

Promotion of Green Factories

The FDK Group pursues green factories where protection of the environment is well considered including reduction of wastes and chemical substances, prevention of contamination to air, water and soil, and avoiding noises and vibrations.

Reduction of Discharging Chemical Substances

The FDK Group sets out and operates 'Chemical Substances Handling Regulation' to restrict emission of chemical substances from its plants in order to reduce environmental load. It also controls chemical substances appropriately. In every site all chemical substances used in production processes are recorded in terms of volume of use and discharge of them, as well as the distance that they are delivered out of plant premises as wastes. In doing so, the FDK Group thrives to achieve the target set out in the Fourth Action Plan.

Targets of the Third Environmental Action Plan

Discharge of chemical substances under the Pollutant Release and Transfer Register (PRTR) reduced at the end of FY 2006 by 15% of those discharged in FY 2001

■The scope of the reductions includes FDK plants and offices in Japan.

Control System for Chemical Substances used in Development and Manufacturing Processes

A system that centrally controls chemical substances used in development and manufacturing processes has been developed and in operation by Iwaki Plant in FY2005. This system can not only handle PRTR-controlled substances but also can share the latest information on chemical substances controlled by various laws as well as MSDS sheets. Laws controlling each chemical substance are correlated as well. Thanks to the system, how and what to purchase by each function and how to handle chemicals can be understood easily by users, and chemicals are easily controlled in the entire plant. Iwaki Plant conducted total inventory check of chemicals and revised the use of chemical substances using this system. As a result, the number of chemical substances registered in this system was reduced by 63%.



Chemical Substances (used by Processes) Control System

Reduction of PRTR-Controlled Substance Emission

In FY2006, the only chemical emitted from the domestic plants of FDK was 1.3 ton of toluene discharged to the air. This was a reduction of 60% over the previous fiscal year. The reduction was largely attributable to the use of alternative solution to flush module products, for which relatively large volume of toluene was used before. In the Third Environmental Action Plan, the target of reducing toluene was set as 5.5 ton for FY2001. The achievement of toluene reduction in FY2006 represents 76% of the target value. The PRTR requires reporting to the administration if annual emission of designated chemical substances reaches or exceeds 1 ton. The FDK Group applies much stricter rule of 0.1 ton or more in recording inflow and outflow of chemical substances.

Future Actions

Toluene is one of the VOCs (volatile organic compounds). As such, in the Fourth Environmental Action Plan, the reduction of toluene will further be promoted in the framework of VOC emission reduction activity.

Results of the Third Environmental Action Plan

■Emission of designated chemical substances was reduced by 76%.

PRTR Tabulation Result for FY2006

Total Chemical Substances Handled in FDK Group Plants in Japan (100kg or more)

Unit: ton

Chemical substances	Handling volume	Discharged		Volume of transfer		Consumption volume	Recycled
		To the air	To the watershed	Contained in wastes	Discharged to sewerage		
Manganese and its compounds	4,417.91	0.00	0.00	29.93	0.00	4,387.99	0.00
Lead and its compounds	5.91	0.00	0.00	1.44	0.00	4.22	0.30
Bisphenol A epoxy resin	4.86	0.00	0.00	0.00	0.00	4.86	0.00
Toluene	4.44	1.26	0.00	3.08	0.00	0.00	0.00
Silver and its water soluble compounds	2.21	0.00	0.00	0.00	0.00	1.65	0.56
Poly (oxyethylene) octylphenyl ether	1.04	0.00	0.00	1.04	0.00	0.00	0.00
Boron and its compounds	0.83	0.00	0.00	0.00	0.00	0.83	0.00
Nickel compound	0.76	0.00	0.00	0.04	0.00	0.72	0.00
Di-n-butyl phthalate	0.53	0.00	0.00	0.03	0.00	0.50	0.00



Promotion of Green Factories

Zero Emission of Wastes (Measures to Waste Reduction)

In order to reduce impact to the global environment, the FDK Group is committed to restrict generation of waste to a minimum through 3R (Reduce, Reuse and Recycle), and to promote separation of waste for recycling. FDK Ecotec Co., Ltd., one of the Group companies, collects discarded information devices, such as PCs, and separates waste plastics, glass and metals out of them for recycled use. Through these activities, the company is committed to a business for formation of the recycling-based society. (See P33.)

Targets of the Third Environmental Action Plan

Generation of wastes reduced at the end of FY 2006 by 3% of those generated in FY 2003

■ The scope of reductions includes FDK plants and offices in Japan.

■ Zero emission of wastes will be achieved by the end of FY 2004 ahead of the target shown in the "Second Environmental Action Plan by the end of FY2005" by 1 year.

Waste Reduction

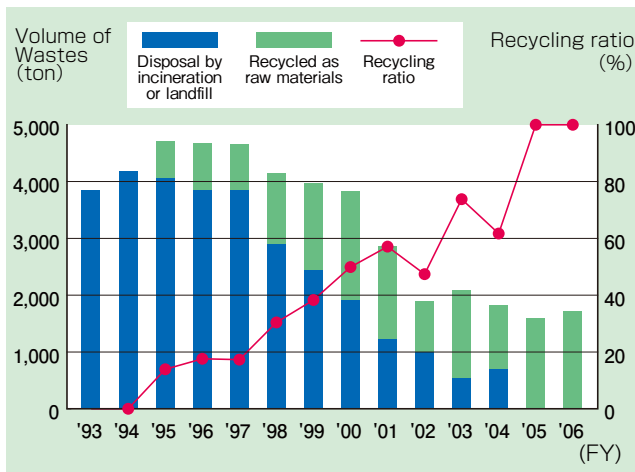
In FY2006, use of returnable containers was promoted in lieu of using packaging materials, waste raw materials were recycled for use in the process, and waste plastic vessels were reused in the office. As a result, total waste generated from the Group was down to 1,708 ton in FY2006, which is down by 18% compared to those generated in FY2003. In the Third Environmental Action Plan, the target was a reduction of 3% on the level in FY2003, though, compared to FY2005, the figure was up by 7%, which is generally attributable to the increased production of LCD back light modules and alkaline batteries.

For wastes with which treatment was consigned to outside waste treatment businesses, how to reuse them was examined, and for those found as usable, recycling was promoted for these valuable resources.

Zero Emission Continuance

Throughout FY2006, zero emission of wastes was continued following to the previous year, in accordance to the Zero Emission Guideline. The FDK Group maintains zero emission of wastes after it was achieved at the end of FY2004.

Volume of Wastes and Recycling Ratio



Recycling of Various Wastes

- Sludge: Raw materials for cements and road bed materials
- Waste plastics: Raw materials for plastics and fuels of blast furnaces
- Waste acids and alkalis: Neutralizing agents
- Waste oils: Recycled oils and combustion improvers
- Waste paper: Recycled paper, buffer materials and thermal recycle purposes
- Metal slag: Raw materials for steel
- Plant residues (food wastes): Fertilizers

Zero Emission of Wastes in FDK Group

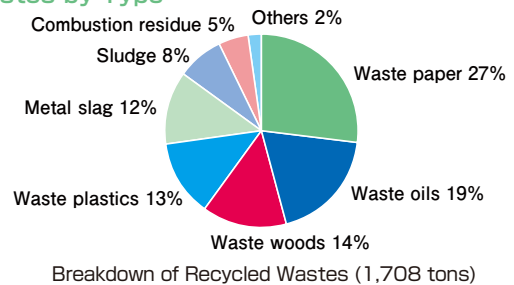
Definition

Zero emission is defined as utilizing all wastes generated in the group effectively to eliminate disposal of them by incineration and landfill.

Wastes

Sludge, waste acids, waste alkali, waste plastics, waste oil, metal slag, glass, ceramics dusts, waste wood chips, waste paper, waste textile, animal and plant residues (food wastes) and sludge in septic tanks

Wastes by Type



Future Actions

In the Fourth Environmental Action Plan, the target rate for waste reduction is set as 3% from the level in FY2006, by the end of FY2009. The FDK Group will continue its 3R activity to achieve the target as set out in it.

Results of the Third Environmental Action Plan

■ Result of the Third Environmental Action Plan Generated waste was reduced by 18%.

■ Zero Emission of wastes was achieved by the end of FY2004, and has been maintained subsequently.

Environmental Protection Measures to Plants

In order to prevent soil, underground water and air pollutions, the FDK Group is involved in various environmental protection activities. Environmental limits are voluntarily set for effluents, vibration and noise which are stricter than those set by the authorities, and the measurement data are periodically notified to the authority.

Soils and Underground Water

The FDK Group conducted a series of investigations for soil and underground water contamination in 1998 and 1999 to investigate how they are contaminated by volatile organic compounds. The results at the four plants of Washizu, Sanyo, Hosoe and Osuga where soil and underground contaminations were found in the investigations in October 1999, were voluntarily disclosed to the public and works for removing contaminations are going on. In 2002, Hosoe Plant was totally purified.

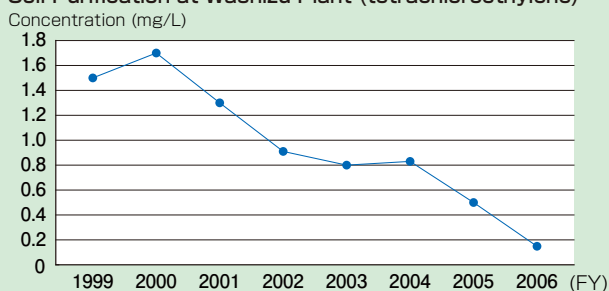
In 2004, the former Osuga Plant site was reinvestigated to check the condition of the soil in accordance to the Soil Contamination Countermeasures Law, and the healthiness of the soil was confirmed. For other plants, we will continue purifying soil and underground water using an air stripping method, while checking the effects regularly.

Progress of Soil and Underground Water Quality Improvement

Washizu Plant

Major contaminants	Volume of contaminants in underground water before starting purification	Current volume of contaminants in underground water	Environmental limit
Tetrachloroethylene	1.5 mg/L (Oct. 1999)	0.14 mg/L (June 2006)	0.01 mg/L

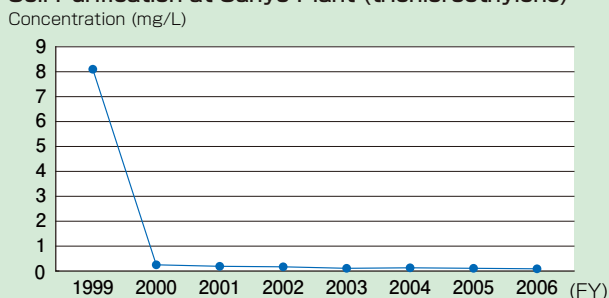
Soil Purification at Washizu Plant (tetrachloroethylene)



Sanyo Plant

Major contaminants	Volume of contaminants in underground water before starting purification	Current volume of contaminants in underground water	Environmental limit
trichloroethylene	8.1 mg/L (Oct. 1999)	0.04 mg/L (Oct. 2006)	0.03 mg/L

Soil Purification at Sanyo Plant (trichloroethylene)



Emergency Drills

Due to an existing risk of Tokai earthquake, Kosai Plant in Shizuoka Prefecture conducts an earthquake and disaster prevention drill every year. In addition to an evacuation drill, a rescue drill and a fire extinguishing drill, the emergency drill assumes occurrence of environmental pollutions out of the plant premises.

In FY2006, an emergency response drill was held under the assumption of a chemical spill occurred from a hazardous substances warehouse.



Emergency Drills

Introduction of an Eco-Friendly Air Compressor

Kosai Plant introduced an eco-friendly compressor that doesn't use any oil. In lieu of oil, this compressor uses water to take the role of oil. This eliminates processing of oil discharged from its drains and degraded oil. There will be no worry against happening of an oil spillage. As the new compressor can control temperature surge during in operation, it is highly energy-saving.



Air compressor newly introduced

Compliance

In FY2006, no cases of non-compliance to environment-related laws and environmental accidents were reported in the FDK Group.

Future Actions

With the increase in people's attention to environmental risks, the Fourth Environmental Action Plan deals with the reinforcing the Group's environmental pollution prevention system and its operation.