

# Social & Environmental Report 2007



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## Scope of the Report

### Applicable Periods

All information and data are applicable for activities and achievements initiated and obtained during FY2006 (April 1, 2006 - March 31, 2007), except for past data and performance information as well as some data up to July 2007 used for the purpose of comparing them with the current data and results.

### Organizations covered

All three plants in FDK CORPORATION and 13 major subsidiaries.  
FDK CORPORATION : Kosai Plant, Sanyo Plant, and Iwaki Plant

Major subsidiaries :

(Six subsidiaries in Japan)

FDK ENERGY CO., LTD., FDK MECHATRONICS CO., LTD.,  
FDK ENGINEERING CO., LTD., FDK LIFETEC CORPORATION,  
FUJIDENKA RESEARCH AND ANALYSIS CENTER CO., LTD.,  
FDK ECOTEC CO., LTD.

(Seven subsidiaries in Overseas)

FUCHI ELECTRONICS CO., LTD., PT FDK INDONESIA,  
FDK LANKA (PVT) LTD., XIAMEN FDK CORPORATION,  
SHANGHAI FDK CORPORATION, SUZHOU FDK CO., LTD.,  
FDK (THAILAND) CO., LTD.

\* FDK TATUNG (THAILAND) CO., LTD. (Thailand) is one of the consolidated companies, however, it stopped the production activities since FY2005. Therefore the company is not covered in this report.

## Editorial policy

FDK Group issued the Environmental Report of the March 2001 Edition six years ago, as its first official environmental report. The report was renewed as 'FDK Group Social and Environmental Report' in 2006 to include not only how the FDK Group is committed to preserve the environment but how it performs its corporate social responsibility. This year marks the second issue of it.

The new version of report contains full of figures, tables, graphs and pictures to explain its efforts for realizing a sustainable society in an easy-to-understand manner. In its environmental report section, each environmental action made by the FDK Group is explained in each page as a unit, so that accomplishments can be easily compared and understood against each environmental target.

The report is edited in accordance with the 'Sustainability Reporting Guideline Ver. 3.0' of GRI (Global Reporting Initiative™), 'Environmental Reporting Guideline, 2003 Edition' by the Ministry of Environment and other criteria.

The report will be issued periodically once a year, and intends to maintain bilateral communication with readers. From this issue, paper-based questionnaire is abolished and only internet questionnaire is conducted, to reduce paper consumption. We are happy to receive your valuable opinions and comments on our reports through the questionnaires.

### Target Readers

The target readers of this report include customers, suppliers, investors, shareholders and employees of the FDK Group as well as other stakeholders such as local residents, and administrations.

### URL

〈Environmental Activities of the FDK Group〉

[http://www.fdk.com/company\\_e/kankyou\\_index-e.html](http://www.fdk.com/company_e/kankyou_index-e.html)

〈The FDK Group Social and Environmental Report Questionnaire fax or letter using an enclosed questionnaire.〉

[http://www.fdk.com/company\\_e/2007\\_question-e.html](http://www.fdk.com/company_e/2007_question-e.html)

### Scope of collation

The scope of the performance data including the global warming prevention, waste reduction and chemical substance elimination was from FDK CORPORATION and its major domestic subsidiaries. The numerical data on overseas manufacturing bases were partially described in Site Report.

### Number of Sites of the FDK Group and the Scope of this Report

	Category	Sites	Consolidated Companies	Scope of this Report	Data Collected
Japan	FDK Plants	3	—	3	3
	FDK Offices (Head Office and Sales Offices)	9	—	9	0
	Group Companies	6	4	6	6
Overseas	Group Companies (Production Sites)	9	8	7*	(Site Report 7)
	Group Companies (Sales Sites)	5	4	0	0

## Message from the President



To ensure that we safeguard the planet Earth for future generations, FDK has established the slogan “FDK Group Loves Nature for the Future of the Earth.” Through adherence to this slogan, the FDK Group strives to achieve a sustainable society in which business interests and environmental preservation activities exist in harmony.

In both our Mid-Term Business Plan and our Fourth Environmental Action Plan we have incorporated a wide range of activities that not only contribute to society through the course of our business, but that also include co-operation with the local communities where we operate. These include compliance with environmental laws and regulations and the development and procurement of green products. In establishing these plans, our Group makes clear the path we are committed to take. By pursuing these activities, our Group intends to fulfill our obligations as a responsible global citizen.

The FDK Group’s current cause for concern is the situation that is leading to a rapid deterioration of the Earth’s environment, a planet which should be the foundation of a sustainable society. Of particular concern is the issue of global warming, a condition which, in our view, must be urgently addressed. Against this background, the FDK Group is making the utmost effort to prevent further global warming by developing eco-friendly products aimed at energy savings and by increasing our levels of energy-saving production processes. It is what is called the 3Rs: reduce, reuse and recycle. Individual employees and their families are being encouraged to lead environment-friendly lives. Moreover, in case of abnormal climate conditions caused by further deterioration of the environment, we have developed a system to protect all employees in the Group at the time of a disaster, and we have done so in cooperation with local communities. Our plans incorporate both preventive measures and measures that need to be taken after a disaster occurs.

This report briefly outlines our interactions with society, the results of our Third Environmental Action Plan and actions proposed in our Fourth Environmental Action Plan, and activities that demonstrate our commitment to the environment. The report explains our expanded environmental activities, from factory-based environmental impact reduction schemes to environmentally sustainable management at both our head office and at our sales offices, as well as our efforts to develop products that are mainly eco-products.

It will give me the utmost pleasure if this report is widely read, providing as many people as possible with accurate information for understanding the environment, as well as our activities to preserve it. We welcome your candid opinions and requests. Your opinions will be reflected in the future management of our Group.

Toshiharu Sugimoto  
President & CEO  
FDK Corporation

A handwritten signature in black ink, appearing to read 'T. Sugimoto', written in a cursive style.

## Corporate Profile

Incorporated in 1950 as a manufacturer of dry batteries, we have successfully expanded our business lines to manufacturing and sales of materials and parts for electronics-related industries, and have reinforced our overseas sales and production bases to construct a global sales and manufacturing network. As a Fujitsu Group company, 39.8% of our shares with voting rights are owned by Fujitsu Limited.

**Company Name** : FDK Corporation

[Consolidated Subsidiaries: 16 (Domestic: 4, Overseas:12); Equity Method Investee: 1 (Overseas 1); Non-consolidated Subsidiaries 4 (Domestic:3, Overseas 1)]

**Head Office** : 5-36-11, Shinbashi, Minato-Ku, Tokyo

**President & CEO** : Toshiharu Sugimoto

**Foundation** : February 1, 1950

**Capital** : 22,756 million yen

**Sales** : 121,537 million yen (consolidated sales in FY 2006)  
60,682 million yen (non-consolidated sales in FY 2006)

Electronics device business: 94,123 million yen  
(sales composition ratio 77.4%)

Battery business: 27,414 million yen (sales composition ratio 22.6%)

(Incl. overseas sales of 73,175 million yen or 60.2% of the total consolidated sales)

**Employees** : Consolidated: 12,344 Non-consolidated: 1,362



Kosai Plant

※ The above corporate profile indicates the data as of the end of March 2007.

### Consolidated subsidiaries

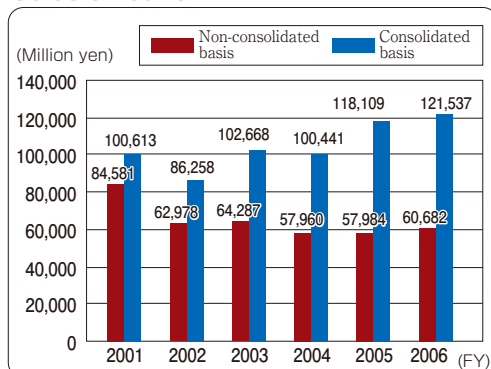
#### <Production companies>

Japan	FDK Mechatronics Co., Ltd.
	FDK Lifetec Corporation
	FDK Energy Co., Ltd.
	FDK Engineering Co., Ltd.
Overseas	PT FDK Indonesia (Indonesia)
	Fuchi Electronics Co., Ltd. (Taiwan)
	Xiamen FDK Corporation (China)
	Shanghai FDK Corporation (China)
	Suzhou FDK Co., Ltd. (China)
	FDK Lanka (PVT) Ltd. (Sri Lanka)
	FDK (Thailand) Co., Ltd. (Thailand)
	FDK Tatung (Thailand) Co., Ltd. (Thailand)

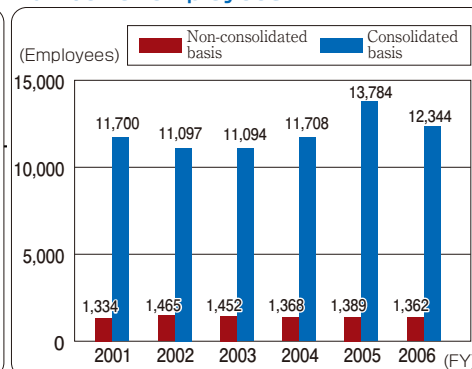
#### <Sales companies>

Overseas	FDK America, Inc. (USA)
	FDK Singapore PTE. Ltd. (Singapore)
	FDK Hong Kong Ltd. (China)
	FDK Electronics GmbH (Germany)

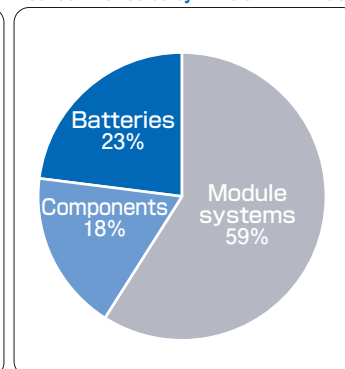
### Sales amount



### Number of employees



### Breakdown of Sales by Division in FY 2006



**Major Product Lines**

FDK mainly manufactures and sells materials and parts for electronics-related products, dry batteries and their applied products.

Business Category		Major Products		
Electronic Business	Module Systems	  Signal processing module for LCD display	  LCD backlight inverter module	 Switching power supplies
	Components	  Coil devices	 RF multilayer products	 Multilayer power chip inductors
		  Motors	 Optical devices	 VCO (voltage controlled oscillator)
  Alkaline batteries		 Lithium batteries	 LED flashlights	

※ The above illustrations indicate some examples of products in which the FDK products are used.



# Highlights of FY 2006

## The Second Super-Green Product\* Now Available!

Development of 'Super-Green Products' is one of our commitments shown in the 3rd Environmental Action Plan. As a super-green product, the AML0603E Series RF multi-layer chip inductor was released in FY2006. Following the MIPF2520D Series ultra-small multi-layer power inductors released in FY2005, this is our second successful release of a super-green product.  
(See P22)



AML0603E Series

## Fujidenka Research and Analysis Center Co., Ltd. Certified as ISO17025 Compliant

ISO17025 is an international standard relating to the performance of research institutes and calibration entities, describing general requirements required for them. The standard requires those desiring certification not only to have the appropriate level of operating and management ability regarding measurement and testing, but also to incorporate the appropriate level of technical competency for controlling testing and calibration accuracy. Fujidenka Research and Analysis Center Co., Ltd. was successfully accredited as ISO17025 compliant in January 2007, for its ability at measuring air quality and smoke concentration measurements. (See P31)



ISO17025 Certificate and its Annexure

## Employee Safety Confirmation System Starts Operation

The employee safety confirmation system, that was developed in-house and has been through a series of operation tests in Kosai Plant was officially introduced throughout the Group companies and all offices in Japan. This system utilizes e-mail transmission and web functions of cellular phones. Going forward, the safety of each employee can be confirmed promptly in the event that large disasters such as earthquakes or tsunamis happen. (See P08)



A cellular phone screen showing safety information

## Automatic Vending Machine with a Donation Function in Operation

The first automatic vending machine with a donation function was introduced in Iwaki Plant. A purchaser of a soft drink can donate using the change from their purchase by simply pushing a button. The donated funds will be sent to the Heartful Fukushi Bokin, an NPO organization, as a fund for purchasing wheel chairs and portable type bath systems. (See P14)



An automatic vending machine with a donation function

## Xiamen FDK Corporation Won the Award for Advanced Safety Production Control Company in Xiamen Hi-Tech Industry Development Zone

Accredited as having an advanced safety control system, Xiamen FDK Corporation won the award for 'Xiamen high-tech industry development zone advanced safety production control company in FY2006' from the Committee of the Xiamen Torch Hi-Tech Industrial Development Zone. On the same occasion, Mr. Huang Huang, Director of the Administration Department, won the award for individuals in advanced safety manufacturing practice, a recognition of his skills as a superb controller, and of having the highest degree of insight in enhancing the level of safety activities within the company. (See P40)



Certificate of an Advanced Safety Production Control Company won by Xiamen FDK

## The 4th Environmental Action Plan of the FDK Group

The 4th Environmental Action Plan, a three-year action plan for FY2007 to FY2009 has been formulated and is now being executed. The revised action plan underlines 'reinforcement of environmentally-oriented corporate management' and 'upgrading product values via environment-conscious products,' all while continuing the activities of the 3rd Environmental Action Plan. (See P19)

Super-Green Products\* Among the green products incorporating energy saving, design based on 3R (reduce, reuse and recycle), reduction of hazardous substances ahead of the relevant regulations and laws, a super-green product is a top-runner product featuring such characteristics as 'world-smallest,' 'first in Japan,' 'first in the industry,' 'smallest in Japan,' and 'smallest in the industry.'

## Management Policy and Corporate Governance

The FDK Group will contribute to further advancement of electronics industries by developing and providing electronic products and batteries, and will perform social responsibilities as a company, in order to be a trusted, good corporate citizen.

### FDK Group Management Direction

The FDK Group makes it its mission to realize abundant electronic society by developing and providing electronic parts and batteries of quality that satisfies customers. For this purpose, the FDK Group provides high quality products of high utility value to the customers all over the world by fully utilizing our own material, circuit and high density packaging technologies nourished for years and by integrating the efforts and enthusiasm of all employees in the Group. Aiming at being recognized as a key device supplier of highly advanced electronic products, the FDK Group will endeavor to contribute to the development of technologies and environmental protection. In addition, the FDK Group will further enhance its corporate value through timely and accurately responding to changes of its business environment and an effective utilization of its corporate resources by promoting production innovation activities to build a firm and stable management foundation, as well as managing the company in compliance with the relevant laws and regulations.

### Corporate Governance

The FDK Group aims at speedy and accurate decision-making as well as highly transparent and efficient corporate management, through which it will strengthen its corporate governance.

#### Our Basic Attitudes toward Corporate Governance

The FDK Group believes that well-established corporate governance will enhance the healthiness and the fairness and transparency of a company and increase the value of our shareholders. Standing on the idea, the FDK Group's organizational structure is revised as necessary to improve the quality of the organization and to implement necessary measures and policies. In addition, the Group is committed proactively to disclosing its corporate information to ensure transparent and socially just corporate management. For example, its corporate information is disclosed in a timely manner, and its financial statements are available on the Internet.

#### Measures for Ensuring Corporate Governance

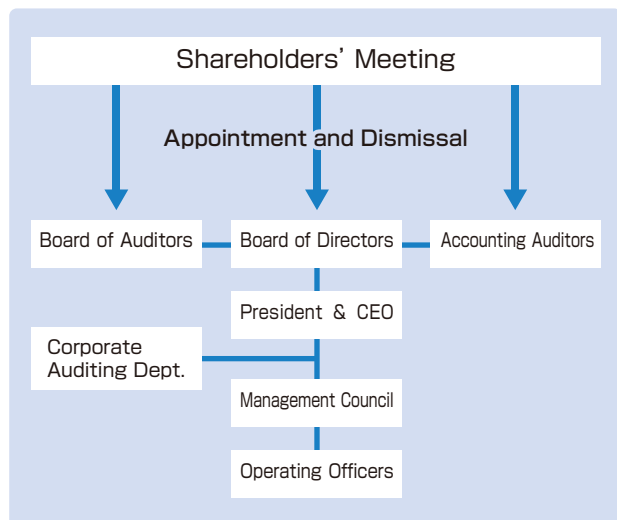
The FDK Group separates management administration functions and business operation functions. Since June 2002, an operating officer system has been put into effect. Currently the Group's board of directors consists of four directors including one external board member. The small-in-size board of directors ensures a prompt decision making process. The board of directors meeting is held once a month where important corporate management matters are decided and operations of business are monitored and supervised. There are 3 director and operating officers and 8 operating officers in office.

The Management Council is convened once a month to decide on business matters. As decisions on important business matters require a resolution at the meeting of board of directors, the Council is in principle held one week before the meeting of board of directors to facilitate its process.

There are 4 corporate auditors, and 2 out of them are 'outside corporate auditors' stipulated in Article 2, Paragraph 16 of the corporate law. The corporate auditors attend the meeting of board of directors, Management Council and other committees held from time to time. In addition to it, their role includes business report hearings from directors. All of these effectively ensure the conduct of business in compliance to corporate governance by closely monitoring the business activities of the directors. The auditor's meeting is held every 3 months in principle, where each auditor makes a report on how he/she monitors the business of the FDK Group.

The effectiveness and efficiency of their auditing activities are ensured by maintaining close communication among accounting auditors, corporate auditors and Corporate Auditing Dept. through exchanging information and opinions among them from time to time.

### Corporate Governance Structure



## Compliance(Regulatory Compliance)

The FDK Group fulfills its social corporate accountability after clarifying its due corporate conduct as an enterprise and abides by relevant laws and regulations applicable to it. In FY2006, an 'Internal Reporting System' was newly introduced.

### FDK Corporate Guideline on Code of Conduct

Established in 2000 as a basic code to be observed by each employee, FDK Corporate Guideline on Code of Conduct clearly gives direction of the FDK Group for compliance and basic policies of its corporate activities to gain trusts of its consumers and suppliers. The Guideline is available to all employees through the company's intranet, is placed on bulletin board of each workplace, and is printed in a portable calendar distributed to all employees every year, so that the concepts in the Guideline can be disseminated effectively to all of them and in order to stimulate recognition of the concepts among them for appropriate actions by them.

#### 1.Customer Satisfaction

- We supply safe and high quality products and services for the needs of customers.

#### 2.Environmental Consciousness

- We promote resource saving, energy saving and make an ongoing effort to protect the global environment.

#### 3.Contribute to Society

- We, as a good corporate citizen, actively contribute to society.
- We respect the culture and customs of every country in the world with the global perspective and contribute to the development of the region.

#### 4.Fair Trade

- We have sensible course of business behavior, and conduct fair and free competition.
- We communicate widely with the society and disclose our corporate information justly and timely.

#### 5.Compliance with Law

- We act with sense of ethics and comply with laws and social codes.

### Compliance Education

#### Use of Intranet

Aiming at stimulating recognition of compliance and corporate ethics among the employees, the FDK Group provides compliance-related information of various types to all employees through the company's intranet. The information includes explanation of laws and regulations applicable to them and the Group, internal regulations, example cases of violations.

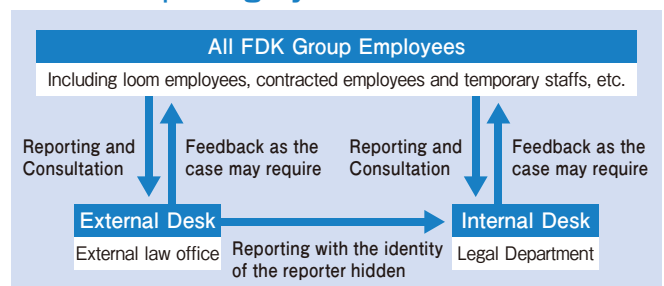
#### Internal Seminars

Laws and regulations closely related to everyday activities of the employees, such as internal regulations, Product Liability Law, Amtitrust Laws and Private Information Protection Law are explained at training seminars for new recruits and for newly appointed officers to raise the understanding of such laws and regulations among employees. As the course of such efforts by the company, each office holds an explanation meeting individually to explain laws and regulations especially important to us. In FY2006, an explanation meeting on export control was held with the participation of domestic offices and overseas subsidiaries in order to strengthen security trade. In addition, an explanation seminar on Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors was held during FY2006.

### Internal Reporting System

Aiming at prevention and early-stage detection of any violations relating to laws, regulations, internal rules as well as the company's ethics regulations, an 'Internal Reporting System' was established in the Group in April 2006. A report receiving desk was established where any reporting and consultations are received. The desk is assumed to be used whenever alleged violations against laws and rules as well as the company's ethics regulations are found and when normal course of consultations and reporting is not available through the reporter's manager. Name and department of reporters are treated as confidential under the 'Internal Reporter Protection Regulation.' Reporters are also protected against any disadvantageous or retaliatory treatment due to a violation notification made by them. In FY2006, no reporting that is associated with significant violations against laws, rules and regulations were made.

#### Internal Reporting System





## Risk Management

The FDK Group tries to prevent occurrence of any risks, and promotes minimizing the influences of risks once they happen. The risk management system of the entire Group is reinforced wherever the Group operates, either in Japan or in overseas.

### Risk Management System

After facing with various risks at its offices in Japan and in overseas, the FDK Group revised its risk management system for the entire offices. All the latent business risks were identified and departments were allocated and assigned to risk assessment and analysis in order to strengthen the Group's risk management competency. Natural disasters and dissemination of epidemics and others that could expose us to serious risks are treated in a way that relevant information is collected and analyzed correctly and measures are decided speedily under the leadership of 'Risk Management Department' chaired by the President. Kosai Plant, located where Tokai earthquake could occur at any time, is planning a business continuity plan (BCP) so that the Plant can continue supply of products to customers without any temporary stops or resume production at an early date, if a stop happen.

### Actions against Natural Disasters

In FY2006, the 'Employee Safety Confirmation System,' developed in-house, was deployed to all offices in Japan including all FDK Group companies. This system utilizes e-mail transmission and web functions of cellular phones. From now onward, safety of each employee, when massive disasters such as an earthquake and a tsunami happen, can be confirmed promptly. Whenever such disasters happen, the FDK Group will cooperate with the local communities by providing dry batteries manufactured by the Group, dispatching in-house fire-fighting brigade and taking part in rescuing victims.



A cellular phone screen showing employee safety information

## Protection of Intellectual Properties

In order to keep it at the position of competitive advantage, the FDK Group protects its unique businesses through creating and protecting intellectual properties. Intellectual properties, especially, are protected with the cooperative actions by IPC function, R&D function and Business function of the Group. The activities are centered on the three pillars of (i) acquisition of effective patents, (ii) effective utilization of patents currently held and (iii) aversion of infringing rights of others.

### Intellectual Property Control System

Control of intellectual properties for the entire Group are planned and proposed by Intellectual Property Dept., under Technology R&D Department and managed and operated by Patent Promotion Sub-Committee. A patent promotion meeting is set up at the level of sections, groups and projects and held regularly to make a summary of issues related to patent in order to extract and discuss new areas of inventions.

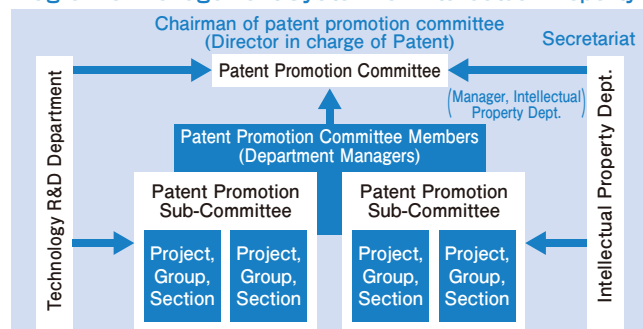
### Respect to Patents Held by Others

An infringement of a third party patent could result in a large loss for our company. The FDK Group implements appropriate measures to avoid this. At the same time, we decisively act against infringement of our patents by a third party. A meeting of Patent Promotion Committee is regularly held where discussions and reports on patent infringements take place.

### Intellectual Property Strategy

In order to acquire patents in force effectively, Intellectual Property Department works closely with our invention functions for creation and invention. Prior-art researches, judgment as to whether an invention can be patentable or not, and thorough review of a written opinion against a notification of reasons for refusal are all intended to make a smooth submission of an application for registration of a patent. For the purpose of nourishing robust patents, in-house education and other human resources development schemes are proactively facilitated.

Diagram of Management System for Intellectual Property



## Relations with Stakeholders

In order to perform its due social accountability as a corporate citizen, the FDK Group is committed to establishing a close relationship of trust with its shareholders, customers and other stakeholders, and thrives to bring a sustainable and abundant society come true while achieving development of the company and society as a whole.

### Communication with Shareholders and Investors

The FDK Group values on the relationship of trust with its shareholders and investors. For this purpose, it will disclose corporate information in a timely, legal and appropriate manner to enhance transparency of corporate management. By doing so, the FDK Group tries to augment its corporate value and obtain high evaluation from the society.

#### Communicating with Shareholders and Investors

The FDK Group set up Corporate Communication Office in April 2001 to improve the quality of information provided to its stakeholders. The Office accepts interviews by outside institutional investors, securities analysts and fund managers and discloses corporate information via its website. News releases are distributed and press meetings are held to disseminate the activities of the FDK Group to its shareholders and other stakeholders.

The FDK Group's website contains flash reports of its statement of financial settlements, business reports and other disclosures, as well as the latest information on business performances of the Group and new products, recruit information and social and environmental reports made accessible to viewers in general.

The FDK Group is determined to make its public relations and IR activities more effective by taking into consideration various opinions posted to its website by viewers, telephone and fax as well as interviews and press meetings.

#### Information Disclosure

Recognizing that accurate and timely disclosure of corporate information to shareholders, investors and securities analysts is the basics for keeping the security market in strong condition, the FDK Group is committed to disclosing information in accordance to the timely information disclosure rule of the Tokyo Stock Exchange Market and, for other information, it tries to disseminate promptly, accurately and in a fair manner. All those information are in principle issued in both English and Japanese versions to provide them to stakeholders in overseas.

In order to facilitate understanding of all stakeholders on the FDK Group, various news on product development, product strategy and establishment of new offices are released actively to enhance transparency of corporate management by which our corporate values are lifted up.

### Relationship with Customers

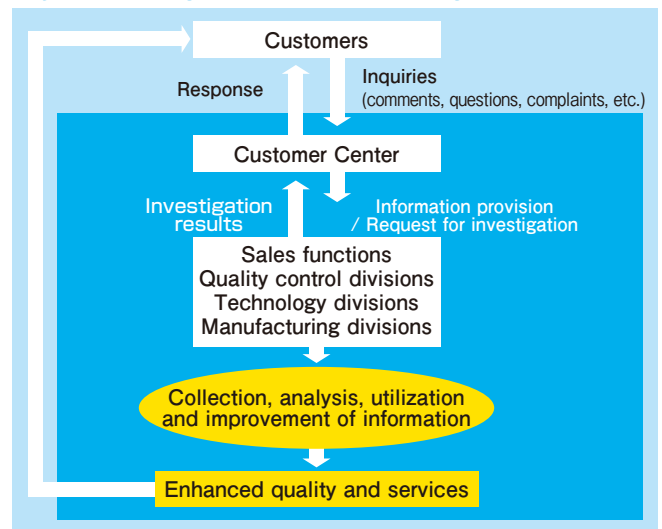
Under the belief of customer satisfaction first, the FDK Group is committed to manufacturing products that can comply with the requirements of customers. Combined by electronic materials such as ferrites and ceramics FDK excels at as well as the latest technologies, the FDK Group continues to respond to the requirements of customers.

#### Communication with Customers

In order to strengthen two-way communication with customers all over the world, a website has been in operation since 2003. The website is open to customers for making product-specific inquiries and provides easy-to-understand product information.

A customer center is also open to customers who inquire about Fujitsu batteries, which are consumer products, to deepen the relationship of trust with our customers. The opinions and comments received by the center are accumulated and fed back to future product development processes for improvement in order to provide better products and services to our customers.

Fujitsu Battery Customer Center System



## Securing of Product Quality and Safety

With 'the provision of quality products to our customers to respond to the trust of them' as its quality policy, the FDK Group values on manufacturing quality products. Quality and safety of products manufactured by the FDK Group are assured by Quality Assurance Div., in cooperation with each department and site, in order to meet the level that customers require. As a part of the quality and safety assurance activities, all of the sites of the FDK Group are certified as ISO9001 and ISO14001 compliant (international management system) to ensure maintenance and enhancement of quality at each phase from R&D, design, production and logistics to after-sale services.

More precisely, all FDK Group sites are instructed to observe the followings:-

- To promote manufacturing of safe and eco-friendly products
- To enhance quality inspection system from the source of products
- To respond quickly to the requirements of customers
- To prevent occurrence and recurrence of quality problems

Among them, the safety of products and assurance of environmental requirements are proactively addressed by establishing the 'FDK Product Safety Charter' and the 'criteria for controlling chemical substances included in products.' Should a quality problem happen in our products and services provided to our customers, or should the occurrence of an accident and a damage are foreseen, these are promptly communicated to all the departments and sections in our company as critical issues, and confirmed and examined at the Management Council where root causes and countermeasures are examined to minimize the damages arising from them.

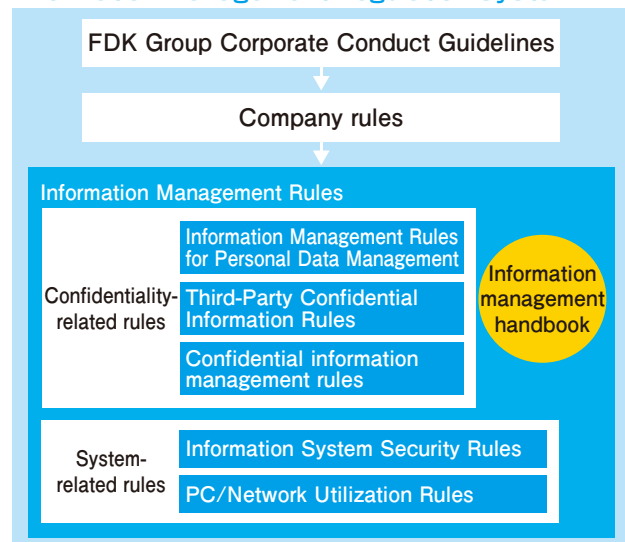
From the onset of product development, assurance of quality is underlined. For this purpose, 'Design Review Promotion Committee' is established to maintain examination of design quality in order to prevent occurrence and recurrence of any quality problems.

## Information Security and Protection of Personal Data

Recently, people concerns about leakage of sensitive and private information arising from file swapping software and computer viruses. The FDK Group promotes appropriate use of information and prevention of information leakage by establishing 6 in-house rules such as 'Information Management Rules' (1999) and 'Information Management Rules for Personal Data Management' (2003). In order to ensure appropriate compliance of these regulations and policies, an 'Information Management Handbook' is distributed to all employees to raise awareness of the importance of information management. In addition, the 'Policy for Protection of Personal Data' is a portal site on the company's intranet so that each employee can refer to learn various types of information related to it. As to the protection of private information, 'the Policy for Protection of personal Data' is open to the employees through the company's intranet.

In order to prevent leakage of information from PCs, all PCs are password-protected, and a software to encode data stored in the hardware is installed in the PCs to be taken out of the company. These measures aims at ensuring that even if a PC containing sensitive and private information were lost or stolen, the contents cannot be retrieved in any way.

### Information Management Regulation System





# Relations with Stakeholders

## Relations With Our Employees

The FDK Group develops skilled workers that can support the management of the company as the main actors of its corporate activities. It also aims at establishing safe workplaces free of any disasters for the health of employees and becoming a company that can enjoy trust of the public.

### Personnel System

One of the basic philosophies of the FDK Group is to 'establish a corporate climate where each employee is proactively involved in working.' The basic concept in the company's personnel system includes 'to respect people who values on creativity and innovation and who dare to challenge everything enthusiastically' and 'to proactively get involved in raising business performances of the company to connect them to the growth and happiness of the company and its employees.'

In FY2000, the FDK Group updated the personnel evaluation system, job class system and other basic personnel management systems. Since then, the company has proactively promoted the following activities: to encourage all employees to take part in the realization of the management target autonomously and independently; to align vectors of all employees to the policies and targets of the organization; to conduct fair personnel evaluation and treatment that are acceptable to all employees.

**Sustainable Improvement,  
Sense of Achievement of Better Tomorrow,  
Self-Confidence, Pride and Joy of Life to All**

### Education and Training System

The FDK Group provides various education and training systems to employees such as orientations to new recruits, mass training sessions to each layer of employees and skill and specialized trainings for acquisition of technical knowledge and skills. In 2001, an e-Learning system was introduced for the employees study at their convenience, and has been in operation on the company's intranet. The e-Learning includes basic course such as product knowledge, languages and basic PC handling. English and Chinese language courses are also open to the employees by invited instructors to enhance the language proficiency of employees. The FDK Group opens correspondence education courses, which include business skills, languages, hobbies, health and other broad study areas, for employees and their family members.

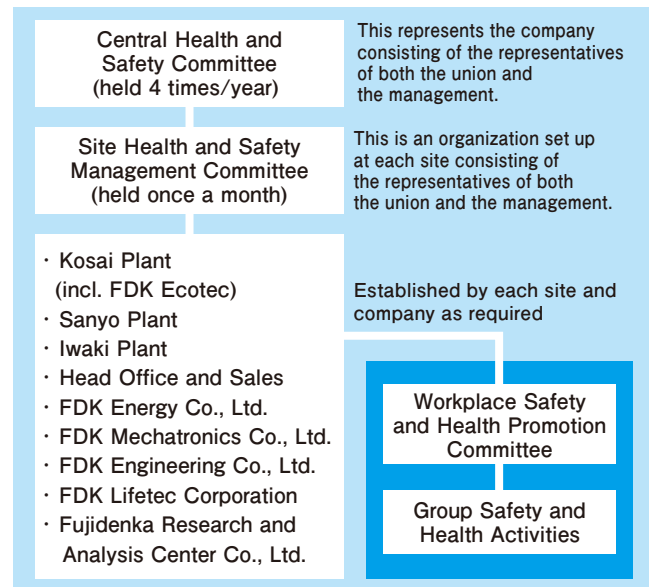


New recruit orientation at the company's training center (Q&A session with the president)

### Safety and Health Management

The FDK Group promotes various activities so that all employees can work healthfully and safely. As to the safety, the 'Central Health and Safety Committee' is held with the participation of the representatives of the company and the labor union where policies relating to the safety and health of the company as a whole are decided, disaster preventions, confirmations of conditions of disasters, if happened, and measures against the disasters are implemented. The safety and health at the level of each office are ensured by conducting a safety and health patrols, holding 'Health and Safety Committees' in accordance with the company policies.

#### Employee Safety and Health Management Organization



Health Management Office is responsible for regular medical check-ups and providing health maintenance and promotion guidance for the employees. An industrial physician is stationed in the health consultations to grasp and understand the health conditions of employees. In case an employee has any health problems, the industrial physician, the Personnel Department and management are in cooperation with each other to take appropriate measures for the employee.



Safety and Health Patrols (Kosai Plant)

## Clubs and Sport Events

The FDK Group has various sport clubs including baseball, football, volleyball, marathon, tennis and surfing. It also participates actively in matches with neighboring companies and local Ekiden (a marathon relay race). Every year a softball match is held in cooperation with the company's labor union and supported by the company's health insurance union. The softball match starts with local preliminaries. Survivors in the preliminary matches can go to the national championship. All employees look forward to the annual event because 'This is one of the occasions that we do sport and deepen friendship of our colleagues,' as said by one of them.



Final game of a softball match

Entry for Kosai Ekiden

## Pregnancy, Child Care and Nursing Needs

The FDK Group provides its employees with various assistances including annual paid holiday, paid leave accumulation system, maternity leave and shorter working hours, nursing leave and shorter working hours, so that they can make family and working compatible. The accumulative paid holidays can be taken for long time leave due to illness and other reasons.

The employees can also take special holidays to take part in voluntary activities as a part of contribution to the society.

### Participants (persons) FY2006

Child Care Leave System	21
Nursing Care Leave System	1
Volunteer Activity Leave System	2
Shorter Working Hours System	37

## Rehiring Staff of Retirement Age

After the enforcement of the revised Law concerning Stabilization of Employment of Older Persons (April 1, 2006), the FDK Group maintains and operates a system of rehiring staff of retirement age. Chances of feeling job satisfaction and committing themselves to challenging works are open to all employees after reaching to 60 year-old, the retirement age of the FDK Group, who have strong incentives for continuing working and developing their skills.

## Award-Giving System

All employees in the FDK Group who produced an outstanding result are recognized their performances in the past year, at the company's foundation anniversary ceremony in February every year.



Award-giving ceremony at the company's foundation ceremony

## Compensations for Employee Inventions

In order to revise the company's Employee Invention Regulation in line with the enforcement of the revised Patent Law in 2004 and to make the compensation system known to all employees, a series of hearings was held and relevant information was disclosed to them. As the revision of the Regulation can enhance the incentives of engineers, the company's Patent Control Regulation was revised in January 1, 2006 to include (1) a system of fixed-rate compensation payment from the income of license fees and (2) a system of rewarding to the retired.



## Relationship with Suppliers

The FDK Group desires to gain and maintain good partnership with its suppliers by acting in accordance to 'FDK Corporate Action Agenda,' comprising basics of the Group's activities. In addition, in order to respond to the ever increasing requirement to a company to fulfill due social responsibility, including environmental preservation and compliance, the FDK Group is committed to green procurement introduced in 2001.

### Fair Transactions

The FDK Group promotes fair transactions with its suppliers in purchasing raw materials, parts, packaging materials and other resources clarifying 'Basic attitudes for procurement' in accordance to the Materials Procurement Control Regulations.

#### 【Basic Attitudes for Procurement】

- (1) To ensure providing safe and quality products under the principle of co-existence and co-prosperity with the business partners
- (2) To thoroughly understand the basic environmental protection policy stipulated in the FDK Environmental Charter and to procure items that contribute to the reduction of environmental burdens
- (3) To select business partners using fair criteria to promote fair and lawful procurement activities
- (4) To thoroughly understand and follow procurement-related laws and regulations and to conduct businesses respecting the laws and regulations as well as social norms

### Actions relating to Procurements

In order to perform its due social corporate responsibility, and in accordance to its Green Procurement Guidelines, the FDK Group has been involved in green procurement activities (See P21). The activities include support to its suppliers in establishing an EMS and investigations on prohibited chemical substances.

#### Cooperation with Suppliers

In order to provide green products to its customers, it is imperative to obtain cooperation of suppliers delivering products to the FDK Group. For this purpose, the FDK is strengthening cooperative activities with its suppliers for non-use of prohibited chemical substances and supply chain management.

#### Supports to Suppliers

The FDK Group tries to reduce environmental loads from its overall supply chains. For this purpose, the FDK Group extends supports to its supplier in reducing them, in addition to the efforts of minimizing those originated from the Group.

#### Supplier Assessment

The procurement function of the FDK Group regularly assesses its existing suppliers as well as when a new supplier is selected using a 'Supplier Assessment Criteria Sheet.'

The sheet contains such assessment items as quality, price, commitment to keep the designated delivery date, technical competency as well as matters related to environmental preservation.

### Information Security

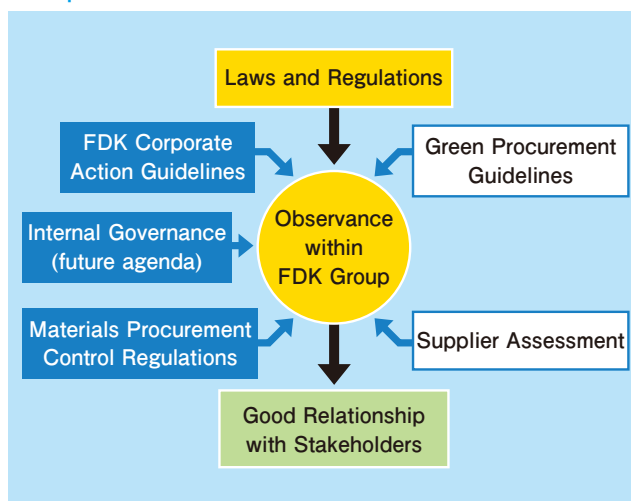
The FDK Group addresses maintenance of information security and protection of private information (See P10).

The efforts include raising awareness of its employees toward protection of secret information of its suppliers and private information and measures taken for preventing leakage of information from PCs brought out of the company premises.

### Compliance

The FDK Group will set out a regulation relating to internal governance to bind itself to a stricter compliance on procurement activities, in order to perform its due corporate social responsibility. In addition, the FDK Group will keep a good relationship with its suppliers and other stakeholders.

#### Compliance in Procurement Activities



## Social Contributions

As a global citizen, the FDK Group is committed to social contribution activities and enhancing communication with the local communities, in a hope for sustainable protection of the 'beautiful global environment.'

### The Lake Hamanako Cleaning Operation

Aiming at hand over the beautiful scenery and rich fishery resources of Lake Hamanako we inherited from our ancestors to the next generation, 'the Lake Hamanako Cleaning Operation' is held on the first Sunday of June every year in the region surrounding Lake Hamanako in Shizuoka Prefecture. This event is hosted by a civilian group 'Lake Hamanako Purification Group.' FDK participates in this event jointly with the labor union. In 2006, the event was held on June 4 at the two regions of Kosai and Hosoe, and 69 participants in total cleaned the beachside of the Enshu Nada Sea and along the lake shore. More family participants were seen in 2006 than the previous year.



People cleaning the shore of the Enshu Nada Sea in Kosai Region

### Local Community Voluntary Cleaning Activities

Each office of FDK participates in the Japanese Archipelago Cleaning Campaign hosted by Japanese Trade Union Confederation held in September every year and local community cleaning activities in cooperation with its labor union. In 2006, FDK in Kosai Region participated in cleaning activities around JR Washizu Station, JR Shinjohara Station and JR Araimachi Station. In Sanyo Region (Yamaguchi Prefecture), the cleaning activities were held around Onoda City Cemetery and around Choju-en, a special elderly nursing home. FDK also participated in a mountain burning event and mowing activities in Akiyoshidai in Yamaguchi Prefecture.



Japanese Archipelago Cleaning Campaign in Sanyo Region

### Recyclable Wastes Collection Volunteer Activities

All FDK branch unions in Kosai Region in Shizuoka Prefecture, Sanyo in Yamaguchi Prefecture, Iwaki in Fukushima prefecture and sales divisions nationwide collect 'aluminum pull-tabs,' 'used stamps,' 'used telephone cards,' 'used prepaid cards' and 'foreign coins' to routinely donate them to social welfare councils and voluntary organizations of the respective region. In FY2006, Kosai Region donated 28 kg of aluminum pull-tabs and Sanyo donated 188 kg of them to the social welfare councils Kosai City and Sanyo Onoda City respectively. Iwaki region donated 18 kg of them to Sanbora Kai, a voluntary organization.



Donation of pull-tabs in Sanyo Region

### Automatic Vending Machine with a Donation Function in Operation

The first automatic vending machine with a donation function was introduced and installed at two locations in Iwaki Plant in November 2006. The vending machines have donation buttons of ¥10 and ¥100, and a purchaser can donate some money out of a change by just pushing them. FDK Lifetec, the installation company and the manufacturer of the vending machine also donates some of the sales made by these vending machines. The donated funds will be sent to the Heartful Fukushi Bokin, an NPO organization, as a fund for purchasing wheel chairs and portable type bath systems.



A vending machine with donation function (Iwaki Plant)

### Local Traffic Safety Activity

In Kosai Region, FDK participate in the citizens' traffic safety activity of Shizuoka Prefecture, as a course of the activity by traffic safety sub-group of the site's health and safety committee. The activity include 'citizens' campaign to protect school kids from traffic accidents' in April, to protect children entering a elementary school or a kindergarten/nursery school from traffic accidents, and the 'National Spring Traffic Safety Campaign.'



Staff members of FDK Energy handing out a leaflet cautioning children for traffic safety

### IT/Environment/Business Manner Education and Training Supports outside company

Iwaki Branch of FDK Lifetec Co., Ltd. have been providing occupational skill development training supports at the Iwaki Occupational Skill Development and Promotion Center (Politec Center Iwaki) since FY2003. The Center was established by the Japanese Government as a course of the employment support project for young people and managed by the private sector. In those days, the job market was strictly tight and many 'freeters' (part-time workers) and NEETs appeared. The education and trainings provided there include PC handling skills, OJTs, business manners and attitudes as businesspeople. In FY2006, environmental education has been included as one of the courses. Total 250 people have been graduated from the Center, supported by FDK Lifetec by the end of FY2006.



IT course class in Politec Center Iwaki

## Business Operations and Environmental Impact

The FDK Group promotes reduction of the environmental impact generated by its operations throughout the lifecycle of its products by understanding numerically the overall impacts imposed to the environment.

Various products manufactured by the FDK Group used for people's daily life consume resources, such as parts, and energy, such as electricity, at each stage of R&D, design, production and sales. The use, recycling, and disposal of these products also require a certain volume of energy. The FDK Group is committed to reduce such environmental impacts throughout the lifecycle of the products.



### Design/Development Stage

The FDK Group manufactures eco-friendly products through compliance with all the relevant laws and applicable standards, design reviews and product environmental assessments. Through the processes, emissions of hazardous substances are avoided and energy- and resource-saving, as well as recyclability of product designs are checked.



### Procurement Stage

All procurements by the FDK Group are done after checking that the parts and materials to be procured are eco-friendly. Equal considerations are made to reduce energy for transporting these parts and materials.



### Manufacturing Stage

Zero emission is pursued by minimizing the use of resources for materials, energy and water consumption (energy-saving activities) and eliminating disposal of rubbishes by landfill and simple incineration. An effort is being made to reduce emission of chemical substances to the environment.



### Distribution/Sales Stages

Consumption of energy for transportation and delivery of products is reduced to minimize discharging exhaust gas to the environment.



### Use Stage

Energy-saving and long-life products are sought. Wide range of battery types allows users to select appropriate ones depending upon usage, by which the life of batteries can be extended.



### Collection/Reuse/Recycling Stages

Used products are collected back for effective utilization of resources.

## IN

### Energy

Electricity purchased	44,636 MWh
Heavy oil and kerosene	290 kℓ
LPG and LNG	40 tons
Natural gas and city gas	237 km <sup>3</sup>

### Chemical substances

Handled volume	4,438 tons
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### Water

Used volume	1,087,193 m <sup>3</sup>
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(Calculation methods)

- Chemical substances: Volume of PRTR Law target chemicals handled by plants/sites
- Energy : Electricity, gas, oil, etc. consumed by plants/sites
- Water : Volume used by plants/sites

## OUT

### Gases discharged

CO <sub>2</sub>	20,460 tons
SOx	0.0 tons
NOx	0.6 tons

### Chemical substances

Emission volume	1.3 tons
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### Wastes

Landfill and simple incineration	0 tons
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(Calculation methods)

- Chemical substances : Volume of PRTR Law target chemicals handled by plants/sites
- Atmospheric release : Volume of carbon dioxide discharged is calculated by the volume of energy consumed by plants/sites
- : Volume of sulfur oxides and nitrogen oxides is calculated by the concentration of each substances discharged from the boiler outlets at the plants/sites

### Collection, reuse, recycle

Collected volume	919 tons
Resource reuse and recycling rate	92 %



# Environmental Accounting

Costs and effects of environmental protection measures are ascertained numerically, shared, and used to identify potential problems.

In order to grasp the cost and effect of the environmental protection activities in a quantitative manner, FDK Group has introduced an environmental accounting system and has been disclosing the data to the public since 2001. We aim to use the data in our environmental management system and to promote more efficient environmental activities.

## Basic Data for Environmental Accounting in FY 2006

### Accounting Period

April 1, 2006 to March 31, 2007

### Scope of Data Collation

Plants of FDK Corporation in Japan  
(incl. FDK Engineering Co., Ltd. and FDK Energy Co., Ltd.)

### Calculation Standards for Environmental Protection Costs

- Method of depreciation cost collation  
Calculated using the straight-line method for a use life of five years.
- Rules for apportioning mixed costs  
Only the portion related to environmental protection is counted.
- Labor cost  
Labor costs are included in the environmental accounting.

### Calculation Standards for Effects of Environmental Protection

- Scope of economic effect  
It includes actual and estimated effects on environmental protection activities.
- Accounting period for calculating investment effects  
Accounting period of actual effects is set to five years same as the depreciation period.

## Environmental Accounting in FY2006

### Environmental Cost

After the end of depreciation periods for environmental protection facilities invested in the past, the depreciation costs were reduced together with the labor costs for environmental management functions. On the other hand, costs for R&D, planning and designing eco-friendly products to meet the requirements of the RoHS\* Directive rose. Overall, the ultimate reduction in environmental costs came to 327 million yen, or an 11% reduction from the previous year.

### Economic Effects

Cost for consigning disposal of industrial waste was successfully reduced. In addition, the increased sales of lead-free products and RoHS compliant products contributed to increase the effects of R&D for eco-friendly products. The overall economic effects arising from them came to a year-on-year increase by 461 million yen, i.e. 11%.

\* RoHS stands for Restriction of the use of certain Hazardous Substance in electrical and electric equipment.

## Environmental Accounting Result in FY 2006

(Unit: million yen)

Items		Scope	Results	
Costs	Cost in business operations	Pollution prevention costs	Costs incurred to prevent air pollution and water contamination (fees for water treatment facilities) and other activities	35
		Environmental protection costs	Costs of energy-saving measures, as well as costs of global warming reduction measures	50
		Costs of resources recycling	Costs incurred for waste reduction and disposal, as well as for water conservation, rainwater usage and other measures aimed at efficient resources usage	79
	Upstream/downstream costs		Costs of lowering the environmental burden imposed upstream and downstream by manufacturing and service activities (costs incurred for recycling/reuse of waste products and packaging, Green Procurement, etc.)	18
	Management costs		Management-related environmental protection costs including personnel expenses for environmental promotion activities and costs associated with acquiring and maintaining ISO14001 certification, measuring the environmental burden, greencification programs, environmental reporting and environmental publicity	86
	R&D and solutions business costs		Environmental protection costs for R&D activities and costs of environmental solutions business activities (Green Product/environmental technology design and development costs, environmental solutions business costs, others)	57
	Social activities costs		Environmental protection costs stemming from participation in social activities, such as participation in organizations concerned with environmental protection	0
	Environmental restoration costs		Costs of environmental restoration operations (eliminating soil and groundwater contamination, environmental compensation, etc.)	2
<b>Total</b>			<b>327</b>	
Effects	Effects on business operations	Pollution prevention effects	Savings from avoidance of operating losses stemming from failure to observe (*1), environmental laws and regulations as well as contribution by environmental protection activities to value added in manufacturing (*2)	15
		Environmental protection effects	Cost savings from reductions in electricity, oil and 101 gas consumption	93
		Resource recycling effects	Cost savings from reduction and effective use of waste	124
	Upstream/downstream effects		Sales value of recycled and reused products	12
	Management effects		Efficiency enhancement through ISO14001 system implementation, effects of employee training, corporate image enhancement from environment-related publicity	142
	R&D/solutions business effects		Contribution to sales made by Green Products, other Eco-friendly products and the environmental solutions business	75
	Environmental restoration effects		Savings of compensation payments to residents for groundwater and soil contamination (*3)	0
	<b>Total</b>			<b>461</b>

Social activities costs are indicated as "0" since calculated values do not reach one million yen.  
 \*1 Value of avoidance of operating losses: (Added value)/(Days of operation)×(Estimated days lost)  
 \*2 Value contributed by environmental protection activities: (Added value)×(Ongoing operating costs of all environmental protection facilities)/(Total cost generated)  
 \*3 Value of avoidance of compensation payments to residents: Estimated savings assuming that risks were able to be averted.  
 As of FY 2004, FDK Group calculated its environmental accounting separately from that of Fujitsu Corporation. However, the calculation is made in accordance with Fujitsu Group's Environmental Accounting Guideline 2003, in order to maintain the data consistency.

### Cost Unit: million yen

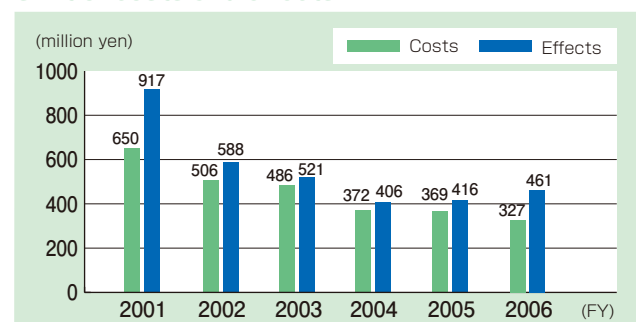
Depreciation	Investment in FY 2006	20
	Past investment	42
Cost		265
Total for Expenditure		327

### Effects Unit: million yen

Substantial effects	230
Putative effects	231
Total for effects	461

Substantial effects include profits generated by saving public utility consumption and selling of recyclable wastes.  
 Putative effects mean profits assumed as economically effective under a certain definition.  
 (Environmental protection effects against the added values obtained from our production activities)

### Shift of costs and effects





# Basic Policy for Environment and Environmental Action Plan

The FDK Group contributes to the sustainable development of the society. For this purpose, the 'FDK Group Environmental Policy' is in place and environmental promotion activities are promoted throughout the Group in line with the Environmental Action Plan.

## FDK Group Environmental Policy

FDK Group considers it necessary to address environmental protection as a part of its corporate activities. This includes prevention of global warming, reduction of wastes, and thorough control over hazardous chemical substances, all of which should be implemented not only based on laws and regulations of central and regional governments of Japan, but also based on the wider global perspective. This must be a shared idea among other companies as well, with the aim of realizing a sustainable society. In addition to its own activities, FDK Group is determined to promote environmental protection in cooperation with Fujitsu Ltd. and adapt an environmental policy which forms the foundation for environmental activities of Fujitsu Ltd. The "FDK Environmental Policy" is the essence of the group's environmental activities, and aims to promote robust environmental protection activities through synergistic, voluntary reduction of environmental impacts and cooperative actions with Fujitsu Ltd.

### Philosophy

The FDK Group recognizes that environmental protection is a vitally important business issue. By utilizing our technological expertise in the IT industry and our creative talents, we seek to contribute to the promotion of sustainable development of society. In addition, while observing all environmental regulations in our business operations, we are actively pursuing environmental protection activities on our own initiative. Through our individual and collective actions, we will continuously strive to safeguard a rich natural environment for future generations.

### Slogan

**FDK Group Loves Nature for the Future of the Earth**

### Principles

1. We strive to reduce the environmental impacts of our products throughout the product life cycle.
2. We are committed to conserving energy and natural resources, and practice a 3R approach (Reduce, Reuse, Recycle) to create best-of-breed eco-friendly products.
3. We seek to reduce risks to human health and the environment from the use of harmful chemical substances or waste.
4. Through our IT products and solutions, we help customers reduce the environmental burdens of their activities and improve environmental efficiency.
5. We disclose environment-related information on our business activities, products and services, and we utilize the resulting feedback to critique ourselves in order to further improve our environmental programs.
6. We encourage our employees to work to improve the environment, bearing in mind the impact of their business activities and their civic responsibilities.

## Organizational Structure

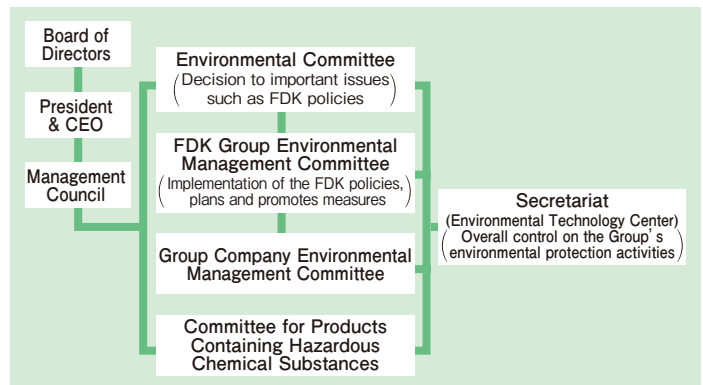
Important issues such as policies on environmental activities are discussed in the 'Environmental Committee.' The resolutions made by the committee will then be implemented after approval by the 'Management Council.' Detailed action plans including policies and measures are decided at the "Plant Environmental Management Committee" established at the environmental management system level based on ISO14001. The plans are implemented by repeating the cycle of PDCA (Plan, Do, Check and Action) for continuous improvement to achieve "spiral up."

Hazardous chemical substances contained in products are managed at the "Committee for Products Containing Hazardous Chemical Substances," a newly established internal organization in October 2004, to eliminate use of hazardous substances and appropriate control of them. (See page 25 for further information.)

### Environmental Management Cycle



### Environmental Organization



## The Third Environmental Action Plan

An environmental action plan is a document created by the FDK Group delineating the targets for putting the 'Environmental Policy' into practice. FY2006 marks the last year of the 'Third Environmental Action Plan,' and an assessment of the plan was made regarding the results it produced. The achievements of the Action Plan include achievement of zero emissions at the end of FY2004, successful development of the first super-green product, and acquisition of an ISO14001 certification at all FDK offices in and out of Japan in FY2005. Though certain elements are difficult to be assessed numerically, we came to a determination that we have ultimately achieved the targets set for each and every item of the Action Plan successfully.

### Achievements of the Third Environmental Action Plan (FY 2004 – 2006)

Items	Action Plan	Progress (as of the end of FY 2006)	Assessment
Reinforcement of environmental management	<p><b>To establish own frameworks of environmental management in all the Group's affiliates and subsidiaries, which are based on the environmental management system (EMS), by the end of FY 2005</b></p> <ul style="list-style-type: none"> <li>EMS to be introduced in the entire corporate structure of FDK in Japan including its head office and sales offices.</li> </ul>	<ul style="list-style-type: none"> <li>All FDK Group sites in and out of Japan were certified as ISO14001 compliant by the end of FY2005.</li> <li>FDK's Head Office and Sales Offices kicked off the environmental management system and initial surveys by the end of FY2005. In FY2006, the FDKEMS was established and is in operation. (See P20)</li> </ul>	○
Green procurement	<p><b>Promotion of EMS to suppliers</b></p> <ul style="list-style-type: none"> <li>To encourage business partners in Japan with no EMS to introduce it.</li> <li>The scope of EMS include those certified by a third party certification organization such as ISO14001, EMAS, Eco-Action 21, Eco-Stage, local environmental management (FJEMS), FDK Group Environmental Management System (equivalent to FJEMS), and other EMS systems unique to each business partner approved by FDK.</li> </ul>	<ul style="list-style-type: none"> <li>The number of suppliers which established the environmental management system increased to 188. (Among them, 36 suppliers introduced FDKEMS.) (See P21)</li> </ul>	○
Environmentally compatible products	<p><b>Provision of Super-Green Products by the end of FY 2006</b></p> <ul style="list-style-type: none"> <li>"Super Green Products" are the advanced form of green products incorporating such properties as energy saving, 3R (Reduce, Reuse, Recycle)-based design, and elimination of hazardous chemical substances. They are forerunners having the "world's first" "world's smallest" "nation's first" "industry's first" "nation's smallest" and "industry's smallest" characteristics, which are intended to be released by the end of FY 2006.</li> </ul>	<ul style="list-style-type: none"> <li>Two super-green products were launched on the market.                             <ul style="list-style-type: none"> <li>① Ultra-small multilayer power inductor MIPF 2520D Series (FY2005)</li> <li>② RF multilayer chip inductor AML0603E Series (FY2006)</li> </ul>                             (See P22)                         </li> </ul>	○
	<p><b>To eliminate use of hazardous substances designated by Fujitsu Group in manufacturing products by the end of FY 2005, except for those designated by RoHS whose elimination target is the end of December 2004</b></p> <ul style="list-style-type: none"> <li>Use of hazardous substances listed in 31 categories of Fujitsu Group's list will be totally eliminated by the end of FY 2005.</li> <li>For products shipped to Europe and covered under the RoHS Directive, use of lead, cadmium, mercury, hexavalent chromium compounds, PBB and PBDE will be totally eliminated by the end of December 2004.</li> </ul>	<ul style="list-style-type: none"> <li>Prohibited chemical substances were totally eliminated from the products as required by the customers. All products required by the customers for continued consideration have been responded in accordance to the customer specifications. (See P25)</li> </ul>	○
Measures against global warming	<p><b>Energy consumption and emission of CO<sub>2</sub> reduced at the end of FY 2006 by 15% of those in FY 2000</b></p> <ul style="list-style-type: none"> <li>The scope of these reductions includes FDK's plants and offices in Japan.</li> </ul>	<ul style="list-style-type: none"> <li>As to energy consumption, the volume of CO<sub>2</sub> emission was successfully reduced by 62%. (53,998 ton-CO<sub>2</sub> in FY2000 was reduced to 20,460 ton-CO<sub>2</sub> in FY2006.) (See P26)</li> </ul>	○
	<p><b>Contribution to the reduction of greenhouse gas emission</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emission was reduced by revision of delivery truck route to shorten the travel distance of a truck and enhancing the truck loading efficiency. (See P27)</li> </ul>	○
Promotion of green factory	<p><b>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</b></p> <ul style="list-style-type: none"> <li>The scope of the reductions includes FDK plants and offices in Japan.</li> </ul>	<ul style="list-style-type: none"> <li>The emission of the designated chemical substances was successfully reduced by 76%. (5.5 ton in FY2001 → 1.3 ton in FY2006) (See P28)</li> </ul>	○
	<p><b>Generation of wastes reduced at the end of FY 2006 by 3% of those generated in FY 2003</b></p> <ul style="list-style-type: none"> <li>The scope of reductions includes FDK plants and offices in Japan.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Generation of waste was reduced by 18%. (2,081 ton in FY2003 → 1,708 ton in FY2006)</li> <li>Zero emission of waste is continuing after achievement of it at the end of FY2004. (See P29)</li> </ul>	○

\* Assessment: ○: Achieved, ×: Not achieved yet



# Basic Policy for Environment and Environmental Action Plan

## The Fourth Environmental Action Plan

After the completion of the 'Third Environmental Action Plan by FY2006,' the 'Fourth Environmental Action Plan' was established covering for the periods from FY2007 to FY2009. The FDK Group will abide by the new Plan to continue its environmental activities.

### Basic Concept

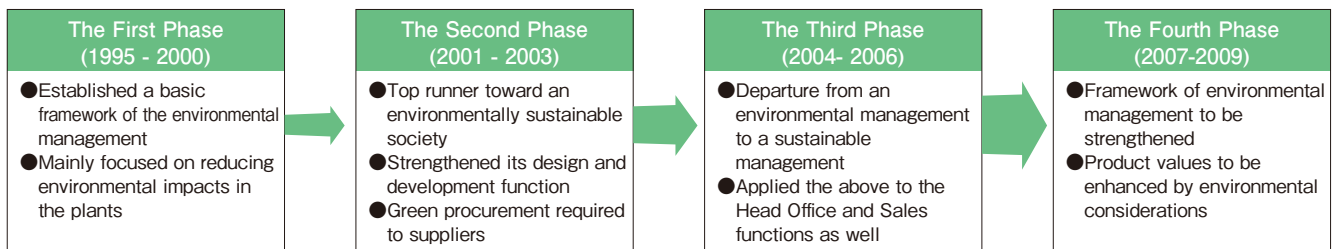
The FDK Group has successfully expanded its scope of environmental management from a plant based management system to a wider management system involving the entire Group. In line with it, the scope of reducing environmental impacts has expanded from a plant-based activity to involve parts, products delivered into and out of plants, and logistics.

In the new 'Fourth Environmental Action Plan,' while carrying on the idea of the previous Action Plan, the following actions are given focus in order to raise the level of activities. In response to the surging interest of the general public toward environmental risks, the environmental management system for the entire Group will be subject to a total check, to establish and strengthen the operation of an environmental pollution prevention system. Reduction of VOC (volatile organic compound) emissions is also within the scope of the Group's activities. The Fourth Environmental Action Plan contains the targets for domestic Group companies. However, the FDK Group recognizes that the target setting involving overseas Group companies must be addressed in the future.

#### Key Points of the Activities

- ① To strengthen the framework of environmental management as the basic activity of the Group as a whole, and to maintain and strengthen the cooperation among non-production functions of the FDK Head Office and Sales functions and overseas Group companies, by which the entire FDK Group unites its efforts for environmental management activities.
- ② As people are concerned about global-scale environmental destruction and global warming, the FDK Group will make further efforts toward minimizing environmental impacts of the products it manufactures, by reducing CO<sub>2</sub> emissions when the products are used and by resource-saving activities. The FDK Group considers it important to enhance the value of the products it manufactures through implementing more strict environmental measures.

### History of Environmental Action Plans



### Targets in the Fourth Environmental Action Plan (2007-2009)

Item	Target
Strengthening environmental management	Framework for environmental management established based on the Environmental Management System (1)Level up of office functions (2)Strengthening the level of cooperation with overseas production sites
Green procurement	Promoting establishment of EMS (Environmental Management System) at suppliers
Strengthening risk management	Strengthening a system for preventing of environmental pollutions and its operation
Uplifting of product values	To uplift the ratio of super green products to all products newly developed to be 20% or above by the end of FY2009
	To achieve the environmental efficiency factor 2 of newly developed products by the end of FY2009 compared to those developed in FY2005
Measures against global warming	To reduce CO <sub>2</sub> emission by 2% by the end of FY2010, compared to that emitted in FY2006
	To reduce CO <sub>2</sub> emission from transportation
Green factory	To reduce VOC (volatile organic compound) by 30% by the end of FY2010, compared to that emitted in FY2000
	To reduce the volume of wastes generated by 3% by the end of FY2009, compared to that generated in FY2006

## Promotion of Environmental Management

Recognizing that environment is the key for management of the company, the FDK Group is promoting environmental management by actively involving itself in environment-related businesses, and not only preserving the environment through abiding by environmental rules and regulations in its business activities.

### Establishment of the Framework of Environmental Management based on the Environmental Management System (EMS)

The FDK Group has introduced EMS to mainly its production sites, as the basis of its environmental management of the company. In the Third Environmental Action Plan, the EMS has been introduced to non-production sites such as Head Office and Sales.

#### Targets of the Third Environmental Action Plan

To establish own frameworks of environmental management in all the Group's affiliates and subsidiaries, which are based on the environmental management system (EMS), by the end of FY 2005

■EMS to be introduced in the entire corporate structure of FDK in Japan including its head office and sales offices.

#### EMS at Production Sites

Introduction of EMS was completed at all production sites of the FDK Group both in and out of Japan at the end of FY2004. In FY2005, all production facilities of the FDK Group, including Taichung Plant of Fuchi Electronics Co., Ltd. started operation in April 2005 were certified as ISO14001:2004 compliant. In FY2006, in addition to the ongoing activities in FDK sites such as anti-global warming and reduction of wastes, the FDK Group involved itself in environmental activities relating to its original business domains. Also stressed were environmental contribution activities in and out of the site, such as provision of eco-friendly products.

#### EMS at Non-Production Sites

In FY2006, organizational systems and environmental policies were revised at the Head Office and all sales sites (Tokyo, Sapporo, Sendai, Nagoya, Osaka, Hiroshima, Fukuoka and Okinawa), in accordance to the simplified EMS. An environmental aspect survey was conducted to identify major action items to be done at the office functions. Two common targets were extracted from the major action items, which were achieved within the FY2006.

#### Environmental Education and Training

In order to continuously improve its EMS, all production sites of the FDK Group have implemented general education on global environmental issues, as well as specialty education on waste disposal and internal auditing. The former is targeted to all employees, while the latter is targeted to each employee in charge of their respective specialty field. Separation of waste and emergency response measures are taught at each site as well. All domestic sites of the FDK Group implement enlightenment education on how to reduce CO<sub>2</sub> emissions to all employees and their family members, all of whom are participating in the 'Team Minus 6% Campaign' to prevent global warming.

#### Future Actions

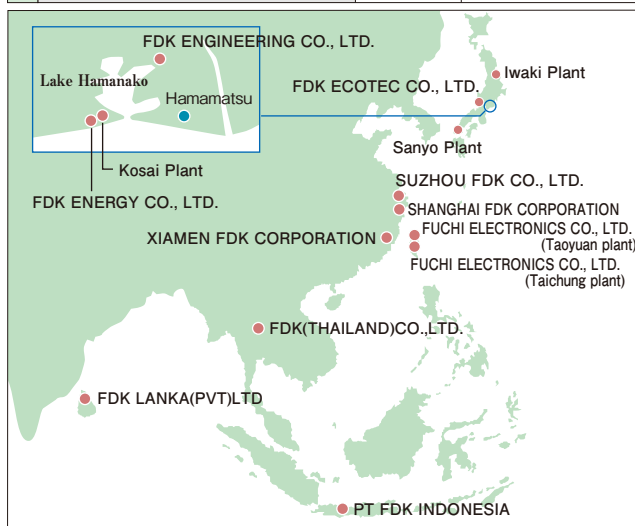
The following are FDK Group actions that are scheduled to be implemented in a course of reinforcing the environmental management frame of the company, in line with EMS, which is delineated in the Fourth Environmental Action Plan.

- (1) Raising the level of office functions
- (2) Strengthening cooperation with overseas production sites

#### ISO Certification at FDK Group Production Sites

Japan	
<b>Kosai Plant</b>	
Date of acquisition	October, 1998
Date of renewal	October, 2004
Scope of certification	FDK CORPORATION: Kosai Plant, Sanyo Plant FDK ENERGY CO., LTD., FDK ENGINEERING CO., LTD., FDK MECHATRONICS CO., LTD., FDK LIFETEC CORPORATION, FUJIDENKA RESEARCH AND ANALYSIS CENTER CO., LTD., and FDK ECOTEC CO., LTD. ●Development and design of various electronic parts, batteries, and machines, and environmental businesses
<b>Iwaki Plant</b>	
Date of acquisition	January, 1998
Date of renewal	July, 2004
Scope of certification	FDK CORPORATION: Iwaki Plant, FDK LIFETEC CORPORATION: Iwaki branch office ●Development, design and manufacturing of electronic parts relating to telecommunication equipment

Overseas (Consolidated subsidiaries)	Subsidiaries	Country	Date of Acquisition
	XIAMEN FDK CORPORATION	China	January 1999
	FUCHI ELECTRONICS CO., LTD. (Taoyuan plant)	Taiwan	February 2000
	FUCHI ELECTRONICS CO., LTD. (Taichung plant)	Taiwan	July 2005
	SHANGHAI FDK CORPORATION	China	December 2000
	FDK LANKA (PVT) LTD.	Sri Lanka	February 2003
	PT FDK INDONESIA	Indonesia	June 2003
	FDK (THAILAND) CO., LTD.	Thailand	June 2003
	SUZHOU FDK CO., LTD.	China	December 2004



#### Results of the Third Environmental Action Plan

- All production sites including overseas sites were certified as ISO14001 compliant by the end of FY2005.
- Introduction of EMS was kicked off and initial survey was conducted to the Head Office and Sales function by the end of FY2005. In FY2006, FDKEMS was established and is in operation now.



## Promotion of Green Procurement

In order to deliver eco-friendly products to customers, the FDK Group commits itself in green procurement. This includes raw materials and parts as well as packaging materials.

## Promotion of Establishing Environmental Management System in Business Partners

The FDK Group purchases items that satisfy simultaneously the two conditions designated by the Group only. The conditions include (1) the supplier has established and is operating an environmental management system, such as ISO14001 and (2) the items are free from hazardous chemical substances designated by the Group. For a supplier which hasn't established any environmental management systems, the FDK Group is promoting and encouraging the supplier to establish it.

### Targets of the Third Environmental Action Plan

#### Promotion of EMS to suppliers

- To encourage suppliers in Japan with no EMS to introduce it.
- The scope of EMS includes those certified by a third party certification organization such as ISO14001, EMAS, Eco-Action 21, Eco-Stage, equivalent local environmental management systems, Fujitsu Group Environmental Management System (FJEMS), FDK Group Environmental Management System (equivalent to FJEMS), and other EMS systems unique to each supplier approved by FDK.

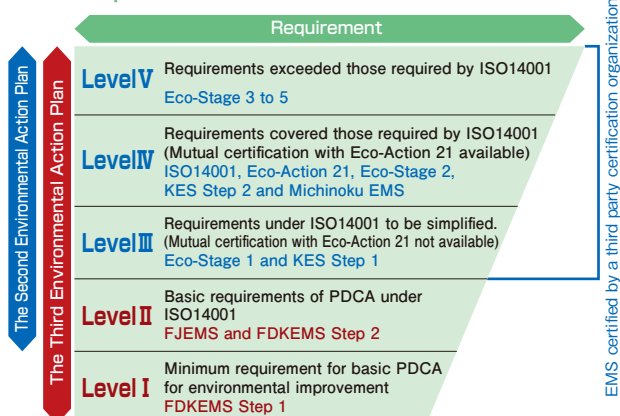
### Concept and Action

The FDK Group announced in 2001, when its Second Environmental Action Plan was started, that it would purchase only from suppliers which engage in environmentally-conscious business activities, when prioritizing its purchasing policy, and has been requesting that its suppliers establish the Environmental Management System (EMS). In the Third Environmental Action Plan, the scope of requesting EMS was expanded from manufacturers to include trade companies (sales companies). The reason for this was that our green procurement activity can only be improved and further promoted when awareness of protecting the environment is raised and actions are taken throughout the Group's supply chain.

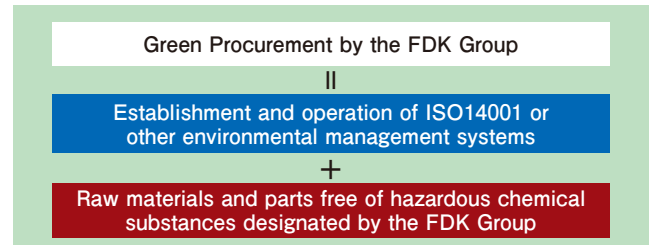
For those suppliers which have difficulty in establishing an EMS in compliance to the international standard, a simple version of an environmental management system developed by the FDK Group (FDKEMS) was proposed to them in two stages. The FDKEMS manages on basic requirements of ISO14001. In the future, suppliers which established the FDKEMS will be required to raise the level of the EMS to a third-party certified EMS.

As to the procurement of 'raw materials and components free from prohibited chemical substances designated by the FDK Group,' another pillar of green procurement requirements, we will commit ourselves to take appropriate actions, within the above framework, to totally eliminate hazardous chemical substances contained in products as explained in P25.

### EMS Requirement Level



### Outline of Green Procurement



### Green Procurement

Up to FY2005, a series of green procurement explanation meetings was held to explain the ideas and processes of the FDK's green procurement to its suppliers, and to ask their cooperation with it. In FY2006, no meetings of this type were held. The FDK Group approached to individual suppliers which hadn't introduced an EMS to explain the necessity of it and the details of the FDKEMS, and asked them to establish an EMS in their premises. A system of support to establish this was provided as well.

As a result, 125 suppliers introduced the EMS in FY2006, making the total suppliers which introduced the system during the past three years 188. Among them, 36 introduced the FDKEMS.

### Green Procurement of Office Supplies

Though it was not included in the Third Environmental Action Plan, the FDK Group is committed to procuring green office supplies with an Eco-Mark that certifies that the product considers energy-saving, recyclability, resource-saving, elimination of hazardousness and easiness for disposal.

### Future Actions

The FDK Group will continue to encourage establishment of the environmental management system to its suppliers within the framework of the Fourth Environmental Action Plan.

### Results of the Third Environmental Action Plan

- Suppliers with the environmental management system increased to 188. (Out of them, 36 introduced the FDKEMS.)

## Creation of Environmental Measures in Products

The FDK Group is committed to developing and offering of eco-friendly products by paying efforts to eliminate hazardous chemical substances and reduce energy and resource consumption from the entire lifecycle of a product from development to disposal.

## Offering Super-Green Products with the Top Environmental Elements

The FDK Group conducts a 'Product Environmental Assessment' to understand how a product is friendly to the environment. In the Third Environmental Action Plan, the conventional concept of 'eco-friendly products' and 'green products (eco-friendly reinforced product)' was further reinforced, and development and provision of 'super-green products with top environmental elements' were promoted.

### Targets of the Third Environmental Action Plan

#### Provision of Super-Green Products by the end of FY 2006

"Super Green Products" are the advanced form of green products incorporating such properties as energy saving, 3R (Reduce, Reuse, Recycle)-based design, and elimination of hazardous chemical substances. They are forerunners having the "world's first", "world's smallest", "nation's first", "industry's first", "nation's smallest" and "industry's smallest" characteristics, which are intended to be released by the end of FY 2006.

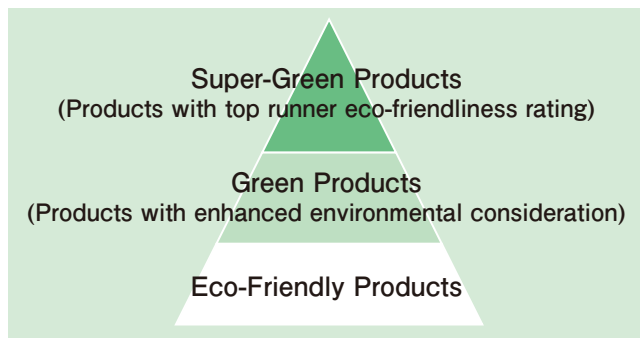
### Super-Green Products

In FY2006, 8 themes were set to develop super-green products. As a result, RF multilayer chip inductors 'AMLO603E Series' were recognized as super-green products. Compared with other inductors, the Q-value is raised and hence, the electricity consumption under the high-frequency band is less by 20% to 30% than that of the conventional ones. The energy-saving performance is among the highest in the world. The RF multilayer chip inductors are the Group's second super-green products following to an ultra small multilayer power inductor 'MIPF 2520D Series' produced in FY2005.

### Super-Green Products Available Now

FY2005	FY2006
	
<World's Smallest Product> Multilayer power inductor MIPF 2520D Series	<World's Highest Energy-Saving Product> RF multilayer chip inductor AMLO603E Series
※ Whether a product contains the top environmental elements or not, which is to say whether it is the world's smallest or the world's first product, is determined as of when the product is first released to the market.	

### Positioning of Super-Green Products



### Eco-Friendly Product Assessment Category (Large Category)

#### Products

- Hazardousness (including hazardous chemical substances)
- Resource-saving and recycle-oriented design
- Reusability as resources
- Easiness for decomposition
- Energy-saving
- Easiness for disposal by disassembly

#### Packaging Materials

- Resource-saving and recycle-oriented design
- Reusability
- Using materials

#### Others

- Disclosure of information
- Eco-friendliness

### Future Actions

In the Fourth Environmental Action Plan, more super-green products will be released and development of eco-friendly products will be reinforced in order to raise the value of products manufactured by the FDK Group. A new indicator, i.e. Environmental Efficiency Factor, will be introduced to measure the environmental values of a product. More precisely, Environmental Efficiency Factor 2 products will be developed and released. Compared with the products in FY2005, an Environmental Efficiency 2 compliant product refers to a product that incorporates a half of environmental burdens compared to other products with the same product values (i.e. functionality and performances), or the one which product value is at least twice as large as those having the same degree of environmental burdens.

$$\text{Environmental Efficiency} = \frac{\text{Value of Products and Services} \uparrow \text{Improved}}{\text{Environmental Burdens incorporated in Products and Services} \downarrow \text{Decreased}}$$

$$\text{Factor} = \frac{\text{Environmental efficiency of a target product}}{\text{Environmental efficiency of a product used as a standard}}$$

The ratio of environmental efficiency of a target product to that of a product used as a standard

### Result of the Third Environmental Action Plan

■ Two super-green products were released.

Management and Organizational Structure  
 Social Activities Report  
 Environmental Protection Activities Report  
 Site Report



# Production of Environmental Measures on Products

## Major Eco-Friendly Products Developed in FY2006

### RF Multilayer Chip Inductor AML0603E Series



#### Application

It is used as a part of, for example, a choke circuit for power line and an impedance matching circuit of signal lines for cellular phones and various high-frequency modules.

#### Features

While suppressing the surge of direct current resistance to a minimum possible level, the Q factor is raised to 22 to 23, which is the world highest. Compared to the conventional products, the Q factor under high-frequency band has risen by 20 to 30%. In order to respond to the requirement of diversified application of the product, 20 types of inductors are available with the inductance value ranged from 2 to 12 nH.

#### Eco-Friendliness

Because the Q factor reached to the world highest level, the electricity consumption was successfully reduced to 20 to 30% for use under the high-frequency band, compared to conventional products. No lead is used in the inductors and hence they are European RoHS compliant. Due to having the world highest energy-saving performance, the products are recognized as 'super-green products' by the Fujitsu Group.

#### Comment from the implementer

How to suppress direct current resistance while raising the Q factor under the high-frequency band environment was the key to develop this product. Raising the Q factor makes the energy loss smaller and can contribute to saving electricity consumption. It is expected that more high functional but smaller in size cellular phones will appear in the future, and the demand for energy saving will be heightened. I am determined to continue development of eco-friendly products that match to the diversified requirements of the society.

**Tatsuji Kawai**  
Product Development Dept.  
Ceramic Component Div.

### Multilayer Chip Balun for WiMAX AMB1608C Series



#### Application

It is used for matching impedance between a balanced circuit and an unbalanced circuit in a RF circuit used for WiMAX, the next generation high speed wireless data communication system which is built into a cellular phone, a PDA and a car navigation system.

#### Features

This is a chip balun of the world smallest and world thinnest. With the development of low temperature firing materials and optimization of a multilayer pattern, the balun realized low insertion loss of 0.6 dB, one of the lowest in this class, under the 2.5 GHz and 3.6GHz bands.

#### Eco-Friendliness

The world smallest and world thinnest baluns can contribute to minimizing consumption of resources in manufacturing them. The low insertion loss, among the highest in this class also contributes to electricity saving. The product is European RoHS compliant.

#### Comment from the implementer

We were successful in shortening the development period and realization of small-in-size and low insertion loss in the products. For the former, our conventional technologies in fine ceramics materials and multilayer printing process greatly contributed to it. WiMAX is a large capacity high-speed wireless communication system that is capable of reaching to a remote place and high-speed mobile communication. I am expecting that the market for this product will expand in the future.

**Tatsuhiko Nawa**  
Product Development Dept.  
Ceramic Component Div.

### Stepper Motor LAH6-20 Series



#### Application

It is mainly used as a part of driving an autofocusing lens and a zoom lens of a digital camera and a lens used for correcting aberrations of a Blu-ray disc.

#### Features

Utilizing our unique technologies of accurate shape design of yokes (thin sheet plate formed by drawing), designing coils and magnetic circuits, the stepper motor realized higher output by approx. 20% compared to a conventional motor of the same size. This stepper motor will pave the way for small-in-size, light-in-weight and electricity-saving performance of devices that the stepper motor is incorporated.

#### Eco-Friendliness

Electricity saving of approx. 20% is realized in this product compared to conventional ones (measured under the testing condition of the FDK Group, i.e. voltage between the two terminals as 2.9V and coil resistance as 20Ω under the two-phase excitation of 1,500pps). Solder used for the coil terminal to connect ultra-thin magnet wires is lead-free, and hence, the product is European RoHS compliant.

#### Comment from the implementer

While remaining the size and the appearance of this stepper motor the same as that of conventional products, this product realizes higher output performance due to the merger and arrangement of our technologies cultivated so far. Raising output level can reduce electricity consumption. Due to the product's high output level, it can contribute to decrease the volume of CO<sub>2</sub> emission causing of global warming. It is expected that use of chemical substances will be severely controlled and restricted. We are determined ourselves to develop eco-friendly and highly efficient small motors.

**Small Size Motor Team**  
SM Engineering Dept.  
FDK Mechatronics Co., Ltd.



### Stepper Motor SM3.7-20 Series



#### Application

Mainly used as a part to correct aberrations of a Blu-ray disc and to drive lenses for autofocusing and zooming.

#### Features

This is the world smallest stepper motor, with the size the same as that of a grain of rice. Though the diameter is as small as 3.7 mm, it is capable of making a fine positioning, i.e. 20 steps in one rotation. Decrease of the output torque due to the small-in-size is effectively controlled using a special strong magnet developed using new materials.

#### Eco-Friendliness

Compared to an ultra-small stepper motor developed in June 2005, the mass and the volume of this product is lesser by approx. 30% and approx. 25% respectively. The lighter-in-weight and smaller-in-size motor contributes to reduce resource consumption and is European RoHS compliant.

#### Comment from the implementer

With the ongoing process of small-in-size and high-functional portable devices, a motor used to drive a camera lens also needs to be more small in size, more accurate, stronger in torque and highly energy saving. This year, we were successful in developing a small-in-size motor meeting these requirements using a special strong magnet and optimized magnetic circuits and other methods unique to us. In order to save the limited global resources, we will address development of more small and more light motors.

**Small Size Motor Team**  
 SM Engineering Dept.  
 FDK Mechatronics Co., Ltd.

### Isolated DC-DC Converters SENSEI Series



#### Application

This is used for supplying power to various electronic components such as servers.

#### Features

The SENSEI Series converters provide a 9.6V output (non-regulated) or 12V output (regulated) from an input voltage of 48V. Non-regulated type operates with an efficiency of up to 97%, with a power density of 300W/in<sup>3</sup>. It is realized higher thermal performance up to 85°C without heatsink. Using this product in combination with the SENPAI Series of non-isolated DC-DC converters results in exceptional electrical and thermal performance for Intermediate Bus Architecture and Distributed Power Architecture applications.

#### Eco-Friendliness

Power consumption is successfully reduced by achieving high efficiency. This product doesn't require a heatsink, further saving resources. It uses a halogen free PCB that doesn't emit any dioxins. It is in full compliance with RoHS directives that went into effect in Europe in July 2006.

#### Comment from the implementer

This is the first isolated DC-DC converter in the SENSEI Series. It is suitable for IBA and DPA applications that require high efficiency and high reliability in elevated temperature environments. The challenge in the development of this product was how to realize high efficiency and high performance within a limited space. We will continue to develop highly efficient products in order to contribute to energy saving.

**Takafumi Hirai**  
 MS-FIRE Project  
 Electronics Business Dept.

### Elements for Ultrasonic Motors



#### Application

It is used as a lens actuator of autofocusing system used in a camera.

Photo ( Larger one):  
 conventional element  
 Photo ( Smaller one):  
 newly developed element

#### Features

Compared to an ordinary electrically driven motor, an ultrasonic motor works faster and smoother, has higher torque and emits lesser noises. This product is used as an element for driving an ultrasonic motor and realizes significantly smaller in size and higher torque in high and low speed ranges.

#### Eco-Friendliness

This product is significantly smaller by one-twentieth in volume than other conventional products. While saving resource consumption, energy saving in production is achieved. Its packaging materials are free from PVCs.

#### Comment from the implementer

As a digital camera is being widely used, a smooth and high speed autofocusing function conventionally used for high-end cameras is now gradually spread to low-end models. Under such a circumstance, the market requires more small-in-size and high torque products. We were successful in developing a manufacturing method suitable for making thinner products and as a result, a significantly small-in-size and high torque product has been successfully launched.

**Tadashi Takeuchi and Masahiko Akagishi**  
 Product Development Dept.  
 Ceramic Component Div.



## Production of Environmental Measures on Products

### Approaches to Totally Eliminate Hazardous Substances in Products

The FDK Group has been working for establishing a management system that ensures eliminating use of hazardous substances in its products, in order to comply with the EU RoHS Directive. In October 2004, the 'Committee for Products Containing Hazardous Chemical Substances' was set up and is in operation in order to totally eliminate using hazardous chemical substances included in the products.

#### Targets of the Third Environmental Action Plan

To eliminate the use of hazardous substances designated by Fujitsu Group in manufacturing products by the end of FY 2005, except for those designated by RoHS whose elimination target is the end of December 2004

■ Use of hazardous substances listed in 31 categories of Fujitsu Group's list will be totally eliminated by the end of FY 2005.

■ For products shipped to Europe and covered under the RoHS Directive, use of lead, cadmium, mercury, hexavalent chromium compounds, PBB and PBDE will be totally eliminated by the end of December 2004.

#### Elimination of Hazardous Chemical Substances and Confirmation Activities

In FY2005, all hazardous substances designated by Fujitsu Group were completely eliminated from the products manufactured by FDK. As to the chemical substances whose elimination was required by the RoHS Directives for all products shipped to customers, or which are to be shipped to Europe were successfully eliminated as per the request of our customers. For other prohibited chemical substances for which alternative items were not available and for which our customers requested us to continue searching, we followed customer specifications in dealing with the issue.

The progress of complying with the RoHS Directive has been uploaded to the FDK website and made accessible to our customers as well as our employees, since FY2005. The website lists RoHS compliant products as well as those items not to be complied with the Directive. Critical substances relating to the RoHS are examined in-house using an 'X-ray fluorescent spectrometer' and ICP analysis.

#### Establishment of a System to Control Hazardous Chemical Substances

With the idea that any product containing hazardous substances is a defect, the FDK Group has been operating a hazardous chemical substances control system, set up at all of its production sites, as a part of its quality assurance system (ISO9001 compliant) since FY2005.

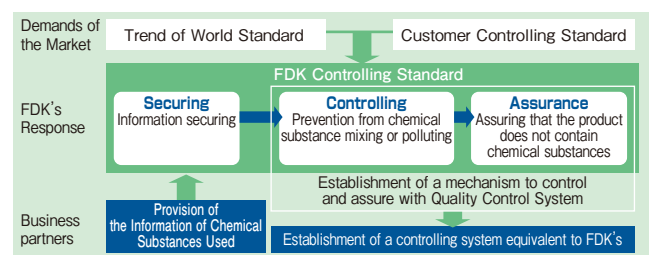
In FY2006, an audit on the hazardous chemical substances control system was made by members of the 'Committee for Products Containing Hazardous Chemical Substances.' The audit's purpose was to confirm a system of avoiding inclusion of hazardous chemical substances in products, as well as how that system was maintained, as objectively as possible, in order to extract and remedy problems found, if any.

After extracting problems and measures taken, in December 2006, a system capable of controlling hazardous chemical substances as targeted was established at all of FDK's production sites. An 'X-ray fluorescent spectrometer' was newly introduced to 2 overseas sites in FY2006. Now 6 major sites in total, in and out of Japan, use a spectrometer. Due to the introduction of the unit, acceptance tests and process controls can now be smoothly operated at each site.

#### Hazardous Substances Designated by the Fujitsu Group

Banned Substances: Substances prohibited for use in products (27)	
<ul style="list-style-type: none"> <li>• Polychlorinated biphenyls (PCBs)</li> <li>• Polychlorinated naphthalenes (with 3 or more chlorine atoms)</li> <li>• Asbestos</li> <li>• CFCs</li> <li>• Specified halons</li> <li>• Carbon tetrachloride</li> <li>• 1,1,1-Trichloroethane</li> <li>• Bromochloromethane</li> <li>• Methyl bromide</li> <li>• HBFs</li> <li>• Polybrominated biphenyls (PBBs)</li> <li>• Polybrominated diphenyl ethers (PBDEs)</li> <li>• Short-chained chlorinated paraffins (carbon chain length 10-13)</li> <li>• Bis (tri-n-butyltin) oxide (TBTO)</li> <li>• Tributyl tins (TBTs), Triphenyl tins (TPTs)</li> </ul>	<ul style="list-style-type: none"> <li>• Specified amines (Those which contact to skin directly and for a long time only)</li> <li>• Azo dyes and azo pigments that generate specified amines (Those which contact to skin directly and for a long time only)</li> <li>• Chlorodanes</li> <li>• DDT</li> <li>• Aldrin</li> <li>• Endrin</li> <li>• Dieldrin</li> <li>• Hexachlorobenzene</li> <li>• N,N'-ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine and N,N'-dixylyl-p-phenylenediamine</li> <li>• 2,4,6-tri-tert-butylphenol</li> <li>• Toxaphene</li> <li>• Mirex</li> </ul>
<b>Ozone depleting substances</b>	
Substances to be totally abolished: Substances banned for use in products (4)	
<ul style="list-style-type: none"> <li>• Cadmium and its compounds</li> <li>• Hexavalent chromium compounds</li> </ul>	<ul style="list-style-type: none"> <li>• Lead and its compounds</li> <li>• Mercury and its compounds</li> </ul>

#### Control Process for Banned Substances



#### Future Actions

We will continue improvement of our efforts in eliminating hazardous chemical substances from our products along with the ISO9001 Quality Management System based on the FDK Group's hazardous chemical substances control system established so far.

#### Results of the Third Environmental Action Plan

■ All products were successfully free of hazardous chemical substances as required by our customers. For other products that our customers required us for continued examination for searching for alternative substances, actions have been taken in accordance to the customer specifications.

## Measures for Global Warming Prevention

The FDK Group is committed to various activities for prevention of global warming including energy-saving measures, improving logistics and promotion of recycled use at its factories and offices.

### Energy-Saving Measures

In order to prevent global warming, it is a mandatory requirement to reduce emission of CO<sub>2</sub>. The FDK Group commits itself in reducing energy consumption by introduction of energy-saving systems such as co-generation systems and improving the way existing facilities and equipment are operated and controlled.

#### 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**

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

#### Energy-Saving Activities

In FY2006, the following energy-saving measures were put into practice, as our continuous efforts from the previous fiscal year.

- Improvement and renewal of compressors and air-conditioners to energy-saving types
- Revision of operating conditions and controls of systems and equipment
- Heat-insulation and introduction of outdoor air for buildings
- Appropriate control of room temperature and introduction of inverter lighting equipment in offices and energy-saving of office automation systems

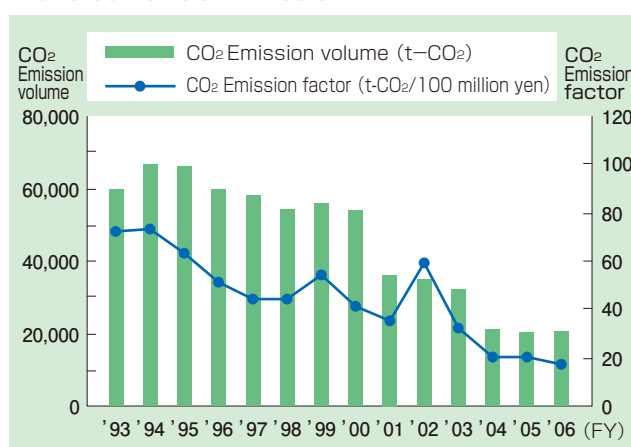
In addition to the above, production innovation campaigns were promoted throughout the FDK Group. This included space saving activities, or using less office space for a job. Due to this effort, energies consumed by cooling, heating and lighting were successfully reduced. As a result, CO<sub>2</sub> emitted from the entire FDK Group was successfully reduced to 20,460 tons of CO<sub>2</sub> (a reduction of 0.6% compared to in FY2005). This is a significant achievement as the reduction made in FY2006 marks a reduction by 62% compared to a reduction target of 15% from the level in FY2000, as outlined in the Third Environmental Action Plan. This is largely attributable to our business structural reform to make a shift from ferrite production, which consumes a large volume of energy by sintering furnaces, to electronic module production, in addition to our ongoing energy-saving efforts.

All domestic offices of the FDK Group have already achieved the reduction target of Kyoto Protocol, i.e. 'reducing greenhouse effect gas emission by 6% from the level in 1990.'

#### Greenhouse Effect Gasses other than CO<sub>2</sub>

As CO<sub>2</sub> is the only greenhouse effect gas the FDK Group emits from its offices and production sites, we commit ourselves in reducing CO<sub>2</sub>.

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



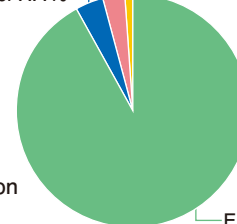
CO<sub>2</sub> Emission

'93	'94	'95	'96	'97	'98	'99
59,259	66,393	65,785	59,697	58,072	54,263	56,024
'00	'01	'02	'03	'04	'05	'06
53,998	36,155	35,009	32,268	20,429	20,575	20,460

\*The emission volumes shown in the above table have been revised, due to the revision of the conversion factor.

#### Energy Type

City gas:3%  
Bunker A:4%  
LPG:1%



Breakdown of CO<sub>2</sub> Emission Volume: 20,460 ton

#### Future Actions

We will address reduction of CO<sub>2</sub> emission by 2% from the level in FY2006 by the end of FY2010, as explained in the Fourth Environmental Action Plan.

#### Results of the Third Environmental Action Plan

Emission of CO<sub>2</sub> was reduced by 62% at all the Group's sites in Japan.

Management and Organizational Structure  
Social Activities Report  
Environmental Protection Activities Report  
Site Report



# Measures for Global Warming Prevention

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

In addition to energy-saving efforts in offices and factories, the FDK Group is committed to reduce CO<sub>2</sub> emissions, in the process of parts and raw materials, from procurement to transportation, use, disposal and recycling of a product. As to delivering of products from suppliers to our customers, CO<sub>2</sub> reduction is globally addressed in our 'business innovation activity' aiming at raising production efficiency.

### 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.

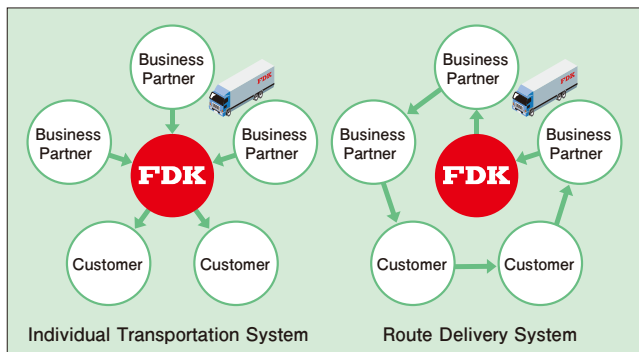
#### CO<sub>2</sub> Reduction using Route Delivery System

The FDK Group has made efforts to shift from a conventional individual transportation system to a route delivery system in all FDK sites nationwide, and in the 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 to multiple sites. We aim to reduce lead-time in delivering products to customers, as well as reduce the volume of work-in-process items. In addition, the total distance of travel can be reduced, and hence the volume of CO<sub>2</sub> emission can be minimized as well. For further uplifting of loading efficiency, we started since FY2006 "Cooperative transport" (the transportation of parts/products with consolidated service) with the support of shipping companies.

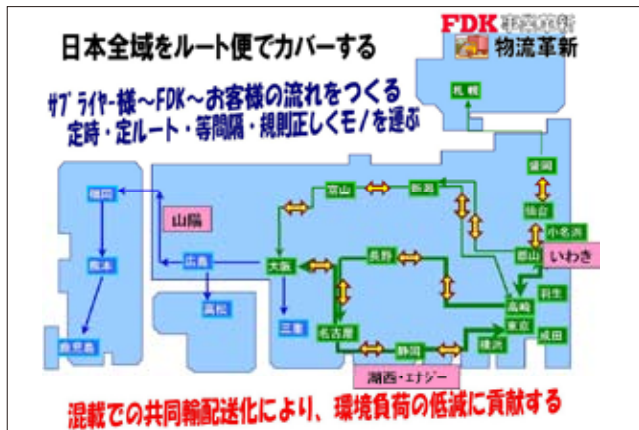
#### Uplifting of Loading Efficiency for Truck Transportation via Improving Packages

Previously, cardboard boxes were mainly used for transporting raw materials and products from the FDK Group. With the cooperation of the customers and suppliers, use of returnable containers (TP Trays) is expanding gradually. In order to raise loading efficiency for truck transportation to reduce CO<sub>2</sub> emission, packing materials for products put into a cardboard box have been simplified. This also contributes to the saving of resources. With the philosophy of 'We don't transport things unnecessarily,' and 'We will transport necessary items only,' transportation volumes are optimized and minimized by promoting TPS (Toyota Production System) with the efforts of the entire FDK Group.

#### Delivery Routes



#### Application of route delivery system nationwide



#### Future Actions

After the revised Law Concerning the Rational Use of Energy in April 2006, shippers must submit a 'notification of cargo transportation volume' to the relevant authority, if they transport or consign transportation of cargo related to their businesses at a volume of 30 million ton-kilometer or more annually. The FDK Group is not applicable to this condition and, hence, submission of the notification is not necessary. However, the FDK Group is determined to pay further efforts to reduce CO<sub>2</sub> emission in its Fourth Environmental Action Plan.

#### Results of the Third Environmental Action Plan

Transportation routes were revised, loading efficiency was uplifted and use of returnable containers was promoted in order to contribute to the reduction of CO<sub>2</sub>.

## 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

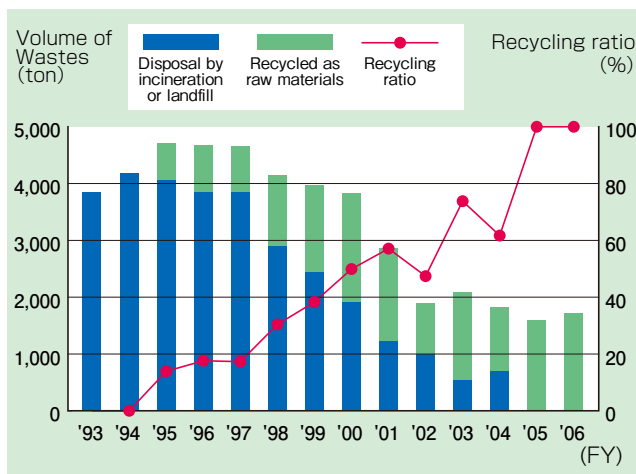
In FY2006, use of returnable containers was promoted in lieu of using packaging materials, waste raw materials were recycled for use in the process, and waste plastic vessels were reused in the office. As a result, total waste generated from the Group was down to 1,708 ton in FY2006, which is down by 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

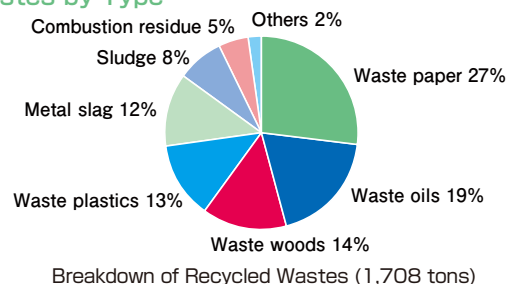
##### Definition

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.

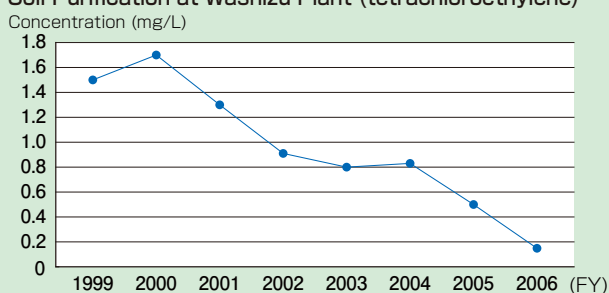
In 2004, the former Osuga Plant site was reinvestigated to check the condition of the soil in accordance to the Soil Contamination Countermeasures Law, and the healthiness of the soil was confirmed. For other plants, we will continue purifying soil and underground water using an air stripping method,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

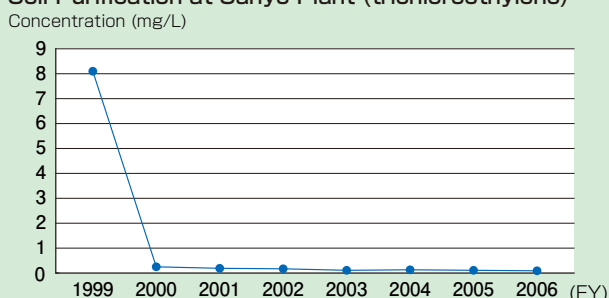
##### Soil Purification at Washizu Plant (tetrachloroethylene)



##### 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.



# Environmental Solution Activity

In order to respond to the increased attention and needs of people toward environmental protection, the FDK Group companies are specialized in environmental businesses.

## Business Activities of Fujidenka Research and Analysis Center Co., Ltd.

Environmental protection is a concern of the people all over the world. This is exemplified by actions against global warming and setting out of various rules such as RoHS, ELV, REACH, POPs, WEEE and Chinese RoHS. Under such circumstances, Fujidenka Research and Analysis Center Co., Ltd. is working for protection of the environment for enterprises and local communities, as a total environmental research and analysis company under the FDK Group. Its main business includes a support to its customers for solving their environment-related problems and extends from consultation on environmental issues to providing a comprehensive service on environmental facilities involving design, construction and maintenance of them.

### Acquisition of the ISO17025 Certification

Fujidenka was successfully certified as ISO17025 compliant by Japan Chemical Laboratory Accreditation(JCLA) in January 2007 for its competency to carry out atmospheric and smoke concentration measurements. ISO17025 is a general requirement as to the competency of research and calibration laboratories. It requires operational and controlling as well as technical competencies on controlling accuracy of tests and calibrations.

The successful acquisition of the certificate means data provided by Fujidenka is now internationally accredited as reliable within the scope of the certification. Fujidenka is determined itself to expand the scope of certification to analysis of hazardous metals contained in products.

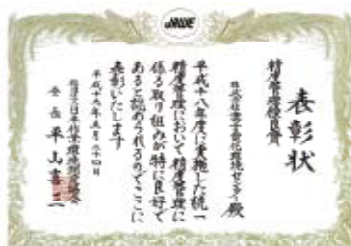


Certificate of JCLA

### Won 'Good Accuracy Control Company' Award

Fujidenka was awarded the 'Good Accuracy Control Company' Award by Japan Association for Working Environment Measurement. This award is given to only a company which won A to all items of accuracy control businesses consigned by the Ministry of Welfare, Labour and Health, as well as A to all items in a crosscheck session by the Association.

In FY2006, 18 companies including Fujidenka won the award in Japan.



Certificate of Good Accuracy Control Company

### Interactions with the Local Community

As a specialist of environmental analysis and measurement, Fujidenka maintains the following supports and actions with the surrounding community.

- ① Sent a staff to the environmental council of Kosai City to provide an administrative operation support from the view point of a specialist.
- ② Invited the employees of the local governments and junior high school students in the local area for a study tour of the analysis room of Fujidenka.
- ③ Sent a staff to a technical division of Shizuoka Metrology Association to contribute to lifting up the competency of the entire industry.
- ④ Sent a staff as a lecturer to an environmental counselors' study meeting of an environmental preservation council whose members consist of local companies. Participated in various study group meetings to raise the awareness on the local environment of the local residents as well as local-based companies.
- ⑤ Participated, as an instructor, in a biological survey of rivers by the local residents



An environmental counselors' study meeting at an environmental preservation council



An instructor sent from Fujidenka working with local people in a biological survey



## Investigation and Test of Hazardous Substances Relating to Green Procurement

Fujidenka is involved in analysis and investigation in compliance to EU's RoHS and ELV as well as REACH, POPs, WEEE, Chinese RoHS and other chemical substance restriction regulations. As for RoHS, measurement results impose a direct influence on customer's production activities. As such, Fujidenka usually provides results of analysis to them as promptly as possible. After a large-scale chamber was introduced in 2005, VOC measurements such as toluene typified by countermeasures for sick building syndrome are provided to broader industries such as electronic parts and interior parts of a vehicle.

More recently, the needs for eco-friendly products has been increasing and the demand for various reliability tests for assessing products incorporating new materials is also on the rise.



Equipment for measuring scattering of VOCs (VOC analysis using a display)



Reliability test equipment (Temperature and humidity acceleration tester for eco-friendly products)

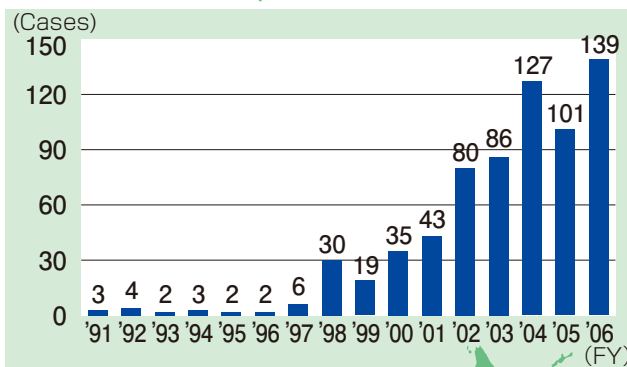
### Business lines

Environmental analysis and measurement, Environmental assessment (Analysis of air, water, noise, vibration, odor and soil contamination level, and measurement of work environment)  
Investigation and removal of soil and underground water contaminants  
Analysis investigation for supporting green procurement  
Material analysis and reliability tests, calibration of measuring devices  
Measurement of substances causing sick building syndrome and VOC emission measurement  
Environmental protection facility design, construction and maintenance

## Anti-Soil Contamination Measures

Even before the enforcement of Soil Contamination Countermeasures Law, Fujidenka has been working for the national level measures against soil contaminations. At the onset, the scope of the investigation was centered on items for acquiring the ISO14001 certification. After the enforcement of Soil Contamination Countermeasures Law in 2003, the number of investigations and implementing countermeasures has been on the rise and currently Fujidenka is capable of processing 100 orders annually. Fujidenka's investigations are in compliance to anti-soil contamination measures set up under the ordinances of each local autonomous body. More recently, the investigation ordered is not limited to that related to compliance with laws, but includes that aiming to alleviate asset risks. Fujidenka is determined itself to provide the highest possible technologies to the customers in order to minimize their risks.

### Major Soil Contamination Investigation and Countermeasures Implemented



Scope of areas expanded to nationwide



## Environmental Investigation

### Expanded from Lake Hamanako Area to More Broad Regions

At the onset of the investigation, water quality, atmospheric and malodor investigations were limited to the areas around Lake Hamanako. In order to respond to the needs for the investigations, the scope has been expanded to neighboring prefectures to include factory, facility and local environmental measurements and investigations. Fujidenka is capable of responding each and every need relating to environment investigations and measurements extending from on-site surveys, analysis to making reports in a consolidated manner, using its unique technologies nourished for a long time.

### Fujidenka Research and Analysis Center Co., Ltd.

Foundation: January 24, 1976  
Capital: 70 million yen (wholly-owned by FDK corporation)  
Employee: 50  
President & CEO: Takeo Maeda  
Head Office: 2281, Washizu, Kosai City, Shizuoka Prefecture  
Tel.053-576-0841 Fax.053-576-5258



## Business Activities of FDK Ecotec Co., Ltd.

Incorporated in 1997, FDK Ecotec Co., Ltd. is committed to the recycling of PCs and other information-related devices to contribute to the realization of a recycle-oriented society. In 2002, the company obtained the certification of ISO14001 ahead of other companies in the industry, and since then, it has been proactively involved in environmental protection and prevention of depleting resources to bring that society to fruition. Since FY2003, FDK Ecotec has been continuing zero emission in handling office automation equipment.

### As a core site of Fujitsu Recycle Center

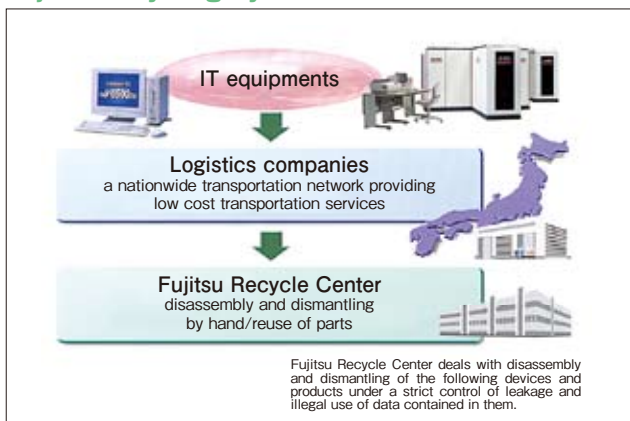
FDK Ecotec handles used PC and other information-related equipment generated from 13 prefectures in Tokai, Hokuriku and Kinki regions as the Chubu Recycle Center of Fujitsu Recycle Center (FRS). It accepts collection of waste devices through the Ecotec Direct Route, and provides an integrated services to customers from collection to disposal of units.

FDK Ecotec also provides disassembly and transportation of large-sized systems and equipment for its customers.

### Flow of Reuse and Recycle

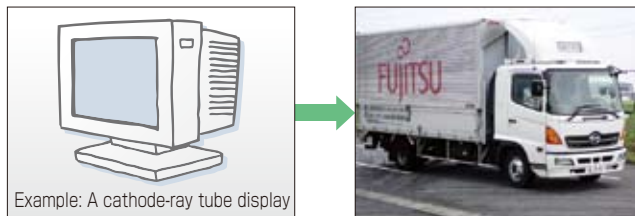
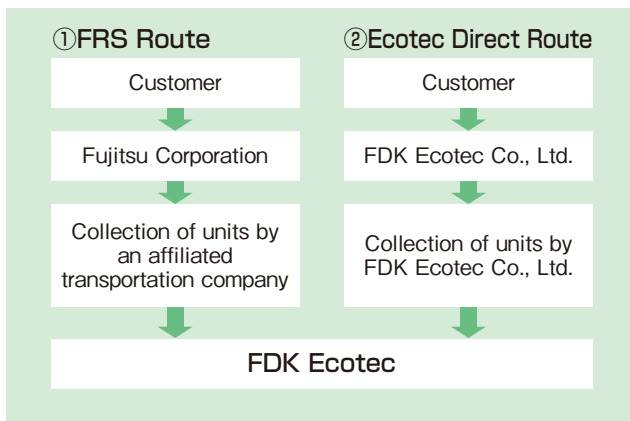
After collection of used devices, FDK Ecotec manually decomposes and separates materials to a level where they can be recycled and reused.

### Fujitsu Recycling System



FRS handles recycling of information communication equipment regardless of manufacturers. Disposal of fixed assets are also handled.

### Flow of Disposal from Acceptance of Request for Collection



### Reuse

- Hard disk
- Memory
- Floppy disk drive
- Compact disk drive
- Others

### Recycle

IC for printed circuit board	Waste metals	Waste parts	CRT for displays	Waste plastics	Manuals
Collection of precious metals	Collection of ferrous and non-ferrous metals	Crushing High-temperature melting treatment Metal collection system	CRT recycling system	Recycling system for blast furnace	Paper recycling system
Recycled into precious metals	Recycled into bare metals	Recycled into bare metals	Recycled into CRT	Reused as an alternate fuel for blast furnace	Reused as paper and cardboard sheet

## Measures to Prevent Leakage of Information

After collecting PCs and recording media, the data contained in them are all deleted safely according to the guideline on deletion of data on hard disks of personal computers before disposal and transfer by Japan Electronics and Information Technology Industries Association (JEITA) in order to prevent leakage if confidential information of companies and individuals. Special deletion software developed by Fujitsu Corporation is used for deleting data. The software complies with various deletion standards applied by Department of Defense and National Security Agency in the U.S.



HDD data deletion system



HDD destruction system

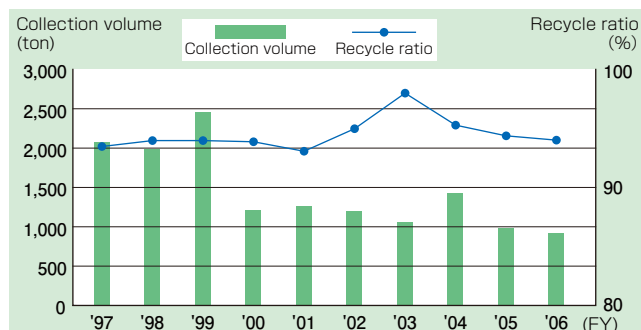
Besides this, data destruction kit for compact disks and physical destruction system for hard disks developed by the company are used as well. The company also provides data destruction services of tapes, IC cards, semiconductor memories and other storage media. A data destruction certificate is issued on demand.



CD destruction system

## Volume of Collection and Recycling Ratio

In FY2006, the volume of wastes collected (accepted) was 919 ton and the recycle ratio was 92%. The volume of collection is decreasing since 2003. This may be largely because the demand for Windows XP-based PCs started to level off and the PC reuse market was generally known to people, as well as light-in-weight and small-in-size PCs started to appear.



\* In this leaflet, method to calculate waste collection volume has been revised.

## New Actions in FY2006

- Preparation for establishing a website by FDK Ecotec Co., Ltd.
- Establishment of a comprehensive recycle control system and its operation tests

## Promotion of Recycling

### Efforts for Increasing Recycling Ratio

Disassembling of used parts to just a level of parts composed of more than one material is not sufficient for recycling of materials. Such parts are separated to a level of plastic, metal and other single materials in the company so that they can be reused for other products. Plastics, in particular, are decomposed to a level of vinyl chloride and polyurethane resin for reuse purposes. Waste plastics are crushed using a crusher.



A plastic crusher

### Expansion of the Scope of Recyclable Products

FDK Ecotec accepts used fluorescent lights which are crushed using a special crusher. A melting machine is used for recycling foam polystyrene. The company plans to introduce a magnet tape destruction machine so that it can accept magnet tapes for recycling.



A fluorescent light crusher

### Licenses

- Collection and transportation of industrial wastes:  
License No. 2100053003 (Gifu Prefecture)
- The range of collection and transportation:  
All areas of the following prefectures: Gifu, Aichi, Mie, Shizuoka and Shiga
- Intermediate treatment of industrial wastes:  
License No. 2120053003 (Gifu Prefecture)
- Types of industrial wastes authorized to treat:  
Waste plastics, metal chips, waste glass and ceramics, concrete chips (excluding those generated by new construction or refurbishment of buildings)

### Lines of Business

#### Recycling of the following equipments

- Computers and their peripheral equipments
- Word processors, fax machines and copying machines
- Telecommunication equipments
- Automated teller machines (ATM)
- Telephone sets, mobile phones, switchboards and POS terminals
- Magnetic tapes, cassette tapes, floppy discs and confidential documents
- OA discs and racks (wooden racks is excluded)

### FDK Ecotec Co., Ltd.

Foundation: March 10, 1997  
 Capital: 30 million yen (wholly-owned by FDK corporation)  
 President & CEO: Masanori Nakazawa  
 Address: Headquarters: 2281, Washizu, Kosai City, Shizuoka Prefecture  
 Gifu Office: 478, Tsuchikura, Hirata-Cho, Kaizu City, Gifu Prefecture  
 Tel.0584-66-4781 Fax.0584-66-4791  
 Employee: 18

This chapter shows activities of manufacturing plants of FDK and Group companies.

## Kosai Plant

Started operation in June 1963

Address	2281, Washizu, Kosai City, Shizuoka Prefecture 431-0495
Tel	053-576-2151
Production items	Switching power supplies, multilayer chip power inductors, high-frequency multilayer parts and toners
Employees	559



Abundant in nature, Lake Hamanako is a home of diversified aquatic creatures and is famous for production of eels. In spring, a number of people come to the lake shore for enjoying digging clams. Kosai Plant is situated on the western part of Lake Hamanako, and is a center of R&D, technology and administration for the FDK Group.

Kosai Plant is in charge of setting up targets for the entire FDK Group and checks the progress of achieving the target to promote the activities of each site. In FY2006, the Plant wrapped up the results of the Third Environmental Action Plan of the FDK Group and documented the Fourth Environmental Action Plan. The Plant also conducts the environmental management activities in compliance to ISO14001 as Kosai Plant. The following two items were focused among the actions taken by the Plant in FY2006.

1. Establishment of the FDK Group's Chemical Substances Control System  
In preparation for the planned application of EU's RoHS as of July 1, 2006, the Plant promoted establishment of the Group's chemical substances control system for all of its production sites.
2. Reinforcement of the Environmental Internal Audit at Kosai Plant.

In order to further activate its environmental management activities as well as to improve it continuously, the Plant educated and trained its internal audit staff to raise their skills and revised the way internal audits are done for betterment.

The Plant is determined to contribute to the formation of a sustainable society and protection of the global environment as a core entity of the FDK Group.



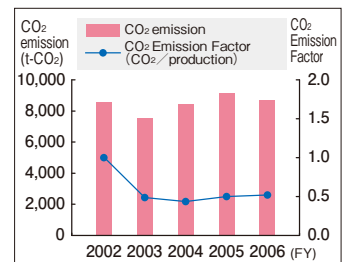
Lake Hamanako



A preliminary explanation meeting of environmental internal audit

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
374	374	100
Energy Consumption		
Electricity Purchased (MWh)	City Gas (Km <sup>3</sup> )	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
19,689	237	8,929

Activity Data FY 2006



CO<sub>2</sub> emission

## Sanyo Plant

Started operation in January 1970

Address	5-ku, Honmachi, Sanyo-Onoda City, Yamaguchi Prefecture, 757-8585
Tel	0836-72-1311
Production items	Piezoelectric parts and LCD back light inverter modules
Employees	138



Situated on the western side of the Seto Inland Sea facing to the Suonada Sea, Sanyo Plant is surrounded by abundant nature of Asa, north of Sanyo Onoda City in Yamaguchi Prefecture.

As a mass production plant of electronic parts using the superb material developing and application technologies of the Group, the Plant produces digital home electric appliances and devices to be installed in automobiles as well as communication equipment.

Its environmental activities include:

1. promotion of manufacturing eco-friendly products, including
  - ① response to various chemical substance control regulations and
  - ② Promotion of controls for chemical substances included in products,
2. prevention of global warming by decreasing CO<sub>2</sub> emission, and
3. reduction of waste generation.

For each of the above three, a target is set and actions are taken to achieve it. Particularly for chemical substances, the Plant is dedicated to reinforce controlling them and use them appropriately, under the circumstances of ever increasing regulations on them.

The Plant also commits itself to protection of the local environments through volunteer activity of various types, including participation to the city's environmental councils and greenery promotion councils, etc. and cleaning campaigns to special nursing homes for the aged. The Plant will continue global environmental protection activities uniting the efforts of all employees in order to bring the sustainable society come to fruition.



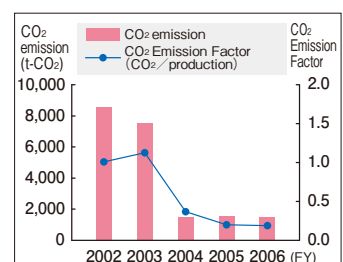
A disaster prevention drill



A voluntary cleaning activity

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
111	111	100
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
3,564	1,515	

Activity Data FY2006



CO<sub>2</sub> emission

\*Note: The CO<sub>2</sub> emission factors in the above graphs are calculated based on the achievement of FY 2002 as 1.

## Iwaki Plant

Started operation in	April 2002 (by merging former Iwaki Electronics Co., Ltd., which was established in December 1966.)
Address	1, Kamanomae, Joban-kamiyunagaya-machi, Iwaki City, Fukushima Prefecture 972-8322
Tel	0246-43-4161
Production items	Manufacturing and sales of LCD back light inverter modules and VCOs
Employees	417



Situated to the southeast corner of Fukushima Prefecture and facing to the Pacific Ocean to the east, Iwaki Plant is blessed with mild climate throughout the year. The Plant produces inverter modules and VCOs as one of the core mass production facilities of FDK. This year marked the 9th year after the Plant was certified as ISO14001 compliant. In order to reinforce its environmental activities directly related to its business, the Plant focuses on employee education and trainings. The regular study meeting for internal auditors was implemented once a week. The session was not a unilateral way of just an instructor talking to the participants, but valued on discussions among them in order to deepen their understanding of the subject issue.

The Plant's energy saving activities included space-saving to optimize the production space in more economical way, revision of air conditioner layouts in line with it, and replacing obsolete air conditioner with more energy-saving models. Though the production volume was increasing, the volume of energy consumed in the Plant was successfully reduced due to the use of external air heat. Use of toluene was significantly reduced after revising flushing methods and other efforts. As a course of interactions with the local communities, an instructor was sent to Iwaki Occupational Skill Development and Promotion Center (Polytech Center Iwaki) for environmental education. Each waste separation box in the Plant now has a picture of waste so that everyone can understand which wastes should be put into which box.



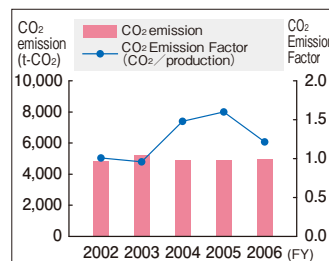
An environmental education session at outside of the Plant (Polytech Center Iwaki)



Waste separation boxes (with a picture of wastes on each of them)

Wastes			
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)	
315	315	100	
Energy Consumption			
Electricity Purchased (MWh)	Bunker A (Kℓ)	LPG (t)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
10,101	189	40	4,940

Activity Data FY 2006



CO<sub>2</sub> emission

## FDK Engineering Co., Ltd.

Started operation in	September 1990 (by separation of machinery business function of FDK; Former Hosoe Plant started operation in November 1963)
Address	281, Hirooka, Hosoe-Cho, Kita-ku, Hamamatsu City, Shizuoka Prefecture 431-1302
Tel	053-522-5280
Business lines	Design, manufacture and sales of various manufacturing facilities
Employees	64



This is a manufacturer and designer of production facilities and more than 70% of sales are occupied with assembling systems for auto parts. Due to the recent trend of oil price hike, there have emerged the needs for upgrading fuel efficiency of machines. In line with this trend, more orders are placed to the company for part production systems. The company underlines 'eco-friendly design' and 'green factory' in the course of its environmental protection activities; the former aims at decreasing environmental burdens emitted from the customers' premises in using the facilities delivered by the company, and the latter aims at decreasing environmental burdens imposed by business activities of the company.

2. Green factory: decreasing electricity consumption and eliminating and reusing wastes

As a course of its efforts in decreasing electricity consumption, assembling systems and facilities are now concentrated to the same area. This enabled switching off of lighting equipment and air conditioners located at non-used areas, contributing to minimization of electricity consumption. In addition to this is decreasing the time required for assembling and adjustment of a facility to a minimum. Such energy saving activities could reduce CO<sub>2</sub> emission. The company's interaction with the local communities included:

1. Eco-friendly design of facilities: decreasing electricity consumption, non-use of PVC materials and solder containing lead, and small-in-size design

- ① participation to a local cleaning campaign on the 'Hosoe-Cho Environmental Cleaning Day,' and
- ② taking part in 'Himesama Dochu (procession of princesses)' a local festival derived from an old local legend of the Edo era.



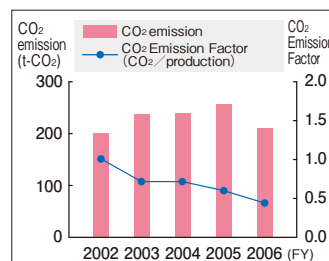
A disaster prevention drill



Himesama Dochu

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
19	19	100
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
496	211	

Activity Data FY 2006



CO<sub>2</sub> emission



## FDK Energy Co., Ltd.

Started operation in August 2002 (by separating battery function of FDK. The former Washizu Plant started its operation in February 1950.)

Address	614, Washizu, Kosai City, Shizuoka Prefecture 431-0431
Tel	053- 576- 2111
Business lines	Manufacturing and sales of alkaline batteries and lithium batteries
Employees	167



FDK Energy is a hub of manufacturing and technical development of alkaline and lithium batteries.

In FY2006, the challenges were how to reduce energy consumption and generation of wastes, while the sales increased by 15% year-on-year.

### 1.Promotion of eco-friendly products

The criteria for controlling chemical substances designated by the FDK Group were thoroughly observed.

### 2.Promotion of anti-global environment measures

As to reducing emission of CO<sub>2</sub> due to consuming energy, one of the measures taken was to change the conventional compressors to inverter compressors. This contributed to saving of energy.

As a result, emission of CO<sub>2</sub> successfully reduced was 4,815 ton against the target of 5,360 ton. However, while the sales were increased by 15%, the reduction of CO<sub>2</sub> emission remained in 7%.

### 3.Promotion of Green Factory

As a part of our activities to reduce generation of wastes, waste oil was decomposed using bacteria and waste plastic bags in the plant were reused. In order to protect the plant, an emergency response drill is carried out every year.

We are determined to unite the efforts of the entire employee to continue further improving the irreplaceable global environment.



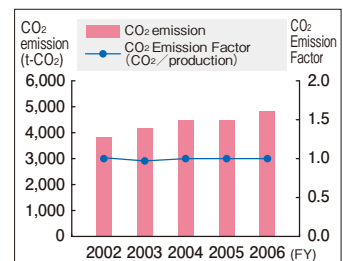
An emergency response drill (assumed that chemical spill occurred)



Plastic bags are reused in the office

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
796	796	100
Energy Consumption		
Electricity Purchased (MWh)	Bunker A (Kℓ)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
10,669	101	4,815

Activity Data FY 2006



CO<sub>2</sub> emission

## FDK Mechatronics Co., Ltd.

Started operation in November 1, 1989

Address	2281, Washizu, Kosai City, Shizuoka Prefecture 431-0431
Tel	053-575-3011
Business lines	Manufacturing and sales of stepper motors
Employees	49



FDK Mechatronics designs and manufactures stepper motors, doing business to make a plant a mass production plant and promoting and controlling motor businesses in general. Its environmental management activities in FY2006 mainly included reinforcement of our eco-product promotion organization in preparation for the start of application of RoHS Directive in July 2006. More precisely, chemical substances inspection was conducted to all suppliers in and out of Japan to investigate the status of chemical substances used to all parts currently produced and delivered to us. Inspection organization was reinforced to ensure that the progress of the inspection was 'visualized' so that everyone can understand it. To a supplier of parts considered that stronger

control would be necessary, a process audit was conducted to confirm that a system to totally avoid use of banned products to products was set up in the supplier. As a result, for some suppliers which failed to improve their system, we stopped purchasing items from them to ensure that we comply with the relevant laws and for the purpose of assuring quality of products we manufacture. Internally, employee education on chemical substances was continued. In addition, we have set up a rule on analyzing such chemical substances and a control and assurance system in operation to check them at a design review conducted when a product is designed.



A design review session



Analysis of chemical substances using an X-ray fluorescent spectrometer



Assessment of products developed

Volumes of waste, energy consumption and CO<sub>2</sub> emission are included in the data of Kosai Plant.

Activity Data

## FDK Lifetec Corporation

Started operation in	May 1, 1971
Address	2281, Washizu, Kosai City, Shizuoka Prefecture 431-0431
Tel	053-576-3121
Business lines	Employee welfare for the FDK Group, life insurance agency and sales of green teas, etc.
Employees	63



Started as an outsourcing company in charge of employee welfare for FDK Corporation, FDK Lifetec operates at three offices, i.e. Head Office in Kosai City, Shizuoka Prefecture, Iwaki Branch and Sanyo Sub-Office.

As a part of its employee welfare business for FDK Corporation, this company manages a canteen where calories contained in each food are indicated on the menu so that each employee can control the volume of calorie intake. Our nutritionists are working for developing healthy foods, reduced-salt foods and other new menus. In Kosai Region, a plaque, 'Bit of Knowledge Corner' is placed on each table in the canteen to provide knowledge on meals and health in order to raise awareness of the employees for maintaining health.

The company also addresses environmental protection. In order to prevent global warming, actions are taken to reduce energy consumption by gas and electrical equipment in the kitchen by setting concrete targets. Food wastes generated from the canteen are reused as fertilizers using a waste food processor. In the future, we will commit ourselves in ISO14001 environmental management activities as one of the FDK Group companies.

As a part of its social contribution activities, a vending machine with a donation function was introduced in the company in FY2006. We are determined to contribute to the society by providing a comprehensive support to the life of people including health, welfare, environment and culture that are closely related to the life of people.



A canteen (Kosai Plant)



A 'Bit of Knowledge' plaque

Tea leaves produced in Shizuoka Prefecture are powdered and sold using the unique manufacturing technique of this company.



'Run-Run Sabo' Series

Data relating to reduction of wastes, energy consumption and CO<sub>2</sub> emission in the head office, Sanyo Branch Office and Iwaki Branch are included in those for Kosai Plant, Sanyo Plant and Iwaki Plant respectively.

Activity Data

## Fuchi Electronics Co., Ltd (Taiwan)

Started operation in	January 1981
Address	No.355,Section 2,Nankan Road,Rutsu Shan,Tao Yuan,Taiwan
Tel	+886 3 322 2124
Business lines	Manufacturing and sales of LCD signal processing modules and LCD back light inverter modules
Employees	975人



Since it was certified as ISO14001 compliant in January 2000, Fuchi Electronics have worked for making a continuous improvement of its environmental management system. More recently, we came to see a grand transformation that environment-oriented business activities to comply with the ever growing consciousness of people toward the environment are the key to win favorable assessment of them to us, obtain new businesses and make the market eco-friendly. Under such circumstances, this company operates various businesses with a strong sense of crisis to the global environment such as global warming. Our major activities include:

1. Provision of green products (green procurement, lead-free, etc.),
2. Minimizing risks (reduction of hazardous chemical substances),
3. Measures against global warming (energy-saving),
4. Introduction of LCA (life-cycle assessment) and

5. Recycled use of resources through reduction of wastes. In our green procurement activities, a green partner system, unique to us, are introduced to cooperate with our customers in maintaining and raising reliability of our products. The number of suppliers designated as a green partner has exceeded 300 as of FY2006. An X-ray fluorescent spectrometer is used to measure hazardous substances in-house. In FY2006, the volume of CO<sub>2</sub> emitted from our company was increased, which is mainly attributable to our Taichung Plant in full operation in order to increase production.

Fuchi Electronics is determined to provide products that can respond to the requirements of its customers and to fulfill its due corporate responsibility in order to protect the employees and their family members as well as their future generations.



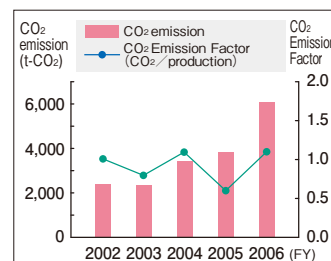
A seminar on greenhouse effect gasses



An X-ray fluorescent spectrometer

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
561	394	70
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
11,257	6,687	

Activity Data FY 2006



CO<sub>2</sub> emission



## PT FDK Indonesia (Indonesia)

Started operation in August 1989

Address	Kawasan Industri MM2100, Blok MM- 1 Jatiwangi Cikarang Barat, Bekasi 17520 Jawa Barat ,Indonesia
Tel	+62 21 89982111
Business lines	Manufacturing and sales of alkaline batteries and lithium batteries
Employees	1,030



In order to reduce various environmental burdens that impose adverse influences on the environment, PT FDK Indonesia obtained an ISO14001:1996 certification in June 2003, in order to protect the global environment. Since then the company is actively committed to protecting the environment. More precisely, the activities include elimination of hazardous chemical substances, energy-saving activities (mainly electricity), reduction and separation of wastes generated, monitoring and measurement of gasses discharged to the air, and green planting activities. As to the reduction of electricity consumptions and wastes, targets are set up in its environmental management plan and achievement of them is promoted under a periodical surveillance. Waste water discharged is monthly monitored and measured,

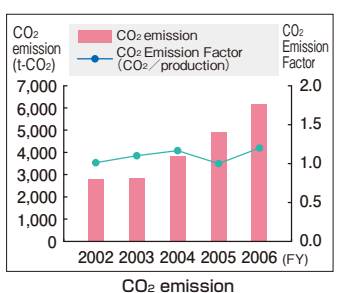
the result of which is reported to the industrial complex and governmental authorities in a regular manner. In FY2006, its waste water treatment facilities were overhauled and new air conditioner controlling system was introduced as an energy saving measures. In order to minimize environmental risks, an emergency response drill against chemical spillage and a practice of implementing countermeasures against it were conducted. The volume of CO<sub>2</sub> emission was increased in FY2006, which was largely because of an increased production of alkaline batteries. PT FDK Indonesia is determined to continue compliance with environment-related laws, regulations and requirements and unite the efforts of the entire employees to reduce environmental burdens.



Waste water treatment facilities after an overhaul      Emergency response drill  
 \*As the data on the recycling of wastes as resources by outside waste treatment companies was unavailable, the figures relating to it are not listed here.  
 The CO<sub>2</sub> emission volume is calculated using a factor used in Japan.

Wastes					
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)			
365	*	*			
Energy Consumption					
Electricity Purchased (MWh)	Bunker A (Kℓ)	Kerosene (Kℓ)	LPG (t)	Light oil (Kℓ)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
12,949	1	19	50	184	6,186

Activity Data FY 2006



## FDK Lanka (PVT) Ltd (Sri Lanka)

Started operation in November 1990

Address	Ring Road 3, Phase II E.P.Z. Katunayake, Sri Lanka
Tel	+94 11 225 3492
Business lines	Manufacturing and sales of optical communication parts, magnetic heads for FDD and rotary transformers
Employees	2,058



After certified as ISO14001 compliant in 2003, FDK Lanka has completed shifting of the certification to ISO14001:2004 in February 2006. This company has set three year targets on the following items to be achieved by FY2008 and is actively working toward it.

1. To reduce CO<sub>2</sub> emission per-unit by 15%
2. To reduce waste generation per-unit by 5%
3. To reduce chemical substance consumption per-unit by 30%
4. To reduce noise level at the peripheral area of the plant

In FY2006, the number of air conditioner units was reduced in a course of space saving in its production innovation campaigns and lighting equipment was used in an optimized manner for saving

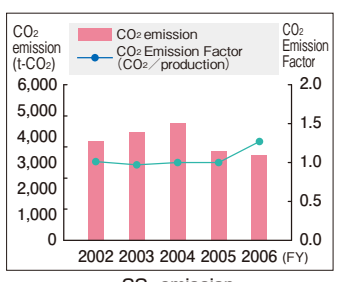
energy consumptions. As to the measures against noise emitted from generators, in addition to the company's continuous efforts to reducing it, suction filters were improved in FY2006. With these measures, noises were successfully reduced to the target level. Waste water used for flushing was recycled after purifying it using a filter. In addition, a potable water purifier and a drain oil separator were set up in the company. Under the slogan of 'FDK Group Loves Nature for the Future of the Earth,' we are committed to continuing our environmental protection activities for protecting the beautiful land of Sri Lanka and for the prosperity of FDK Lanka.



Potable water purifying system      Compressor oil separator

Wastes			
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)	
191	119	62	
Energy Consumption			
Electricity Purchased (MWh)	LPG (t)	Light oil (Kℓ)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
10,345	95	53	3,277

Activity Data FY 2006





## Xiamen FDK Corporation (China)

Started operation in	March 1994
Address	No.16, Malong Road, Huli District, Xiamen, Fujian, China
Tel	+86 592 603 0576
Business lines	Manufacturing and sales of LCD back light inverter modules, switching power supplies, motors and coil devices
Employees	2,326



As one of more than 400 companies located at Xiamen High-Tech Zone, Xiamen FDK acquired a consolidated certification of ISO combining ISO9001, ISO14001 and OHS18001 in FY2006. The followings were major activities in FY2006.

- 1.Reduction of using chemical substances: Use of toluene and xylene was reduced by 9% and 45% respectively over the previous year.
- 2.Control of chemical substances contained in products: The company's chemical substance control organization was reinforced and improved the system. Purchased materials were checked that they satisfied the relevant laws, regulations and requirements. Customer assurance activities were also implemented.
- 3.Environmental education: For new recruits, a handbook on ISO14001 and other standards was distributed to each of them to raise understanding of them to the standards applicable to us. For existing employees, a series of education is provided every year, including such subjects as

chemical substances, wastes, energy saving and chemical substances included in products. Additionally, a series of enlightenment education and events are held in April every year by designating the month as the month of environment to raise the awareness of the employees on the environment.

4.Award presentation: Accredited as having advanced safety control system, we won the Award for Advanced Safety Production Control Company in Xiamen High-Tech Zone in FY2006. At the same time, Mr. Huang Huang, Director of Administration Department won the award for individuals on advanced safety manufacturing practice, on recognition of his skills as a superb controller with the highest degree of insight in enhancing the level of safety activities within the company. Xiamen FDK is committed to advancing its environmental activities based on the environmental policy, with the whole efforts of the entire employees.



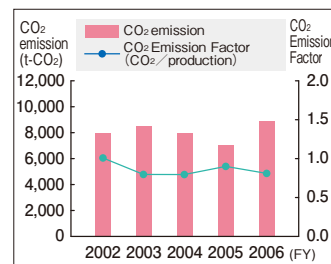
Cleaning activities at Mt. Xianyuesan



A certificate of an advanced company of safety production

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
626	305	49
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
9,480	8,892	

Activity Data FY 2006



CO<sub>2</sub> emission

## Shanghai FDK Corporation (China)

Started operation in	August 1995
Address	499 Dong Qu Road, Songjiang Industrial Zone, Shanghai, China
Tel	+86 21 5774 2028
Business lines	Manufacturing and sales of coil devices and LCD signal processing modules
Employees	1,906



With the corporate philosophy of 'Contributing to the society through the growth of the company' and the action guideline of 'Manufacturing for co-existence with the nature,' as well as under the environmental policy of 'Provision of clean products to protect the environment from contaminations by abiding by the relevant laws and regulations,' Shanghai FDK unites the efforts of the entire employees for realization of a better society. Shanghai FDK's activities FY2006 mainly consisted of the following items.

- 1.'Blackboard News' was issued every month to inform various information on the environment and to raise awareness of the employees toward it. Especially, for new recruits, an orientation is implemented to educate them on hazardous chemical substances and details of the company's environmental management system.
- 2.Due to the increased production of coil devices, energy consumption

was increased compared to the previous year. In FY2005, CO<sub>2</sub> consumption was significantly decreased which was largely attributable to that the production of ferrites was shifted to Nanjing FDK.

3.Chemical substances hazardous to the environment were more strictly controlled. Document control method was also revised to ensure this, in compliance to the requirements of our customers.

4.As a part of its social safety activities, we took part in traffic safety campaigns hosted by Songjiang Industrial Zone and the police authority. In May every year, we hold a safety production campaign to ensure safety of the production employees. In line with this, a firefighting training is carried out.

Shanghai FDK is dedicated to continue its environmental improvement activities to contribute to the protection of the global environment.



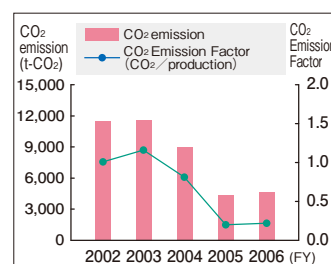
Firefighting training



Green area in the plant premises

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
108	47	44
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
4,772	4,691	

Activity Data FY 2006



CO<sub>2</sub> emission



## Suzhou FDK Co., Ltd. (China)

Started operation in June 2001

Address	43 Building Fengqiao Industrial Park 158- 88 Huashan Road, Suzhou New District Jiangsu, China
Tel	+86 512 66619392
Business lines	Manufacturing and sales of LCD signal processing modules
Employees	1,600



Suzhou FDK was certified with ISO14001:1996 compliant in December 2004, followed by ISO14001:2004 revised edition in April 2006. The actions taken by Suzhou FDK in FY2006 included of the following items.

1. An orientation was provided to new recruits to raise awareness to protection of the environment. For this purpose, an environmental leaflet was distributed to each of them. For other general employees, educations on internal audit, environmental laws and regulations and control of chemical substances contained in products were provided based on the company's annual education program.
2. As to noises emitted from the plant, thanks to the efforts of reducing noise for several years, the noise level at night around the plant area was successfully reduced to the standard level.
3. An evacuation drill and a firefighting training are carried out every year.
4. As to the chemical substances contained in products, as a result of the

efforts of the entire employees, all processes are now lead-free. All suppliers of raw materials and supplemental materials submit a guarantee to the effect that no hazardous materials are contained in their products delivered to us. At the same time, hazardous substance inspections are periodically carried out in-house using an X-ray fluorescent spectrometer.

5. As to the efforts for reducing use of resources and energy-saving, target values are set and actions are taken to achieve them. Use of paper, water and chemicals was reduced compared to the previous year. As to energy-saving, due to the increased production volume, the volume of electricity used was increased.

Suzhou FDK is committed to abiding by the relevant environmental laws and regulations and satisfying the requirements of its customers. In order to protect the global environment and for the sake of survival of human beings, we are determined to pay utmost efforts to contribute to the society through environmental protection activities.



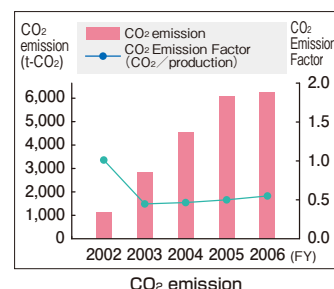
Emergency evacuation drill



Firefighting training

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
196	104	53
Energy Consumption		
Electricity Purchased (MWh)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )	
6,580	6,172	

Activity Data FY 2006



## FDK (Thailand) Co., Ltd. (Thailand)

Started operation in December 2001

Address	60/118 [ Navanakom Industrial Estate Zone 3] Moo 19, Phaholyothin Road, Tambon Klongnong, Amphur Klongluang, Pathumthani 12120, Thailand
Tel	+66 2529 4930
Business lines	Manufacturing and sales of motors
Employees	589



Incorporated in December 2007, FDK (Thailand) is a manufacturer and seller of stepper motors for office automation equipment and automobiles. The company has only a 6 year of history, but is in business for 18 years if Fujitsu (Thailand), the predecessor of the company is included. FDK (Thailand) maintains the following environmental policies.

1. To abide by laws and regulations on environment set up by the Kingdom of Thailand, where we operate businesses, as well as those required by our customers.
2. To continue improvement of systems in the company, to prevent contaminations arising from our business activities and to minimize adverse impacts of our businesses on soil, water and air through effectively utilizing wastes
3. To utilize resources effectively and to promote protection and saving of energy
4. To raise the consciousness of the entire employees toward protection of the environment

In FY2006, the priority action items included 'reduction of energy

consumption' and 'control of chemical substances contained in products in compliance to RoHS, etc.' In order to reduce energy consumption, an energy-saving control system was installed to a half of the air conditioners in the plant. On the roof, ceramic was coated to reduce electricity consumption of air conditioners in the plant by isolating external heat transmitted to inside of the plant building through its roof. As to the compliance with the RoHS Directive, an audit was done to selected suppliers in order to strengthen control to them. We believe the audit was effective in communicating them how we will control chemical substances contained in products in practice. The level of controlling them was raised through implementing in-house educations to all employees including contracted employees.

FDK (Thailand) is determined to dedicate to make a continuous improvement on its environmental activities with the efforts of the entire employees and to make a leap forward while maintaining harmonious existence with the environment.



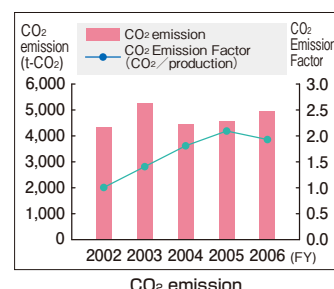
Application of heat insulating coating on the plant roof top



An energy-saving control system installed to an air conditioner

Wastes		
Volume of wastes generated (t)	Volume of wastes recycled (t)	Recycling ratio (%)
551	520	94
Energy Consumption		
Electricity Purchased (MWh)	LPG (t)	CO <sub>2</sub> eq. (t-CO <sub>2</sub> )
4,926	8	4,941

Activity Data FY 2006



# History of Environmental Activities (fiscal year)

1992	<ul style="list-style-type: none"> <li>Established the environmental protection preservation division.</li> <li>Introduced mercury-free manganese dry batteries.</li> </ul>
1993	<ul style="list-style-type: none"> <li>Promoted Environmental Education for new employees.</li> <li>Eliminated to use mercury in all layer-built batteries.</li> <li>Eliminated to use designated chlorofluorocarbons(Excluded Iwaki Electronics Co., Ltd. ).</li> </ul>
1994	<ul style="list-style-type: none"> <li>Established "Environmental Charter".</li> <li>Promoted Environmental Education for mid-careers.</li> </ul>
1995	<ul style="list-style-type: none"> <li>Established environmental protection regulations for the FDK group.</li> <li>Developed Environmental Action Plan.</li> <li>Established FDK Environmental Protection Committee.</li> <li>Fully eliminated to use designated CFCs in all plants.</li> <li>Fully eliminated to use of trichloroethane.</li> </ul>
1996	<ul style="list-style-type: none"> <li>Established the Environmental Protection Standard Committee.</li> <li>Established the Environmental Protection Standard.</li> </ul>
1997	<ul style="list-style-type: none"> <li>Launched activities to acquire ISO14001 certification.</li> <li>Issued the first issue of environmental news.</li> <li>Recruited and selected on the FDK environmental slogan.</li> <li>Established the environmental protection system for ISO14001.</li> </ul>
1998	<ul style="list-style-type: none"> <li>Acquired ISO14001 certifications at five domestic plants.</li> <li>Renamed the environmental protection preservation division as the environmental management division.</li> <li>Acquired ISO14001 certification in Xiamen FDK Corporation as a first plant in overseas.</li> </ul>
1999	<ul style="list-style-type: none"> <li>Acquired ISO14001 certifications at additional three plants.</li> <li>Announced the result of soil contamination state investigation.</li> <li>Executed countermeasures on soil contamination.</li> </ul>
2000	<ul style="list-style-type: none"> <li>Established the Environmental Action Plan for the second term.</li> <li>Joined "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Received Fujitsu Environmental Contribution Prize.</li> <li>Introduced a cogeneration system at Kosai plant.</li> <li>Changed uniforms to reproductions using recycled fabrics from PET bottles.</li> </ul>
2001	<ul style="list-style-type: none"> <li>Issued the Environmental Report 2001.</li> <li>Ranked 115th in "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Participated in the environmental activities organized by JIFPRO(Japan International Forestry Promotion and Corporation Center).</li> <li>Started operation of PRTR chemical management system.</li> <li>Established in-house reuse systems of OA equipment.</li> </ul>
2002	<ul style="list-style-type: none"> <li>Established the "FDK Environmental Policy".</li> <li>Issued the Environmental Report 2002.</li> <li>Acquired ISO14001 certification in two overseas plants and one domestic plant.</li> <li>Renamed the environmental management division as the quality and environment technology center.</li> <li>Ranked 208th in "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Expanded in-house reuse systems of OA equipment.</li> <li>Promoted various company-wide campaigns.                             <ul style="list-style-type: none"> <li>Energy conservation campaign</li> <li>Environmental enlightenment campaign</li> <li>Reduction campaign for copy numbers</li> <li>Eco driving and idling stop campaign</li> </ul> </li> </ul>
2003	<ul style="list-style-type: none"> <li>Established the Environmental Action Plan for the third term.</li> <li>Posted environmental educational posters of the FDK group drawn by corporate members and their families.</li> <li>Issued the Environmental Report 2003.</li> <li>Ranked 141st in "Environmental Management Survey " conducted by Nihon Keizai Shimbun Inc.</li> <li>Introduced the database system(ECO-DB) of the FDK group on the environmental burden of chemical substances.</li> <li>Received Fujitsu Environmental Contribution Prize.</li> </ul>
2004	<ul style="list-style-type: none"> <li>Renamed the quality and environment technology center as the environment technology center.</li> <li>Established the Contained Chemical Substances Management Committee.</li> <li>Issued the Environmental Report 2004.</li> <li>Ranked 124th in "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Awarded "the prize for the excellent energy management factory (electric section) in FY2004" by the Chubu Bureau of Economy, Trade and Industry, METI.</li> <li>Acquired ISO14001 certification in all FDK Group plants.</li> <li>Achieved zero waste emissions in all domestic plants.</li> </ul>
2005	<ul style="list-style-type: none"> <li>Acquired ISO 14001 certification at Taichong Plant (established in April 2005) of Fuchi Electronics Co., Ltd.</li> <li>Issued Environmental Report 2005.</li> <li>Ranked 205th in the "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Approved Small-size chip inductor "MIPF 2520D Series" certificated as a Super-Green Product for the first time at FDK.</li> </ul>
2006	<ul style="list-style-type: none"> <li>Issued Social &amp; Environmental Report 2006.</li> <li>Ranked 206th in the "Environmental Management Survey" conducted by Nihon Keizai Shimbun Inc.</li> <li>Acquired ISO 17025 certification at Fujidenka Research and Analysis Center Co., Ltd.,</li> </ul>

# FDK CORPORATION

**FDK Group Loves Nature for the Future of the Earth**



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