## **Environmental Protection Activities Report**

### **Global Warming Prevention Measures**

The FDK Group is committed to various activities for prevention of global warming including energy-saving measures, development of energy-saving products, improvement of logistics and promotion of recycled use.

## **Energy-Saving Measures**

In order to prevent global warming while protecting limited energy resources, it is essential to reduce the volume of energy used. The FDK Group is committed to reducing use of energy mainly by introduction of energy-saving system such as a co-generation system and by improving operation and control of existing facilities and equipment.

### Targets of the Third Environmental Action Plan

Energy consumption and emission of CO<sub>2</sub> reduced at the end of FY 2006 by 15% of those in FY 2000

 $\cdot$  The scope of these reductions includes FDK's plants and offices in Japan.

## Energy-Saving Activities

In FY2005, the FDK Group continued its energy-saving activities including modification of control and operating method of facilities and equipment. In addition to it was a measure against air compressors, monitoring of system capacities, and an analysis and measures against the balance of energy demands among buildings. As a result, the volume of carbon dioxide discharged came to 20,397 ton, a reduction of 3% over the previous FY and by 62% against the reduction target in our Third Environmental Action Plan of 15% against the level of carbon dioxide emission volume in 2000. This means the target in the Plan was cleared more than the satisfactory level. The major contributors of this successful achievement of the target is our continued energysaving activities combined by a shift of production of ferrites that consume a lot of energy by sintering furnaces to that of electronic modules, along with our business structural reform processes

All of domestic offices and plants of the FDK Group have already achieved as of now the target of the Kyoto Protocol, 'to reduce discharge volume of greenhouse-effect gasses by 6% over that in 1990.' However, the FDK Group will further take efforts in reducing carbon dioxide emission through improvement of facilities and their control and operation methods, and reduction of air-conditioning charges.

No greenhouse-effect gases other than carbon dioxide are emitted from any plants and offices of the FDK Group.

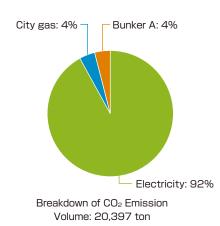
## Major Energy-Saving Activities in FY2005

- An energy-saving type air compressor introduced to Kosai Plant
- Excessive compressors stopped at Iwaki Plant due to a revision of air supply distribution volume to each building
- Economized use of air compressor at FDK Energy Co., Ltd. due to pressure loss prevention measures inside the compressed air pipes
- Reduced power consumption by changing from an air compressor to a roots blower at Kosei Plant
- Excessive facilities stopped by an appropriate distribution of cooling capacities of the cooling tower at lwaki Plant
- Introduction of inverter fluorescent lights at Iwaki Plant

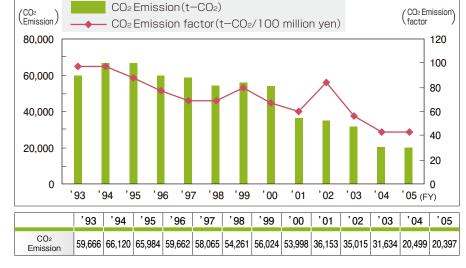


Introduction of an energy-saving type compressor (Kosai Plant)

### **Energy Type**



### Transition of CO<sub>2</sub> Emission



# Management and Organizational Structure

## CO<sub>2</sub> Reduction Activities through Improvement of Logistics

The FDK Group's  $CO_2$  reduction activities cover procurements of parts and raw materials and transportation, use, disposal and recycle of products.

### Targets of the Third Environmental Action Plan

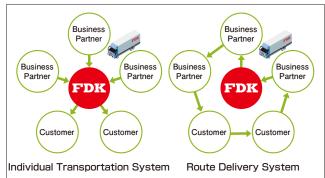
Contribution to the reduction of greenhouse gas emission

• Reduction of CO<sub>2</sub> emission is promoted through improvement of logistics, recycled use of products and packaging materials, and development and purchase of energy-saving products.

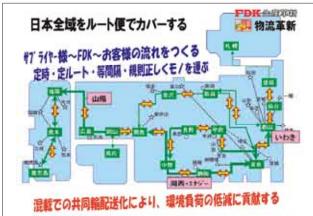
### CO<sup>2</sup> Reduction using Route Delivery System

The FDK Group has made efforts to shift from the conventional individual transportation system to a route delivery system in Kosai Plant and Iwaki Plant to deliver or pick up products and materials from business partners to FDK, and then from FDK to customers by making the rounds of multiple sites. This can reduce lead-time of delivering products to customers and the volume of work-in-process items. In addition, the total distance of travel can be reduced and hence the volume of  $CO_2$  emission can be minimized as well. In FY2005, the route delivery system started in all of major FDK sites nationwide such as FDK Energy Co., Ltd. and Sanyo Plant of FDK Corporation, so that the system can cover all and every route to and from FDK and business partners/customers in Japan.

### **Delivery Routes**



#### Application of route delivery system nationwide



### Improvement of Loading Efficiency for Truck Transportation and Recycled Use of Packaging and Packing Materials

The FDK Group promotes use of returnable containers (TP Tray) for recycled use of packaging and packing materials, and application of Kanban System<sup>\*</sup> that produces necessary items just in time as they are needed, by using the returnable container.

As to packaging and packing materials, loading efficiency of a truck will be enhanced by their resource- and space-saving designs to reduce discharge of carbon dioxide during truck transportation.



A returnable container (TP Tray)

### CO2 Reduction by Demolishing Osuga Plant

The former Osuga Plant building was demolished from October to December 2005. In the dismantling process, wastes generated from the dismantling works were recycled as much as possible in accordance to the Law Concerning Recycling of Materials from Construction Work (or Construction Waste Recycling Law). Wherever possible, wastes were directed for recycled use in the site. Concrete wastes, the largest waste in volume, were crushed using a crusher and reused as crushed stones for ground leveling. This eliminated use of damp trucks for carrying out

concrete wastes of approx. 1,350 ton from the site and transporting recycled crushed stones into the site. The carbon dioxide and energy reduced and saved was equivalent to 300 damp trucks.



Demolishing works of the former Osuga Plant

\*Kanban System: In the Toyota Production System, a communication tool called Kanban is used realizing 'a later process takes what is needed from an earlier process in a course of just-in-time production.