

Environmental Sustainability Report 2004



Company Outline

Company Name: Victor Company of Japan, Limited (JVC)
Head Office: 3-12, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa, 221-8528, Japan
President: Masahiko Terada
Established: September 13th, 1927
Paid-in Capital: 34,115 million (March 31st, 2004)
Sales Amount: Consolidated 921,978 million (March 31st, 2004)
 Non-consolidated 501,710 million (March 31st, 2004)
Number of Employees: Consolidated 35,580 (March 31st, 2004)
 Non-consolidated 8,032 (March 31st, 2004)
Business Lines: Research, development, manufacturing and sales of audio, visual, computer-related consumer, professional electronics, media products, electromagnetic tapes, disks, and electronic devices etc.

Main Products: Consumer Electronics

VCRs, video cameras, color TVs, stereos and other related electronics, car audio, DVD players, CD/stereos, telephones etc.

Professional Electronics

Professional and educational electronics, information devices, karaoke systems, projectors etc.

Electronic Devices

Display components, high-density multi-layered circuit boards, motors, optical pick-ups

Software/Media

Music, image software and recording media such as CDs, DVDs and video tapes

Other

Interior furniture, production equipment etc.



Video-related products



Audio-related products



PC/mobile-related products



Tape/disc media



Industrial parts/devices



Interior products

Scope of this report: Domestic manufacturing offices, including mainly the headquarters, laboratories, and subsidiaries. When foreign manufacturing offices are included, they are described as consolidated manufacturing offices.

Report Period: April 2003 to March 2004

Inquiries

Environmental Group

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Inquiries also accepted through our Web page or through the questionnaire at the end of this report.

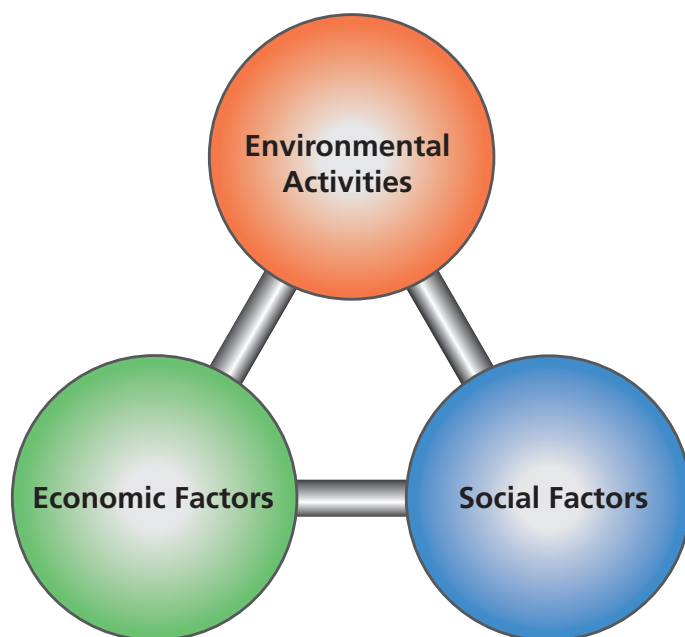
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Issuing Section: Environmental Administration, Victor Company of Japan, Limited

Our Web page: <http://www.jvc-victor.co.jp/>



Publication of Environmental Sustainability Report

The activities of our company are sustained through the use of the limited resources and energy on our planet. Therefore, we feel that it is our obligation to use these resources with the least amount of waste and in the most sustainable way possible. Further, not only will we focus on our own economic activities but, at the same time, make meaningful and multifarious contributions to the world. However, these contributions must not be temporary ad hoc measures, but rather be sustained in the long term by our economic performance.

Using the above perspective, the JVC Environmental Sustainability Report 2004 was created with the intention to clearly establish the objectives, accomplishments, aims and concepts of those activities within the three aspects of Environmental Activities, Economic Factors and Social Factors. In the creation of this report, we used the Environmental Reporting Guidelines issued by the Ministry of the Environment, but this report may still be insufficient for the reader. A questionnaire was included at the end of this report to facilitate reader feedback. JVC's Web page also offers a mail form for readers that wish to make comments online.

We view this report as a valuable tool for communication, and we would be grateful to receive any comments and suggestions.

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Greetings from the President

Three years has already passed since we greeted the 21st century, the so-dubbed "Century of the Environment." Recently, the WEEE (Waste from Electrical and Electronic Equipment) and the RoHS (Restrictions on Hazardous Substances) have become regulation in the EU, and, while the stipulations in the domestic laws of each country in the EU progress, the proposed EuP and REACH directives are under consideration for enforcement.

As environmental laws and regulations regarding products continue to be created, the effects of this trend have spread past the EU and on to China and the U.S. with continuing momentum towards the entire planet. The environmental conservation activities of manufacturers do not stop merely at the original measures taken with factories at the forefront of such efforts as reduced energy consumption and zero emission, they now extend to a wide range of issues such as environmentally-friendly product design and recycling/reclamation of disposed products. Also, it cannot be overstated that efforts towards total disposal of poisonous substances within products are both a significant and pressing issue.

In formulating the Voluntary Environmental Action Plan aimed for 2010, JVC has, in keeping with its promise to the wider public of meeting its goals, driven forward its environmental conservation activities. I would like to introduce several of those activities. Through the gracious cooperation from all of our affiliates starting with our subcontractors, we have been able to fully introduce lead-free soldering by our deadline set for the end of 2003. Additionally, along with a review of the Green Procurement Guidelines and system to hasten compliance with the prominent EU directive RoHS, we have also reconstructed a system that was due to be completed at the end of March 2005 in efforts to establish a database system. In terms of product energy conservation, we have carried out design improvements that aim to always maintain the top position in energy conservation, and we have moved forward with the conversion of products in a wide variety of fields to maintain energy conservation.

Starting this year and to last 3 years until 2006, is our new mid-term plan, the Advancement 21 Plan. Through the thorough pursuit of synergy between intangible ideas and tangible resources and under the platform of our brand statement, The Perfect Experience: "To Create Truly Moving Experience and Provide Total Satisfaction for Our Customers", we are in a constant state of improvement in the hope to establish ourselves as an entertainment solutions company to present services, and, as we call it, 'only 1 products' that provide our customers with richer lifestyles, as well as propelling our growth strategy we also hope to establish ourselves as a high-performance global company to survive among the strong global competition.

We will continue our efforts towards providing customer satisfaction in the environmental conservation field through active measures taken in designing products to use less energy and resources and to be environmentally-friendly by reducing poisonous substances, while also promoting energy-conservation, zero-emission and environmental risk aversion measures, such as anti-ground pollution measures, in our factories.

Company social responsibility (CSR) has become an issue of the times. Starting this year, our reports will make a transition from the previous environment-only reports to a report which more widely disseminates the enterprising activities of our company. This Environmental Sustainability Report will introduce our efforts from the three main perspectives of Environment, Economy and Society. In closing, we want to thank our many customers and partner manufacturers for their cooperation in our commitment to environment conservation activities and request their continued understanding and cooperation.



Masahiko Terada
President

Basic Environmental Policy

Corporate management philosophy

Contributing to culture and serving society through our products and business practices

Basic Philosophy

With our corporate management philosophy as our cornerstone, JVC is committed to the preservation of the global environment. We will strive in all of our business activities to be a good corporate citizen that enjoys the trust of the international community, as we help to create a society that can enjoy sustainable growth.

Basic Policy

In full recognition of the fact that wide-ranging preservation of the natural environment is the social responsibility of every company, we will promote the following environmental preservation activities to the greatest technological and economical extent possible:

1. We will always consider the environmental effects of our business activities and ensure the continuous reduction of their impact on the environment.
2. We will strive to develop products with a minimum of environmental impact, and we will improve upon our environmental technologies.
3. We will use global resources effectively by conserving energy and resources, recycling materials actively, and reducing waste.
4. We will observe laws and regulations concerning the environment and if required, establish voluntary standards to ensure improvement in the quality of our management practices.
5. We will constantly improve upon our organizations and systems responsible for promoting environmental preservation, and by conducting environmental audits, we will strive to continuously further our efforts in this area.
6. We will expect our employees always to be environmentally conscious and see to it that all safeguard the environment.
7. We will also endeavor to conduct our foreign business activities in keeping with this policy, and protect the environment as a member of the local community.

Establish: April 27th, 1992

Revised: April 10th, 1996

Kenjiro Takayanagi, the Father of the Television

The late Kenjiro Takayanagi, before serving as vice-president and chief technical advisor of JVC, became the first in the world to successfully project an image, the Japanese character 𐤿, onto a cathode ray tube in December of 1926, which garnered him the name of the father of the television.

Apart from making great contributions towards the utilization of television broadcasting in Japan, he joined JVC after World War II and used his position as a manager in the technology division to leave countless other contributions including the revolutionizing of color televisions and stereos, and the development of the 2-head helical scan system, which later became the foundation for today's VCRs. Further, surpassing corporate boundaries, he had a profound effect on the Japanese electronic industry, in general as he put great efforts into the development of the industry itself and the people that would manage it.

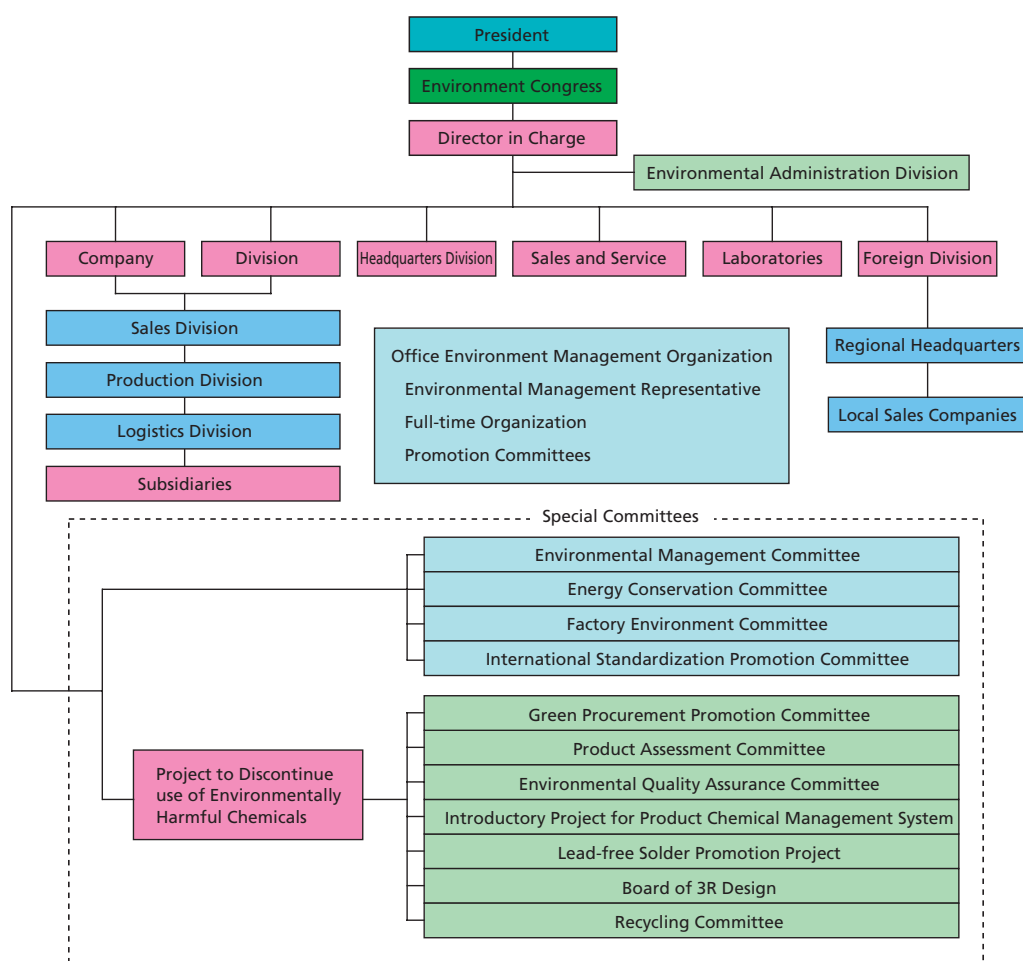
Even today his legacy and pioneering spirit serve as the DNA for our company's technological development.



The Japanese character 𐤿 projected onto a cathode ray tube.

January 20th, 1899	Born in Hamamatsu, Shizuoka Prefecture
December 25th, 1926	Successfully projected world's first image onto a cathode ray tube
July 1946	Entered JVC
1959	Developed world's first 2-head VTR
November 1970	Takes post as vice-president of JVC
November 1981	Receives the Order of Culture Merit
July 23rd, 1990	Departs world (aged 91)
For more details see JVC's Web site: http://www.jvc-victor.co.jp/	

Environmental Activity Promotion Organization



The Promotion of Environmental Conservation Activities

Our Environmental Activity Promotion Organization is composed of a series of special 36 committees as well as a decision-making body called the Environmental Congress; headed by our president, this is an organization that makes the ultimate decisions.

The policies and measures established by the Environment Congress are solidified by different committees depending on the

issue in question. All appropriate offices and divisions are then made thoroughly familiar with the policies.

This year in particular, a project was formed in order to accelerate our efforts towards the discontinued use of environmentally-harmful substances. The various committees promoted the measures don't buy (Green Procurement Promotion) don't use (Product Assessment) and don't ship

(Environmental Quality Assurance), which lead to their company-wide adoption.

Under the supervision of the Environmental Management Representative, effective promotional organizations are being established at all offices, and efforts are constantly being made in both Japan and abroad to achieve the Voluntary Environmental Action Plan.

Measures to Acquire ISO 14001 Certification

We are proceeding with the acquisition of ISO 14001 certification to construct an environmental management system which promotes on-going environmental conservation activities.

We first acquired certification in our Hachioji Plant in January 1997, which was then followed by the acquisition of certification by our other domestic offices. Among overseas offices, our TV plant in

Mexico first acquired certification in April 1997 which was later followed by the certification of all of our worldwide manufacturing plants.

Apart from production facilities within the Headquarters Group, certification was acquired within the realm of the Environmental Management System starting with the headquarters, laboratories, as well as nationwide sales facilities, services facili-

ties and affiliates. Certification is also being examined for overseas retail divisions. The office Environmental Management Representative convenes the Environmental Management Committee, and makes level adjustments for each site in order to facilitate continuous improvement of the Environmental Management System.

Environmental Audits

Since JVC acquired ISO 14001 Environmental Management System certification, each office is now on their second update inspection.

We have introduced the ISO 14001 Environmental Management System to act as a tool for constructing an environmental management system, and we have continued to improve it effectively through PDCA (Plan - Do - Check - Action).

Upgrading the Environmental Management System

In order to meet the requirements of on-going improvement of the ISO 14001 standards, constant upgrading of the Environmental Management System is required. When furthering this endeavor, in addition to the original environmental conservation activities, reduced energy consumption and waste reducing activities that our factories have been engaged in, we also set as goals and objectives the discontinued use of poisonous chemicals in products, improved manufacturing techniques and revamped company-wide production systems.

In the Headquarters Division operational missions are being analyzed from an environmental standpoint and environmental goals and objectives are linked to current efforts for continuous improvement.

Performing Environmental Audits

Environmental audits are performed to verify the effectiveness of the continued implementation of plans determined by the environmental management system and to check that the environmental performance achievements are being improved on an on-going basis.

1) Internal Environmental Audits

Internal environmental audits are per-

formed at each office at least once a year. They are performed to check the system for operational problems and correct deficiencies on a case-by-case basis. Within the internal environmental focus is placed not only on the faults but also on the strong points of the activities conducted in each division. These strong points are applied evenly within the office in an effort to sustain continuous improvement.

2) External Examinations

The offices that have acquired certification have annual surveillance examinations and triennial renewal examinations by external certification organizations to examine whether their systems are functioning effectively. In 2003, all offices were deemed eligible for continued certification.



Examination by an External Certification Organization

Environmental Auditor Training

An internal environmental auditors' training course is regularly offered within JVC for the purpose of promoting the under-

standing of the standards and applications of the Environmental Management System and to further train the internal environmental auditors who perform environmental audits onsite. In addition to this, we send participants from the course to external audit organizations to constantly garner further insight into the latest auditing information so that we may establish our educational curriculum.

In 2003, the internal environmental auditors' training course was offered seven times and saw a participation total of 79 employees.

Internal Auditor Skill Enhancement

Enhancement of internal auditors' training skills is an important process to implementing audits and promoting on-going improvement of the system.

We are instituting education that includes the latest information on environmental law and regulation, explanations of required points of standards, with case studies from other industries for the purpose of enhancing the skills of the internal auditors. In addition to the internal auditor education, we are also educating the audit subjects in every office about the qualities of the auditors, as well as important points to remember and pay attention to during audit time.



Internal Auditor Skill Enhancement Training

Monthly Environmental Reports

Offices that have acquired certification summarize the achievements of their environmental activities every month in a monthly environmental report to keep the managers informed of the status of their activities.

These monthly environmental reports disseminate the information within their own offices, headquarters, as well as to other offices. The reports act as a communication tool to share environmental conservation information and to upgrade environmental conservation activities within the company.

Monthly Environmental Report from the Headquarters Group

Promoting the Voluntary Environmental Action Plan

We have formulated the Voluntary Environmental Action Plan as a specific means of contributing to and ensuring our activities towards creation of a sustainable society and are aggressively taking steps to implement this plan.

We have set annual numeric targets in order to achieve our designated goals by fiscal year 2010 and are making concerted efforts to make this possible through coordination with the activities of our individual offices.

Voluntary Environmental Action Plan

As a member of the Matsushita Electric Industrial Group, we have worked in tandem with Matsushita and set joint goals. Along with furthering our compliance

with the WEEE & RoHS directives in the EU, we are also considering the regulations of other regions as we move forward with our efforts to make our products

green. Additionally, we are also strengthening of PCB management and of soil/ground water pollution monitoring at our factories.

Category	Targets for FY 2010	Target for FY 2004
Green Products 1. Energy-saving products 2. Toxic chemical substances Lead, cadmium, mercury, hexavalent chromium, PVC resins, brominated and chlorinated flame retardants (Discontinued Use in our Products) 3. Resource recycling efficiency (3R) (1) Improved scrapping efficiency 4. Adoption of LCA (Life Cycle Assessment) 5. Green procurement 6. External complaints (eco-labels)	<ul style="list-style-type: none"> • Improve energy use indicators by 50% • Immediate elimination of the use of designated brominated and chlorinated flame retardants (PBB, PBDE) • Prohibition on products shipped starting from April 2005 that contain lead, cadmium, mercury and hexavalent chromium • Prohibit by March 2006 (PCV resins) • Improve resource use indicators by 70% • Improve LCA evaluation accuracy • Evaluate chemical substance use database • Develop products so that more than 90% can be classified as "green" 	<ul style="list-style-type: none"> • Improve energy use indicators by 24% • Manufacture special parts that are lead-free • Apply database for green procurement • Implement compliance for RoHS • Improve resource use indicators by 40% from the FY 2000 level • Expand LCA evaluation • Store chemical substance information in a database • Develop products so that more than 56% can be classified as "green"
(Clean Factories) 1. Reduced energy consumption 2. Reduced CO ₂ emissions 3. Chemical substances (1) Compliance with PRTR law (2) Reduced emissions and transfer amount of chemical substances 4. Reduced waste (1) Reduced total amount of wastes generated (2) Zero emission 5. Environmental risks	<ul style="list-style-type: none"> • Reduce energy consumption by 10% from the FY 2000 level • Reduce CO₂ emissions by 10% from the FY 2000 level • Disclose information • Reduce consumption, emission, and transfer amount by 60% • Reduce waste 2% below the previous year's level • Maintain zero emissions 	<ul style="list-style-type: none"> • Reduce energy consumption to 1% below the previous year's level • Reduce CO₂ emissions to 1% below the previous year's level • Reduce consumption, emission, and transfer amount to 50% below FY 1998 or 31% below FY 2000 levels • Reduce waste 2% below the previous year's level • Achieve a recycling rate of 98% • Improve the level of management Strengthen monitoring of soil/ground water pollution
Environmental Activities 1. ISO 14001 2. Environmental accounting	<ul style="list-style-type: none"> • Reflect environment as accounting in evaluation of operating performance 	<ul style="list-style-type: none"> • Improve ISO organizational maintenance on a global scale • Strengthen the environmental accounting system

*The target value for waste volume was set lower than the previous year.

Results of the Voluntary Environmental Action plan for FY 2003

We conducted a self-evaluation regarding the results in achieving the targets for fiscal year 2003.

In terms of products, we finished the comprehensive introduction of lead-free soldering. Further, we issued the Green Pro-

curement Guidelines and made efforts to exclude the use of poisonous chemicals in our products. The results of which are displayed in the establishment of our customer satisfaction/eco-product development.

Though we did not achieve our target of waste reduction in our factories, we were able to reach our recycling rate. We were also able to further expand our PCB unified management and our monitoring system of soil/ground water pollution.

Category	Target for FY 2003	Evaluation	Results of measures	Reference page
(Green Products) 1. Energy-saving products 2. Toxic chemical substances lead, cadmium, mercury, hexavalent chromium, PVC resin, brominated and chlorinated flame retardants 3. Resource recycling efficiency (3R) (1) Improved scrapping efficiency 4. Adoption of LCA 5. Green procurement 6. External complaints (eco-labels)	<ul style="list-style-type: none"> • Improve energy use indicators by 18% from the FY 2000 level • Comprehensive introduction to all products domestically and abroad • Apply database for green procurement and begin considering alternative products • Improve resource use indicators by 30% from the FY 2000 level • Expand LCA evaluation • Store chemical substance information in a database • Develop products so that more than 42% can be classified as "green" 	○ ○ ○ △ △ ○	<ul style="list-style-type: none"> • Among total GP development products, 80% achieved • Comprehensive introduction in March 2004; however, still in use in a portion of parts • Alternative products for compliance with RoHS directives • Among total GP development products, 75% achieved • Expanding to all products and parts • Database development for all parts is underway • The development achievement was 58.8% 	P14 P11 P11 P12 P12 P10 P12
(Clean Factories) 1. Reduced energy consumption 2. Reduced CO ₂ emissions 3. Chemical substances (1) Compliance with PRTR law (2) Reduced emissions and transfer amount of chemical substances 4. Reduced waste (1) Reduce total amount of wastes generated (2) Zero emission 5. Environmental risks	<ul style="list-style-type: none"> • Reduce energy consumption to 1% below the previous year's level • Reduce CO₂ emissions to 1% below the previous year's level • Reduce consumption, emission, and transfer amount to 45% below FY 1998 or 24% below FY 2000 levels • Reduce the total amount of wastes generated by 25% or more from FY 2000 levels • Achieve a recycling rate of 98% • Improve the level of management 	○ ○ ○ ○ ○ × ○	<ul style="list-style-type: none"> • Energy consumption was reduced by 1.8% from the previous year • CO₂ emissions were reduced by 1.4% from the previous year • Compliance with PRTR law for FY 2003 was reported • Emission and transfer amount were reduced by 37% from FY 2000 • Total amount of waste generated was reduced by 15% from the FY 2000 level • An average of 98.5% throughout the entire company was achieved. Of 14 sites, 10 achieved the target • soil/ground water pollution monitoring; incineration furnaces phased out; PCB intensive management 	P16 P16 P18 P18 P17 P17 P20
Environmental Activities 1. ISO 14001 2. Environmental accounting	<ul style="list-style-type: none"> • Strengthen the global promotion system • Strengthen the environmental accounting system 	○ ○	<ul style="list-style-type: none"> • Fujian JVC, China acquires certification • Environmental accounting for FY 2003 was compiled and analyzed 	P5 P9

G: Good, S: Satisfactory, P: Poor

Environmental Accounting

We introduced environmental accounting in fiscal year 1999 in accordance with guidelines set by the Ministry of Environment and with the aim of ensuring transparent business management through the active disclosure of information. We appropriate the environmental conservation costs in Environmental Accounting by separating the capital investments and expenses for the fiscal year; we evaluate environmental effects not only as performance effects, but also monetary terms with converting.

Analyzing Environmental Conservation Costs

The domestic and foreign environmental conservation costs for fiscal year 2003 amounted to 1,960 million yen for expenses and 990 million yen for capital investment, for a total expenditure of 2,960 million yen. Despite the loss of one factory in the total

number of domestic and overseas factories, compared with the previous year the total amount has remained about the same due to an expansion in capital investment.

This is due to the fact that lead-free equipment was introduced into every factory in efforts particularly centered on factories overseas to comprehensively introduce lead-free soldering by the end of 2003. Because

Environmental Conservation Costs		Capital investment and expenses for environmental conservation activities (unit: one million yen)			
Category		Description	Expenses	Investment	Total
Cost in the business area	Pollutant prevention	expenses and investment required for pollution prevention	372	143	516
	Global environmental conservation	global warming prevention and ozone layer protection	43	382	425
	Recycling	waste reduction, recycling, and appropriate disposal	387	24	412
	Subtotal		803	550	1,352
Upstream and Downstream Costs		Eco-product and green purchase costs; measures to recycle home appliances, containers, and packaging	370	80	451
Management Costs		Environmental management costs; ISO certification acquisition and maintenance, training, and personnel costs	462	1	463
Research & Development Costs		Research & development costs for reducing environmental impacts, such as development of eco-products, power consumption reduction, and lead-free solder	294	361	654
Social Costs		Costs for beneficence measures, donations, financial aid, information disclosure, environmental advertising, and environmental exhibitions	1	0	1
Environmental Damage Costs		Other costs such as recovery payments, compensatory payments, and penalties for soil contamination	34	0	34
total			1,964	992	2,956

Note: Expenses include labor costs; however, depreciation of capital investments is not included.

Environmental Effects		Here, the monetary amount has been calculated based on concrete data regarding reduced power consumption and waste disposal expenses achieved through environmental conservation measures (unit: one million yen).	
Classification		Monetary effect	
		Single year	Cumulative effect over three years
Effects of reduction	Reduction of energy consumption at offices	41	203
	Reduction of waste disposal expenses	21	37
	Reduction of water supply and sewage expenses	32	33
	Reduction of packaging and logistics expenses	17	21
Profit	Profit on sale of valuable material involving recycling of plant wastes	70	
	Profit on sale of valuable resources involving recycling of used products Total	15	
total		195	380

Notes: • Cumulative effects resulting from capital investment for the past two years are included in the amount of cumulative effects for the three-year period.
• These figures do not reflect supposed effects of risk management, etc.

Primary Environmental Performance Effects		Overseas plants not included. The amount of total packaging materials and styrofoam used in wrapping parts is not included.		
Category		FY 2002	FY 2003	Reference page
Amount of reduced energy (kiloliters)		▲1,731	▲836	P16
Amount of reduced CO ₂ emissions (tons)		▲2,127	▲946	P16
Amount of reduced industrial wastes generated (tons)		▲549	+1,585	P17
Amount of reduced industrial wastes finally disposed of (tons)		+5	▲108	P17
Amount of reduced hazardous air pollutants used (tons)		+1	+4	P19
Amount of reduced PRTR substrates used (tons)		+124	+49	P18
Amount of reduced PRTR substrates generated (tons)		+8	▲3	P18
Amount of reduced total packaging materials used (tons)		▲1,397	+581	P15
Amount of reduced styrofoam used (tons)		▲186	+51	P15

Numeric values are compared with those of the previous year. The "D" marks indicate the amount reduced compared with the previous year.

this goal was accomplished, investments are expected to fall somewhat for the next fiscal year.

Analyzing Environmental Effects

Compared with the previous fiscal year this year saw a small decrease in environmental effects due in part to the reduction of one plant, yet, for a single year the environmental effects remained relatively stable. Though the environmental performance results for the reduction volume of industrial waste products has greatly increased, this is due to an increase in domestic part production volume. This may also be an attributing factor to the drop in environmental effects. We reported above that capital investment had increased due to the introduction of lead-free soldering equipment, however, environmental effects at JVC Victor are not calculated based on the supposed effects of risk management etc. and this increase does not reflected on the environmental effects.

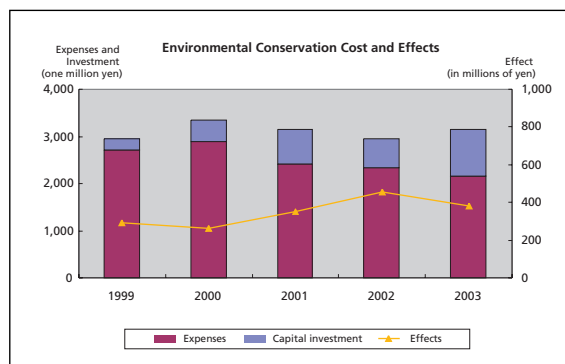
We will continue to implement measures that reflect investment results by using environmental accounting as an indicator for environmental management. We also aim at improved environmental performance through the execution of more effective policies.

Scope of Environmental Accounting

Period: April 2003 to March 2004

Scope: Domestic main offices (11 plants), domestic subsidiaries (5 companies) and foreign subsidiaries (16 companies)

The scope is the same as that for environmental performance data.



Measures for the Discontinued Use of Poisonous Chemicals

JVC is taking the initiative ahead of the directive to limit the use of Toxic chemical substances (the RoHS directive) due to start in 2006 in EU member countries by moving forward with the discontinued use of particular poisonous chemicals in products shipped starting in April of 2005. The measures for discontinued use are supported by the three main principles of don't buy, don't use and don't ship any parts or products that contain Toxic chemical substances.

Green Procurement

In 1998 we formulated the Green Procurement Guidelines and based all of our green procurement activities off of that document. In FY 2003 we conducted a review of the original guidelines to comply with the RoHS directive, and we, resultantly, issued the Green Procurement Standards and initiated a Green Procurement Orientation in all of the ten plants, domestic and overseas. In the seminar we

explained the green procurement standards and utilization based on the standards document and issued a call for everyone's understanding and cooperation regarding JVC's green procurement concepts. In addition to this, we also requested of our suppliers a guarantee of the discontinued use of Toxic chemical substances while also conducting a survey of purchased products for Toxic chemical substances. In the future, we hope to expand the partnership with our suppliers and further promote green procurement.



Green Procurement Standards



Green Procurement Explanatory Seminar (in Japan)



Certificate of Green Procurement Partnership

Partners in Green Procurement

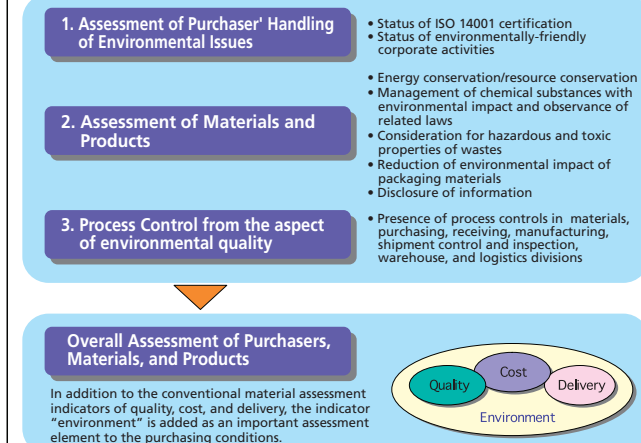
Following our green procurement policy we ask our suppliers to fill out self-assessment questionnaires or we conduct on-site environmental audits to check the status of their environmental conservation efforts; we also request improvements when required. In conjunction with the above we recognize suppliers who fulfill the below conditions as our partners in green procurement. We plan on pushing our green procurement activities even further in the future.

Conditions that must be fulfilled for partnership recognition:

- Measures towards environmental conservation
- Systems to manage chemicals and processes
- Dissemination of environmental information

Don't buy	Promotion of Green Procurement (Purchasing/Outsourcing Division) - Promotion of guarantee of discontinued use of poisonous chemicals substances in purchased goods - Strengthening of partnership with suppliers
Don't use	Promotion of environmentally-friendly design (Technical Division) - Promotion of part replacement - Strengthening of product assessment system (Q+C+D+E Optimum balancing)
Don't ship	Establishment of shipment guarantee system (Quality Assurance Division) - Establishment of system to adhere to laws and regulations - Guarantee environmental quality of shipped products

Details of Discontinued Use of Toxic chemical substances



Promotion of part replacement

Environmentally-Friendly Design

JVC products based on environmentally-friendly designs are known as green products. We design products with three issues in mind; global warming, discontinuing the use of Toxic chemical substances and the resource cycle.

•The Discontinued Use of Toxic chemical substances

Upon the 2003 enforcement of the EU directive to limit the use of Toxic chemical substances (the RoHS directive), we not only comprehensively considered the quantity of use and elimination of Toxic

chemical substances based on a survey of all purchased goods through our green procurement system, but also the quality and cost aspects of such a move.

To give a specific example of measures taken, we gradually phased out the use of lead and cadmium in the external parts and material covering power cords. In addition to this, in our efforts to reduce halogen compounds linked to dioxin emission through incineration, we have also eliminated PVC and employed chrome-free steel plates.



**Car Audio Optic Pick Up
OPTIMA-725C**

We have introduced lead-free solder, phased-out hexavalent chromium and reduced Toxic chemical substances in this product. All this while also reviewing its materials and improving its heat resistant properties.



**PC Monitor Inclination Yokes
PYUA II**

We have introduced lead-free solder, employed polymer adhesive and reduced Toxic chemical substances in this product. All this while also reducing its weight by 27%.

•Measures to Abolish Lead Solder

Previously, lead solder had been used in large quantity in electronic circuits and boards. However, when the adverse affects to human health and the environment were discovered in recent years, the EU placed a ban on the marketing of all such products starting on July 1st, 2006. Such regulations have been spreading across the world ever since.

In May 2001 we launched the company-wide project The Lead-Free Solder Introduction Project, and started efforts towards the total introduction of lead-free solder to all products. The actual introduction of lead-free solder to production plants around the world began in FY 2002. By March 2003, the introduction of lead-free solder was complete at all production facilities and affiliate companies. However, portions of the units and parts we purchase as well as our OEM products for other companies have not been subject to these measures, and we must continue the introduction of lead-free solder with the cooperation from all of our suppliers and distributors.

Environmental Quality Assurance

Quality assurance is a very important field that is directly linked to end users, and is accountable for products until final shipment. Due to this fact, we have created an environmental quality assurance committee, we have added an environmental aspect to our original quality assurance system after considering the idea of environmental quality assurance, we have also clarified the roles and responsibilities required of every step from product development to end product service and we have made efforts towards the construction of a new environmental quality assurance system that can assure environmental quality.

To make sure that management of this system is sound, we plan to conduct audits of the environmental quality assurance system and to maintain and manage the system in the future.

Lead	Product/Use	Substance	Alternative Technology
	Power cords/cables	PVC stabilizer, lead	Organic Ca etc.
	Thermostats	Elements	Sn-Bi etc.
	Switches	Sn-Pb	Sn-In etc.
	Electrical part terminals	Sn-Pb	Sn, Pd, Au etc.
	Manganese dry batteries	Zinc can additives	Reduced amount
	Paints	Lead oxide, lead sulfate etc.	Lead-free paint
Cadmium	Product/Use	Substance	Alternative Technology
	Relays, switches	Copper-cadmium alloy etc.	Sn-In etc.
	Thermostats	Elements	Sn-Bi etc.
	Cables	Coloring agent	Cadmium-free
	Brush motors	Brush-cadmium alloy	Cadmium-free
	Florescent indicator tubes	Phosphor	SrTiO ₃ etc.
Hexavalent chromium	Product/Use	Substance	Alternative Technology
	Screws	Sexivalent chromate plating	Trivalent chrome
	Paints	Chromate	Chrome-free
	Zinc plating sheets	Sexivalent chromate plating	Hexavalent chromium-free plating
Mercury	Product/Use	Substance	Alternative Technology
	LC backlight	Mercury	Reduced amount (below 5mg)
	Manganese dry batteries	Additives (mercury)	Mercury-free batteries
PBB, PBDE	Product/Use	Substance	Alternative Technology
	Fire retardant	PBB, PBDE	Alternative fire retardant (Mn, Ca etc.)

Alternatives for Parts

Measures towards Recycling Used Products

In February 2003 the Waste from Electrical and Electronic Equipment (WEEE) directive became effective in the EU, and starting in August of 2005 manufacturers in all countries in the EU will be required to collect or dispose of discarded electrical and electronic equipment. Moreover, this has spurred the start of similar actions in the US and China, and we are also working towards product recycling. Our main activities include the promotion of recycling-oriented 3R design and the construction of recycling systems that match the local areas where they are instituted.

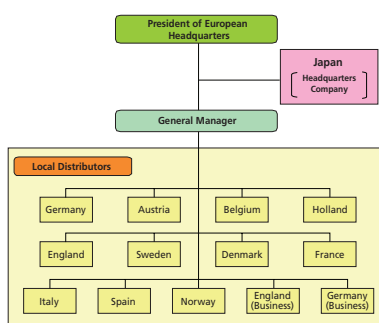
3R Design

With the effectuation of the WEEE directive in Europe, government efforts towards product recycling have been invigorated all over the globe. Taking the lead in the world, the Home Appliance Recycling Law and the Law for Promotion of Effective Utilization of Resources were passed in April 2001 in Japan. But the Home Appliance Recycling Law is limited only to the four items of air conditioners, televisions, refrigerators and washing machines, and the Law for Promotion of Effective Utilization of Resources is limited only to office electronics and personal computers. It is predicted that Japan will expand the scope of the items subject to recycling to keep up with world trends in the future.

Europe Recycling

The WEEE directive is a directive for the recycling of discarded electrical and electronic devices, and the audio/video devices manufactured by JVC fall into that category. Several EU member countries such as the Netherlands and Sweden have already constructed and implemented recycling systems, and are recycling JVC prod-

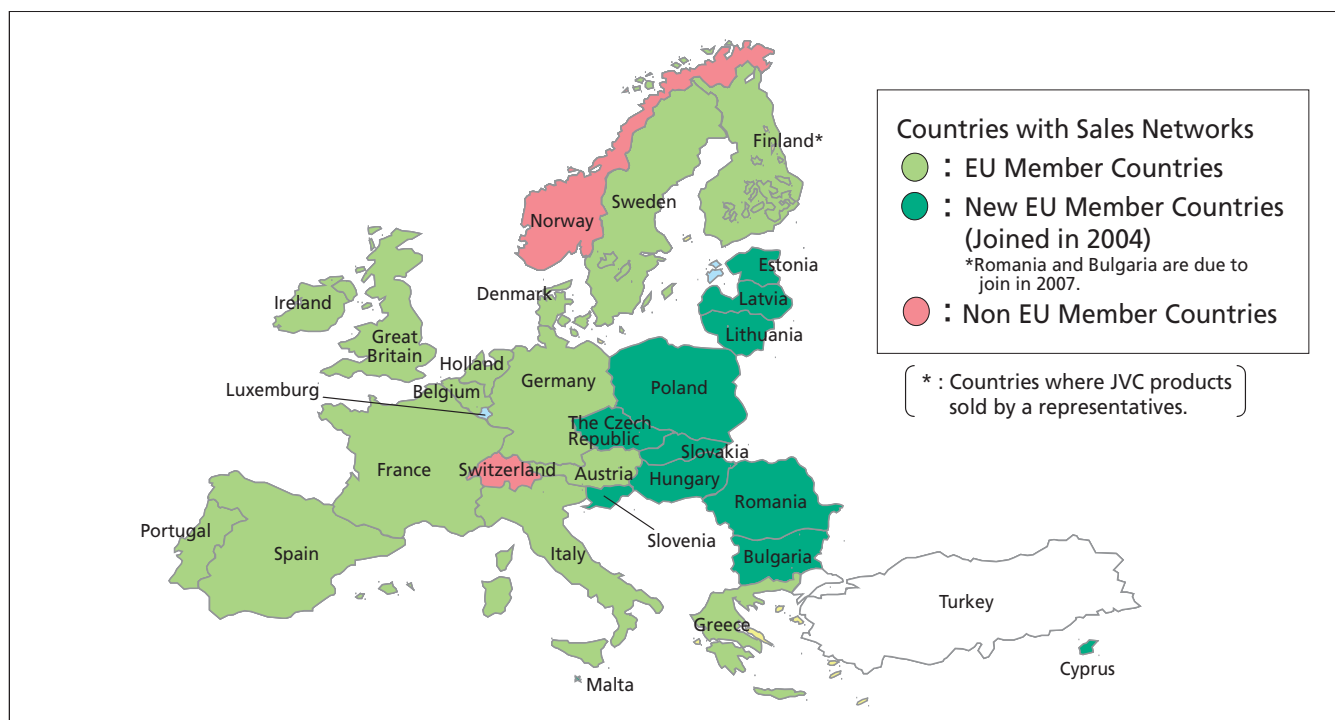
ucts according to local regulations. In preparation for the domestic legislation based on the WEEE directive to be passed by August 2004, we have started new efforts towards building recycling systems in EU countries by establishing a JVC European Recycling Committee charged with this objective. This fiscal year in order to construct recycling systems compliant with domestic laws in each country we intend to form committees of representatives from organizations in each country to conduct investigations and research into domestic law and recycling systems for each country, and cooperating with our affiliates and recycling agencies we intend to build recycling schemes and promote the construction of effective systems that are locally sensitive.



Organization Chart of the European Recycling Committee



The European Recycling Committee



Countries of the EU and the JVC European Sales Network

Home Appliance Recycling Results

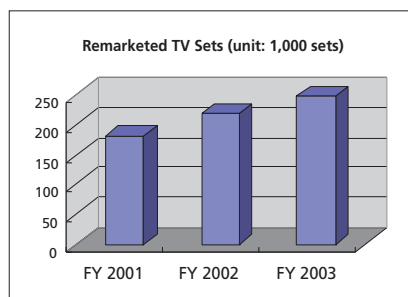
The Home Appliance Recycling Law, enacted in April of 2001, was the first recycling system of its kind in the world.

End users, retailers (municipalities) and manufacturers all play their part in contributing to the wise use of the earth's limited natural resources in a recycling-based society.

Despite several issues that have arisen, the third year since the enactment of the Law for Recycling of Specified Kinds of Home Appliances has passed smoothly as a whole.

Our products subject to this law are televisions, and in FY 2003, 229 thousand sets were collected at 190 designated locations all across Japan.

The trends of collection numbers for the past three years are displayed on the graph below.

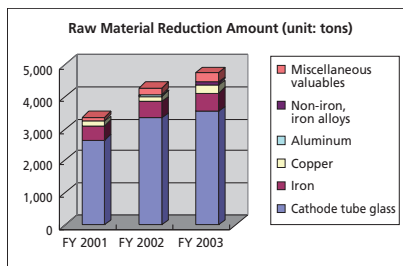


Moreover, almost the same number of sets was remarketed in the 19 remarketing facilities all across Japan.

This is 105% of FY 2002. The total mass of remarketed products was 4,745 tons (111% of the previous year).

The remarketing rate is specified by law to be 55%, yet we surpass this in the total collection weight with 72% of raw materials reduced.

Next, looking at fiscal year trends for the reduction of raw materials, we can see in the following graph that the majority of that is glass from cathode ray tubes.



Recycling Rechargeable Batteries

Up until last year we had joined the Japan Battery Recycling Center, established by the Battery Association of Japan, and had engaged in the promotion of the collection and recycling of NiCd, nickel metal-hydride, lithium ion and small seal lead batteries for 3 years.

Starting this year we will join the JBRC (Japan Battery Recycling Center), a different organization partially established by the Battery Association of Japan, and we will continue to promote the collection and recycling of batteries.

According to information from the Japan Battery Recycling Center, there are approximately 38,000 collection locations across Japan and every year over 1,000 tons of rechargeable batteries are collected and recycled. This passes the recycling rates prescribed by the law with 60% for NiCd, 55% for nickel metal-hydride, 30% for lithium ion and 50% for small seal lead batteries.

We have registered 11 sites among nationwide sites of Victor Service & Engineering Co., Ltd. which contributes to the collection of used portable rechargeable batteries.

Recycling Containers and Packaging

When the Law for Recycling of Containers and Packaging was passed in April 2000 recycling became required for four items; glass bottles, PET bottles, plastic/paper containers and packaging.

The items we manufacture that are subject to this recycling law are plastic and paper containers and packaging, and every year we outsource our recycling to the Japan Containers and Packaging Recycling

Association, thus fulfilling our social responsibilities.

We are also further working to reduce the amount of packaging material we use.

(See p. 9: "Amount of reduced total packaging materials used" under "Primary Environmental Performance Effects")

The Promotion Council for Paper Container & Packaging Recycling of Japan states that there are still problems persisting as sorted collection by municipalities is low, and the collection amount through the designated organizations is below 5%; and waste paper comprises a surprisingly high amount of collected material (85%). There are some moves to have the law amended.

Recycling Personal Computers

Based on the Law for Promotion of Effective Utilization of Resources, computer manufacturers started collection and recycling in October 2003.

Our products, the previously sold MSXPC and the current marketed mobile PC fall into this category.

In spring of last year we joined the Japanese Electronics and Information Technology Industries Association (JEITA) Computer 3R Promotion Activities, and currently collect computers through the JEITA established routes through Japan Post, and we are aiding in the recycling process at four recycling plants across the nation.

(See related Web site below)

<http://www.victor.co.jp/interlink/xp/recycle/index.html>

Column

Illegal Dumping

Illegal dumping is a serious crime.

It is not only a nuisance for others, but it also has a large effect on the environment.

According to Article 25 of the Waste Removal Law, "those who dump illegally are subject to no more than 5 years imprisonment or a fine of no more than 10 million Yen."

Customer Satisfaction(CS)/Eco-Product Development

Under the key concepts of 'ease of use' and 'environmental friendliness', JVC incorporates into its product design the values of universal design; low energy consumption, low resource consumption, recycling efficiency; and no use of Toxic chemical substances. Here are some of those products below.

Eco-Products JVC intends to produce

Up to this point we have reported our efforts to include environmental thinking into our product design by stating our discontinued use of Toxic chemical substances and our used product recycling activities. After the EU's WEEE and RoHS directives began the trend, in the future, it will be more widely required to take

concrete measures towards making electrical and electronic devices environmentally friendly. JVC intends to pour as much effort into this as possible so that our customers around the world can enjoy our products with peace of mind. And at the same time, in following our key concept of 'ease of use', we intend on providing products that customers of any age can take pleasure in using.



[Outside housed color video camera]
TK-S850

By integrating the camera body, focus lens and housing, we were able to miniaturize this camera a further 10%, while also utilizing lead-free solder in its manufacture and polystyrene foam-free packaging.



[Plasma Television]
PD-42DV50

We reduced this model's stand-by power consumption by 30% compared to previous models. We also included a listening aid system into this television to help the viewer catch difficult to follow news or programs.



[System Components]
EX-A1

This uses the world's first wood cone speakers. And using JVC Victor's original molding technology, employs natural birch which is rich in damping characteristics and a fast sound propagation rate on its vibrating plate while also reducing the use of Toxic chemical substances.



[Headphones]
HP-AL300

While employing a PVC-free easy to wind cord, we also reviewed the materials used in the outer casing and eliminated PVC there, as well.



[Digital Hi-vision Video Camera]
GR-HD1

This is the world's first home hi-vision digital video camera. While employing lead-free solder and reduced Toxic chemical substances, we also used resources effectively by making 90% of the cardboard box and shock absorbing packaging out of old magazines and newspapers.



[Portable MD Player]
XM-C3

Aiming at great energy efficiency, we achieved 315 hours, the world's longest playtime, by also using AAA alkaline batteries. (September 2003)



[LBP Motor]

We increased the stand-by life of this device by 50% and reduced its stand-by power consumptions by 62%, while also employing lead-free solder and hexavalent chromium-free steel plates along with reduced poisonous chemical use.

Green Logistics

Since the diesel regulations were introduced in October of 2003 by the Tokyo Municipal Government, it has been required to reduce CO₂, NOX, and suspended particulates emissions from trucks. In keeping with the theme of reduced truck emissions we are using the two approaches below to promote the simple formula of "reduced truck usage=reduced emissions".

1. Review of shipping methods: Direct shipping from import point and Joint shipping with other companies
2. Improvement of Load Rate: Design of more compact packaging



JVC's products manufactured in Japan are shipped on this container ship the Mol Excellence to a port in Los Angeles and shipped to destinations all over the US

1. Reduced Truck Shipping Through a Review of Shipping Methods

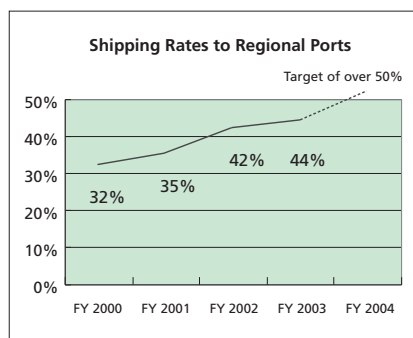
1) Reduction through direct shipping

In the past, products from other countries were distributed to six logistics centers nationwide by truck after being imported to Tokyo Port or Yokohama Port. However, to decrease transportation by truck as much as possible, we decided to ship from overseas and go straight to the ports near the logistic centers. In doing this we

reduced trucks by over 1,500 and in FY 2003 we achieved a 1,144 ton reduction in CO₂ emissions. This is 114% of last fiscal year's results. Moreover, a little less than half or 44% of all of our imports were sent directly to regional ports. In FY 2004 we aim to reduce emissions by a further 50%.

2) Reduction through joint shipping

We ship our products by truck with other companies between logistic centers and from logistic centers to purchasing points. Using this method we can increase the load per truck which reduces the amount of trucks used for both us and other companies.



2. Reduced Truck Shipping Through an Improvement of Load Rate (Make compact to carry more)

Through a review of the packing design of our products we were able to reduce the packing size of the VCR HR-G13 by 30% and load more product per truck, thus reducing the amount of trucks used. Including the measures taken with other products we achieved CO₂ emission reductions of 24 tons in FY 2003. In FY 2004 we have increased the products that we can reduce in packing size and we are further enhancing our environmental efforts.



(Comparison of the old and new packing styles of the HR-G13)
Despite being packed 5 high, the height difference is almost 1 skid

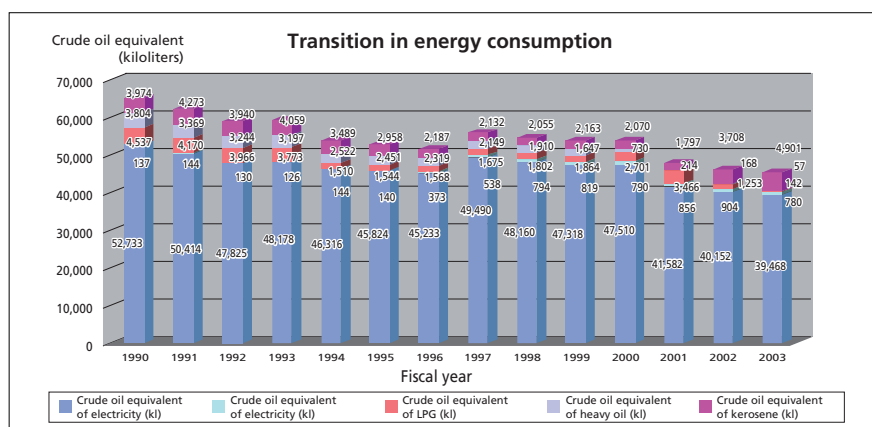
Measures for Energy Conservation and Low Energy Consumption

Measures are being taken to reduce energy towards achieving the target of the Kyoto Protocol; in FY 2000, energy consumption was reduced by 17.5% from FY 1990 levels. Consequently, a new mid-term target was set to reduce energy consumption by 10% from FY 2000 in FY 2010. We have promoted measures to achieve the target as a company target. From the viewpoint of global warming prevention, the effects of CO₂ resulting from the use of energy and other greenhouse gases contribute greatly to the warming of the earth. Therefore, a report on greenhouse gases other than CO₂ is also made.

Measures for energy conservation

The graph at left shows the transition of energy consumption of 14 sites including the domestic subsidiaries.

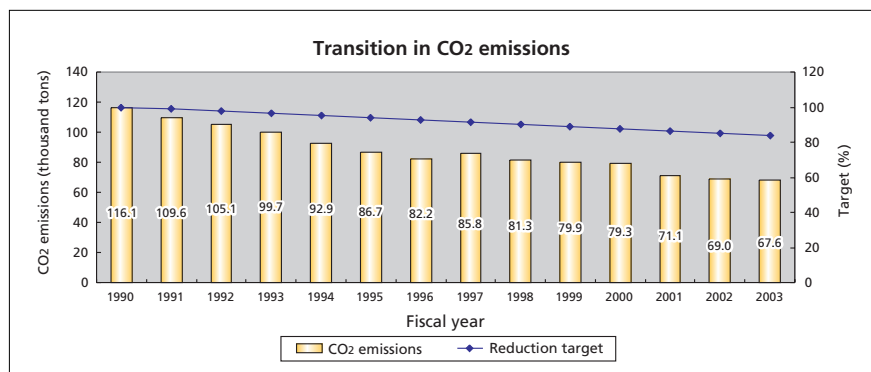
Because we use heavy oil, kerosene, and city gas as well as electric energy as energy sources, a factor of crude oil equivalent to each form of energy is used for the calculations, in accordance with the Law Concerning the Rational Use of Energy. In FY 2003, energy consumption was reduced by 1.8% from the previous fiscal year. The total energy consumption was reduced by 15.7% from FY 2000 and the basic unit of sales was reduced by 14.6% from FY 2000. They were reduced by 30.4% and by 30.1% from FY 1990, respectively, which could achieve a significant reduction. In addition to efforts to integrate and merge manufacturing facilities as well as changes in business structure, we can say this is attributable to efforts to streamline and improve manufacturing facilities and processes.



Control of CO₂ emissions

The graph at right also shows a transition of CO₂ equivalent to energy use that includes subsidiaries. Because the amount of CO₂ to be emitted depends on the types of energy, the factors of CO₂ equivalent to electricity, heavy oil, kerosene, and city gas were used for the evaluation, based on the list of emission factors resulting from a review at the Conference Concerning Review of Evaluation Method for Greenhouse Gas Emissions of the Ministry of Environment.

In FY 2003, CO₂ emissions were reduced by 1.4% from the previous fiscal year, and the target was achieved. Total CO₂ emissions were reduced by 14.2% from FY 2000 and the basic unit of sales was reduced by 13.1% from 2000. They were reduced by 41.4% and by 41.1% from



1990 levels, respectively, which achieved significant reduction. However, restructuring of our operations has shifted manufacturing division operations overseas, and engineering and development divisions have been centrally concerned with domestic operations. Therefore, under the present circum-

stances, investment-effective energy conservation measures have become fewer in Japan. We intend to continue to promote prevention of CO₂ emissions by taking efforts to switch to high-efficiency equipment and use of inverters for improvement.

Greenhouse gases other than CO₂

The CFC gasses are the primary elements in this category and these should not be allowed to be emitted into the environment. They are used to clean electronic parts and precision devices. The amount of these gases used in FY 2003

was 28kg, a large reduction and in terms of CO₂ emissions this can be calculated as 20 tons, or a reduction of one tenth of the amount used the previous fiscal year. This is due to the elimination of 1,1,1,2-tetrafluoroethane, used as a quenching

agent for electronic parts. A small amount of this gas is still used for research purposes but we are aiming to find an alternative and completely phase out this gases use.

Measures for Waste Reduction

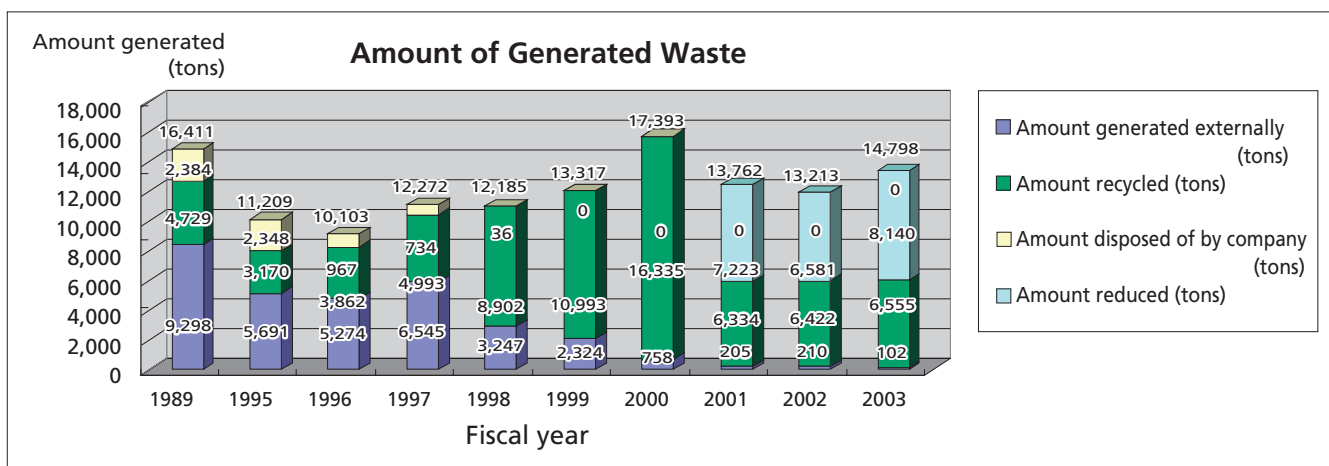
It is our corporate responsibility to effectively use resources through the recycling of wastes while at the same time reducing the amount of waste that is generated. The target for FY 2003 was a 25% reduction rate from that of 2000 and we boasted a 98% recycling rate. Changes in production items and business structure as well as the packing material used in imports from overseas account for difficulty in reductions and recycling.

Achievements for 2003

The total amount of waste generated among all of our domestic affiliates rose to 1,585 tons compared to the previous year. This can be largely attributed to the increase in discard liquids due to an increase in circuit board production. However, all discard liquids are purified in our treating facilities to pass our company standards, which are stricter than government standards, before being allowed to flow into natural water systems. We believe that this minimizes adverse effects on the environment. It is including these results that we were able to achieve our target of 98% in recycle rate. Additionally, we were also able to achieve a final outsourcing amount of 102 tons.

FY 2003 Amount of Generated Waste

	Domestic consolidated	Foreign subsidiaries	Global total
Total amount generated (tons)	14,798	7,442	22,240
Amount recycled (tons)	6,555	5,819	12,374
Amount reduced (tons)	8,140	108	8,248
Amount outsourced (tons)	102	1,321	1,423
Recycle rate	98.5	81.5	89.7



Breakdown of wastes and recycle rates

The following table lists a breakdown of wastes generated at all domestic plants, including subsidiaries, and the transition of the recycle rate.

Though the amount of waste oil (waste alkali) increased due to production of circuit boards, but there are no significant changes in the composition rate compared with the previous fiscal year.

The fact that the recycle rate of waste paper and waste wood has increased and that the recycle rate of scrap metal has

been largely improved allowed us to achieve our goal of 98%.

To achieve a target of zero emission throughout our company, we continuously aim to reduce waste generated and improve the recycle rate.

	Amount generated (tons)	Composition (%)	Recycle rate (%)			
			FY 2000	FY 2001	FY 2002	FY 2003
Sludge (inorganic, organic, and mixed)	345	2.3	75	81	97	97
Waste paper and waste wood	3,174	21.5	92	98	98	99
Waste plastics	2,586	17.5	95	98	99	99
Waste liquid (waste oil, waste acid, and waste alkali)	7,964	53.8	99	94	96	93
Scrap metal (ferrous and nonferrous)	456	3.1	98	96	85	99
Other (animal wastes and other material)	273	1.9	65	92	93	96
Total	14,798	100.0	96	97	97	98

Reduction of Environmentally-Harmful Substances and Appropriate Management

Since 1997, we have participated in a PRTR project in which the Japan Federation of Economic Organizations has taken the initiative and we have issued reports to the Ministry of Economy, Trade and Industry from each place of business via the relevant prefectural governor since the enforcement of the PRTR Law in 2001. Up until last year we made reports on substance amounts of over 5 tons from two sites, however, starting this year four sites issued reports of substance amounts of over 1 ton.

In the following table, consumption indicates the content of substances mainly found in products. The amount removed indicates the amount of substances detoxified due to reaction and decomposition, and amount transferred indicates the amount of substances carried off-site.

PRTR Survey Results (achievements for FY 2003 and 2002: main chemical substances heavily used)

Achievement for FY 2003										Achievement for FY 2002	
Substance	Number of places of business	Usage (tons)	Emission (tons)			Consumption (tons)	Amount removed (tons)	Amount transferred (tons)	Amount recycled (tons)	Usage (tons)	Emission and amount transferred (tons)
			Air	Water	Soil						
Toluene	8	377.57	66.21	0.00	0.00	0.00	0.00	3.22	308.14	405.42	71.56
Soluble copper salts (except complex salts)	1	193.52	0.00	0.01	0.00	122.58	0.00	0.00	70.93	142.40	0.01
Cobalt and compounds thereof	1	143.40	0.00	0.00	0.00	19.41	0.00	0.00	123.99	122.68	0.11
Formaldehyde	2	12.79	0.00	0.26	0.00	7.76	0.00	4.77	0.00	8.83	3.08
Manganese and compounds thereof	3	7.99	0.00	0.00	0.00	0.23	0.00	0.03	7.72	7.04	0.07
Bisphenol A epoxy resin	5	4.99	0.00	0.00	0.00	4.85	0.00	0.15	0.00	0.01	0.00
Nickel	5	3.08	0.00	0.00	0.00	1.89	0.00	0.00	1.19	2.96	0.03
Lead and compounds thereof	7	2.43	0.00	0.00	0.00	2.00	0.00	0.00	0.43	5.11	0.97
Chrome and trihydric chrome compounds	1	2.08	0.00	0.00	0.00	1.98	0.00	0.00	0.10	2.29	0.07
Silver and soluble compounds	7	1.93	0.00	0.00	0.00	0.95	0.00	0.00	0.98	0.30	0.04
Other		3.13	1.37	0.03	0.00	0.08	0.19	1.34	0.13	6.75	4.24
Total		752.91	67.58	0.31	0.00	161.73	0.19	9.50	513.61	703.77	80.18

In FY 2003, the usage of environmentally-harmful chemical substances increased compared to the previous year. However, we were able to reduce the emission and amount transferred. The substances that increased were soluble copper salts, cobalt, formaldehyde; this is due to an increase in the manufacture of digital video

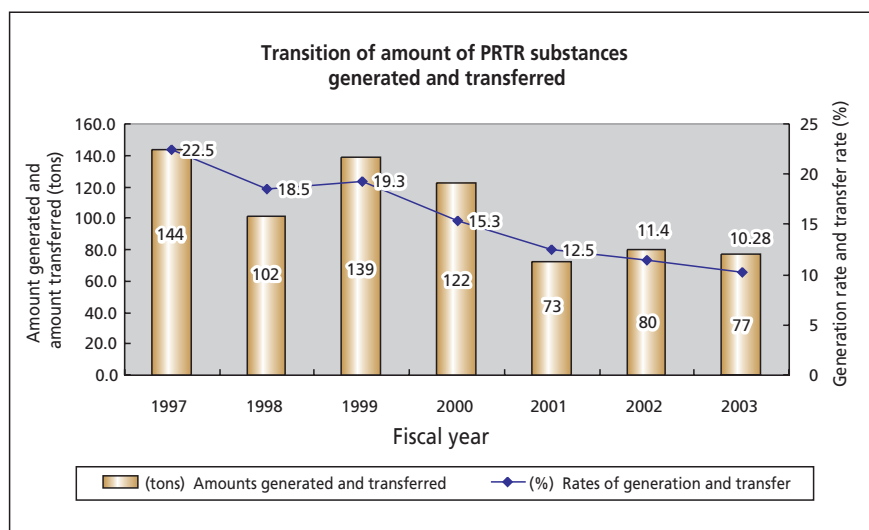
tapes and multilayer boards. The graph below represents the transition of emission and amount transferred. Though slightly increased or decreased due to the change of produced items, both quantity and quality were reduced and improved in 2003. In the future, we will promote the appropriate management of chemi-

cal substances and the reduction of usage and amounts generated and transferred.

Column

Insight From PRTR Data

- Through PRTR data we can understand what chemicals are used, where they come from (country, prefectures, municipalities, or each factory), where they go (into the atmosphere, into the public water system, into the ground etc.), how much is emitted, and how much is transferred.
- You can learn about the statistics for all of Japan through the Ministry of the Environment's Web site or through their guidebook.
<http://www.prtr-info.jp/prtrinfo>
- In the future, we will be able to see long-term changes and the size of environmental risks associated with chemical substances as well as the improvement efforts of individual plants.



Air Conservation

The electrical and electronics industry formulated the Voluntary Management Plan for Hazardous Pollutants in response to the Guidelines for Promotion of Companies Voluntary Management of Hazardous Pollutants issued by the Ministry of Economy, Trade and Industry. In accordance with this plan, we have identified the status of using the 13 subject substances and releasing them into the atmosphere, and promoted prevention of their release and usage.

We have also established voluntary standards for boiler gases and we periodically measure and monitor their emissions.

and quality testing purposes, we have cleared the industry target reduction rates for the end of FY 2003. We are considering further reduction of, or use of alternative substances for these two substances in the future. Though the amount of formaldehyde used has increased, this substance is not released into the air due to measures we have taken.

Voluntary management for hazardous air pollutants

The electrical and electronics industry has set emission reduction targets for the four substances of trichloroethylene, tetrachloroethylene, dichloromethane and chloroform as chief chemical substances for emission reductions, however, we long ago

prohibited the use of trichloroethylene and tetrachloroethylene. In December 1997, we also abolished dichloromethane that had been used in the production process. Though we use small amounts of dichloromethane and chloroform for R&D

Ozone Layer Protection

In March 1994, we abolished the use of ozone depleting substances such as specified chlorofluorocarbons (CFCs) and alternatives for chlorofluorocarbons (HCFCs), in addition to 1,1,1-trichloroethane from production processes.

Transition of results of using hazardous air pollutants Units: [tons/year] Values within parentheses indicate the amount released into the air.

Substance	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Trichloroethylene	-	-	-	-	-	-
Tetrachloroethylene	-	-	-	-	-	-
Dichloromethane	0.695 (0.399)	0.114 (0.102)	0.073 (0.057)	0.041 (0.036)	0.035 (0.030)	0.004 (0.003)
Chloroform	0.009 (0.003)	0.010 (0.005)	0.012 (0.007)	0.005 (0.004)	0.008 (0.006)	0.001 (0.000)
Benzene	-	-	-	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Acrylonitrile	-	-	-	-	-	-
Acetaldehyde	-	-	-	-	-	-
Vinyl chloride monomer	-	-	-	-	-	-
1,2-dichloroethane	-	-	-	-	-	-
1,3-butadiene	-	-	-	-	-	-
Formaldehyde	6.521 (0.000)	10.129 (0.000)	13.580 (0.000)	8.194 (0.000)	8.830 (0.000)	12.788 (0.000)
Nickel disulfide	-	-	-	-	-	-
Nickel sulfate	0.026 (0.000)	0.018 (0.000)	0.019 (0.000)	0.017 (0.000)	0.017 (0.000)	0.016 (0.000)

Transition of hazardous air pollutants emitted from boilers

The following table lists transitions of emissions of nitrous oxides and sulfurous oxides from the boilers used in JVC.

Though pollutants have been reduced significantly through the discontinued use of large boilers, we switched fuels from gas to kerosene to improve energy efficiency which resulted in an increase in NOx emissions compared to FY 2002. There were no SOx emissions. The table summarizes the measured values of exhaust gases from boilers used at our Headquarters and the Yokohama Plant. We have set strict voluntary standard values to manage the exhaust gases from the boilers used at manufacturing sites. In FY 2003, too, the

measured values of exhaust gases never exceed the voluntary standard values.

Air Pollutants Emission Amounts (Total of 14 domestic sites)

Unit: tons/year

	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Nitrous oxides (NOx)	23.4	18.9	12.6	4.1	9.1	10.6
Sulfurous oxides (SOx)	3.7	4.2	1.8	0.5	0.5	0

Measured values of exhaust gases from boilers at the Headquarters and the Yokohama 34 Plant for FY 2003

Measurement item		Regulatory standard value			Measured value		
N: Standard state 0°C and 1 atm.		National standard	Prefectural standard	Voluntary standard	FY 2001	FY 2002	FY 2003
Boiler No.2	Nitrous oxide (ppm)	180	60	60	53	59	58
	Smoke and soot (g/Nm ³)	0.3	0.3	0.15	0.0068	0.0046	0.007
Boiler No.5	Nitrous oxide (ppm)	180	70	70	55	60	abolished
	Smoke and soot (g/Nm ³)	0.3	0.3	0.15	0.0069	0.0056	abolished
Boiler in Moriya	Nitrous oxide (ppm)	180	70	70	59	58	57
	Smoke and soot (g/Nm ³)	0.3	0.3	0.15	0.0039	0.0042	0.0031

Soil and Water Conservation

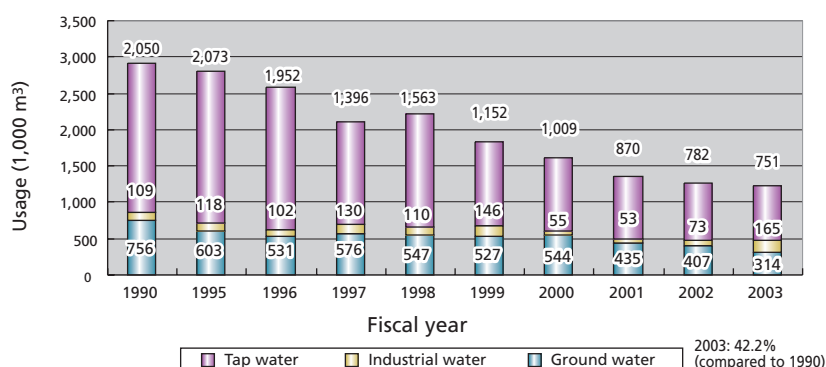
Water is also an important resource and we are taking measures to reduce our use of it. Moreover, we manage factory waste water with voluntary standard values that are stricter than either national or municipal regulatory standard values. If contamination exceeding the environmental quality standard is found, we take action to report the situation to the responsible local government agency immediately and restore the normal status and take permanent countermeasures as quickly as possible.

Reduction of Water Usage

We use tap water, industrial water, and ground water as service water. For several years, the entire usage has decreased significantly due to improvement in manufacturing processes and consolidation and merger of plants. This is most striking at the plants which use ground water.

In FY 2003, the usage of industrial water increased due to increased production of multilayer boards at the Headquarters and the Yokohama Plant, but the usage of tap water and ground water decreased, resulting in reduce of total usage. In the future, we will continue to promote the effective usage of water resources.

Transition of Domestic Water Usage



Investigation of Contamination of Soil and Ground Water

According to soil tests (initiated in 1996) based on the tentative guideline from the Ministry of the Environment (Tentative Guideline for Measures to Investigate Contamination of Soil/Ground water by Chlorinated Organic Compounds) there was no pollution that exceeded environmental standards at any sites.

In FY 2003 we removed a surplus incinerator at our Rinkan

Taking up water from the observation well in the Rinkan Plant



Removing the incinerator at the Maebashi Plant

and Maebashi Plants. We conducted a soil test for dioxin pollutants around the incinerator grounds and detected no pollutants. Further, we set up an observation well for monitor ground pollution at the Rinkan Plant, which we have started using to regularly analyze ground water. We plan to further augment this soil/ground water pollution testing and monitoring system in the future, including its enforcement in our overseas facilities.

Management of Plant Wastewater

Wastewater from manufacturing sites consists of household wastewater and process wastewater, and both are either dumped into the sewer system or purified before being allowed to flow into the natural river system. We have determined

the items of measurements according to the types of wastewater and the substances used in processes at all sites nationwide to perform periodic measurements.

We have also set voluntary standard val-

ues that are stricter than the national or municipal regulatory standard values to manage plant wastewater.

The following table lists the measurement items and measured values at the Headquarters and at the Yokohama Plant.

Results of measuring plant wastewater (Main measured values of the Headquarters and Yokohama Plant)

Item			Regulatory standard value			Measured value (maximum value)			
			National standard	Prefectural standard	Voluntary standard	FY 2000	FY 2001	FY 2002	FY 2003
Plant effluents	Main living environment items	Hydrogen ion concentration (ph) mg/l	5.8-8.6	5.8-8.6	6.0-7.8	6.6-7.7	6.3-7.8	6.8-7.7	7.0-7.4
		Biochemical oxygen demand (BOD) mg/l	60	60	7	7	5	3	10
		Chemical oxygen demand (COD) mg/l	60	60	20	15	17	11	14
		Suspended solids (SS) mg/l	90	90	30	14	13	16	21
		Extractive substance in n-hexane mg/l	5	5	2	ND	1	ND	2
		Coli bacilli Count/l	3000	3000	100	ND	ND	ND	ND
		Total nitrogen(*) mg/l	60	60	30	29	18	16	17
		Total phosphorous(*) mg/l	8	8	4	2.2	1.6	1.4	1.1

Note: (*): Legal standard values revised on April 1, 2001.

ND: Not detected

Augmented Management of PCB Using Devices

In accordance to the official noticed from the Ministry of Economy, Trade and Industry, we have augmented the management of equipment that contains PCBs. This is intended to protect from such accidents as leakages from or losses of PCB using devices in storage and also take measures to prevent harm. At our Yokohama and Yamato Plants we manage these products. Currently, we have 105 condensers and 5,000 fluorescent light stabilizers stored.



PCB pollutants storage facility at the Yamato Plant

Violation of legal standards

In FY 2003, the level of zinc in rainwater runoff from boiler blow water surpassed legal standards at our Kurihama Technical Center. The standard is 3.0mg/l and

the value discovered was 3.6mg/l, and we immediately notified the authorities and took permanent measures to correct the problem. We will work not to let this type

of accident reoccur in the future. There was no violation of legal standards other than this.

Environmental Impact on Foreign Subsidiaries

Foreign energy usage

	FY 2001	FY 2002	FY 2003
Crude oil equivalent (kiloliters)	45,942	45,062	45,919
CO ₂ emissions (tons)	116,592	115,318	118,698

Wastes in other countries

	FY 2001	FY 2002	FY 2003
Total amount generated (tons)	4,898	6,003	7,442
Amount recycled (tons)	3,661	4,484	5,819
Amount reduced (tons)	80	233	108
Amount finally disposed of (tons)	1,157	1,286	1,321
Recycling rate (%)	76.0	77.7	81.5

Energy Conservation

In FY 2003, CO₂ emissions resulting from energy used at overseas manufacturing plants increased by approximately 3%.

Wastes Products

The amount of industrial wastes generated was 7,442 tons, this was a 1,400 ton increase compared to the previous year. This could be attributed to an increase in cardboard boxes and wooden skids due to a production increase of displays and other larger products. The recycling rate was improved by 4% from the previous year.

Economic Report

At JVC we always want to leave the customer with the best impression and with 100% satisfaction. When we put that policy into words we came up with 'The Perfect Experience,' our brand statement. JVC promises to carry out this brand statement for our customers in displaying the power of our hard and soft media, our quintessential strong-points. Our management environment, will supervise our continuing growth and development, permeated by this philosophy the Only 1 philosophy which presents newer and richer lifestyle ideas for our customers through music and images in only the ways that JVC can.

Strengthening Growth Strategy through the Marketing of Only 1 Products

FY 2003 marked the final year of JVC's mid-term plan, the Genesis 21 Plan, started in 2001. As the finishing year of the 3-year management reform, we have promoted augmenting of the management centered on cost creation, manufacturing reforms etc., as well as the strengthening of a growth strategy through the marketing of Only 1 products with original JVC as-

pects.

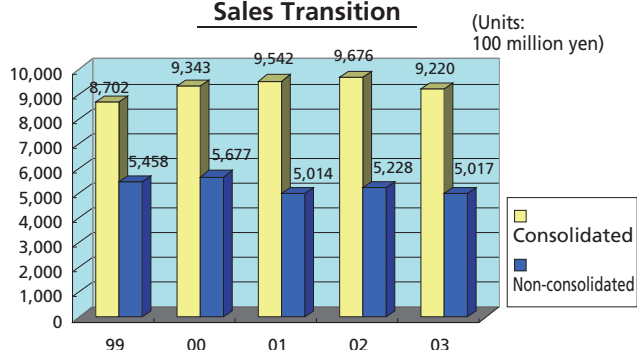
As a result of this profit stabilized, consolidated and non-consolidated operating profits as well as net profits for this quarter continued to increase from 2002. However, in contrast to this, the unexpected contraction of the analog product market in the US and within Japan and the harsh competition within the device business result in significant yield decrease and this large loss left us to consider the future of this major issue.

Acceleration of Growth Strategy and the Normalizing of Structural Reform

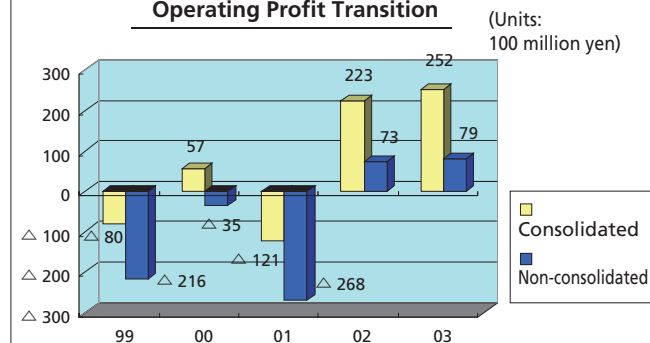
We are launching our new 3-year mid-term plan at FY 2004, the Advancement 21 Plan, in consideration of this issue and we will turn around our low yield of FY 2003 by marketing our Only 1 unique products, the mainstay of our growth strategy, and by launching aggressive sales. Moreover, by creating a profit increase through increased yield, we will normalize and revitalize our management structure.

To achieve these goals we shall make the ideas of acceleration of growth strategy and the normalizing of structural reform like the axles of a car and further our efforts to strengthen our management.

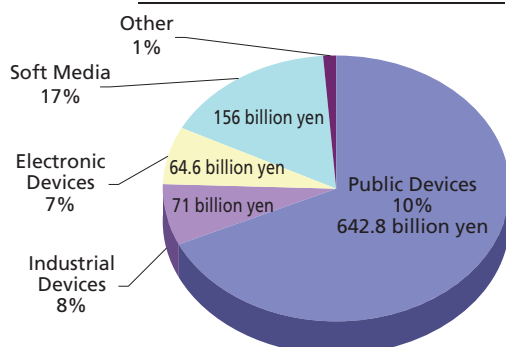
Sales Transition



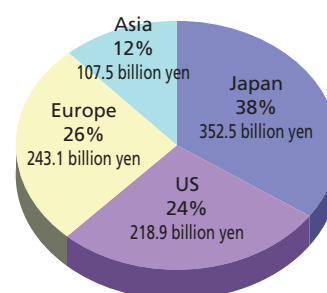
Operating Profit Transition



Profits by Division (Consolidated)



Sales by Region (Consolidated)



Accelerating Growth Strategy

The first point in further strengthening management is the acceleration of growth strategy. We will attempt to become an entertainment solutions company by fully carrying out the market-in philosophy and the synergy of intangible ideas and tangible resources, the strongpoint of JVC, while displaying the power of our hard and soft media.

We will aim to increase our market share

and improve the value of our brand by placing the Only 1 Product philosophy, an added-value and original ideal, at the core of our company.

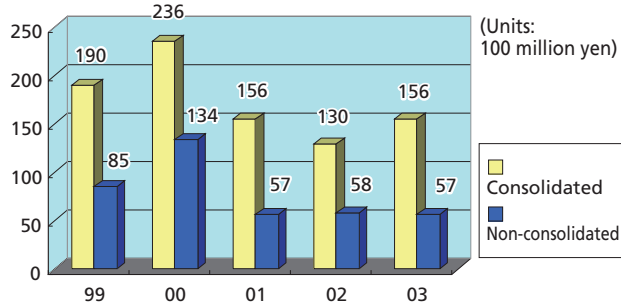
Normalizing of Structural Reform

The second point is being able to concentrate management resources on the presentation of products that the customer demands. We aim to be a high-perfor-

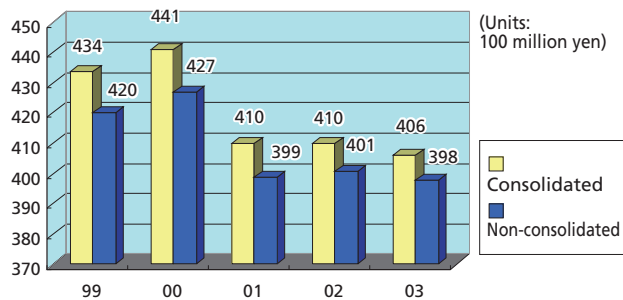
mance global company that can rapidly respond to the market's needs through the global and direct integration of development, production and sales.

As you have read above, we don't think we can blaze the JVC trail to revitalization without propelling our growth strategy. We will achieve our 2004 plan and move towards our future goal of 'The Perfect Experience.'

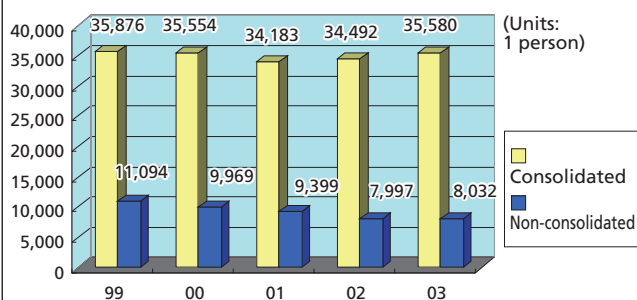
Capital Investment Transition



Transition of Research and Development Costs



Transition of Personnel Numbers



Column

What is the 'Perfect Experience'?

JVC presents our customers throughout the world with a new kind of value through our superior products. This is a brand statement, and a promise to our customers that we can enrich their lives through superior technology and provide them with a lasting good impression and 100% satisfaction.

What are 'Only 1 Products'?

We provide the customer with JVC's value by designating products with more of this value as 'Only 1 Products.' Some of those products are introduced below.



HDD/VDR/VHS Recorder
DR-MX1

A beautiful and definitive single recorder with diversified dubbing and long recording time.



Liquid Crystal Television
LT-26/32LC50

Image intelligence GENESSA. World's first CPU-installed image processing television.



Digital Video Camera
GR-D77

A newly developed camera installed with a newly developed high-solution engine 'Megabrid' that takes higher-quality pictures and movies.



Rear Projection Television
HD-52/61Z575

Includes JVC Victor's very own D-ILA elements. Rich colors and contrast. Sold in North America.

Employee Relations

People are seen as the most precious management resource, and the organized carrying out of hiring, placement, evaluation, remuneration, and skill development from a long-term perspective to comply with management strategy -- this is the way a personnel system should be. Put in other terms the personnel system should fully develop, foster and make use of an employee's talents, and while establishing motivation towards work in every employee by fair and accurate evaluation, work to improve the company's performance and fulfill the corporate infrastructure through the effective use of personnel.

Personnel Policy

The policy is as follows; the basis of the personnel department is to fully understand the management policy of JVC, and to always make the policy central in training personnel that will strive to carry out their mission. Based on this basic personnel policy, we decide upon the ideal employee and the basis for the managers that will take-in and train these personnel, and we place this as the foundation of our personnel system.

An Image of the Ideal Employee (An Outline)

• A person who strives to practice the basic management policy

The basic requirement for our employees is a person who learns the basic of their job, and through the carrying out of the basic management policy most appropriate to the times, better oneself and strives to meet the expectations of society.

• An independent and ambitious person

A free-thinking and creative spirit, confidence in not fearing failure and a strong will to meet new challenges are the source of personal growth.

• A specialist that is adept at changing with the times

It is important that each employee uses their job to strive to become a specialist with skills applicable to society is a very important resource.

• A person with an international outlook

A person who aims to gain the skills and presence required to understand, trust, work and develop together with people from other countries is valuable to the company.

• A creative person with original ideas

When an employee correctly understands their own individual traits and respects the traits of others, those traits will integrate

to make possible a system blessed with a rich creative potential.

• Individuals with that respect the company's social responsibility

We value employees that are well disciplined, highly ethical, always act with a conscience based on correct corporate ethics and fulfill their missions as global citizens.



Training New Recruits

Personnel Training

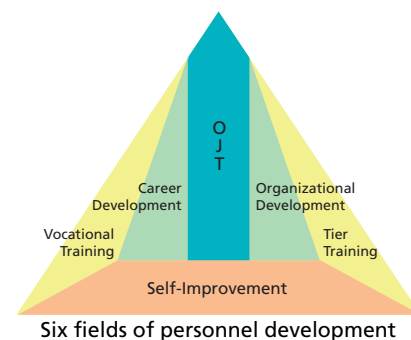
The basic thinking of personnel training based on the personnel policy is 'respect individuality.' We are making efforts with the following four major themes;

- Fostering of business leaders that will promote business strategy
- Fostering of professionals that will be essential to business strategy
- The development of personnel that will respond to the globalization and multi-national trends of business
- The development of personnel that will respond to changes in business structure and social environment



Vocational Training

Additionally, the diagram below displays the six fields in which personnel development is actually practiced.



With 'self-improvement,' or wishing to develop yourself, being the foundation, the mainstay of the above diagram is OJT (On the Job Training), or the employee being developed by his or her boss or superior while on the job. In contrast 'organizational development' strives to create an active group in the workplace and increase collective power, while 'career development' conducts transfers, over the course of time, from a corporate future and personal growth perspective. To further heighten the effects of these, 'tier training' and 'vocational training' are offered on a supplemental basis.

Column

Training

Tier Training

This training is carried out with no regard for job type, but over a level cross section, or tier, of the entire company.

This training can be carried out for new recruits or for newly posted executives.

Vocational Training

This training is carried out to implant the specialized and practical knowledge required by job type.

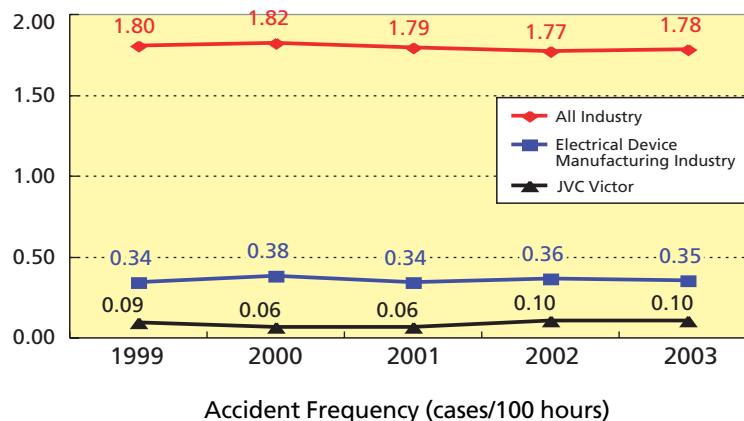
This training can be carried out for manufacturing employees or for technicians.

Measures for Health and Safety Management

With the aging trend of employees and globalization of management as well as the growing interest in corporate ethics and compliance, we are making active efforts towards the creation of a corporate culture of health and safety management based on the core value of respect for human life and the other values of law compliance/constructing risk management, maintenance of a healthy labor force, and improvement of service. To that end we have decided to stipulate a policy to place strong emphasis on the importance of health and safety management and we are working towards building a labor health and safety management system by establishing ties between the company-wide health and safety management committee and the health and safety management committees in each office and plant. Through the independent efforts of the labor safety management system at each unit, the number of labor accidents over several years has dropped to below the average number for an electrical device manufacturer.

FY 2004 Safety Management Priority Policy	
Management System	Strengthen management system for zero danger, strengthen company safety auditing functions
Safety Education	Increase instructors (RST etc.), Develop and select personnel with public credentials
Independent Activities	Continuous improvement of 6S, near-misses, and KYT
Operational Safety Management	Review operational procedures, standardize all ad hoc procedures
Equipment Safety Management	Carry out pre-evaluation of equipment, strengthen safety tests of new equipment

FY 2004 Health Management Priority Policy	
Health Management	Fulfill efforts towards health management, promote health building seminar
Operational Environment Management	Strengthen priority management workplace instruction, carry out thorough management of chemical substances
Operational Management	6S, warm-up exercises, operation positioning, ensure all protective gear is on
Health Education	Increase instructors (RST etc.), Develop and select personnel with public credentials
General Management	Mental and physical health building, strengthen company health testing functions



Health Building Activities

The primary supporting factor for personnel, the most valuable management resource, is building sound mental and physical health. We are actively making efforts to give our people motivation, present them with information, and give them support so that they may be able to help themselves.

• Measuring Health

Other than the health checkup designated by law, we carry out this health exam to cover all employees once every five years. It is not only to gauge a person's physical

health, but also to encourage them to start exercising. Additionally, we carry out dental consultation for preventing periodontal disease and, for female employees, bone density measurements once every five years.

• Health Building Seminar

Lifestyle related diseases can affect any employees at any age. This seminar, carried out in conjunction with the JVC



Health Building Seminar (Medical Check-up)

Health Insurance Union, breaks through conventional health maintenance instruction by granting the participants motivation through the knowledge and learned

experience of the importance of a balance between exercise, nutrition and rest.

• Mental Health Care Training

Being right in the middle of the a high level IT society can bring about a lot of stress for our employees; this training shows the employees the correct mindset and that it is best to seek help early when small changes are detected. We also invite an outside instructor to give regular seminars to not only regular personnel but managers on how to correctly confront mental health.



Mental Health Care Training



A Health Exam (Standing on one foot with one eye closed)

Customer Relations

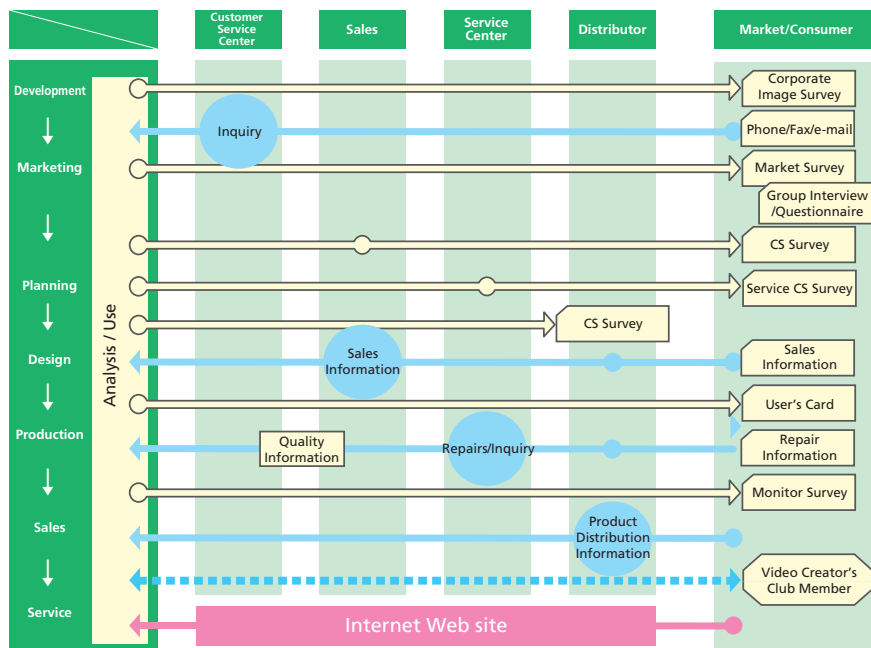
At JVC we formulated the quality policy, "Working to improve customer satisfaction through the presentation of high-quality products and service," and we are promoting company-wide activities to aim for the creation of quality products to keep our customers satisfied. Though quality management is important at the design and production levels, it is also important that a customer through the use of our product is thoroughly satisfied and has a richer and more fulfilled life because of it.

Contact with the Customer Determines Future Management

In order to present and improve products and services that satisfy the customer, we have created and employ the below dia-

gram to channel customer opinions to the correct places.

Through this structure quality information, repair information, customer service center information, sales surveys, CS survey information and Web site information



Customer Opinion Flow Chart

Product Develop with Universal Design

Universal design is meant to present easy to use and pleasant products, services and lifestyles to all people, regardless of age or physical ability. Along with aiming to produce more pleasant products based on the wishes and opinions of customers, we are also engaged in efforts towards an easy to use universal design for our products.

For instance, we believe it is necessary to design appropriate size and shapes of buttons so that people that have little

strength or cannot dexterously move their fingers can operate the products with ease. Additionally, not only should functions and operations be apparent on sight, but also through touch or sound and various other ways of expression.

The diagram to the right breaks down the points of special consideration for universal design into four groups, with clear and easy to understand explanations on the content and objectives.

are analyzed and organized into a database at each division in charge, then given as feedback to the related divisions and managers. This information is used effectively for product, service and process improvement and development.

To ensure better customer satisfaction, we are engaging in efforts towards user-centered product development (User's Eye Product Creation) based on the philosophy of the ISO 13407 international standard, Human-Centered Design Process.

User's Eye Product Creation

By conducting marketing surveys like group interviews and questionnaires, as well as actual product control operation tests to test for usability, we can garner frank user opinions and actions as well as conduct verifications. In the product development process usability evaluation methods like task analysis and the Heuristic method are employed to develop products that can further satisfy the customer.



Understanding through touch or sound. Meant for those who do not rely on vision.



Meant for those who lack fine motor skills. Compound operations like 'Press and Turn' are avoided.



Understanding through vision, light, vibration or movement. Meant for those who do not rely on hearing.



Ambidextrous product. Strength not required for use. Operations don't require dexterous finger movements.

Some of the products developed with universal design are introduced here. The points of special consideration for each product are indicated by the marks. The technology developed and employed in the TV/FM/AM3 Band Radio RA-BF1, installed with the world's first hearing aid system, received high reviews, and was popular with the mass media. The new plasma televisions and liquid crystal televisions are also outfitted with this technology (see p.13).



RA-BF1



This is a radio installed with the slow, clear and easy to hear hearing aid system. Even fast-talking announcers will be easy to understand. You can even rewind and playback parts that you missed.



UX-Z7MD



Operations are expressed through sound. Time is also announced through sound which enables the blind to set the timer. Comes with an audio instruction manual.



GR-DVP9



Ambidextrous digital video camera. Control functions are focused in the center of the device. Flat design with very few protrusions.

RM-A202
RM-A302

Easy-to-use channel and volume buttons. Button shape is designed to allow the user to know what function is represented with large symbols used on keys.



HP-D710



Easy to differentiate between the left and right sides even in the dark. All JVC Victor headphones have a small protrusion on the left side. Some headphones have L/R inscribed on the side with Braille.

Service System

The wishes of our customers are retrieved through our Customer Service Center. It receives over 200 thousand customer opinions and inquiries a year which consist of inquiries regarding use, purchases, AV equipment combinations and repairs. Its primary functions are 1) the presentation of information and advice for customers, 2) reception and response measures for customer wishes, 3) sorting, analysis and company-internal feedback on customer opinions, 4) public relations for municipal administration and consumer advocacy groups.



Customer Service Center

Due to an increase in customer inquiries in recent years, we are making serious efforts to improve the precision, friendliness and speediness of our responses to our customers so that we may increase their satisfaction. Moreover, the center handles the organization, analysis and feedback to the related company divisions of customer inquiries and wishes so that we may reflect this on our products and services.

Satisfaction to Each and Every Customer

Included in after service is repair work performed at the retailer, and parts and



Branch Repair Center

technical leadership supplied by JVC. When products cannot be repaired at retailers because they are gifts or for some other reason, Victor Service Engineering (VSE) Co., Ltd. offers support to retailers. VSE offers fast, accurate and friendly service to satisfy every customer; and provides complete and comprehensive service that includes everything from before service to after service at branch repair centers and 88 service locations across Japan. Even in countries outside of Japan, JVC, under the supply chain management principle, effectively links supply points around the world and works to streamline the production process, while also improving human resources to achieve a higher level of product quality. Further, in overseas sales and service affiliates, we are developing sales and service activities related closely to the various regions; through these integrations of manufacturing and sales, we are pushing forward activities to secure constant customer satisfaction.

Regional/Civil Relations

It is now more important than ever for companies to have regional and civil links; without the understanding and cooperation of public companies they may not be able to survive. JVC does not engage in simple commercialism, we consider the real meaning of the relations between us and the public, and we put those relations to practice. Our activities are not limited to Japan, they stretch to our production offices around the world. We currently make a wide variety of efforts; from contributions to the arts and culture through music, images and sports to our role as a corporate citizen in the various activities closely linked to region and society.

Social Welfare Activities

As part of our social contributions to differing regions, JVC hosted the 1st Charity Scholarship Presentation Ceremony for elementary and junior high school children on April 28th of this year in JCT within Nakhon Ratchasima Province (shortened to Khorat), Thailand.

With the cooperation of the board of education, we selected 25 students from 38 thousand total students in 204 elementary and junior high schools in the area surrounding our plant. With members of the board of education, teachers and families (a total of 60 people) attended; JCT president, Mr. Kikuike, encouraged the children and handed each child 1 year's worth of school tuition in scholarship money. Many of the students selected were in homes that faced



Taking a commemorative photo with the children and JCT staff

various economic problems that prevented them from continuing school, so the scholarship most certainly was a big help for them. This scholarship was collected through donations from JCT employees, affiliates and the company. Apart from the scholarship, various other efforts are being planned at JCT for the future.

What one selected student had to say

I am in the 4th grade. When I was little my father died and my mother worked in Bangkok. My mother would sometimes come meet me. I am living with my grandmother and my aunt right now. My grandmother has fallen ill recently and is no longer able to work. So that's why I would like the JCT scholarship.

Universal Design

Ms. Yoshie Aoki, from JVC's Design Center, held a Nikkei Shimbun seminar on June 12th of last year where she gave a lecture regarding the current measures JVC is taking towards universal design. The lecture was given in the June Monthly Seminar of the Nikkei Shohi Keizai Forum, and 50 people attended including representatives from the different companies participating in the forum. Ms. Aoki introduced various JVC products including a simple remote control, headphones with Braille, a miniature remote control operated by sound and a speed-adjustable radio, she also explained JVC's philosophy and efforts towards universal design.



Ms. Aoki explaining the philosophy of universal design

Class On Demand

On November 7th of last year at Kanagawa Prefectural Eda High School, a guest teacher from a prefectural business gave a lecture. Mr. Watanabe, head of the Corporate Ethics Section of JVC's Legal Intellectual Property Division, gave a 2-hour lecture on copyrights.

This was a joint effort started 3 years earlier by the prefectural board of education, the Kanagawa-Ken Employer's Association and the Kanagawa Prefectural Commerce, Industry and Labor Board meant for Kanagawa Prefectural high schools. This year 15 schools have been visited by business men from Kanagawa Prefecture and have received different lectures.

Two of the 5 first year student classes of Eda High School gathered for the lecture. Mr. Watanabe, giving an example of the drawings that people in the class had actually done, taught all of the students basic social morals with, "By preserving copyrights, the person who created them is rewarded. Do not do unto others as you would not have them do unto you."



Students listened in earnest as the somewhat nervous teacher spoke

Regional Social Activities

We perform activities that are intimately linked with the various regions our offices are located, regardless of the country. Due to a limited amount of page space we cannot provide the reader with all of those activities, so we have provided a portion of them on the following page.

Our activities can be widely divided into 1) cleaning and tree-planting by our employees around our plants, 2) participation/support for local sporting events and

festivals, 3) cooperation with and support of local regional welfare facilities.

Because of the varied customs and circumstances of each region, it is impossible for us to do the same type of activities in every region, so our local companies and plants plan and promote original activities appropriate to the region they are in. Of those activities, Shanghai JVC has continued to visit a home for the elderly since the company's establishment in 1997. The elderly occupants always greet us with great joy.



A regular visit by Shanghai JVC to a home for the elderly



Cleaning and tree-planting by Vietnamese JVL



Cleaning up activities at the Mito Plant



Guangzhou JVC wins first prize at a industrial park basketball tournament

Art and Cultural Activities

The JVC International Jazz Festival was held for the first time in Asia, in Seoul, Korea, for two days from December 12th to the 13th. The Olympic Hall inside the Olympic Park was the event venue, as up to 4500 people watched the concert. Big name artists like Pat Metheny and those



People enjoyed the event held at the Olympic Hall

in Asia like Masato Honda and Na Yunson joined the event and charmed the crowds. Since 1984, the JVC International Jazz Festival has been held over 160 times in the US and Europe, and has come to be recognized as one of the premiere jazz events. The number of musicians who have played at the concert grows every year and now stands at over 47 thousand.

The Tokyo Video Festival, an international video competition for professionals and amateurs, and award ceremony was held for the 26th time this year at the Ebisu Garden Hall in Tokyo. It was a capacity crowd of 600 including entrants and the press. Thirty superior prizes and 70 encouragement awards were given with a judge's talk forum. The awards were given this year for the newly created Hi-Vision Movie Award, the Video Grand Prize and the JVC Grand Prize.



Mr. Yoshihisa Ishitsu is pleased to hold the grand prize trophy

UEFA EURO 2004(TM) in Portugal, the popular soccer event that JVC acts as an official sponsor for started on June 12th in Portugal. The final and fiercest game was played on July 4th.

Communication

JVC once again participated in the largest environmental exhibition in Japan, Ecoproducts 2003, held from December 11th to the 13th at Tokyo Big Site. This previous year, we displayed environmentally-friendly products and performed a show with the theme 'making products that are good on people and the environment.'

Visitors to the event after having the chance to see the cutting-edge hi-vision video camera and liquid crystal television as well as experience audio from the world's first wood cone speakers, asked questions about the technology and the environmentally-friendly aspects.



Introducing high performance and environmentally-friendly hi-vision video camera

References

This page lists main information regarding the environment of all of JVC's Japanese manufacturing sites.

Domestic	Site	Location	ISO 14001 Certification	Amount of Energy Use							Industrial Wastes Generation Valuable Wastes Generated			Water			Chemical Material Balance					
	Designation	Main Business	Acquired Most Recent Renewal	Certification Institution	Electric Power (1,000kWh)	Town Gas (1,000m ³)	LPG (1,000kg)	Fuel Oil (KL)	Kerosene (KL)	CO ₂ Emissions (t)	Amount Generated (t)	Disposal (t)	Recycle Rate (%)	Municipal Water (m ³)	Industrial Water (m ³)	Ground Water (m ³)	Amount Used (t)	Eliminated (t)	Recycled (t)	Used in Product (t)	Into Water (t)	Into Air (t)
①	Yokohama Plant Headquarters	Kanagawa-ku, Yokohama-city, Kanagawa High-density multi-layer printed wiring boards, D-ILA devices	1998.11 2004. 6	JACO	52,936	26	1	0	565	20,381	13,691	5	99	186,661	165,208	0	222.1	0.1	79.0	136.9	0.3	0.1
②	Yokosuka Plant Yokosuka	Yokosuka-city, Kanagawa Camcorders, TVs, ILAs, DVD recorders	1997. 9 2003. 9	JQA	6,686	0	15	0	78	2,628	1,216	10	99	35,330	0	0	1.1	0.0	0.0	1.0	0.0	0.0
③	Kurihama Technical Center	Yokosuka-city, Kanagawa Research and Development	1998.11 2001.12	JACO	8,205	534	12	0	0	3,833	73	4	91	26,380	0	0	0.3	0.1	0.0	0.0	0.0	0.0
④	Yamato Plant	Yamato-city, Kanagawa	1998. 8	JACO	12,054	0	14	0	0	4,346	1,805	8	100	0	0	238,383	0.4	0.0	0.0	0.0	0.0	0.1
	Yamato	Parts/information relay devices																				
	Victor Data Systems Co., Ltd. VDS	Yamato-city, Kanagawa Information devices																				
⑤	Rinkan Plant Rinkan	Yamato-city, Kanagawa CDs, DVD (packaged software)	1997. 4 2003. 3	JACO	17,767	0	0	0	1,066	9,018	436	3	99	0	0	77,404	0.7	0.0	0.7	0.0	0.0	0.0
⑥	Tsurugamine Plant Tsurugamine	Asahi-ku, Yokohama-city, Kanagawa FA equipment, Mechanical parts	1998.12 2004. 6	JACO	4,780	0	5	0	4	1,732	97	0	100	19,114	0	0	0.1	0.0	0.0	0.0	0.0	0.1
⑦	Hachioji Plant Hachioji	Hachioji-city, Tokyo Professional system equipment	1997. 1 2003. 1	JACO	3,843	96	21	0	0	1,659	222	0	100	18,571	0	0	0.1	0.0	0.0	0.0	0.0	0.0
⑧	Maebashi Plant Maebashi	Maebashi-city, Gunma Audio equipment	1998. 8 2001. 7	JACO	3,340	0	5	0	0	1,207	242	4	98	0	0	45,003	0.1	0.0	0.0	0.0	0.0	0.1
⑨	Victor Iseaki Electronics Co., Ltd. Iseaki Electronics	Iseaki-city, Gunma Video and related equipment	1998.12 2001.11	JQA	4,306	0	1	50	0	1,678	86	0	100	6,733	0	0	2.0	0.0	0.4	1.6	0.0	0.0
⑩	Mito Plant Mito	Mito-city, Ibaraki Recording media products	1998. 3 2004. 2	JACO	28,006	0	0	0	3,297	18,274	973	30	97	321	0	384,912	536.9	0.0	434.2	34.8	0.0	64.8
⑪	Oyama Plant	Oyama-city, Tochigi	1999.10	JACO	2,014	0	6	0	0	737	51	0	100	0	0	5,770	0.4	0.0	0.0	0.3	0.0	0.1
	Oyama	TV components																				
	Victor Oyama Electronics Co., Ltd.	Oyama-city, Tochigi																				
	Oyama Electronics	TV components																				
⑫	Fujieda Plant Fujieda	Fujieda-city, Shizuoka Parts (motors)	1999. 1 2002. 7	JACO	2,549	0	30	0	84	1,211	82	0	100	13,330	0	0	0.3	0.0	0.0	0.0	0.0	0.2
⑬	Kanariya Electronic Industrial Co., Ltd. Kanariya	Tsurumi-ku, Yokohama-city, Kanagawa Parts (magnetic components)	—	—	1,609	0	0	7	0	594	59	6	38	2,542	0	0	0.4	0.0	0.2	0.1	0.0	0.0
⑭	Victor Interior Furniture Co., Ltd. Interior	Asaba-cho, Iwata-gun, Shizuoka Interior furniture	—	—	926	0	0	0	0	331	974	32	96	4,765	0	0	2.1	0.0	0.0	0.0	0.0	2.1

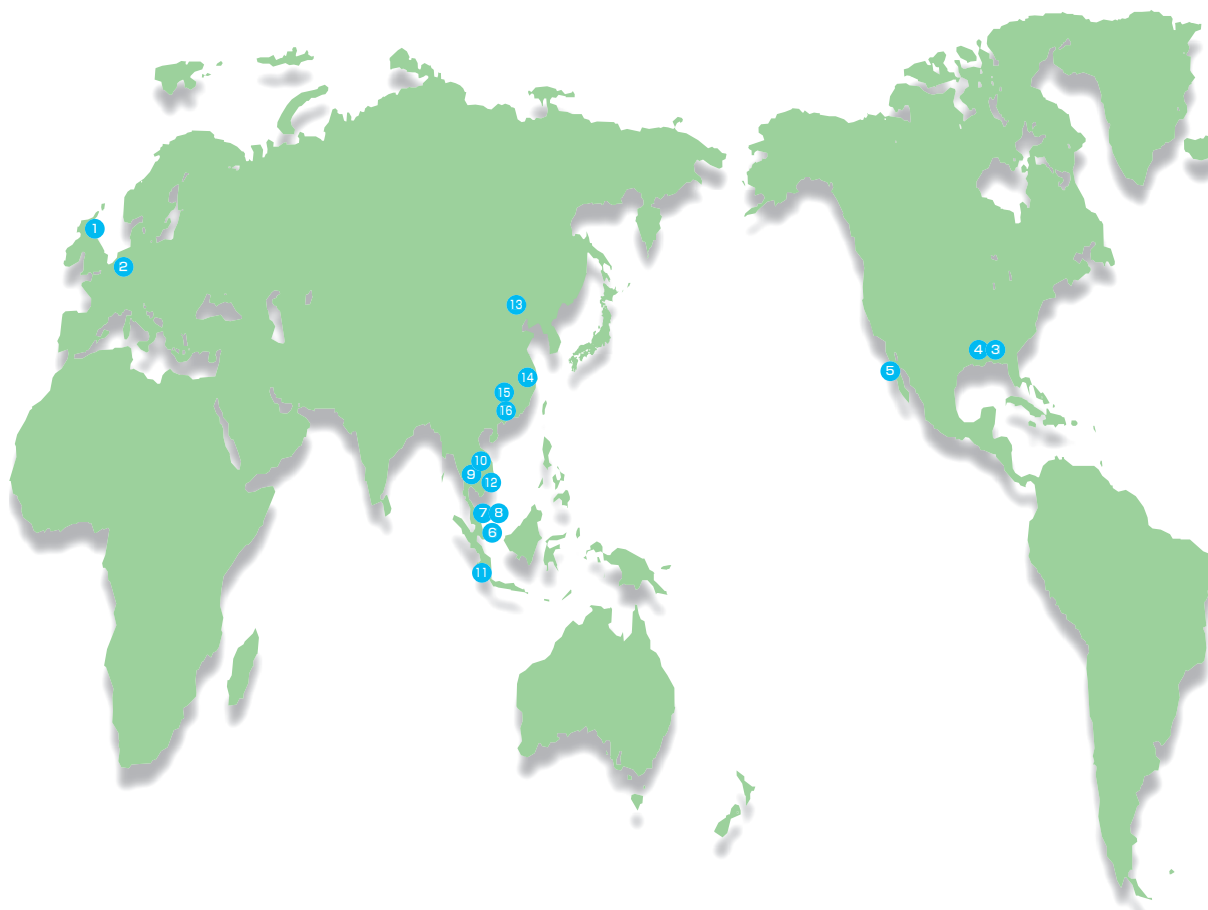
This chart is abbreviated for lack of space. For more information visit JVC's Web site.



This page lists main information regarding the environment of all of JVC's international manufacturing sites.

Overseas	Site		Location	ISO 14001 Certification	Amount of Energy Use							Industrial Wastes Generation			Valuable Wastes Generated	Water			Chemical Material Balance					
	Designation	Main Business			Acquired	Certification Institution	Electric Power (1,000kWh)	Town Gas (1,000m³)	LPG (1,000kg)	Fuel Oil (KL)	Kerosene (KL)	CO ₂ Emissions (t)	Amount Generated (t)	Disposal (t)		Recycle Rate (%)	Municipal Water (m³)	Industrial Water (m³)	Ground Water (m³)	Amount Used (t)	Eliminated (t)	Recycled (t)	Used in Product (t)	Into Water (t)
1	JVC Video Manufacturing Europe GmbH	VCRs, camcorders, DVD players/recorders	Berlin, Germany	1999.12	TÜ V	2,460	0	0	0	0	1,368	651	4	99	4,206	0	0	0.0	0.0	0.0	0.0	0.0	0.0	
2	JVC Manufacturing U.K. Ltd.	TVs (cathode tubes, plasma, liquid crystal)	Scotland	1998.3	SGS	3,600	395	0	0	0	2,915	1,296	252	81	6,257	0	0	5.7	0.0	1.3	4.4	0.0	0.0	
3	JVC Magnetics America Co.	VHS recording media	Alabama, USA	2000.3	AWM	17,629	873	0	0	0	14,557	1,861	1,408	24	5,261	0	0	942.4	0.0	768.6	88.9	0.0	20.1	
4	JVC Disc America Co.	CDs, DVDs (packaged software)	Alabama, USA	2000.8	AWM	28,042	422	37	0	0	20,877	1,481	436	71										
5	JVC Industrial de Mexico S.A de C.V	TVs, projection TVs	Tijuana, Mexico	1997.4	BSI	7,036	0	276	0	0	6,047	1,901	159	92	17,724	0	0	17.3	0.0	8.5	8.8	0.0	0.0	
6	JVC Electronics Singapore Pte.Ltd.	Car audio, Audio equipment	Singapore	1998.12	PSV	1,808	0	0	0	0	1,164	96	96	0	7,680	0	0	1.0	0.0	0.6	0.4	0.0	0.0	
7	JVC Electronics Malaysia Sdn. Bhd.	Components (motors, video drums), Audio equipment	Malaysia	1999.5	KEMA	21,000	0	0	0	0	11,403	510	102	80	91,897	0	0	47.0	0.0	14.0	18.8	0.0	4.6	
8	JVC Video Malaysia Sdn.Bhd.	VCRs, Camcorders, Set top boxes	Malaysia	1999.5	LRQA	13,968	0	0	180	0	8,083	62	16	74	85,315	0	0	14.0	0.0	4.0	10.0	0.0	0.0	
9	JVC Manufacturing(Thailand)Co. Ltd.	Components (fly-back trans), TVs, CCTV cameras	Thailand	1999.4	TISI	13,663	0	0	0	0	9,387	110	18	84	0	73,350	0	24.0	0.0	0.0	18.0	0.0	0.0	
10	JVC Component (Thailand) Co. Ltd.	Components (deflection yokes, motors, optical pick ups)	Thailand	2000.1	SGS	26,391	0	50	0	0	18,282	580	6	99	0	290,588	34,530	27.4	0.0	5.6	15.7	0.0	6.1	
11	PT. JVC Electronics Indonesia	Components (drums), Audio equipment, car audio	Indonesia	1999.5	LRQA	12,133	0	0	0	0	9,585	228	1	99	0	104,387	0	24.5	0.0	3.9	14.7	0.0	0.0	
12	JVC Vietnam Ltd.	TV, Audio components	Vietnam	2001.4	TÜ V	789	0	0	0	0	416	182	2	99	9,067	0	0	2.3	0.0	0.0	1.8	0.0	0.0	
13	JVC Beijing Electronics Industries Co., Ltd.	DVD recorders, Digital Video Cameras	Beijing, China	1999.8	BVQI	4,599	0	16	0	0	4,569	245	29	88	50,638	4,265	0	10.6	0.0	0.0	8.6	0.0	0.0	
14	JVC Shanghai Electronics Industries Co., Ltd.	DVD players, Audio components, car audio	Shanghai, China	1998.6	CCEMS	3,433	0	0	0	0	3,384	574	311	46	20,981	0	0	39.0	0.0	2.4	36.6	0.0	0.0	
15	Fujian JVC Electronics Co., Ltd.	Components (deflection yokes)	Fujian, China	2003.10	JQA	4,997	0	0	7	0	4,932	316	0	100	107,000	0	0	28.9	0.0	7.1	21.8	0.0	0.0	
16	JVC Guangzhou Electronics Co., Ltd.	Components (motors)	Guangzhou, China	1999.7	CEPREI	1,759	0	0	0	0	1,729	95	95	0	37,135	0	0	5.5	0.0	0.0	5.5	0.0	0.0	

This chart is abbreviated for lack of space. For more information visit JVC's Web site.



The JVC Environmental Sustainability Report 2004

Request regarding the attached questionnaire

Thank you for reading the JVC Environmental Sustainability Report 2004.

This year's Environmental Sustainability Report 2004 is slightly different from previous reports in that it also informs the reader of information regarding management, personnel, education and health & safety.

It goes without saying that putting a greater emphasis on environmental activities is from a respect for human life; while it is also an issue that has great significance to local regions and communities.

We will continue to report on our relations with the community, though it was only a small portion of our report this year. In order to further promote more fruitful environmental activities in the future, we would like to hear your opinion. Please fill out the questionnaire on the other side of this sheet and fax or mail it in to the address below.

Environment Group,
Victor Company of Japan Ltd.

3-12 Moriya-cho, Kanagawa-ku,
Yokohama-city, Kanagawa
221-8528, Japan
tel: (81)+45-450-2512

fax: (81)+45-453-1406

We are looking forward to receiving your responses!

Q1. Fill out one of the items below that most appropriately fits your status as a reader of this report

- ☐ user ☐ supplier ☐ stockholder or investor ☐ corporate/organization ☐ environmental group/NPO
☐ administrative agency (government or local government) ☐ press ☐ homemaker ☐ student ☐ other()

Q2. How did you learn of the JVC Environmental Sustainability Report?

- ☐ JVC employee ☐ JVC Web site ☐ Magazine or article ☐ Event
☐ Supplier ☐ Internet ☐ Other()

Q3. What is your overall evaluation of the report?

- ☒ Clarity
☐ Good ☐ Fair ☐ Poor ☐ Very Poor
☒ Satisfaction with the contents
☐ Good ☐ Fair ☐ Poor ☐ Very Poor

Q4. Which items impressed or interested you? (Please check all that apply.)

- ☐ Basic Environmental Policy ☐ Environmental Activity Promotion Organization
☐ Environmental Audits ☐ Promoting the Voluntary Environmental Action Plan
☐ Environmental Accounting ☐ Measures for the Discontinued Use of Poisonous Chemicals
☐ Measures towards Recycling Used Products ☐ Customer Satisfaction(CS)/Eco-Product Development
☐ Green Logistics ☐ Measures for Energy Conservation and Global Warming Prevention
☐ Measures for Waste Reduction ☐ Reduction of Environmentally-Harmful Substances and Appropriate Management
☐ Air Conservation ☐ Soil and Water Conservation ☐ Economic Report ☐ Employee Relations
☐ Regional/Civil Relations ☐ References ☐ History of Environmental Conservation Activities
☐ Customer Relations

Q5. How often do you read our reports?

- ☐ This is the first time ☐ I have read some in the past ☐ I read all of them

Q6. Please tell us what you would like to know more about, or what you would like to see added.

Q7. Please feel free to write in your suggestions and requests.

Please fill in the following if you do not mind.

Name _____ Sex _____ Age _____
 Address ☐ Home ☐ Office _____
 Occupation (place of work/school) _____ tel : _____
 fax : _____

Thank you for your cooperation.

History of Environmental Conservation Activities

Year	JVC	Society (Inside and Outside of Japan)
1991	Environmental Administration Division established First Environment Congress held	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures (1988) enacted Global Environment Charter by the Japan Federation of Economic Organizations signed Law for Promotion of Effective Utilization of Recyclable Resources enacted
1992	Product assessment activities started Basic Environment Charter established JVC environmental logo established	United Nations Conference on Environment and Development (Earth Summit) held Rio Declaration on Environment and Development, Agenda 21 announced Voluntary Action Plan on Environment by the Ministry of International Trade and Industry announced
1993	First voluntary plan formulated Internal environmental audits started	Basic Environment Law enacted
1994	Specific chlorofluorocarbons eliminated from processes	Basic Environment Plan approved United Nations Framework Convention on Climate Change held
1995	First internal environmental audit (domestic) completed	Law for Promotion of Sorted Collection & Recycling of Containers and Packaging enacted
1996	Basic environment policy (revised charter) established Second voluntary plan formulated	Voluntary Action Plan on the Environment by the Japan Federation of Economic Organizations announced International environment standard ISO 14001 issued
1997	Hachioji district acquired ISO 14001 certification (the first in Japan) Use of dichloromethane in the company discontinued JVC Del Mexico S.A. DE C.V. acquired ISO 14001 certification (first in a foreign country)	Kyoto Conference of the U.N. Framework Convention on Climate Change "COP3" held
1998	Environment Group established Product recycling project started Green Procurement Guidelines established	Law concerning the Rational Use of Energy (introduced top runner standards) revised Law for Recycling of Specified Kinds of Home Appliances enacted Law concerning the Promotion of the Measures to Cope with Global Warming enacted
1999	14 domestic sites acquired ISO 14001 certification 10th Environment Congress meeting held (Directions of environmental activities for FY 2001 and thereafter were decided.)	Policies for Investigation and Countermeasures for Soil and Ground Water Pollution announced Law Concerning Special Measures Against Dioxins enacted Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in their Management (PRTR Law) enacted
2000	Recycle Business Promotion Dept. established Results of environmental account (FY 1999) compiled JVC Green Grand Prix program started 11th Environment Congress meeting (Product Assessment Guidelines) held	Law for Promotion of Sorted Collection and Recycling of Containers and Packaging fully enforced Basic Law for Establishing a Recycling-Based Society enacted Law on Promoting Green Purchasing enacted Law for Promotion of Effective Utilization of Recyclable Resources (3R Law) enacted
2001	Collecting and recycling of used TV sets started Acquisition of ISO certification at manufacturing sites worldwide completed. Registering of products subject to Law on Promoting Green Purchasing started Lead-free Solder Introduction Promotion Project established Assessment of environmental performance (jointly with Matsushita Electric Industries) started Participated in portable rechargeable battery recovery and recycling program ISO certification at domestic sales and service offices acquired	Basic Policy of Law on Promoting Green Purchasing decided Fluorocarbon Recovery and Destruction Law enacted Law Concerning Special Measure against PCB Waste enacted Specified Household Electric Appliances Recycling Law enforced Agreement over the Kyoto Protocol at COP7 reached U.S. Mercury Control Bill enacted (USA)
2002	13th Environment Congress meeting held (Environmental activities for FY 2002 confirmed.) Function of Recycle Business Promotion Dept. transferred to Environmental Administration Div. Ecoproducts 2002 Exhibition	Japanese Government ratified the Kyoto Protocol Comprehensive Government Policies for Predicting Global Warming and Climate Change announced Construction Materials Recycling Act fully enforced Law Concerning the Promotion of the Measures to Cope with Global Warming revised World Summit on Sustainable Development (Environment and Development Summit) held
2003	Green procurement standards created/seminar held 14th Environment Congress meeting held 15th Environment Congress meeting held Ecoproducts 2003 Exhibition	WEEE & RoHS Directives posted through official journal (EU) Soil Contamination Countermeasures Law enforced Revised Law Concerning the Rational Use of Energy enforced Home Personal Computer Recycling Law enforced
2004	16th Environment Congress meeting held JVC receives the 12th Yokohama Environmental Conservation Activities Award	POPs Treaty becomes effective

Thank you very much for reading this report.

This report still needs revision; however, we will work diligently to enhance the contents, and would appreciate any frank suggestions and requests from any concerned readers.



- This pamphlet is made 100% from recycled paper, and it also recyclable.
- To protect oil resources and reduce the generation of VOC (volatile organic compounds), soy ink is used in this pamphlet.

