



Environmental Activities

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Basic Environment Policies

The THK Group goes to great lengths to ensure that it pays due attention not only to its business activities but also to the environmental impact of its operations. The Company recognizes the importance of playing its part in conserving the global environment—going beyond simply acting in accordance with relevant environmental laws and ordinances—and intends to be known as a company that is actively engaged in attempts at environmental conservation by following the four basic principles outlined below.

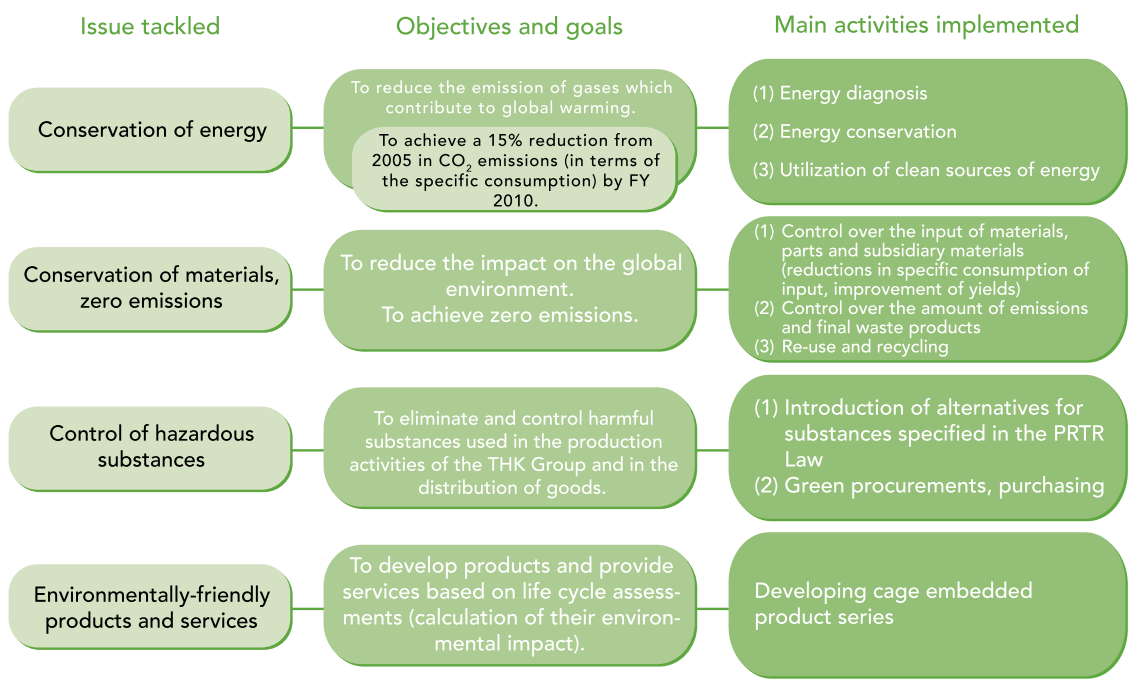
- (1) In addition to its aim of efficient energy use, the Company aims to optimize the use of utility power and self-generated power together with adopting clean energy sources such as natural gas in order to reduce emissions of greenhouse gases.
- (2) As well as trying to limit the amount of material used in the manufacturing process and controlling the amount of generated waste product, the Company promotes the use of reusable and recycled products with the ultimate goal of minimizing the overall amount of generated waste product.
- (3) The Company controls the use of substances with a high environmental risk and the potential to have a harmful effect on people's health or the ecosystem. This means not just reducing

the amount of harmful substances used in the Company's products but also controlling their use in the actual production process and taking measures to ultimately prohibit their use.

- (4) THK constantly strives to provide customers with products and services that can contribute to promoting environmental conservation.

In order to fully implement the goals outlined above, the Company aims to disseminate all information relating to the THK Group's involvement in environmental conservation activities, as well as actively promoting bilateral dialogue with environmental groups. Some of the specific measures we are currently planning in this area include the following:

- Increasing employee environmental awareness and knowledge through education and training related to environmental issues.
- Providing guidance and support to both affiliated and subsidiary companies on environmental issues in order to develop good environmental practices. This is in addition to enthusiastically cooperating with local communities.
- Ensuring that all of our key stakeholders, including shareholders, customers, suppliers, and the general public, are kept aware of our group's Basic Environmental Conservation Policies and current conditions.



Environmental Conservation Activities



Self-generated power

In addition to the regular supply of electricity from utility companies, each plant is also capable of generating its own power (the image shows the exterior of the Yamaguchi plant's cogeneration building). All of our plants strive to make the most efficient use of energy, while at the same time considering the current energy situation and minimizing carbon dioxide emissions.

Reduction of Greenhouse Gas Emissions

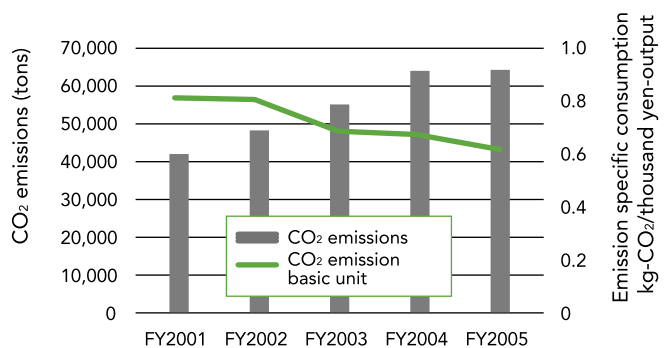
The Group's Manufacturing Division has long been actively involved in efforts to save energy, but following the April 2005 decision by the Cabinet to adopt proposed goals to meet the conditions of the Kyoto Protocol, reduction targets for carbon dioxide emissions were introduced at the group-wide level—including all administrative sections. Specifically, this means that by FY 2010 the Group plans to reduce specific consumption (kg-CO₂/thousand yen-output) by 15 percent compared to the corresponding figures for FY 2005.

A cogeneration system is in place at both the Yamaguchi and the Yamagata plants, allowing these plants to meet their energy needs by self-generating power through the burning of fuel oil—resulting in reduced demand for utility power. In FY 2005, however, the substantial increase in the price of fuel oil led to increased use of utility power, which emits less CO₂ emission than self-generated power, and therefore measures were taken by the Company to curb the amount of self-generated power. The Group plans to make every effort to implement a flexible response to meet any changes to the current situation in the future. As part of this response, the Company's Gifu plant decided to move away from using fuel oil as a heat source in its new buildings and replaced this with liquid natural gas (LNG), which has lower CO₂ emissions. Both the Yamaguchi and Yamagata plants also optimized their use of air compressors so that the compressed air supply can be varied in accordance with the production load, resulting in considerable power savings. All of these measures, taken together, resulted in, a 6.6 percent fall in CO₂ emissions compared to FY 2004 (refer to accompanying graph).

The Group is currently carrying out energy diagnostics at each of its plants and looking at the most appropriate measures to ensure the

Group meets its energy conservation goals by FY 2010. Plants that carry out machine work make extensive use of air-conditioning systems that consume a significant amount of energy in maintaining a constant room temperature, meaning building insulation is a critical issue when addressing the Group's energy reduction measures. Plans for the current term involve the construction of a third facility at the Yamagata plant, and based on the experience of recent construction at the Gifu plant this will include staggered alignment of rooms, and the planned use of autoclaved lightweight concrete (ALC) panels. As all of the Company's plants have high ceilings compared to their overall dimensions, the effect of insulating the roof is considerable, and we plan to carry out this insulation process in both new and existing plants in the future.

As part of our overall environmental policy all of our Distribution Centers are actively involved in the use of "green transportation." These Centers have already undertaken a modal shift from road to rail for long-distance shipping and this has resulted in an anticipated reduction in CO₂ emission of 0.32kg per kilometer for every ton of goods shipped over a distance of 700km.



Changes in carbon dioxide emissions and specific consumption (overall figures for Manufacturing Division)



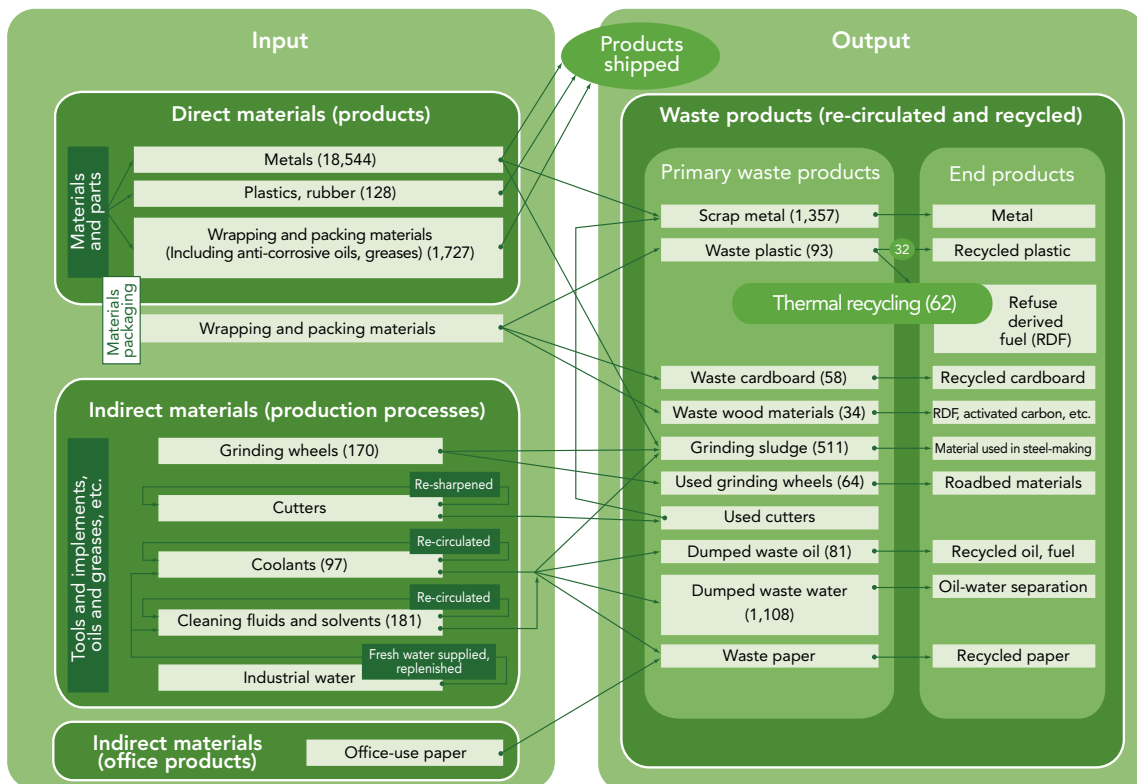
Grinding sludge solidification system

Recycling using a grinding sludge solidification system (at the Yamagata plant)
 The sludge is first dewatered, then loaded into the recycling system in containers, and finally solidified into cylindrical forms.
 These cylinders are re-used as items of value and employed as materials for steel-making.

Using Less Resources / Reducing Emissions / Recycling

Beginning with the Yamagata plant in 1999 a total of six plants within the Production Division now conform to Environmental Management Standard ISO14001. This environmental management system has had the effect of not only reducing environmental burden caused by both the Group's production and business aspects, but from a broader perspective this has also resulted in the Group's systematic involvement in activities aimed at reducing the environmental risk and burden that affects the overall global environment.

At THK we actively encourage the reuse of both industrial and non-industrial waste and are developing a Zero Emission program that will ultimately reduce the amount of final waste emission at all of the Group's plants. Already we have seen the emission rate fall by 2 percent, and by realizing the amount of different types of direct and indirect materials used in the manufacturing process, and through a reduction in the absolute amount of materials used and a subsequent drop in the amount of waste product generated, we have started a movement to improve specific consumption and yield.



Figures in parentheses indicate the corresponding amounts in FY 2005. All amounts are given in units of tons except for the cleaning fluids and solvents in the Input section for which the kiloliter is used as the unit.

Flow chart of input materials, waste products, and recycling (using the example of the Yamaguchi plant)



Separation of waste products

All waste products generated at the company’s plants are separated and stored at designated storage areas. The image shows a container for holding waste products at the Yamaguchi plant.

The major production processes at THK involve grinding which creates waste by-products such as abrasives and coolant oils. Following on from the Yamaguchi plant, the Yamagata plant has now introduced the use of a sludge solidification unit, resulting in the recycling of sludge into raw materials for use in the iron and steel industry rather than the conventional use of abrasive sludge as landfill.

line with ISO14001. This will result in a correct and thorough understanding of the amount of waste material produced, as well as the emission of specified chemical substances produced as part of the production process, and ensure that these are handled appropriately. At the same time we are also making every effort to minimize the use of such substances. So far we have been successful in making the switch to 13 products or materials that do not include any of these specified chemical substances.



Compressor surveillance monitor screen

An example of cutting back on electricity use through the optimized use of air compressors, currently being carried out at the Yamagata plant. This image shows a display capable of monitoring the operating conditions of multiple units.

Control of Environmentally Hazardous Substances

Environmentally hazardous substances include chemicals with the potential to have an adverse effect on living organisms or the ecosystem. Within the Manufacturing Division, improvements are planned to the control of specified chemical substances stipulated by the Pollutant Release and Transfer Registers (PRTR) system, in

When planning and procuring the relevant components for use in the Company’s products at the time of development, a number of products and materials have been classified as “Prohibited Substances” or efforts have been taken to reduce their use in accordance with the “THK Group Green Procurement Guidelines.” Based on these guidelines, the Group began operating a green procurement policy, as of April 2005, which doesn’t include harmful substances, and our standard specification products have already been subject to a 100 percent environmentally friendly overhaul. This has resulted in strict control and prohibition of the use of harmful substances, such as added lead in some plastics, hexavalent chromium used in surface finishing coating, and cadmium found in zinc alloy.

In order to comply with the introduction on July 1, 2006 of the RoHS Directive (the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), which is the European Union’s Directive regarding restrictions on hazardous chemical substances, the Group plans to gradually expand the scope of application of its Green Procurement Guidelines.

At THK we take a holistic approach to the environment, encompassing disparate stages such as the supply of raw materials, production and sales, product life and disposal. In the past we evaluated suppliers on the traditional criteria of (Q)uality, (C)ost, and (D)elivery. Today we add (E)nvironment to these items and



Anti-scatter measures for asbestos

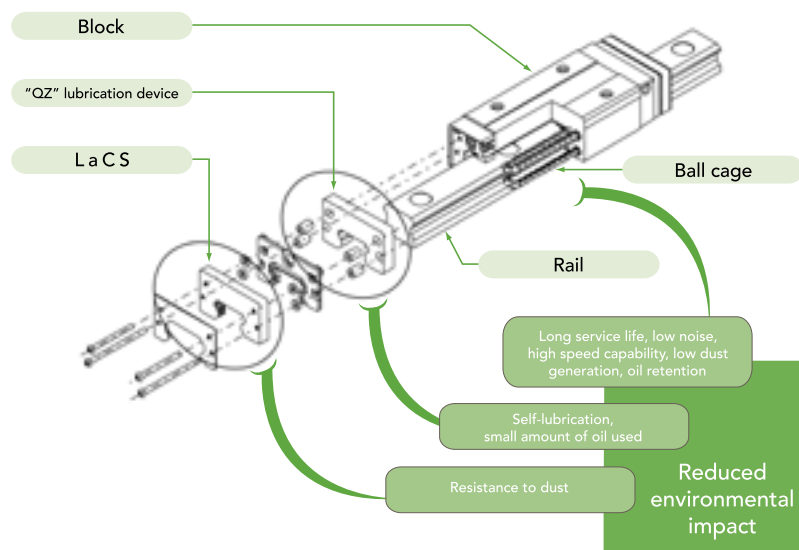
The image shows the dismantling of the former Gifu plant buildings. From the planning stage it was realized that removing the roof slates called for anti-scatter treatment for asbestos; all possible measures were taken to ensure that this treatment was carried out.

evaluate supplying companies based on their “QCDE” scores. If the vendor is a trading company we also consider the performance of original manufacturers.

Environmentally Responsive Products

THK's products are produced based on the invariable principle that energy can be saved by minimizing operating friction. More specifically this involves the use of the key concept of Cubic E (E3) in the development of our new products. Cubic E consists of the following three ideas: “Endless” that aims for a much longer operating life by improving our products maintainability and safety; “Ecological” that is intended to improve the plants’ working environment as well as to reduce emissions of pollutants and waste products; and “Economical” that aims to improve cost-performance through the multi-functional and durable nature of our products.

Products made under this product development policy include the “Cage embedded S-series.” This product’s series is based on our company’s new and original idea of an embedded cage together with the development of these products from an environmental perspective with technology enabling the recycling of components used in the product and the elimination of waste oil through the product’s auto lubrication system. THK is determined to continue development of such environmentally responsive products in the future by continuing to consider the environmental aspect of all of our business activities. By developing environmentally aware products we believe we will also succeed in increasing business opportunities and new customers.



Environmentally responsive product technology