra Earthquake and Indian Ocean Tsunami

A large number of people were killed and injured with millions of dollars in financial damage incurred by the people of many countries due to the devastating earthquake that occurred off Sumatra and the subsequent tsunamis on December 26, 2004. Asahi Glass has long regarded India, Thailand and Indonesia to be very important as core bases in our operations in Asia, where we have been active for over 30 years. The AGC Group wanted to reciprocate their friendship and provided support to help them recover as soon as possible.
The Asahi Glass Foundation strives to contribute to the creation of a richer, more vibrant society. To this end, the Foundation supports research in leading-edge scientific and technological fields and recognizes individual and organizational efforts to solve issues of concern to people around the world.

The Blue Planet Prize

The Asahi Glass Foundation has awarded the Blue Planet Prize since 1992. Its is an international environmental award given to individuals and organizations who have made outstanding achievements in scientific research and its application, and in so doing have helped provide solutions to global environmental problems. Each year, two award recipients are chosen from among candidates named by nominators from Japan and overseas. Each winner receives a certificate of merit, a trophy and a supplementary award of ¥50 million.

Areas for Recognition

- Environmental problems related to global warming, acid rain, ozone depletion, deforestation, desertification, soil deterioration, oceans and fresh water resources, preservation and restoration of the ecosystem and biodiversity
- Comprehensive issues related to preservation and restoration of the global environment that are useful in helping to realize a sustainable society, such as energy, population, food, water resources and environmental policies

13th (2004) Blue Planet Prize Winners

Dr. Susan Solomon (USA)
For pioneering work in identifying the mechanism that produces the Antarctic ozone hole and momentous contributions towards the protection of the ozone layer

Dr. Gro Harlem Brundtland (Norway)
For putting forward globally the innovative concept of sustainable development, an idea that aims to balance environmental conservation with economic growth

Research Assistance Program

The Asahi Glass Foundation provides grants to support original research in the natural and social sciences that could contribute to the future of society or provide solutions for important social issues. Particularly for research projects concerning the global environment, excellent projects in the natural sciences, humanities, and social sciences and in comprehensive fields are selected for support provided for each specific research. In fiscal 2004, the Foundation provided assistance to 169 projects with grants totaling ¥235 million.

Presentation on the results of research support held at United Nations University U Thant Conference Center on July 21, 2004. Out of those financially supported by the Foundation, five researchers on environmental issues in the Asian area presented their results.

Research fields to be supported

- Science and technology
  - Assistance with research in the natural sciences
  - Assistance with research in the human and social sciences
  - Assistance with comprehensive research projects
  - Overseas research assistance
- Environment, organizations, information, and humanity
- Global environment
- Chulalongkorn University (Thailand), Institute Technology Bandung (Indonesia)
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<td>EC1 Net sales</td>
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This table provides page references for individual reporting indicators contained in the GRI Sustainability Reporting Guidelines. GRI Guidelines available at: http://www.globalreporting.org
Observer’s Opinion

Our first CSR Report should be evaluated to verify that it clearly describes the ideas and policies of our CSR, reflects the characteristics and opinions of the company, and to verify that the descriptions of our CSR activities satisfy the main requirements of society and that the reader can understand the attitude of the entire AGC Group toward CSR.

Valdez Society *1 Yasunobu Okada/Kojiro Tanaka/Yoshiki Midorikawa/Tamio Yamaguchi

Detailed Comparison with Persuasive Power

This report is featured by concluding that CSR for the AGC Group is to aim at “Look Beyond” based on a detailed review and discussion on whether the group vision “Look Beyond” and the management policy “JIKKO” satisfy what society wants for CSR. These attempts sound persuasive and enable the reader to feel the enthusiasm and efforts of Asahi Glass related to CSR. Such impression can also affect how a corporate brand will be formed. It is recommended in the future that the indicators of CSR be determined and that the progress of CSR be continuously disclosed by means of this report.

Compliance is one of the building blocks of a corporation. A working system must be established. This report is very good in that the system actually works as evidenced by disclosure and self-evaluation of the results of reporting and consulting through the Help Line, the Code of Conduct and the guidelines on reporting information on violations, publication of a Q&A with Commentaries, and submission of the compliance certificates.

Ease of Understanding

The reader can feel the commitment and sincerity of Asahi Glass here and there in this report on disclosure of information. The door to the disclosure of environmental information is opening wider in recent years. It is important that Asahi Glass also continue to keep the door to CSR information open in the years to come. Note, however, that disclosed information must be understood by the general public. In this light, one cannot deny that this report may appear to the reader to be highly specialized and difficult to get into because of its use of many special terms and unintelligible catch phrases. It is necessary to use language that is easier to understand and to provide detailed descriptions for catch phrases and special terms (“make the world a brighter place” for instance).

Quantitative Targets Need to be Indicated

It is highly significant for an environmental report to show not only the input/output data but also a comparison with nationwide data. If each value is understood in relative terms with others, one can understand the degree of each environmental impact in relative terms. A list of annual plans, results, evaluation and future plan may help us understand the PDCA cycle working, but because of insufficient indication of quantitative targets and descriptions of each item in a qualitative manner, the reader may not feel how serious and determined Asahi Glass is about improvement activities. Take “Proper Management of Chemical Substances” for instance. It is necessary to add descriptions of the entire picture, changes (in consumption or emissions), and the status of use of the yellow card system. The environmental data is only from the parent company of Asahi Glass, but since Asahi Glass announced that their overseas sales exceeded 40% of the total and that they are more serious about global operations as the AGC Group, the environmental data should be quickly shifted to show consolidated data.

Reporting from Social Viewpoints

The reader understands how serious Asahi Glass is about disclosing information on sociability. But it is recommended that what topics to describe and what to describe for each topic be determined based on the trends in society and what people are concerned about. For instance, the report does not provide much information on labor, which is one of the topics with many problems to be solved for the benefit of society. For the topic of “diversity” listed as one of the shared values, a more detailed description about employment and promotion of women and the employment environment related to the decreasing number of children and the increasing number of aged people will hopefully be included in the future.

For occupational health and safety, the report mentions the progress of system development, such as the mid-term problems to solve and expansion of OHSMS. But new serious problems are currently emerging in the workplace, such as deterioration of mental health and a rising sickness ratio. It is considered necessary to describe how Asahi Glass copes with these issues and the result of their effort on them.

*1 The Valdez Society is a Japanese NGO that was established in 1991 with the three aims of promoting corporate environmental management, socially responsible investment and eco-conscious consumerism. It provides companies with contract research and consulting services on topics related to environmental and social responsibilities. It is the only registered Japanese member of CERES (Coalition for Environmentally Responsible Economies), the originator of the Global Reporting Initiative (GRI).
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