

RICOH ELECTRONICS, INC.



SUSTAINABILITY REPORT
DECEMBER 2002

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RICOH ELECTRONICS, INC. ENVIRONMENTAL POLICY

At Ricoh Electronics, Inc. we believe environmental protection is an important part of our operations. We continually work to develop and implement environmental protection activities that will lead to reduced pollution and more efficient use of our natural resources. Additionally we will meet or exceed applicable environmental laws and regulations, as well as other established requirements.

PRESIDENT'S MESSAGE



SHUNSUKE NAKANISHI

Mankind's continued survival on this planet depends on the availability of essential resources and a healthy environment for all living things. The challenge today is to better utilize our resources and protect our environment.

Ricoh's philosophy is to pursue environmental conservation because we have a strong sense of mission as a citizen of this Earth. We do not take action to preserve our environment simply for the sake of complying with regulations; we do so because it is fundamental to our continued success as a business. We realize that environmental conservation is not only a social issue, but also a critical part of management. Our role as a good corporate citizen requires us to take active leadership in promoting and supporting a healthy environment.

This report summarizes the details and results of our environmental conservation activities. We hope this report will help readers discover the extent of Ricoh Electronics, Inc.'s commitment to environmental protection. We welcome your honest opinion to further improve our activities in terms of quality and effectiveness.





ABOUT RICOH ELECTRONICS, INC

We have facilities in:

- Orange County, California (Tustin, Irvine and Santa Ana)
- Lawrenceville, Georgia
- Toluca, Mexico



Ricoh Electronics, Inc. is the North American manufacturing subsidiary of Ricoh Company, Ltd., a \$14 billion global leader in computer-connected digital multi-functional document systems and diversified office automation equipment.

Since the founding of Ricoh Electronics, Inc. in Orange County, California, in 1973, we have faithfully upheld our commitment to quality and environmental excellence while experiencing impressive growth in the array of products and services we provide. Our 1,200 employees are dedicated to meeting the challenges associated with this tremendous growth and achieving our vision.



Currently we manufacture:

- digital copiers
- peripherals
- printed circuit boards
- SecureFax™ machines
- eCabinets
- thermal media
- toner
- parts
- remanufactured copiers
- remanufactured toner cartridges
- customer-configured products



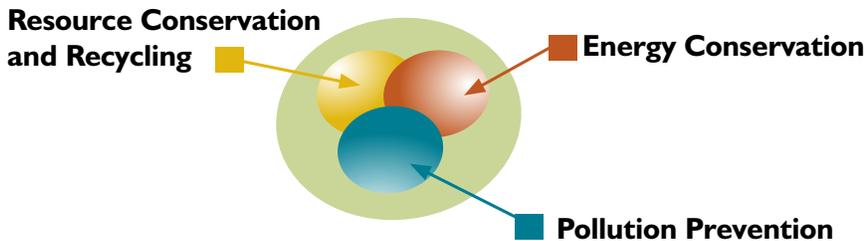
eCabinet

OUR ENVIRONMENTAL STRATEGY



At Ricoh Electronics, Inc. we believe environmental protection is an important part of our management philosophy. We continually work to develop and implement environmental protection activities that will lead to reduced pollution and more efficient use of our natural resources. Additionally, we meet or exceed applicable environmental laws and regulations, as well as other established requirements.

Foundation and Activity Pillars for Environmental Activities



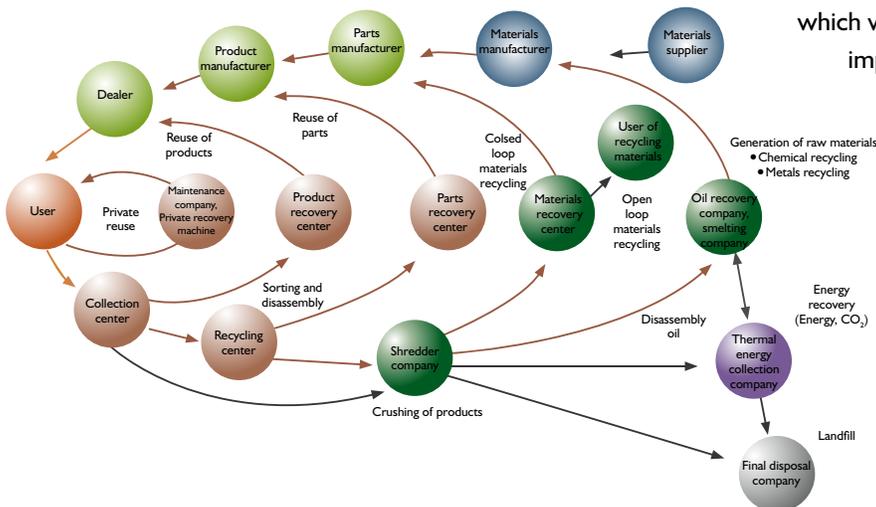
The Ricoh Group applies the following tools to promote efficient environmental protection activities:

- Environmental Management System based on ISO14001 standard
- Environmental Impact Information System
- Green partnership with suppliers
- Technology development
- Education and awareness
- Social contributions

Comet Circle™

The Ricoh Group is helping to build a society that conserves and recirculates resources, reducing the environmental impact of its products and operations.

The Comet Circle™ concept represents a process by which we clarify the amount of environmental impact that occurs at each level of our corporate activities.



The closer a recovery process is to the inner loops, the better it is for the environment. We aim to make the loops of resource recirculation smaller by identifying the optimum recovery point in a product's service life and developing efficient resource recovery systems.



Using Environmental Management Systems

Ricoh Electronics, Inc.'s Environmental Management System (EMS) provides a structured approach to setting environmental objectives and targets, achieving those objectives and targets, and demonstrating that they have been achieved.

To promote continuous environmental improvement, all Ricoh Electronics, Inc. manufacturing groups are ISO 14001 certified.

- **Office Machine Group** – first issued in February 1998 and last issued in February 2001
- **Supply Products Group** – first issued in January 1999.
- **Reprographics Supply Group/Thermal Media Group** – last issued in January 2002
- **Georgia plant** – first issued in September 1999 (current)
- **Ricoh Industrial de Mexico** – first issued in March 2000 (current)



Achieving Zero Waste to Landfill

By March 31, 2001, the company achieved its ambitious goal of zero waste to landfill at all its manufacturing facilities. In the process, a culture change occurred that directly affected over 1,200 employees and many suppliers and vendors. Indirectly, this project affected many communities, employees' families and friends.

In keeping with the company's slogan: **Our Earth, Our Tomorrow**, Ricoh's production sites no longer send waste to landfills. All waste from our office and manufacturing operations are diverted using 5 R resource recovery methods (see below).

Ricoh Electronics, Inc. continues to improve its zero waste to landfill system and pursue additional environmental goals. We feel a strong sense of responsibility to share this information and be a leader for other North American manufacturing facilities.

Our facilities achieved this goal by:

- **December 2000** – Georgia plant
- **January 2001** – 1062 McGaw (Irvine) facility and all Santa Ana facilities
- **February 2001** – Machine Parts Division and all Tustin facilities
- **March 2001** – Ricoh Industrial de Mexico

To achieve Zero Waste to Landfill we use the 5 Rs:

- **Refuse** – avoid buying anything that becomes waste.
- **Return** – return what can be returned to suppliers. Example: hard fiber cores and plastic wrap from thermal transfer ribbon master roles are returned to Ricoh Numazu or Fukui for reuse.
- **Reduce** – reduce the amount of waste generated in the first place by improving yields.
- **Reuse** – reuse anything that can be reused. Example: Plastic bags used in copier production were reused to distribute t-shirts, maps and other items to California employees volunteering to cleanup Santiago Creek in September, 2002.
- **Recycle** – Examples: face/base paper is turned into tissue and paper towels. Scrap wood is turned into chipboard.

In Georgia, California and Mexico we accomplished the following:

•Eco-packaging

The design of copier packaging now uses easily disassembled and sorted recyclable materials. Prior designs of wood, cardboard and Styrofoam were hard to disassemble and dispose of. Package design for recycled toner cartridges was also improved to be more environmentally friendly. The use of Styrofoam was eliminated and the size of the box was reduced resulting in more efficient transportation and more cartridges per truckload.

•Plastic resin silo

The Georgia plant initiated the installation of a 3,000-gallon plastic resin silo that allows large shipments of resin to be delivered via tanker truck. This bulk storage method eliminates packaging materials such as gaylords, pallets and stretch wrap.

•Disassembly stations

Workbenches equipped with small hand tools were built so employees can themselves disassemble products that are only partially recyclable (such as 3-ring binders). A process book is attached to the station to explain what to do. Parts are put into sorting bins built into the workbench.

•Plastic pallets

Ricoh Industrial de Mexico turns all plastic waste into plastic pallets.

•Green waste

Grass clippings from the gardens around the plant are used to provide nutrients for the same gardens.

•Sea Garden

A display room was created at the Santa Ana facility to provide structured on-site training showing the step by-step process for achieving zero waste to landfill. This central display room is open for all employees and visitors.

•Ideas for Excellence

This award program encourages employees to submit creative and innovative improvement ideas to reduce, reuse, recycle, refuse or return waste. Seventy-six percent of all ideas submitted in the first half of fiscal year 2001 were implemented.

•Sorting Makes Cents logo

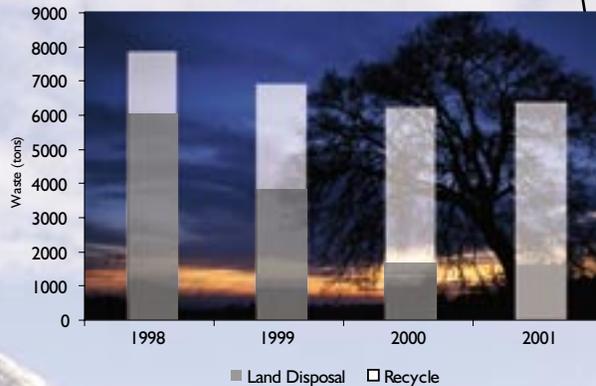
The Office Machine Group developed a slogan (Sorting Makes Cents) and logo to promote zero waste to landfill.

•Zero Hero

A zero waste to landfill mascot called Zero Hero was created to build employee awareness for the project.



REI's Waste Recycling Trend



FISCAL YEAR	LAND DISPOSAL	RECYCLE	TOTAL	RESOURCE RECOVERY RATE
1998	6017	1910	7927	24%
1999	3833	3117	6950	45%
2000	1665	4605	6270	73%
2001	0	6420	6420	100%

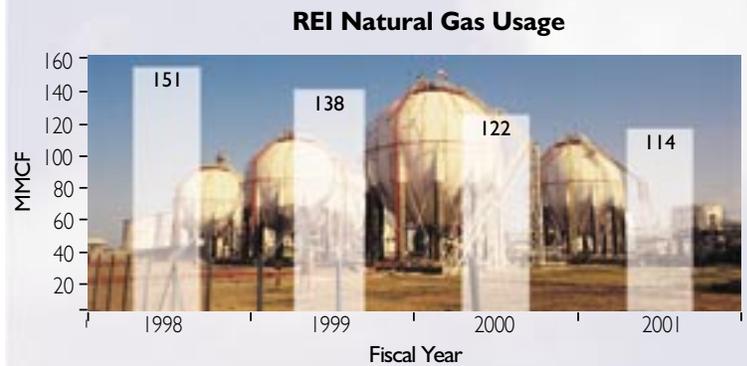
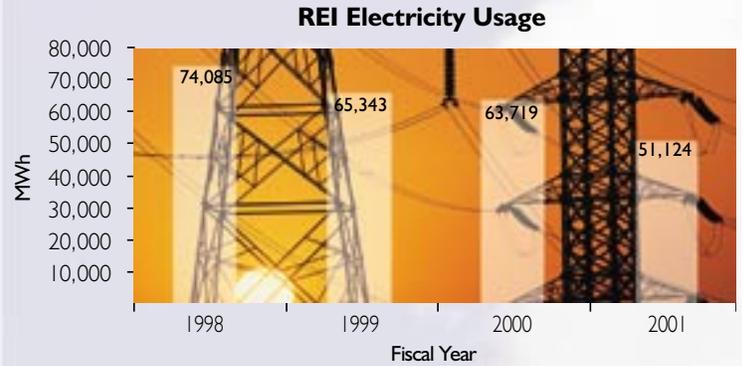


REDUCING ENERGY

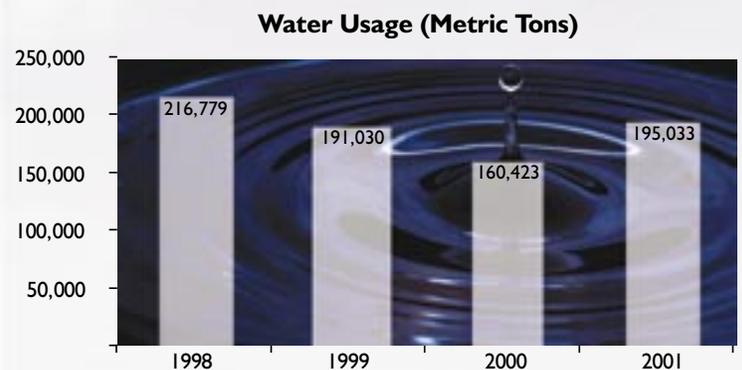
Throughout the company, various energy reduction activities have taken place, including:

- **Skylights** have been installed at the 17482 Pullman site (Irvine) and Santa Ana facilities.
- **Energy efficient light fixtures** have been installed in all California facilities.
- The Georgia plant improved the efficiency of the HVAC system in the molding department by **optimizing the use of air conditioning and space heaters**. This resulted in an 85 percent reduction in the operating hours of the space heaters, while maintaining product quality and a comfortable work environment for the employees.
- A team of employees in California used problem-solving techniques to identify wasted electricity and improve the dry toner production process **to save electricity**. The cost of electricity increased dramatically due to the electricity crisis in 2001. The average electric bill at the toner plant in Santa Ana increased 128 percent per month. The target was to reduce electricity use in that building by 10 percent. Through a variety of countermeasures that were implemented, the team reduced electricity use by 18 percent.
- The automated electrical **energy monitoring system "Teletrol"** was installed at the Tustin facilities and the 2320 Redhill facility (Santa Ana). Metering devices were installed on key electrical equipment throughout the facilities. Data from each piece of equipment can be retrieved at 15 minute or greater intervals and graphed to monitor usage and trends. This system is connected to Ricoh Electronics, Inc.'s computer network and can be programmed and expanded as necessary.

REI's Energy Usage Trend



REI's Water Usage Trend



RECYCLING OPERATIONS



By reusing and recycling parts during manufacturing processes we reduce the amount of waste. Two areas where we have achieved significant progress are:

- **TONER CARTRIDGE RECYCLING**

Our toner cartridge collection and recycling program is an important part of our overall resource conservation efforts, which aim to prevent any of our products from ending up in landfills. We encourage users to return their used toner cartridges for recycling. We have simplified the process by including pre-paid shipping labels and instruction sheets in each box for free shipment by major carriers. The cartridges are completely disassembled, reusing parts that meet new-part standards. The remaining parts are recycled into new materials. The small amount of product that cannot be used for recycling is used as fuel and converted into energy.

- **COPIER REMANUFACTURING**

Ricoh Electronics, Inc. has remanufactured over 2,000 copier systems since remanufacturing was begun at Ricoh Electronics, Inc. in 1996. Over 95 percent of the disassembled parts are recycled and used again during re-assembly. Cover parts are cleaned with high-pressure water, which is 100 percent recycled. Empty document feeder boxes from copier production are given to remanufacturing for slight modification and reuse saving \$30 per box.

REI's Cartridge Recycle History



WORKING WITH OUR COMMUNITIES

Ricoh's H.O.P. E. Team (**H**elping **O**thers and **P**rotecting **O**ur **E**nvironment) was formed in 2001 to coordinate employee volunteer projects aligned with the company's environmental activities. Employees from all parts of the company serve on the team. The team has coordinated the following projects aligned with zero waste to landfill.



MADISON ELEMENTARY
SCHOOL BEAUTIFICATION –
March, 2001 Santa Ana, California



GWINNETT CHILDREN'S
SHELTER BEAUTIFICATION –
March, 2001 Lawrenceville, Georgia



YELLOW RIVER CLEANUP –
October, 2001 Stone Mountain, Georgia



INNER-COASTAL CLEANUP DAYS –
Santa Ana, California – September, 2001
Orange, California – September, 2002

“THE BEST THING IS NOT WHAT WE PLANTED IN THE GROUND TODAY, BUT WHAT WE PLANTED IN THE CHILDREN’S MINDS.”

Ranulfo Gomez
Plant Manager, Ricoh
Industrial de Mexico



NEVADO DE TOLUCA TREE PLANTINGS –
July, 2001 and August, 2002
Toluca Valley, Mexico



ADOPT-A-ROAD –
September 2002
Lawrenceville, Georgia

OTHER COMMUNITY-BASED ACTIVITIES

ZERO WASTE TO LANDFILL SEMINAR –
April, 2002 Santa Ana, California

Ricoh Electronics, Inc., in cooperation with The Regional Environmental Business Resource Assistance Center (REBRAC), hosted a seminar to share information with participants about the steps Ricoh Electronics, Inc. took to become a zero waste to landfill facility. Over 20 representatives from area businesses, cities and government agencies attended including our local Congresswoman and a member of the California Integrated Waste Management Board.



Senator David Roberti (left), then member of the California Integrated Waste Management Board, is welcomed to Ricoh electronics, Inc. by Yoshihiro Nomura, Executive Vice President, Group Manager, Reprographic Supply Group.





GAINING RECOGNITION

Our commitment to the environment has garnered various awards including:

● **CENTENNIAL HERITAGE MUSEUM ENVIRONMENTAL AWARD** – in recognition of achieving zero waste to landfill.

● **WASTE REDUCTION AWARDS PROGRAM (WRAP)** – for protecting the environment by using innovative, cost-effective and creative methods of reducing waste.



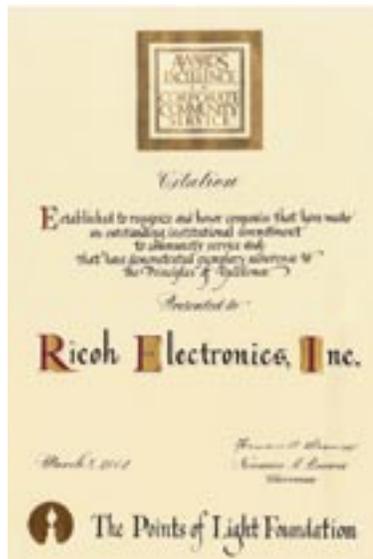
● **ORANGE COUNTY COASTKEEPER** – for zero waste to landfill activities

● **2000 BUSINESS OF THE YEAR** – presented by Gwinnett Clean and Beautiful in Georgia for zero waste to landfill activities.

● **RICOH COMPANY, LTD. HARVEST AWARD 2001** – presented to the Reprographic Supply Group/ Thermal Media Group in recognition of using zero waste to landfill to increase business efficiency and “harvest greater prosperity.”

● **2002 CITATION AWARD FOR EXCELLENCE IN CORPORATE COMMUNITY SERVICE** – presented by the National Points of Light Foundation in recognition of projects coordinated by the H.O.P.E. Team and the company’s overall commitment to volunteerism.

● **2002 CERTIFICATE OF SPECIAL CONGRESSIONAL RECOGNITION** – for waste reduction activities.



OTHER RECOGNITION



RICOH

U.S. Environmental Protection Agency National Environmental Performance Track Program. Performance Track is a voluntary partnership program that recognizes and encourages top environmental performers, public and private entities that voluntarily go beyond compliance with environmental regulations and commit to continuous environmental improvement.



Housam El Jurdi receives National Environmental Performance Track Award from Christine Todd Whitman of the US Environmental Protection Agency.

THESE GROUPS HAVE BEEN ACCEPTED INTO THE PROGRAM:

Reprographic Supply Group: February, 2002

Thermal Media Group: February, 2002

Office Machine Group: August, 2002

Georgia plant: August, 2002



REMIEDIATING ENVIRONMENTAL CONTAMINATION

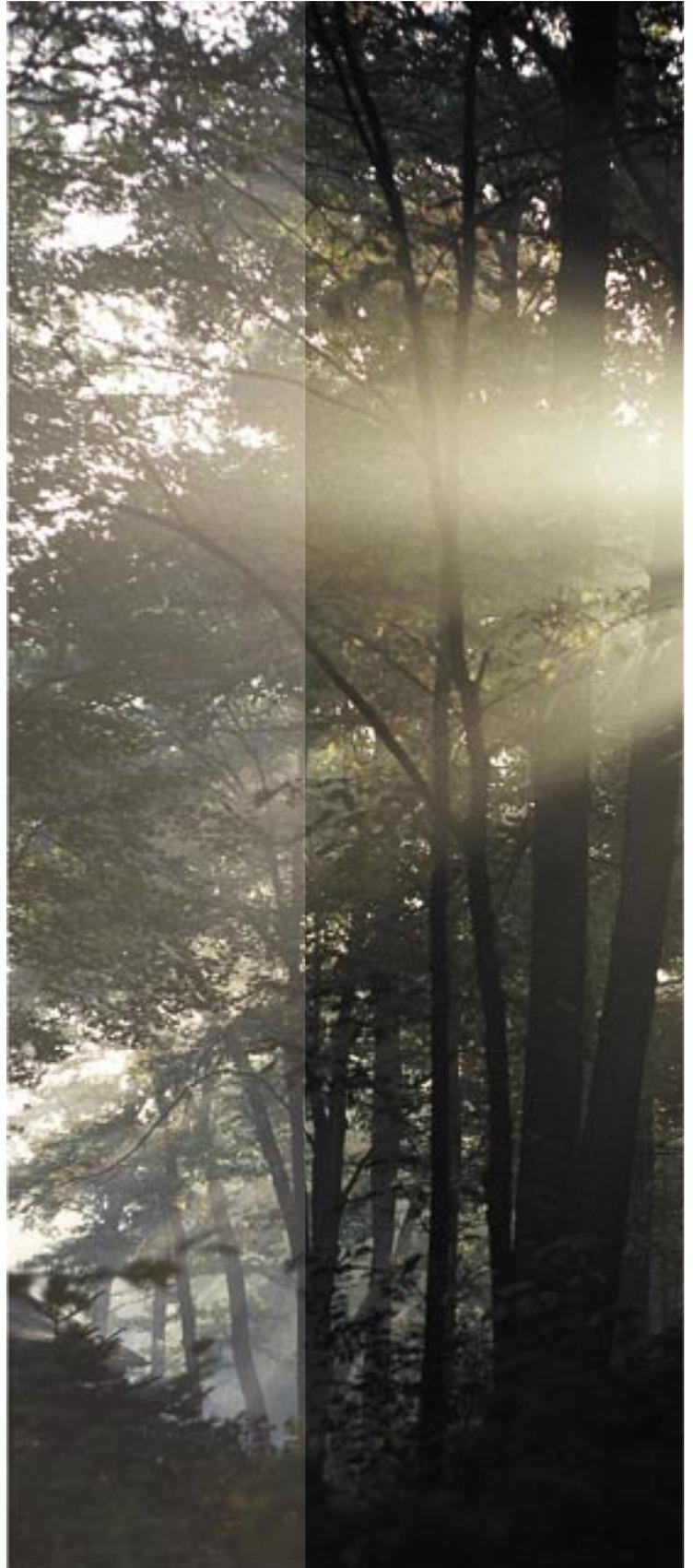
Finding contamination and taking steps to remediate the environment is critical to our mission.

● 2300 REDHILL AVE.
SANTA ANA

In June 1986, Ricoh Electronics, Inc. identified leaks in underground piping from the Isopar underground storage tanks. The piping was replaced and a geological consulting company was hired to investigate the extent of the contamination. In July 1988, a groundwater treatment system was constructed to treat contaminated water pumped out of four recovery wells. The recovery system was operated until September 1998, when the tanks were removed from the ground and the contaminated soil was removed and hauled to a treatment facility. During the tank removal, contaminated groundwater was pumped from the excavation and transported to a treatment facility. Ricoh Electronics, Inc. is presently working with the Regional Water Quality Control Board to determine how we can evaluate the soil under the building to see if the contamination migrated under the building.

● 17482 PULLMAN ST.
IRVINE

In October 1996, Ricoh Electronics, Inc. determined that the soil and groundwater under the East end of the building was contaminated with perchloroethylene. This material was used in our photocopier drum manufacturing operations between 1978 and 1994, but we were not able to determine exactly how the material entered the soil. During 1996, we drilled numerous wells to identify the extent of the contamination. In April and May 1998, we excavated the contaminated soil from under the building. In April 2000, we installed a recovery well and treatment system to remove and treat contaminated groundwater.



WORKING WITH OUR SUPPLIERS



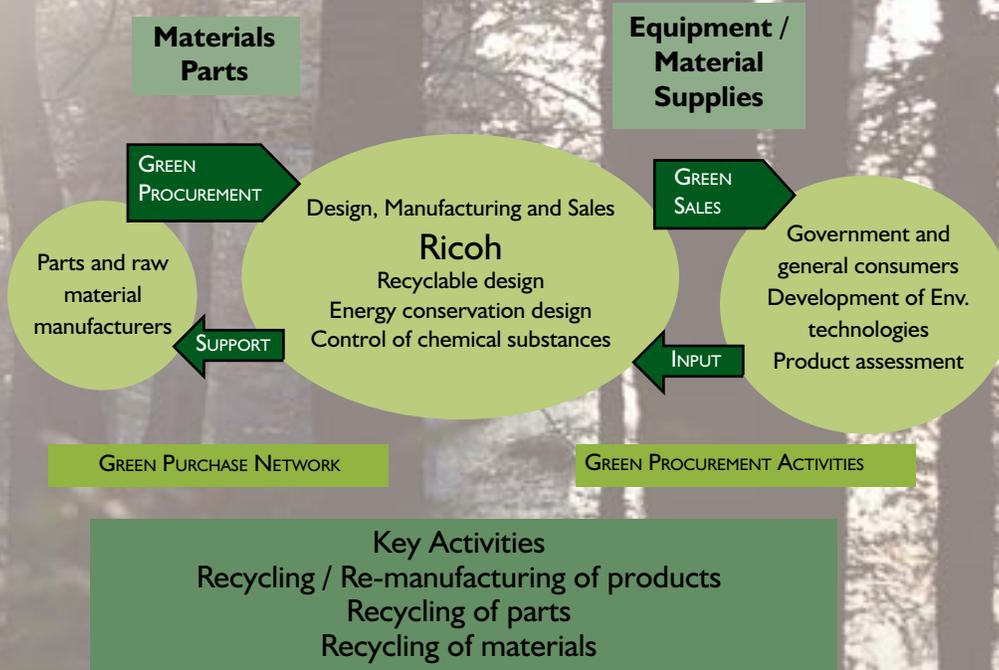
RICOH

Using materials and parts that have minimal environmental impact requires the support of our suppliers. It is our goal to support all of our “key suppliers” to have an approved Environmental Management System in place by March 2003.

“Green partners” voluntarily address the environmental impacts of their business activities and work with Ricoh Electronics, Inc. to achieve environmental goals. Certified suppliers have ISO 14001 certification or equivalent EMS or have registered support of Ricoh Electronics, Inc.’s Green Procurement Program guidelines. We will assist all “green partners” with this program through training and materials, seminars and consulting.

Ricoh Electronics, Inc. introduced the Green Procurement Program to major “key suppliers” or “green partners” in California on August 29, 2002. The seminar introduced “key suppliers” to Green Procurement and environmental policies, the planning requirements, the implementation process, and maintenance and improvement of the program.

RICOH CONCEPT OF GREEN PARTNERSHIP





Our earth,
Our tomorrow

CALIFORNIA

One Ricoh Square
1100 Valencia Ave.
Tustin, CA 92780-6428
(714) 566-2500

GEORGIA

1125 Hurricane Shoals Road
Lawrenceville, GA 30043-4827
(770) 338-7200

MEXICO

Santiago Graff No. 103
Parque Industrial Exportec I
Toluca, C.P. 50200 Mexico
52 (722) 273-0199

www.rei.ricoh.com/environment.htm

For more information about Ricoh's
environmental activities, please visit:

www.ricoh-usa.com/about/envir/ and
www.ricoh.co.jp/ecology/e-/index/html

RICOH ELECTRONICS, INC. 2002 ENVIRONMENTAL REPORT READER SATISFACTION SURVEY

1. DID YOU HAVE PRIOR KNOWLEDGE ABOUT RICOH ELECTRONICS, INC.'S ENVIRONMENTAL CONSERVATION ACTIVITIES?

- Yes
 No

2. WAS THE CONTENT SUFFICIENTLY SUBSTANTIAL?

- Yes
 No
 No opinion

• Comments: _____

3. HOW WOULD YOU RATE OUR ENVIRONMENTAL CONSERVATION ACTIVITIES?

- World class
 Above average
 Average
 Below average
 No opinion

• Comments: _____

4. WHICH SECTIONS OF THIS REPORT INTERESTED YOU MOST?

- Page(s): _____
 Name of article(s): _____
• Comments: _____

5. THE LENGTH OF THE REPORT IS

- Just right
 Too long
 Too short
 No opinion

• Comments: _____

6. PLEASE LIST ANY CONTENT THAT WAS NOT SUFFICIENT OR NEEDS IMPROVEMENT.

7. PLEASE GIVE US YOUR COMMENTS, OPINIONS OR SUGGESTIONS TO HELP US IMPROVE OUR ENVIRONMENTAL ACTIVITIES.

THANK YOU FOR YOUR FEEDBACK.

The following information would be appreciated.

Name: _____

Address: _____

Occupation/organization: _____

E-mail: _____

Telephone: _____

RICOH ELECTRONICS, INC.

2002 ENVIRONMENTAL REPORT READER SATISFACTION SURVEY

WE'D LIKE YOUR FEEDBACK

Although we have made our best effort to summarize our environmental management activities, we know there are still many points that can be further improved. We would like to incorporate your feedback into future reports. We appreciate your time to fill out this survey and return it to the Environmental Promotion Office at the address on the other side.

PLACE
STAMP
HERE

ENVIRONMENTAL PROMOTION OFFICE
RICOH ELECTRONICS, INC.
1100 VALENCIA AVE.
TUSTIN, CA 92780