Reducing the Environmental Burden of Factories and Business Offices

Advancing eco-friendly manufacturing through comprehensive environmental protection activities in our factories.

Activities to Reduce Environmental Burdens at Factories and Business Offices

We are engaged in activities to reduce the amounts of materials and energy used in our business activities, to reduce chemical substances, waste, and air-polluting substances generated by our business activities, and to minimize our manufacturing costs.

We are also making comprehensive efforts to fully comply with laws and regulations and to prevent environmental risks from materializing.

Promoting Green Process Activities in Manufacturing Processes

Our Green Process activities are intended to save energy and reduce the amounts of chemical substances used and waste produced in manufacturing processes. In a Green Process activity, we strive to reduce the environmental burden (waste, chemical substance emissions, energy usage) of a manufacturing process by optimizing (and reducing costs) of raw material inputs, chemical substance usage, energy usage, and other aspects, and/or switching to alternatives with lower environmental burdens.

In these activities, we first assign an environmental burden index (CG index*1), an originally developed method, as a yardstick for determining priorities and target values for specific materials, chemical substances, and energy used in the manufacturing process, and then apply the PDCA cycle (plan, do, check, act) to guide activities each quarter. These diverse efforts range from reviewing manufacturing technologies and particular processes to daily improvements from the workers themselves. In fiscal 2006, in addition to continuing previous initiatives, we promoted activities to deepen collaboration with our manufacturing innovation activities*2.

*1 CG index

- Original to the Fujitsu Group, this index describes the product of input volume used per product, the cost, and the environmental impact (on a scale from 1 to 10).
- *2 Manufacturing innovation activities

We have been engaged in Group-wide manufacturing innovation activities based on introducing and deploying the Toyota Production System since 2003.

Reductions in Power Consumption by Reviewing and Revising Testing Processes (CG index: 18% reduction)

Fujitsu IT Products, Ltd. manufactures and ships servers, storage equipment, image scanners, and other products. The company has set a goal of reducing its environmental burden through implementing Green Process activities and, as one such effort, it has reviewed and revised its testing processes for storage products. While the company had previously tested the structural components (hard disks, control units) of storage products individually before assembling to the customer's required configuration, as a result of this review it was able to perform the testing after assembling the structural components in functional blocks (in coordination with manufacturing innovation activities) and reduced power usage by 18% per month. As a result, the per month CG value was reduced by 18% and costs were similarly reduced by 18%.

Approach to Chemical Substances Management Policies

We have established "Prevention of environmental risks that could lead to environmental pollution or adverse health effects due to the use of harmful chemical substances" as our basic policy for chemical substances management, and we work to reduce the amount discharged and implement appropriate management at every business site.

In fiscal 2006, we strengthened the functions of an existing chemical substances management system and increased the efficiency of our chemical substances registration and management operations.

Fiscal 2006 Performance

In the Stage IV Environmental Protection Program, we established the goal of reducing by fiscal 2006 the amount of chemical substances discharged from our factories by 15% compared to fiscal 2001, but we achieved that goal ahead of plan, in fiscal 2004.

In addition to strengthening the proper management of chemical substances that are subject to the PRTR Law and reviewing our manufacturing processes, in fiscal 2006 we implemented a variety of measures to reduce chemical discharge by our semiconductor factories, including installing organic solvent recovery equipment. As a result, the total amount of PRTR chemical substances discharged by the Fujitsu Group in fiscal 2006 fell to 47.3 tons, a 53% reduction from fiscal 2001 levels.



💯 Group companies (Japan, overseas) 🛛 🔲 Fujitsu Limited



FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006

Reducing the Amount of Waste Generated

In working towards creating a recycling-minded society, we have adopted a basic 3R policy (reduce, reuse and recycle) and in aiming for an even higher level of 3R achievement, we encourage all our employees to separate waste materials into different categories for more effective recycling.

With Local and International Communities

Fiscal 2006 Performance

In the Stage IV Environmental Protection Program, we set the goal of reducing the amount of waste generated by our business operations by 3% compared to fiscal 2003 levels by the end of fiscal 2006.

The total amount of waste generated by the Fujitsu Group came to 29,845 tons in fiscal 2006. This was a 41% reduction from fiscal 2003, achieving the goal of the Stage IV program. While assigning monetary values to both paper and inorganic sludge contributed to this achievement, business restructuring was also a large factor.

Still, if we compare our fiscal 2006 performance to that of the previous fiscal year, we see that there was a 3% increase due to increased production at our semiconductor plants.

Amounts of Waste Generated



* Statistics for 12 Fujitsu sites and 27 Group companies.

Progress towards Zero Waste Emissions* at Group Companies in Japan

We are actively promoting zero emissions activities at our domestic Group companies. In fiscal 2003, Fujitsu Limited achieved zero emissions. In fiscal 2004, except for one business location, all Fujitsu Group companies in Japan achieved zero emissions, and this zero emissions status has continued ever since.

However, in addition to the single business location at which sewage treatment tank sludge became an issue in the previous fiscal year, this problem also arose at one other Fujitsu site and two other group company sites. This was because we had to terminate the bio-processing that we had been performing at those facilities due to structural issues in treatment tank equipment required for compliance with water quality laws and regulations and other reasons. As a result, there were four business locations that were unable to achieve zero emissions in fiscal 2006. We are continuing to investigate means for achieving zero emissions of sewage treatment tank sludge at these business locations.

Except for the sewage treatment tank sludge problem described above, we achieved zero emissions at Fujitsu itself in fiscal 2003 and at domestic Group companies in fiscal 2004, and that state has been maintained.

* Zero waste emissions

Regarding the Targets of the Stage V Environmental Protection Program

Applying the Green Factory and Green Office System

As a practical manifestation of our Green Factories concept, we perform comprehensive evaluations of the level of eco-friendliness at our business locations and the state of our voluntary efforts, and we are also working to improve the visibility of these efforts. We have established the new target of achieving at least a two-star rating under our Green Factory / Green Office system at all our business locations by the end of fiscal 2009.

This will be applied not only to our factories but also to our office divisions, and along with striving to achieve this certification level in the overall evaluation we will work to make further improvements.

Reducing Chemical Substances

We have established the goal of reducing annual discharge of 20 industry-specified volatile organic compound (VOC) substances to a level 30% below that of fiscal 2000 by the end of fiscal 2009, which is one year ahead of industry guidelines.

In moving towards achievement of this goal, we are continuing to reduce discharge volumes by efforts such as expanding the adoption of organic solvent recovery equipment at electronic devices factories and Group companies, changing the cleaning processes used at other factories, and switching to substitute materials with lower toxicities.

Reducing Waste Generation

Continuing our efforts under the Stage IV Environmental Protection Program, we are working to reduce the generation of waste even further. Our target values are based on fiscal 2005, in which there was minimal influence from business restructuring activities, and we have established the goal of reducing waste by 3% by the end of fiscal 2009. In moving towards achievement of this goal, we are investigating reducing fluorine-containing sludge and the in-house processing of liquid wastes (acid and alkaline wastes).

Achieving 100% waste utilization, with none going to landfills or simple incineration.