

ENVIRONMENTAL MANAGEMENT AND COMMUNITY RELATIONS ACTIVITIES

VIGOROUS PROMOTION OF ENVIRONMENTAL MANAGEMENT

In August 1998, the Shin-Etsu Group adopted an Environmental Charter, which serves as a guideline for environmental management toward realizing a society capable of sustainable development, as the Group vigorously carries out its worldwide business activities. As part of the Environmental Charter, the Shin-Etsu Group has formulated this basic philosophy: "Shin-Etsu Chemical Co., Ltd. recognizes global environmental protection as one of the most important issues facing humankind. Shin-Etsu believes in the fundamental principle of giving environmental consideration to every aspect of its business activities as it aims at contributing to a society in which sustainable development is possible." This basic philosophy contains five action guidelines.

In July 1996, our Gunma Complex acquired ISO 14001 certification, the international standard for environmental management systems. This was the first such achievement for a leading chemicals company in Japan. By March 2001, all of Shin-Etsu's production bases as well as its principal subsidiaries and affiliates, including Shin-Etsu Handotai, had also received the certification. Likewise, each production base is responsible for defining its own environmental policies based on the Environmental Charter. Shin-Etsu is dedicated to countering the inevitable results of product manufacturing and the creation of by-products, wastewater, and gases. We work to recycle to the greatest degree possible, reduce the volume of non-recyclable materials, and dispose of harmless materials in specified locations.

Furthermore, in response to various environmental problems ranging from regional to global issues, we have identified the following themes for our continual improvement in reducing environmental burdens: reducing greenhouse gases, conserving energy, cutting waste materials, and properly controlling and managing chemical substances.

Contributing to the Prevention of Global Warming

While working to conserve energy at each production base, Shin-Etsu makes efforts to reduce the discharge of such greenhouse gases as carbon dioxide, methane gas and chlorofluorocarbon gas, which are causes of global warming. In addition to our response to global warming issues, Shin-Etsu abolished the use of specified chlorofluorocarbons in 1995 because of damage to the ozone layer. Shin-Etsu Group is also vigorously promoting the introduction of cogeneration systems, which are currently being commercialized. Through the effective use of energy, we are reducing consumption of fossil fuels and cutting down on emissions of greenhouse gases such as carbon dioxide.

Promoting the Production and Supply of Eco-products

The Shin-Etsu Group is often viewed as a petrochemical manufacturer because it is the world's largest producer of polyvinyl chloride (PVC). However, the raw material used in most of our products, silicon, is found

in abundant quantities around the world, as in, for example, synthetic quartz, which is used in silicones (silicon resin) and optical fiber. PVC is made of 57% sodium chloride and 43% petroleum, a markedly lower amount of petroleum compared with other types of plastic. Among the diverse range of materials and products that we produce and supply to the market are a number that actually help reduce the burden on the environment.

PVC is used in the construction and civil engineering fields because of its superb anticorrosive and weather-resistant properties. Among such products, vinyl sash has attracted attention because of its thermal retention and insulating capabilities that are comparatively better than aluminum sash. When used as a window frame, vinyl sash enables a 50% reduction in energy consumed in heating and cooling processes compared with alternative products.

Synthetic pheromone-type pest killer is a revolutionary product that replaces the use of insecticides, the conventional method for killing pests. Instead, our synthetic pheromone-type pest-killing product is being used increasingly in apple, pear and peach orchards as well as tea plantations. Because synthetic pheromone chemicals are made of synthetic natural substances, their toxicity is minimal compared with conventional insecticides and agricultural chemicals. Moreover, the synthetic pheromone does not cause environmental pollution since decomposition produces only carbon dioxide and water.

Rare earth magnets are used in the motors of energy-saving air conditioner compressors. Silicones reduce the environmental burden by modifying the composition of plastics. This use of silicones to modify rubber in tires contributes to reductions in CO₂ emissions as well as SO_x and NO_x by improving fuel efficiency in automobiles.

Environmental Action Plan

The Shin-Etsu Group establishes individual environmental objectives and targets at each production base in line with its Environmental Charter to vigorously preserve the environment.



Shin-Etsu
Environmental Report 2003

Promoting Measures for Prevention of Environmental Pollution

Shin-Etsu promotes measures to prevent environmental pollution, and strives toward environmental preservation on a global basis, particularly in the preservation of our earth's water and air supplies.

Promoting Energy Saving

Shin-Etsu aims to raise the utilization efficiency of electricity and steam while cutting back on petroleum-based energy.

Achieving Zero Emissions (Waste Reduction)

Shin-Etsu plans to achieve zero emissions by promoting reductions in the volume of raw materials used as well as through recycling and reusing waste.

For more detailed information on our environmental activities, please visit our Web site at <http://www.shinetsu.co.jp/e/profile/kankyo.shtml>.

COMMUNITY RELATIONS ACTIVITIES

Shin-Etsu believes that in addition to maximizing corporate value, companies also have a fundamental responsibility to be good citizens. Our commitment to this ideal goes beyond mere words and into daily activities at Group companies. We focus both on the big issues that have an impact on the world, and on the small issues that affect local communities. Among some of its regular efforts, Shin-Etsu promotes cleanup activities around its production plants and hosts various community events and festivals. The Group aims to continue being a partner to communities around the world.

In 2003, CIRES, a Shin-Etsu subsidiary based in Portugal and a member of the Association of Plastics Manufacturers in Europe (APME), participated in an online fund-raising campaign to help provide African countries with safe water resources. WaterAid and APME together are helping to promote the development of safe water supplies, sanitation, and hygiene in African countries, such as in Nigeria, where only 57% of the population has access to safe drinking water. The funds raised will help some 130,000 people in Nigeria's Plateau and Bauchi states, out of Nigeria's total population of 111 million people, the largest population in Africa.

Shin-Etsu was a major contributor to these efforts and the fund-raising project by visiting the CIRES website at <http://www.cires.pt> during the campaign period, which culminated in June 2003. For every visitor to the website who clicked on the "One Click For Every African Child" link, directing them to the Aquaplastics website, resulted in a 10-cent donation to WaterAid by the European plastics industry. In this way, Shin-Etsu's collaboration helped CIRES reach their goal of 1.5

million clicks, 150,000 euros, thereby saving the lives of thousands of African children.



Water Aid / Caroline Penn

Down under, the Shin-Etsu Australian affiliate Simcoa, previously recognized for its commitment to environmental conservation efforts, takes action again—this time in the Greenhouse Challenge. The Greenhouse Challenge is a joint initiative between the Australian government and industries, including 800 participating Australian companies to abate greenhouse gas emissions. Simcoa took on the challenge early in 2003 to cooperate in one of Australia's most successful responses to climate change, which began in 1995.

Environmental challenges are nothing new to Simcoa, however, as it has been aware of these environmental issues since the 1980s, when the plant was commissioned. Consequently, Simcoa is now reaping the benefits of its continual improvements and initiatives since that time, with increased production and reduced greenhouse gas emissions. Simcoa's achievement of a nearly 20% reduction in greenhouse gases per ton of silicon is impressive, given the fact that electricity is a significant and necessary cost for the plant. Simcoa is excited about future possibilities for the abatement of greenhouse gases and the potential partnerships to be forged with other mining industries, and alternative, greenhouse-friendly power suppliers.

Simcoa strives to be an example for other members of the silicon industry and demonstrate to the community that we are taking action to further reduce emissions and are committed to working toward sustainability.

Shin-Etsu's global community activities are proof of our dedication to being a good citizen. It's the dedication of our employees around the world, creating better lives for everyone, who carry out our mission.



The Greenhouse Challenge Logo