

# 「知る」 *Knowing*



Re-Tem Corporation

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## Our desire is to create horizontally linked communities via a humble mindset

It is said that nothing goes to waste in nature. The waste from all matter and every living thing erodes away and natural selection proceeds over the passage of many long years, thereby preserving ecosystems. This year the earth's population surpassed 7 billion people. Will the balance between we humans and nature be preserved? To survive, humans must coexist with nature by understanding our limitations. Our hope is that we will differentiate that which is necessary from that which is not and carry on living lives of beauty by eliminating waste.


The phrase "a rolling stone gathers no moss" has a Western interpretation which says that one must keep moving to avoid growing rusty, and a Japanese interpretation that you should devote yourself to a single thing to the point that moss starts to grow on you. Even though it is the same phrase, the Western take and the Japanese take on it are completely different. In this manner the Japanese internalize a "humble mindset" without being consciously aware of it. We believe that we must perceive environmental problems through this humble mindset, which reveres simplicity and in which the mentality of *mottai-nai* (not being wasteful) can be seen. When viewed through a humble mindset, the shift over to a recycling-oriented society only seems natural.

Re-Tem has been focusing its efforts on environmental education, and is enthusiastically working to inform governments, corporate officials, students and children, overseas delegations, and all of our employees about information on resource recycling, recycling factories, and the concept of sustainable cities. This information is grounded in the perspective of a humble mindset and Re-Tem's expertise.

Through such activities Re-Tem creates horizontal linkages with the community and offers support for the formation of sustainable societies. We are of the conviction that if people were to join hands to form horizontal linkages through eco management that integrates environmental education, environmental technology, the transmission of information, and consulting, then this would undoubtedly give rise to the wisdom that will pave the way for future generations.

In CSR Report 2010/2011, which is our tenth such report since we began issuing them in 2001, we emphasize environmental education. Through these activities Re-Tem will continue working to "help to build societies brimming with hope and vitality" as advocated in our corporate philosophy. We would be delighted if our readers would offer us their honest opinions, guidance, and diverse range of knowledge for giving shape to future generations.

December 2011



Akira Nakajima  
President & C.E.O.

Sharing 伝える



足るを知る

“Creating connections that transcend the bounds of public-private, industry-academia, generations, and national boundaries through the dissemination of environmental education”

Knowing suffice to live

### The *mottai-nai* mentality is alive in Japanese clothing

Akira Nakajima is wearing the Japanese clothing that his great grandfather, Shinjiro Nakajima, the founder of Re-Tem, had tailored roughly one 100 years ago. In the Edo Period when Japanese clothing had grown old it was sold to second hand clothes shop. Afterwards, it was put to use as floor cushions or rags, before ultimately being burned for fuel, with the ashes from this used as fertilizer. In this age of increasing warning signs over environmental crises, Re-Tem believes in the importance of this mentality of *mottai-nai* as represented by Japanese clothing.



## A wide array of themes in environmental education including resource recycling worksites and advanced sustainable cities

Environmental problems are a theme that encompasses an incredible width and depth. Re-Tem strives to address a wide range of themes in environmental education while thinking and acting in concert with others. These cover everything from tours of recycling factories where visitors can get a real feel for environmental problems with their own eyes, to proper treatment of waste and the need for recycling and reuse of metallic resources, as well as how a sustainable city should be.

### EDUCATION Theme

#### Waste is a resource

##### Recycling factory tours

Re-Tem welcomes factory visits and lecturing at our Mito and Tokyo Factories. We show visitors how discarded copiers, computers, and other waste is actually crushed and processed, and how iron; gold, silver, and copper sediments; and other resources are ultimately sorted out. Furthermore, we offer opportunities where visitors can tour a cutting edge recycling facility located nearby ours.



Tokyo Factory



Mito Factory



China Factory

##### Global resource recycling

Re-Tem's factory in China imports iron mixtures and waste plastics from Japan and other countries and recycles them for use as raw materials. The globalization of resource recycling is picking up pace due to the growth of the international economy. Re-Tem carries out resource recycling from a global perspective, as evidenced by our track record of the traceability study commissioned by the Ministry of Economy, Trade and Industry from 2005 to 2007.

### EDUCATION Theme

#### Law-abiding waste treatment

##### Serious environmental risks

Waste-generating enterprises bear an extremely heavy responsibility, and even minor legal infractions committed out of carelessness carry the risk of being reported on by newspapers and television and causing significant damage to a company's image. In order to promote the law-abiding waste treatment and avoid risks, Re-Tem introduces numerous case examples and holds workshops on relevant laws and regulations.

##### Establishing compliance structure

Re-Tem offers methods of establishing compliance structure for the proper treatment of industrial waste. These include establishing a routine of risk awareness and visualization, creating waste management manuals, holding internal workshops, and more.



Seminar by the Re-Tem Legal Affairs Dept. held at a client company

# 「何を」 What do we share?

### EDUCATION Theme

#### Importance of reusing urban resources

##### The urban mines concept

The mining of natural resources brings about grave environmental destruction that is rapidly proliferating around the world. Yet at the same time, gold, silver, copper, and other resources lie hidden within used goods found in the cities. As such, Re-Tem advocates the urban mines concept with the aim of reusing these resources.



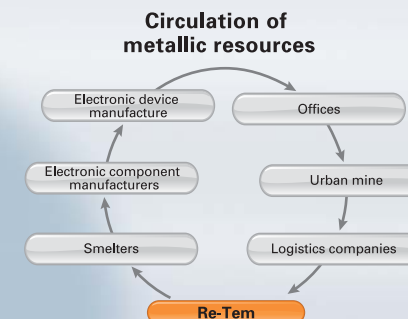
Natural resource mining site (New Caledonia)



Urban mine (used mobile phones)

##### The urgent task of recovering and reusing of rare metals

Scarce metals such as precious and rare metals are important as their deposits are found in such small quantities, even among the resources lying hidden in urban mines. Metals like gold, silver, copper, and palladium are used in small consumer electronics such as mobile phones, with such waste items lying dormant in cities in vast quantities. Re-Tem runs a project to collect rare metals with smelting and logistics partners.



### A traditional humble mindset

## Re-Tem's Perspective

The technology, experience, and knowledge of  
**environmental conservation**

### EDUCATION Theme

#### Visions for a sustainable city

##### Improving the environment on a city and region-wide basis

Thinking based on system-wide improvements will be required in order to drastically reduce our environmental impact. In cities called eco cities or smart cities systems for effective use and recycling of energy and resources are planned by integrating the government, companies, families, and other actors into a cohesive whole.

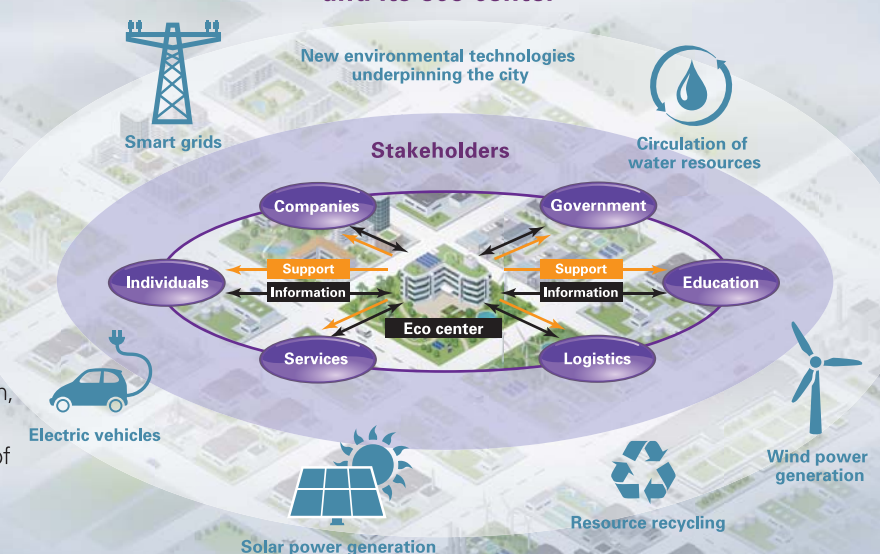
##### New environmental technologies

New environmental technologies including solar and wind power generation, smart grids, electric vehicles, water circulation, resource recycling and more will be essential for the formation of sustainable cities. The aim is to mitigate citywide environmental impacts by linking up these environmental technologies through systems.

##### Eco centers serve as the core of sustainable cities

Eco centers manage linking and matching environmental technologies up with governments, companies, families, and other actors in a systematic manner. Eco centers manage information, technologies, and know-how related to the environment in a concentrated manner in the aim of boosting the city's overall efficiency. Re-Tem has initiated a model project of eco center to serve as the core of a sustainable city.

#### Image of a sustainable city and its eco center





Environmental education aimed at stakeholders with dreams for the future that transcends the bounds of public-private, industry-academia, generations, and national boundaries

Re-Tem provides environmental education to a broad range of stakeholders, including children, students, our partner companies, governments, industry, research institutes, the media, overseas delegations, our employees, and more. In addition, we employ a broad range of educational methods that include factory tours, training, lecture sessions and seminars, and events.

Performance (two years of FY2009/2010)

Factory Tours

551 tours

Visitors can tour the worksites for recycling processes at our factories. We show visitors how copiers, computers, and other waste undergoes pre-treatment and disassembly and how various different metals are crushed, sorted and recovered.

Major participants (listed in no particular order)

■ Children

Shiba Junior High School, Ecchujima Elementary School (Koto Ward), Minami Elementary School (Edogawa Ward), Mouri Elementary School (Koto Ward), etc.

■ High school and university students

Tokyo Institute of Technology, Shibaura Institute of Technology, Gakushuin University, Tokyo Metropolitan Aoyama High School, etc.

■ Government agencies and officials

Prime Minister of Japan, officials of METI, MOE and local governments of Tokyo, Chiba, Saitama, etc.

■ Industry organizations

Japan External Trade Organization (JETRO), Japan Iron and Steel Recycling Institute, Japan Society of Material Cycles and Waste Management, etc.

■ Media

Reuters, Canada TV, NHK, TV Asahi, Nikkei Ecology, Sankei Shimbun, etc.

■ Overseas agencies and officials

United Nations, Brazilian Ministry of Development, Industry and Foreign Trade, foreign embassies from African countries Hong Kong Economic and Trade Office, Beijing Environmental Sanitation Association, Industrial Estate Authority of Thailand, etc.

■ Partner companies

Electrical and electronics, engineering, energy, food, beverages, logistics, trading, finance, etc.

Training and Internships

25 sessions

We offer training and internships (working experience) in the waste recycling business for governments, companies, students, and others.

Major participants

New entrants into METI, Saitama City personnel, Waseda University students, students from the Mito Iitomi School for the Handicapped, students from the Mito Industrial Technology Junior College, etc.

Lecture Sessions and Seminars

61 sessions

Experts from Re-Tem have held lecture sessions and seminars for governments, research institutes, companies, universities, and more.

Major lecture and seminar themes	Sponsors
The 3Rs in Asia	MOE (Beijing, China)
Recycling Small Electrical Appliances and Rare Metals	Democratic Party of Japan
Urban Mines and Resource Recycling	Gakushuin University
Risk Management for Waste Treatment	Automobile and beverage manufacturers, etc.
Auditing Waste Treatment Provider	Information service companies, etc.

Trade Shows and Events

15 events

Environmental events, from those at the national level to those sponsored by local municipalities and companies.

Major events we have participated in

Eco-Products 2010  
INTERNEPCON JAPAN 2010  
Science Cafés (Takahagi, Kitaibaraki, Hitachi)\*  
Hitachi Environmental City Festival\*  
Koga Kanto Do Mannaka Festival\*  
36th Kiddy Plaza (Mito), etc.  
*\* held as part of a model project by MOE*

Employee Education

25 sessions

We hold study sessions on resource problems, waste related laws, CSR promotion, and radiated waste.

Major training

Workshop on Revisions to the Waste Management and Public Cleansing Law  
Session on Handling Radiation Contaminated Waste  
Workshop on Resource Problems  
RISM Training, etc.

<Opinions received from factory visitors>  
Business Administration Seminar,  
Lecturer Yoshiaki Maki,  
The College of Humanities, Ibaraki University  
(Mito Factory: September 2011)

Getting a feel for the importance of recycling creates new outlooks

Lecturer Maki’s teaching theme is production systems. He visited Re-Tem’s Mito Factory with his students to teach them that manufacturing is not just about production, but that it also involves the disposal, recycling, and circulation of materials.

Surprising quality control for waste treatment — Lecturer Yoshiaki Maki

What really impressed me when we toured the factory were the quality control methods. The quality control methods which is identical to those at manufacturing worksites are being meticulously applied at the disposal and recycling stage.

It changed my view of resource recycling companies — Takuma Yonezawa (Junior)

The tour let me understand that the depletion of resources is growing more serious on the one hand, but that enormous amounts of waste are being recycled in the form of resources on the other hand. At the factory this waste is properly treated safely, soundly, and reliably. Though a word of “waste” used to remind me of “illegal dumping”, this experience has changed the way I look at resource recycling companies.

Our living are built upon vast quantities of waste — Shota Yokoya (Junior)

I was astonished to hear that about 100 tons of waste are transported and treated there every day. It gave me a feel for how important the social role of resource recycling companies are.

Recycling is more difficult than manufacturing —Sachika Takamura (Junior)

I was surprised at how CFC gas is manually recovered from air conditioning units one by one. I guess that in this age, these are the extents to which we must go. I got



the feeling that recycling is far and away more difficult than manufacturing, which has given rise to a new outlook for me.

Resource recycling companies would be essential in my country as well Yesica Valeria Masuko (Trainee)

I work at a Japanese auto parts manufacturer in Argentina. I came to Japan to study quality control for a half a year. Companies that recycle resources are almost entirely unknown in my country, but this experience has made me keenly aware of their necessity and has been quite informative.

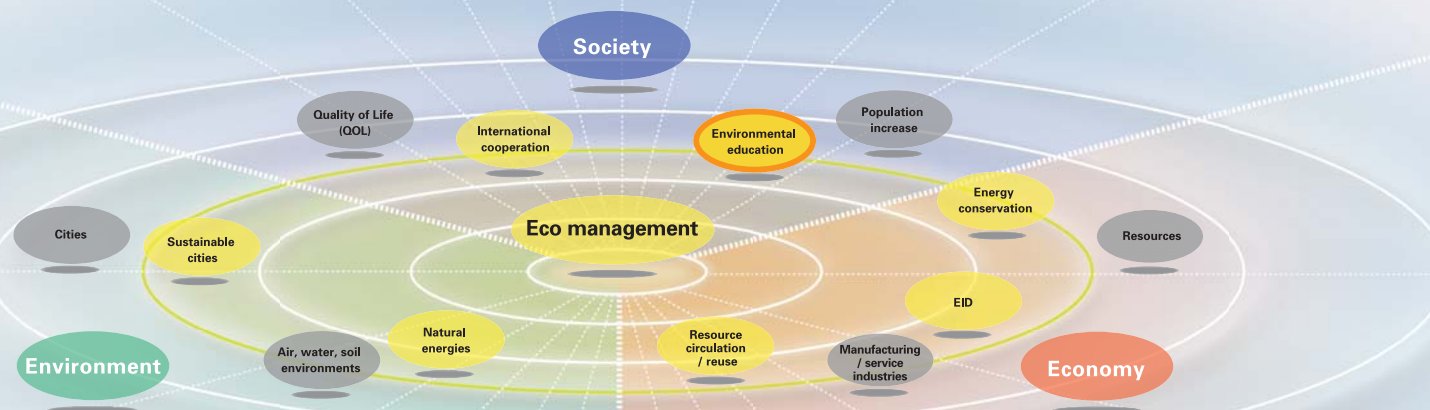




## Case examples of horizontal linkages for sustainable societies arise one after another

Environmental education aims for horizontal linkages across communities. Governments, research institutes, and companies have traditionally tended to be vertically segmented and work independently, which has resulted in a lack of dynamism. Environmental education is one of techniques to reform all of this. Re-Tem strengthens eco management that integrates aspects such as environmental education, technologies and business.

Conceptual diagram of eco management



Eco management is a concept that aims for the formation of the sustainable societies advocated by Re-Tem. We must link together people from a diverse range of disciplines and reform our social systems themselves in striving to reduce the environmental impacts of society as a whole. We believe that what is needed here are “soft” aspects, namely management.

### CASE EXAMPLE 1

#### Tokyo Metropolitan Government over international cooperation and international promotion

Re-Tem cooperates with the international promotion of waste treatment advocated by the Tokyo Metropolitan Government by carrying out activities such as giving site tours of the Tokyo Super Eco Town and sharing information with other Asian countries. The problems such as a lack of waste treatment facilities and the slipshod sorting of waste are growing graver and more serious in various cities throughout Asia. Tokyo Metropolitan Government has launched a support program for those problems.



The leaflet introduced at the NEW N-Expo 2011

### CASE EXAMPLE 2

#### Ibaraki Eco Innovation Promotion Council

Re-Tem supports the Ibaraki Eco Innovation Promotion Council sponsored by Ibaraki Prefecture that was launched in October 2010 by serving as its secretariat. Re-Tem took the idea of establishing a promotion council to the prefecture. The council has then been formed in order to turn Ibaraki Prefecture into a leading environmental prefecture by harnessing its unique quality of attracting cutting edge technology industries such as the Tsukuba Science City, manufacturing, and agricultural achievements. The council is promoting initiatives like business networking with China and a host of other Asian countries.



The preparatory committee to establish the council (May 2010)

#### Members of the Ibaraki Eco Innovation Promotion Council

**Council members** (Titles omitted)

##### Chairman

Ryoichi Yamamoto *Honorary Professor at the University of Tokyo*

##### Members

Isao Inoue *University of Tsukuba Graduate School*

Shigeru Oi *JX Nippon Mining & Metals*

Atsushi Kubota *Sumitomo Metal Industries, Ltd.*

Hiroshi Sato *National Institute for Environmental Studies*

Yoichi Takahashi *Hitachi, Ltd.*

Akira Nakajima *Re-Tem Corporation*

Kenichi Nakajima *Waseda University Environmental Research Institute*

Kohmei Harada *National Institute for Materials Science*

Shin Fukuchi *Hitachi City, Ibaraki Prefecture*

Kiyoto Furuta *Canon Inc.*

Chikatsu Mashiko *Planning Department, Ibaraki Prefecture*

Nobuo Mimura *Ibaraki University*

Kiyotaka Miyashita *National Institute for Agro-Environmental Sciences*

Shuzo Murakami *Building Research Institute*

Akira Yabe *National Institute of Advanced Industrial Science and Technology (AIST)*

##### Sponsor

Planning Department, Ibaraki Prefecture

##### Secretariat

Re-Tem Corporation

### CASE EXAMPLE 3

#### Tianjin Economic Development Area Eco Center

The eco management advocated by Re-Tem is starting to get underway in the city of Tianjin, China. The TEDA Eco Center was established in March 2010 in the Tianjin Economic Development Area (TEDA), in which global companies such as Toyota and Samsung are locating production centers. The eco center plays a supporting role in resolving the challenges from environmental conservation encountered by companies in the area, in business incubation, as well as in promoting environmental improvements across TEDA as a whole. Re-Tem provides comprehensive backing for the center by providing consulting, lecture sessions, planning observation tours, and more.



Conceptual drawing of the completed TEDA Eco Center (Scheduled for completion in 2013)

#### Major activities of the TEDA Eco Center

##### <Information service>

- Running a search website for environmental information (Japanese: <http://www.ecoteda.org/japan>)
- Newsletter for the website member companies
- A monthly publication of “The TEDA low carbon”.

##### <Business matching events>

- Energy saving technology for composite heat exchangers
- Support for matching trades in recycled resources between SMEs, etc.

##### <SMEs support on environmental technologies>

- Investigative committees on energy saving technology for the manufacturing industry
- Exchange sessions for technology to utilize the waste heat from manufacturing, etc.



## Hoping for the earliest possible restoration and reconstruction of the disaster-stricken region

We would like to extend our heartfelt sympathies to those who lost their lives during the Great East Japan Earthquake that occurred in March 2011, as well as their families and everyone who was afflicted by this. Re-Tem is working to move ahead with treating the disaster waste generated from the earthquake as quickly as possible in hoping for the earliest possible restoration and reconstruction of the region.

### Support for the Disposal of Disaster Waste in Oarai

During the Great East Japan Earthquake the town of Oarai in Ibaraki Prefecture was struck by tremors from a strong level five earthquake (on the Japanese seismic intensity scale) and a 4.9-meter tsunami, which inflicted considerable damage to buildings, roadways, and other infrastructure primarily in the coastal areas. Oarai set out a plan to finish disposing of the disaster waste before the sea bathing season, as this is an important tourist attraction for the town. Re-Tem provided advice on issues, including the selection of the disposal subcontractor, carrying waste out to the repository site, and managing the collection point. In addition, we also initiated recording information like the types of waste, their disposal sites, and visual estimates of its weight via a simplified manifest. As a result, the town was able to ensure the suitability and transparency of the waste disposal.



Oarai after being struck by the tsunami

Oarai after the reconstruction

### Storing disaster waste at our Mito Factory

Our Mito Factory offered the town of Ibaraki in Ibaraki Prefecture, where the factory is located, the use of the employee parking lot on its premises from March 31 to April 12 as a temporary storage site for the disaster waste. By properly storing and managing approximately 920 tons of concrete blocks, oya stone, roofing tiles, and other waste, we did our part to contribute to the rapid reconstruction of the town.



Storage site for the disaster waste



The disaster waste being unloaded

### What is disaster waste?

Disaster waste refers to the waste generated by earthquakes, tsunamis, and other such disasters, and includes rubble, scraps of wood from collapsed buildings, electronic appliances, and so on. In the areas that were hit by the Great East Japan Earthquake the disaster waste is being moved to temporary storage areas and then disposed of via ad hoc incinerators and the like, but this alone is nowhere near up to the task. It is crucial that all of Japan cooperates to dispose of this waste for the sake of the reconstruction and restoration of the disaster-stricken areas.

### Support for the disposal of waste products at Kirin Brewery Company's Sendai Factory

Based on a request from Kirin Brewery Company's Sendai Factory (Miyagino Ward, Miyagi Prefecture), which suffered enormous damage during the earthquake, Re-Tem served as the company overseeing the full range of the work and was contracted to dispose of the roughly 4,000m<sup>3</sup> worth of waste products (mixed materials such as aluminum cans, acid waste, and metal scraps). The Kirin Brewery Company places a premium on environmental protection and legal compliance. To meet those demands, Retem dispatched technical experts from our own factory to their Sendai Factory and ensured thoroughness in the preliminary audits of the disposal contractors, also in assisting with sorting and disposal and loading the vehicles.



Images of the waste products (top, bottom)

### Tokyo Metropolitan Government's selected recycler for wide-area disaster waste disposal

#### Crushing of waste machinery and devices by Re-Tem

The national government has been calling upon municipalities around the country to engage in wide-area waste disposal. Following this, the Tokyo Metropolitan Government announced that it would accept approximately 500,000 tons of disaster waste for disposal over the three years up until 2013. On October 19, Re-Tem was selected as the recycler of waste machinery and devices via crushing.

#### Support for preliminary sorting operations in Miyako

Re-Tem stationed experts in the city of Miyako to provide technical assistance upon a request from Iwate Prefecture. At the waste storage sites we advised on sorting dangerous objects, sorting and separating for efficient recycling, as well as giving guidance for shearing work using heavy machinery.

#### Start of recycling work in November

Re-Tem's Tokyo Factory began recycling disaster waste from the city of Miyako in Iwate Prefecture in November. On receipt of the waste from Miyako, Tokyo Metropolitan Government measured radiation and ensured its safety. Furthermore, Re-Tem also instituted spot checks for radiation at our factory and proceeded with the work under thorough safety management.

See the homepage of the Bureau of Environment of the Tokyo Metropolitan Government for details of the project (<http://www.kankyo.metro.tokyo.jp>)

### The volume of disaster waste generated by the Great East Japan Earthquake

MOE estimates that the volume of waste generated by the Great East Japan Earthquake came to 22.47 million tons for just three prefectures in the Tohoku Region: Miyagi, Iwate, and Fukushima. It amounts to roughly 11 years worth of the volume of waste normally generated in Iwate, and roughly 19 years worth of that in Miyagi.



Disaster waste storage site in Miyako



Shearing work using heavy machinery (Miyako)



Waste machinery and devices transported from Miyako to Re-Tem's Tokyo Factory

## Re-Tem's in-house responses to the Great East Japan Earthquake

### Our president personally offered explanations on the handling of radiated waste and safety assurances

Our first priority was on ensuring the occupational safety of our employees, while at the same time offering clear explanations to our customers. Immediately after the earthquake Re-Tem formulated internal rules related to methods and procedures for accepting radiated waste, which our president himself then traveled to our factories

to explain to the employees. The factories purchased six Geiger counters, and began performing spot measurements for radiation and recording whenever the waste was received. Since then, our measurement readings have remained largely consistent with those announced by the surrounding municipalities.

### Cutting down power use

Through regulating our use of power by changing our factories' days off from Saturday and Sunday to Sunday and Monday, shifting our operating and business hours, and expanding our summer vacation, we achieved the energy savings of 15% called for by the government.

### Other activities

Our employees have also contributed donations to the Ibaraki Prefecture Disaster Response Headquarters and engaged in volunteer activities in the disaster-stricken area, among other activities.



A session for employees giving precautions for radiated waste. (Tokyo Factory)



The GHG reduction effect from Tokyo Super Eco Town

In July 2010 the Tokyo Super Eco Town Council, of which Re-Tem is also a member, reported the results of its estimation on the greenhouse gas (GHG) reduction effect across all of the major facilities within Tokyo Super Eco Town. From this it was learned that the reduction effect had been 120,000 t-CO<sub>2</sub> per year compared to that waste is delivered to facilities scattered in cities and be incinerated. See Re-Tem’s website for the estimation formula. Re-Tem also performs life cycle assessment (LCA) analyses, and publishes examples of analysis results of recycled products at our factories. (<http://www.re-tem.com>)

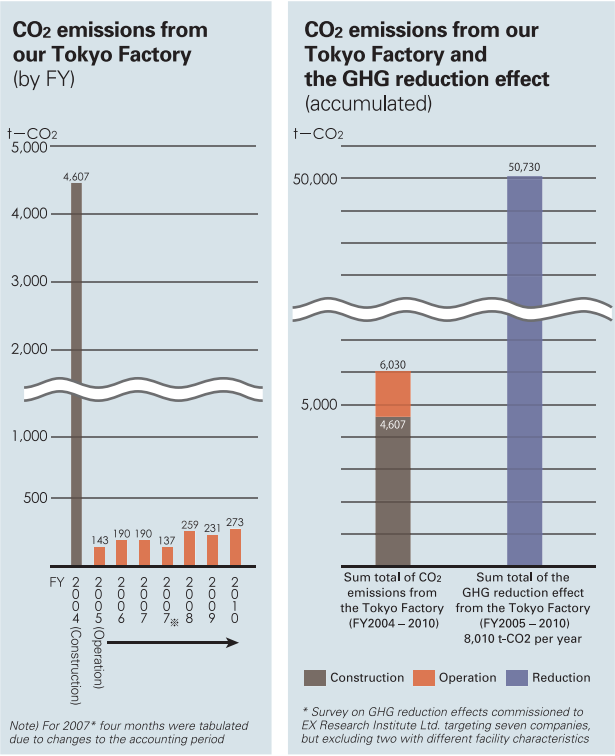
Introducing recycling technology at exhibitions

In January 2010, we run a booth at the 39th INTERNEPCON JAPAN (venue: Tokyo Big Site), the largest trade show for electronics manufacturing and implementing technologies, where we introduced our recovery of rare metals from small electronic devices to attendees. We also held a seminar related to strategies for ensuring recycled resources at the show which attracted a great deal of interest from the attendees. In December 2010 we set up a booth with Eco-Products 2010 (venue: Tokyo Big Site), one of the largest environment-related trade shows in Japan. Here we introduced Re-Tem’s various recycling services, such as support for the resource circulation system development and the unified arterial-venous management.

Offsetting the sum total of CO<sub>2</sub> emissions from the construction and operation of our Tokyo Factory

In this estimation the annual GHG reduction effect for Re-Tem’s Tokyo Factory came to 8,010 t-CO<sub>2</sub>. It is interpreted that this reduction effect in a single year exceeds the combined volume of CO<sub>2</sub> emissions of 4,607 t-CO<sub>2</sub> calculated when the Tokyo Factory was constructed and the CO<sub>2</sub> emissions through its seven years of operation.

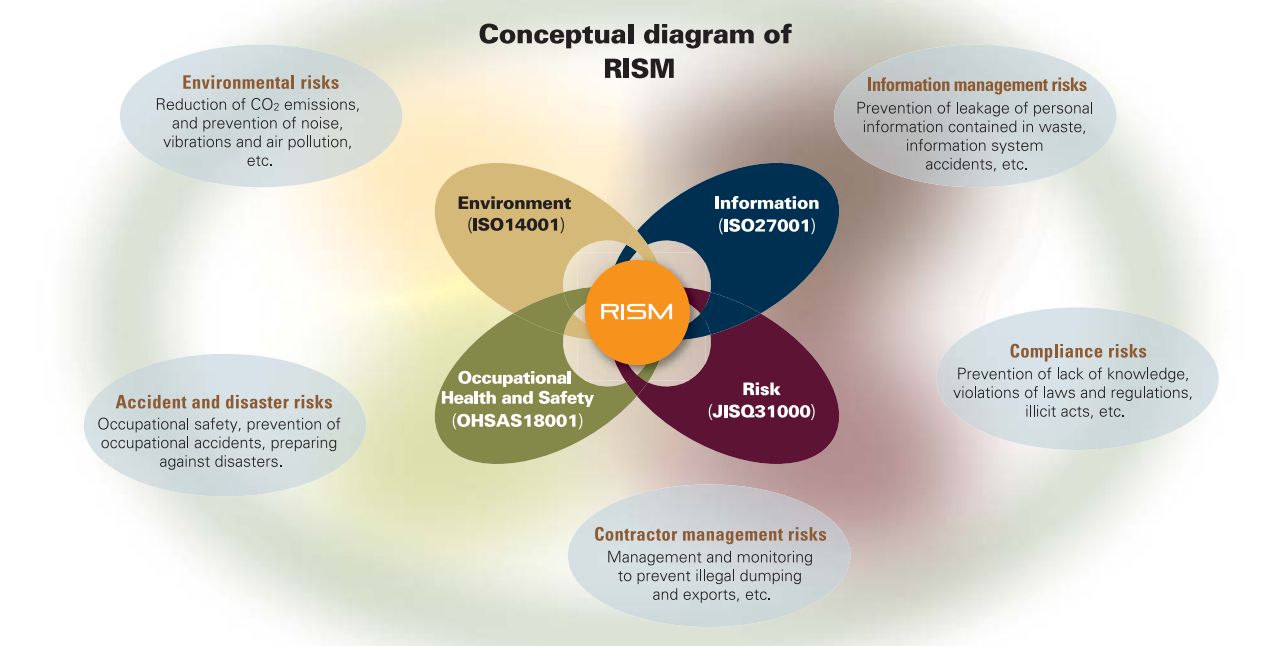
\* There are six types of GHG, including CO<sub>2</sub>. Of these it is claimed that CO<sub>2</sub> has the greatest impact on global warming.



Operating RISM to reduce risks

Re-Tem strives to reduce business risks through our own unique management system, called Re-Tem Integrated System of Management (RISM). RISM is a system that integrates four official standards for the environment, information, occupational safety, and risk under a single

tool to enable us to manage them efficiently. This not only meets our customers’ needs, but also serves as the heart and soul of Re-Tem’s efforts for fulfilling our social responsibility as an environmental conservation company.

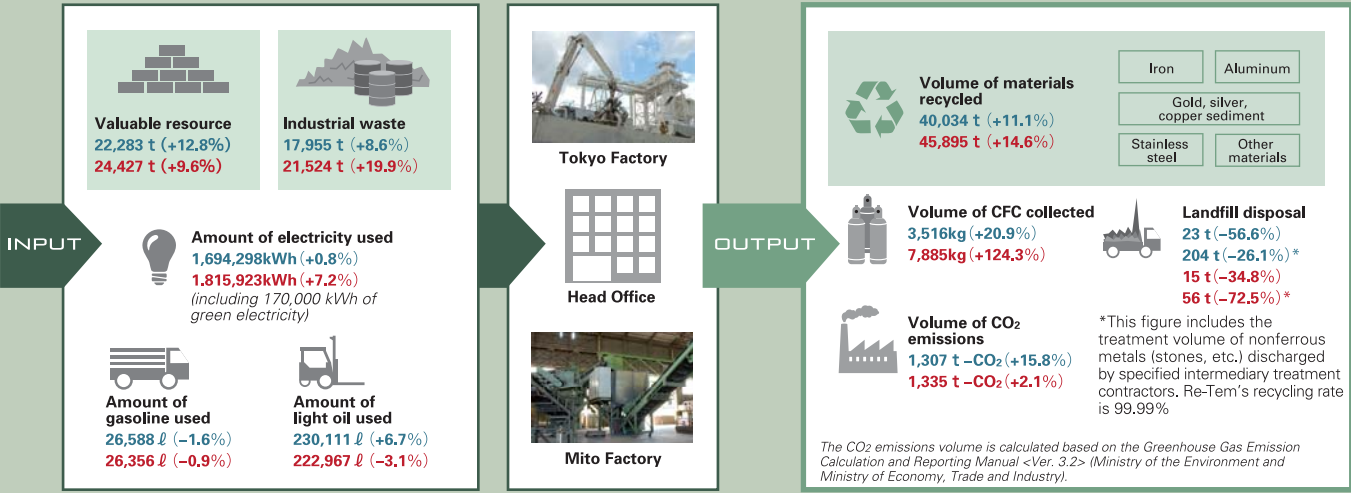


[RISM] Achievement status for objectives in 2009-2010 (extract)

	Policy	Main department	Measures	Achievement
Environment	Reducing the waste generated from treatment processes	Mito Factory Tokyo Factory	<ul style="list-style-type: none"><li>Examine treatment processes that boost added value in accordance with the type of waste</li><li>Gain process efficiency by upgrading equipments</li></ul>	<ul style="list-style-type: none"><li>Obviated the need for wastewater treatment by switching dust collector’s process type from wet to dry</li><li>Reduced the volume of waste contracted out by improving the accuracy of waste plastic and paper sorting</li></ul>
	Curbing the amount of CO <sub>2</sub> emissions	Sustainability Solutions Department	<ul style="list-style-type: none"><li>Measure the emissions of CO<sub>2</sub> from the whole factories and each process</li><li>Formulate methods of managing the data</li></ul>	<ul style="list-style-type: none"><li>Decided the process scheme for obtaining data</li><li>Performed a comparison and analysis with the CO<sub>2</sub> generated on the construction of Tokyo Factory</li></ul>
Information management	Effectively using information systems and improving management methods	Information Systems Group	<ul style="list-style-type: none"><li>Implement a backbone systems for sharing critical operations</li><li>Establish operating and analysis rules for the backbone systems to improve them</li></ul>	<ul style="list-style-type: none"><li>Implemented the systems unifying customer and item databases, operation estimates, ordering, measuring, accounting, etc.</li><li>Optimization in line with Re-Tem’s operating structure</li></ul>
	Information security measures for digital data (FY2010)	Information Systems Group	<ul style="list-style-type: none"><li>Install encryption software on the hard disks of computers used out of the office</li><li>Institute risk training on taking information out of the office</li></ul>	<ul style="list-style-type: none"><li>Identified computers to be taken out of the office, and installed encryption software on their hard disks</li><li>Held risk training to raise risk awareness of information leaking.</li></ul>
Risks	Upgrade factory equipments	Mito Factory	<ul style="list-style-type: none"><li>Pinpoint and assess worn out equipment</li><li>Upgrade equipment with a high risk</li><li>Early detection and response to malfunctioning equipment by daily inspections</li></ul>	<ul style="list-style-type: none"><li>Upgraded the motor and the dust collector attached to the crushing machine</li><li>Strengthened the items for our daily inspections and instituted early maintenance</li></ul>
Occupational safety	Countermeasures for major disasters (earthquakes)	Company-wide	<ul style="list-style-type: none"><li>Create manuals for emergency</li><li>Revise the manuals for emergency evacuations</li><li>Revise the emergency contact list and structure</li></ul>	<ul style="list-style-type: none"><li>Continued creating emergency manuals and evacuation manuals ongoing</li><li>Revised the emergency contact list and structure</li></ul>

Overview of environmental impact

FY2009: August 2009 – July 2010 FY2010: August 2010 – July 2011





Achieving highly efficient resource circulation through a partnership between Japan and China



The Tokyo Factory was built in Tokyo Super Eco Town, which is a model district for resource recycling in Tokyo and began its operation in 2005. It treats personal computers and servers, as well as large metallic devices such as vending machines and ATMs. Recovered items containing nonferrous metals are shipped to the Mito Factory where they are further processed by being crushed more finely.

**Factory information**  
Location: 3-2-9 Jonanjima, Ota-ku, Tokyo  
Site area: 5,293 m²  
Capacity: Crushing machine 864 t/day



**A word from our employees**  
**I feel like I'm being improved every day at this factory**

Kenji Morita,  
General Affairs Group Leader,  
Tokyo Operations Department  
(6 years of experience at the company)

Despite of the impression I had before joining the company, I found it challenging as we need to adapt to the circumstances and respond quickly to different types of materials and fluctuating volume. The work gives me the feeling that I'm being improved. I believe that this day-to-day work contributes to the formation of a recycling-oriented society, which gives me the sense that it is rewarding and worthwhile. The Tokyo Factory has a modern design that you would not expect from a recycling facility. It also has an observation passageway from where visitors are able to gain an understanding of our treatment processes. I encourage everyone to come and have a look.



The Mito Factory is a recycling facility for iron and metal-plastic composite materials that was constructed in 1970. It carries out the recycling of information devices and large metallic devices, and it is currently a wide-area recycling certified and designated factory for many manufacturers of information devices. It achieves zero emissions treatment for metal-plastic composite materials.

**Factory information**  
Location: 3520 Nagaoka, Ibaraki-machi, Higashi Ibaraki-gun, Ibaraki  
Site area: 29,287 m²  
Capacity: Crushing machine 37.8 t/day, Guillotine shear 80.0 t/day



**A word from our employees**  
**The factory just keeps getting cleaner**

Takamitsu Ichimura,  
Assistant Director, Mito Operations Division  
(18 years of experience at the company)

At the Mito Factory the staff for Operations, Sales, and General Affairs all work on the same premises. It makes for a cheerful workplace where we can exchange opinions, communicate with one another across departments. What has impressed me the most over the long time I've worked here is that the factory has gotten remarkably cleaner compared to back when I joined the company. This came about as a result of everyone pitching in together to carry out improvements like concrete paving. It's important to greet visitors with a warm welcome, as well as to meticulously ensure that the factory is clean. For the future I would make the factory even cleaner than it is now.



This is our latest factory, which began operating in November 2010 in the city of Taicang in Jiangsu Province, China. The factory treats waste from Chinese and Japanese manufacturers located in Jiangsu Province, neighbouring Zhejiang Province, and Shanghai. It also works on treating metal composite materials and waste plastics imported from Japan and other countries.

**Factory information**  
Factory management company: Re-Tem (China) Corporation  
(a wholly owned subsidiary of Re-Tem)  
Location: Taicang, Jiangsu Province, China  
Site area: 28,000 m²



**A word from our employees**  
**Environmental issues are a theme connected to the fate of mankind**

Qian Xiaohong,  
Management Department  
(5 years of experience at the company)

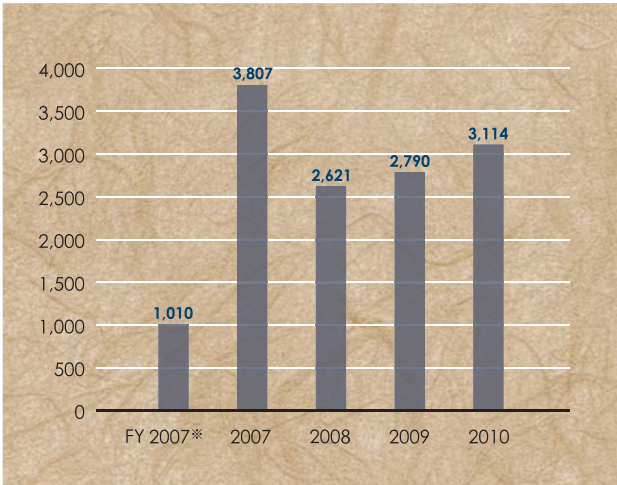
Since joining Re-Tem (China) Corporation, which is Re-Tem's local affiliate in China, in January 2006 I have been involved in general affairs. The China factory is a model factory for international resource recycling that has been furnished with exceptional waste treatment know-how from Japan as well as being acknowledged as an outstanding factory in the Taicang Port Secondary Resources Importing and Processing Zone. Environmental issues are a theme that is connected to the survival of mankind, which gives us the employee enormous motivation.

Company outline

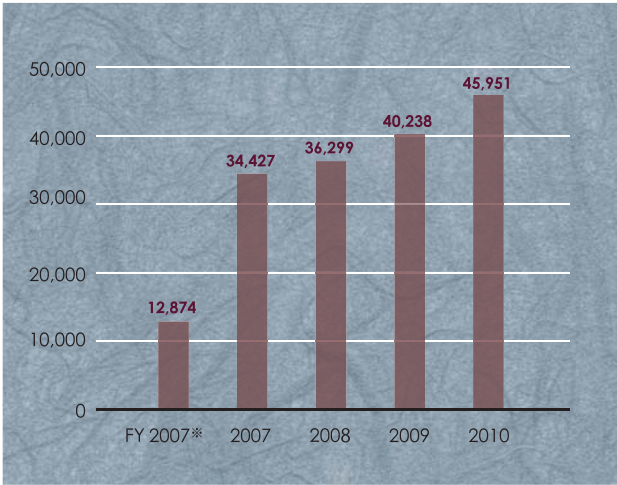
**Company name:** Re-Tem Corporation  
**Representative:** President & C.E.O. Akira Nakajima  
**Location:** **<Head Office>**  
3-6-10 Soto Kanda, Chiyoda-ku, Tokyo, 101-0021  
TEL: +81-3-3258-8586  
FAX: +81-3-3251-5804  
**<Mito Factory>**  
3520 Nagaoka, Ibaraki-machi, Higashi Ibaraki-gun, Ibaraki, 311-3116  
TEL: +81-29-292-1220  
FAX: +81-29-292-1225  
**<Tokyo Factory>**  
3-2-9 Jonanjima, Ota-ku, Tokyo, 143-0002  
**Overseas affiliates:** **<China>**  
Re-Tem (China) Corporation  
Re-Tem (Beijing) Environmental Technology & Consulting Co., Ltd.  
**<United States>**  
Re-Tem Global Eco Management Inc.  
**Capital:** 36 million yen  
**Foundation:** 1909  
**Incorporation:** 1951  
**Sales:** 3,114 million yen (FY2010)  
**Number of employees:** 129 (as of December 31, 2011)  
**Content of business:** Resource management and eco-center management in eco-industrial parks, etc./ consulting regarding resource circulation and recycling / recycling and reuse of resources / sale and purchase of materials for steel production and nonferrous precious metal materials / dismantling, moving, and collecting construction materials and work materials

**Authorized for:** Industrial waste management business, industrial waste collection and transport business, municipal waste management business, Class-1 Specified Fluorocarbons recovery business, general construction business, warehousing business, used product dealer, metal waste dealer

Sales (Unit: million yen)



Volume of materials handled (Unit: tons)



The fiscal year runs from August to July (example: FY2010 runs from August 2010 to July 2011)  
For 2007\* the four months from April to July 2007 were tabulated on account of changes to the accounting period

Editor's note

Thank you for reading this report.

This report placed emphasis on the environmental education that Re-Tem has been putting its efforts in recent years. We highlights environmental risks, the need to recycle resources, and the importance of environmental conservation that transcends barriers for various different people, including those in the government, companies, and the citizenry. We also call for the formation of sustainable societies through eco management that links people in different fields together horizontally. The report introduces these activities in an easy manner through a structure that shows what is being taught to who and what our aim is in doing this.

The message from the president appeals that a pursuit of affluence inclined towards the opulence has given rise to global environmental problems, and call for improving the environment via a "humble mindset" that reveres simplicity. Re-Tem values this traditional Japanese mentality.

The report also introduced the efforts that Re-Tem has been making and continue to pursue in the future so as to support the disaster-stricken region.

Hoping that the stricken region will recover and be restored

as quickly as possible, Retem will offer aid to the extent possible.

Please note that this report introduces our activities over the two years of 2010/2011. We hope to receive your frank opinions regarding the report.

December 2011  
CSR Office, Business Management Department

- Period covered**  
Fiscal 2009 (August 2009 – July 2010)  
Fiscal 2010 (August 2010 – July 2011)  
The situation through December 2011 is covered regarding significant developments.
- Guidelines referred to**  
Environmental Reporting Guidelines (2007 Edition), Ministry of the Environment  
GRI Guidelines 2006 (No.3 Edition)
- Issuance of this report**  
Once a year (the next issue is scheduled for December 2012)
- Editor in charge of this report / inquiries**  
CSR Office, Business Management Department  
TEL: +81-3-3258-8586