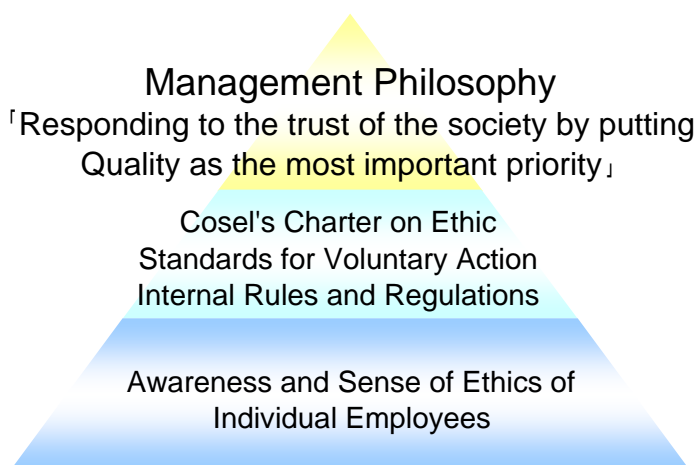


Environmental Report2011

Toward Environmentally Friendly Manufacturing



Management Philosophy/Charter on Ethic



Positions of Cosel's Charter on Ethics and Standards for Voluntary Action

Cosel's Charter on Ethic and Standards for Voluntary Action are established so that all the management and employees of Cosel group become fully aware of their social responsibilities, completely comply with laws and regulations in settings of various business activities and act in a socially ethical manner in order to achieve our management philosophy of "responding to the trust of the society by putting Quality as the most important priority" (established in September, 2006).

We are trying to improve ourselves by using the idea and methodologies of Total Quality Management (TQM) based on our management philosophy of "meeting up with expectations from society by putting quality above anything else."

In order to achieve this, we are striving to secure our position in the increasingly competitive switch-mode power supply market by clearly presenting goals and measures and applying them on the company-wide basis to live up to expectations from society by providing attractive products.



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From Our Editors

Every year at Cosel Co., Ltd., we are preparing and disclosing Environmental Report so that more people understand our environmental activities.

We are more than happy if this report helps you understand our environmental initiatives and activities.

In preparing this report, we have referred to "Kankyo Hokokusho Gaidorain 2007 (Guideline to Environmental Reports 2007)" issued by the Ministry of Environment.

Organizations Covered by this Report:

Cosel, Co., Ltd.

Head Office and Plant/Tateyama Plant

Period Covered by this Report:

May 21, 2010 to May 20, 2011

("FY 2010" in this report refers to above period)

Issue Date of the Next Environmental Report:

July, 2012

Last Issuance: July, 2010

Message from the President

I would like to express my deepest sympathy for those who suffered from the Great East Japan Earthquake and wish the earliest recovery of the affected area.

The year 2011 forced us to reaffirm the importance of electrical energy for our daily living. The momentum for energy saving is becoming stronger because of the Great East Japan Earthquake and subsequent nuclear power plant incidents.

As a developer and manufacturer of equipment related to electricity, we believe that we can contribute to energy saving for the entire society through business activities by encouraging activities to reduce environmental burdens generated from our business activities as well as by developing and introducing highly energy efficient products with reduced electrical loss.

We also believe that it is our mission and responsibility to pass on this precious earth's environment in healthy conditions to our next generation.

We will promote activities to reduce environmental burdens further and aim to become a company on which our customers would say "we could like to use Cosel products" for both our quality and environment.

Keeping the idea of protecting global environment and passing it on to the generations to come to our heart, we would like to steadily advance as a trusted company. Please feel free to contact us with your honest opinions and input for our further improvement.



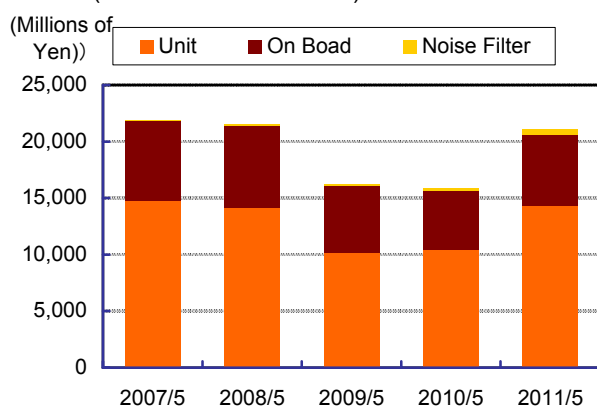
President and Representative Director

Keiichi Fukumura

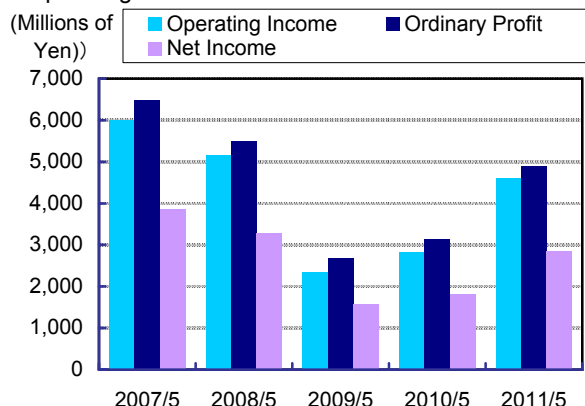
Company Overview

- Trade Name: Cosel Co., Ltd.
- Headquarters: 1-6-43 Kamiakae-machi, Toyama City, Toyama Prefecture, 930 0816, Japan
TEL : 076-432-8151
FAX : 076-441-5324
- Business: Manufacturing and Sales of Electric Devices and Electrical Machine Equipment
- Main Products: Regulated Power Supplies (such as Switch Mode Power Supplies)
- Representative: Keiichi Fukumura
- Date of Establishment: July 26, 1969
- Paid-in Capital: 2,055 Million Yen
- Annual Sales: 21,095 Million Yen (Non-consolidated basis for the period ended May 2011)
- Number of Employees: 421 (Non-consolidated basis as of May 20, 2011)
- Affiliates: Taiyoudenshikougyou CO.,LTD. (Tsukioka-machi, Toyama City, Toyama Prefecture)
COSEL U.S.A.INC. (San Jose, USA)
COSEL EUROPE GmbH (Frankfurt, Germany)
COSEL ASIA LTD. (Hong Kong, China)

◆ Sales (Non-consolidated Basis)



◆ Operating Profit/Current Profit/Net Profit for the Period



Environmental Policies

Environmental Principle



Harmonize production and product development with environment,
endeavor to maintain and improve global environment
and thereby contribute to the society

Action Guidelines



Action guidelines are stipulated to put environmental principle into actions.

- (1) Offer environmentally friendly products.
- (2) Avoid unnecessary consumption of resources and promote reuse of wastes.
- (3) Reduce and eliminate the use of environmentally unfriendly chemicals
and Endeavour to improve global environment.
- (4) Set and review goals and objectivities to control our activities,
work for continuous improvement and prevent contamination.
- (5) Comply with national and local environmental regulations and respond to
the needs of customers and local communities.
- (6) Provide all employees with environmental training and raise awareness.

This environmental policies are made public.

Set forth on May 21, 1999
Revised on August 7, 2003
Keiichi Fukumura
President and Representative Director
Cosel, Co., Ltd.



FY2010 Achivement of Environmental Goals and Objectives

The following table shows our achivements of Environmental goals and objects for FY2010.

【Results: : Goals Achieved :80% or more but less than 100%, ×: less than 80%】

Item	Objectives	Control Item	Results	Evaluation
1	Reduction of Power Consumption	Amount of CO ₂ Emission from power consumption per 1 million yen of sales: 0.102t or less	0.087t/million yen	
2	Reduction of Industrial Wastes	Amount of Wastes per 1 million yen of sales: 0.46kg or less	0.48kg/million yen	
		Recycle rate: 97% or more	94.4%	×
3	Amount of CO ₂ Emission in Solder Reflow of Aluminum Boards process	Amount of F emission per production unit: 50% or less of traditional production method	13.5%	
4	Efficiency Improvement of New Product X	4 Points or more from previous product	4 Points	
5	Efficiency Improvement of New Product Y	10 Points or more from previous product	—(1)	×
6	Efficiency Improvement of New Product Z	98% or more efficiency improvement under certain conditions	96.1%	
7	Reduce Power Consumption of Soldering Pots in Internal Production Lines	Reduction of power consumption of model soldering pot	19%	
		Implement measures to reduce power consumption	12	
8	Promote Fitness Activities (Support Activities to Foster Forests in Toyama)	Participate in the events for "Foster Forests with Participation from Residents in Toyama Prefecture"	37 people	
9	Introduction of Hybrid Cars		5	

Environmental Goals and Objectives for FY2011

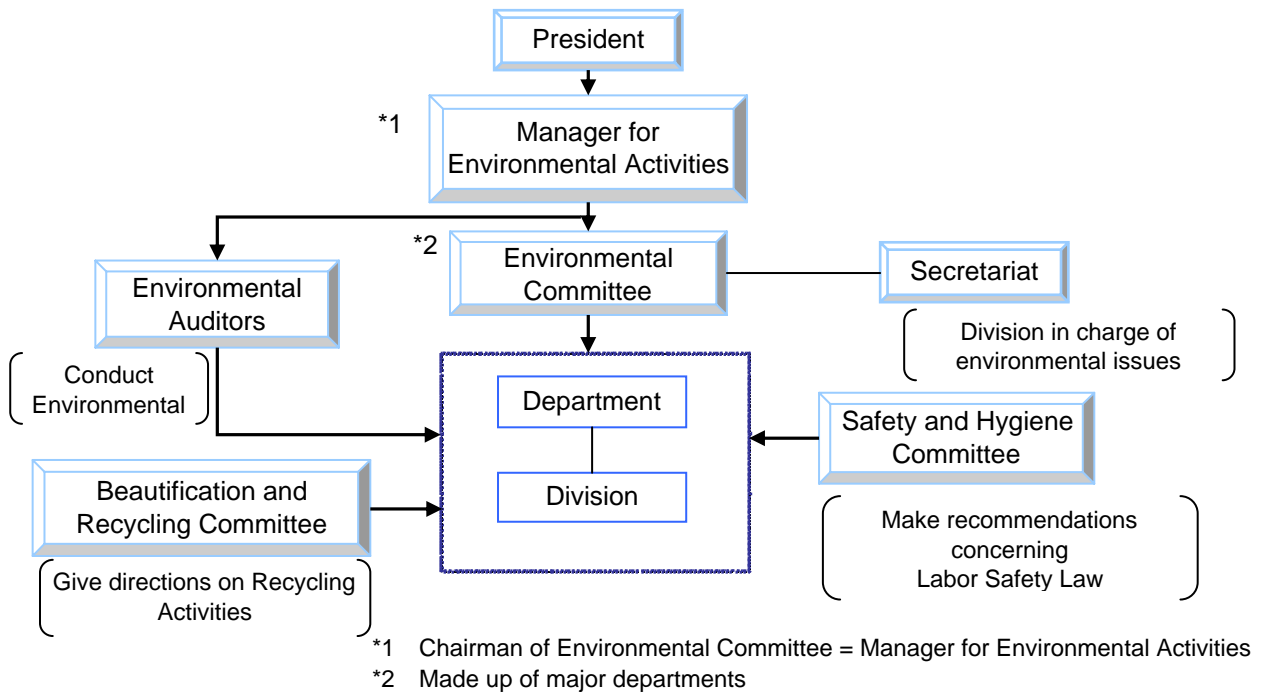
Progress in each area for FY2011 is confirmed at environmental committee, which is held every other month.

Item	Objectives	Control Item
1	Reduction of Power Consumption	Amount of CO ₂ Emission from power consumption per 1 million yen of sales: 0.08t or less
2	Reduction of Industrial Wastes	Amount of Wastes per 1 million yen of sales: 0.46kg or less
		Recycle rate: 95% or more
3	Reduction of CO ₂ from New Products	Efficiency Improvement of New Product A 90% or more
		Efficiency Improvement of New Product B 90% or more
		Reduction of Stand-by Power of New Product C
4	Size Reduction of Product D	Increasing Current Density
		Size Reduction of External Components
5	Increasing Power Density	Size Reduction of Transformers
6	Increasing Power Supply Efficiency	Efficiency Improvement of 88% or more
7	High Efficiency Technology for Light Load	Reduce Loss by Half compared to Traditional Technology
8	Reducing Power Consumption of Soldering Pots in Internal Production Lines	10% or more Reduction of Power Consumption of Model Soldering Pot
		Implement Measures to Reduce Power Consumption on at least 8 Pots

Management System

Organizational Structure

The following is our organizational structure to promote the activities to reduce Environmental burden



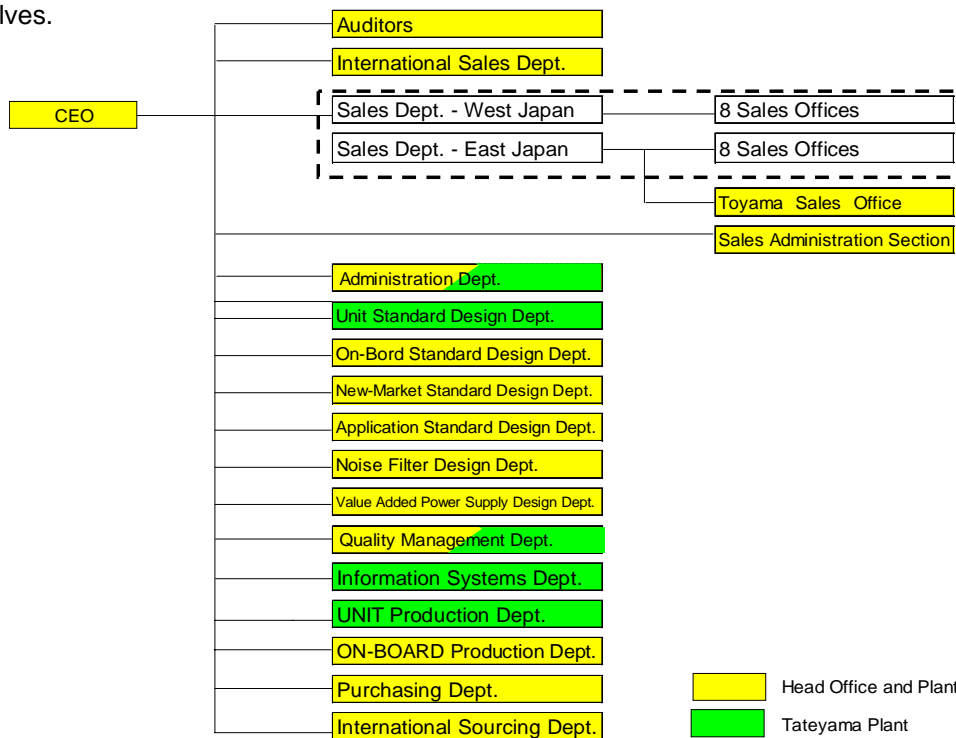
ISO14001

We have complied with ISO14001 on Head office and Tateyama Plant, and are promoting continuous activities to improve ourselves.

Date of Acquisition: December 17, 1999

Area Covered: Head Office and Plant/Tateyama Plant

Registered by: Japan Quality Assurance Organization



Management System

Legal Compliance and Others

We are keeping abreast of changes and revisions of the environmental laws and regulations which we need to abide by in our environmental management activities monthly. If necessary to apply to us, we inform it to all employees through our internal Environmental Committee,

Regarding other requests, we input them in our computer system so that all the employees and the relevant can refer to for their references every time in need.

We are reflecting all the laws, regulations, requirements and evaluation results in our internal rules, regulations and standards and evaluating our legal compliance every year to make sure we do not violate any laws, regulations or requirements.

Environmental Audit

We are conducting an environmental audit every year to confirm our compliance with ISO14001, implementation and performance status.

Our internal auditors form a team comprising of those who have taken internal and external audit trainings and deemed qualified to audit each department.

Currently, there are 28 internal environmental auditors.

Each auditor reports audit results including areas of improvement to each department manager. Each department reviews their activities and engage in activities for continuous improvement.

In FY 2010, 7 non-compliance cases were observed. Corrective actions were completed for all 7 cases.

Prevention of Accidents

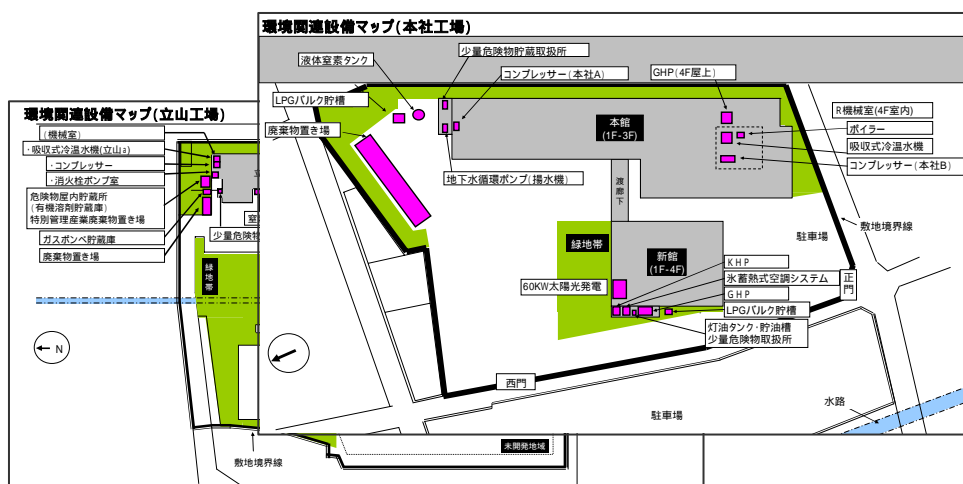
We have developed a "Environment-related Equipment Map" which shows where those environment-related equipments are in Head Office and Tateyama Plant to prevent and detect accidents caused by them abnormally.

If we determine that a certain equipment needs more control, we check if the procedure set forth in the case of emergency are put in place, and if the regular maintenance and measurement are conducted. In this manner, we are well-prepared to cope with an unexpected incident.

We have received no complaints from our stakeholders about the environment-related issues.

We have confirmed that all our measured environmental data, including vibration and noise level, do not exceed legal and regulatory maximum limits.

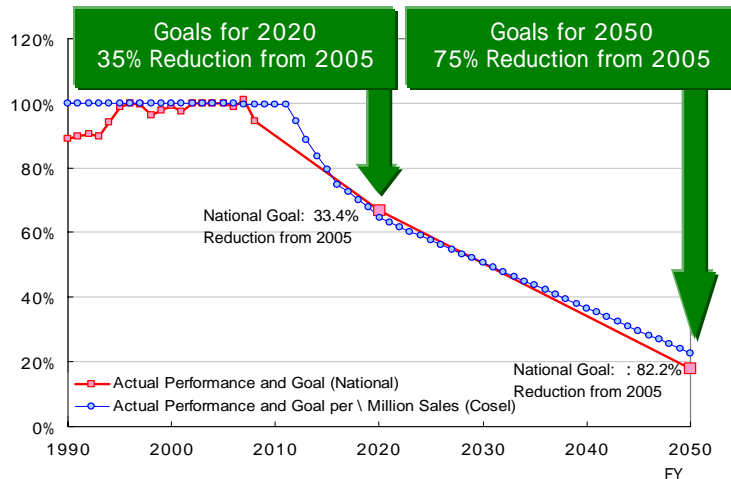
(Example) We are checking kerosene and oil tanks every month to see if there is any cracks or damages to prevent soil contamination.



Setting Mid and Long-term Goals for CO₂ Reduction

Setting Mid and Long-term Goals for CO₂ Reduction

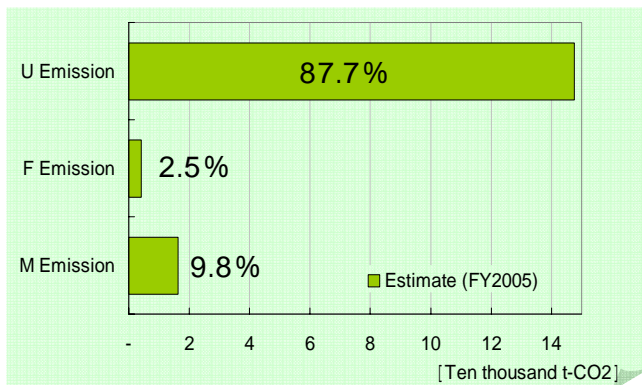
In FY2009, "CO₂ Reduction Project" led by a manager class person was launched and mid/long term reduction goals and action plans were established.



saving energy
subcommittee
Kazuyoshi Shimano

We have started our long and persistent reduction activities to achieve these mid and long-term goals by dividing our efforts in 3 areas. I am pleased to announce that a lot of achievements were made even in our first year.

Action Plan for Reduction by 3 Categories



The amount of CO₂ emitted directly or indirectly from Cosel was divided into 3 categories.
 U Emission: Emission from Product **U**sing Process
 F Emission: Emission from **F**actory process
 M Emission: Emission from **M**aterials/Parts manufacturing process

The left graph shows the estimated CO₂ emission as of 2005.

	2010	2020	2030	2040	2050
U Emission	Development of ECO Model (50% Less CO ₂ Emission from 2005 Model)	Development of ECO Model (75% Less CO ₂ Emission from 2005)			
F Emission	Reduce CO ₂ Emission from Soldering Machines in Half	Reduced CO ₂ Emission from Production Equipment to One Forth			
	Reduce CO ₂ Emission from Running New Equipment	Increase Investment in Environmentally Friendly Equipment			
M Emission	Make CO ₂ emitted during manufacturing of components visible				
		Adopt Low CO ₂ Emitting Components			
			Reduce CO ₂ Emission from Manufacturing of Components		

Highlights of Our Environmental Activities

Development of Smaller Highly Efficient Power Supplies

When we develop new products, we conduct their environment assessment from the standpoints of energy-saving, recyclability, use or non-use of toxic substances and environmental friendliness of packing materials to develop more environmentally friendly products.

All our new products are RoHS-compliant from their release date.

Our new products comply with RoHS directive at the time of their release. Our brochure carries the following marks to draw attention.



RoHS Compliance Mark



High Power Product was Added to our LFA Series , which are Super Small and Light Weight with Reduced Internal Loss

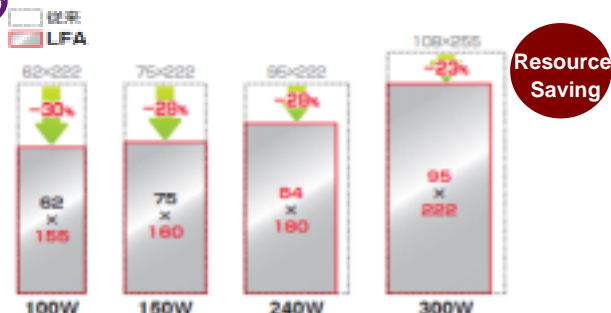
✓ **Designed for Reduced Internal Loss !**

Efficiency improvement of 100/150W Type with adoption of Synchronous rectification !

✓ **23 - 30% Smaller than Our Previous Model !**

Internal Loss Reduction by 22 to 28% Compared to Our Previous Model (100/150W)

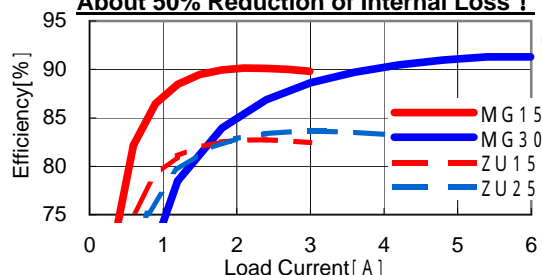
Energy Saving



MG Series are Smaller and have Higher Efficiency and Custom IC

✓ **8% Efficiency Improvement from Our Previous Model !**

About 50% Reduction of Internal Loss !



✓ **About 1/3 of Our Previous Model!**

Previous Model

MG



Environmentally Friendly and Smaller Module DPG Series has Better

✓ **Stand-by Power Consumption was Cut to One-fourth Compared to Our Previous Model!**

Previous Model
DPG750

13W
3W

Energy Saving

✓ **Number of Components was Cut to Half and Volume was Reduced to about One-third from Our Previous Model**

Previous Model

DPG



Highlights of Our Environmental Activities

Establishing Eco Products: Environmentally Friendly Products and its Symbol

We have developed a new internal evaluation system on environmental burdens in order to provide our customers with information on our products and our efforts to promote the development of environmentally friendly products since 2010.

We are looking at the following 3 items in evaluating our products to reduce their environmental burdens.

- (1) Environmental burdens generated when our products are in operation at customers' site
- (2) Environmental burdens generated when our products are manufactured at our factories
- (3) Environmental burdens generated when materials and components we purchase are manufactured.

Based on the above 3 items, we set our own criteria to certify and register products which satisfy our criteria as "Eco Products." These Eco Products are highly efficient in reducing environmental burdens. To promote Eco Products, we developed the following symbol which represent Eco Products.



Cosel Co., Ltd. Eco Product Symbol

We will proactively expand our Eco Products to create an environmentally friendly low-carbon recycling-oriented society and to continue to grow with our customers.

This symbol mark is used in our product catalogue issued in FY2011 on pages covering Eco Products to provide information to our customers.



Example of a page in Our Catalog where this Symbol Mark is Used

Highlights of Our Environmental Activities

Reducing Environmental Burden in Production Floor: Limiting Chemical Use

We use isopropyl alcohol (IPA) as a diluent for fluxes which are used in soldering our products. We also use IPA for cleaning of jigs and tools.

We were using about 20t of IPS per year and discharging 9t of used IPA every year.

In FY2010, we reduced the use of the chemical by introducing an IPA regenerator which regenerates used chemical and enables us to reuse the used chemical.

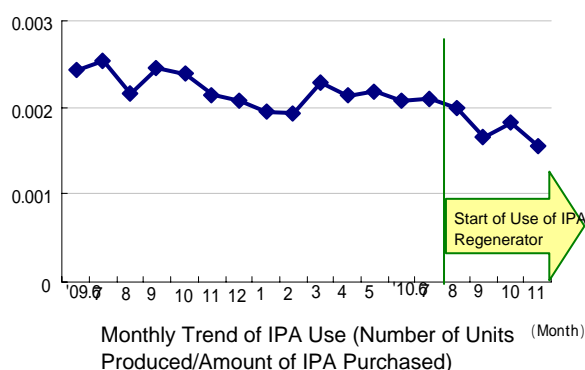
We were about to reduce the amount of IPA we use by 4.3t per year.



IPA Regenerator



Regenerated IPA



Reducing Environmental Burden in Production Floor: Reducing Power Consumption of Soldering Pots

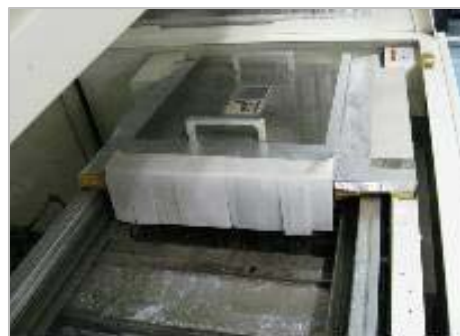
30% of power consumption on the 1st floor of our Tateyama Plant was attributable to soldering pots.

Based on the data on power consumption, we realized that discharge heat from heaters which preheat PCB was large. Therefore, we implemented 3 countermeasures to reduce power consumption.

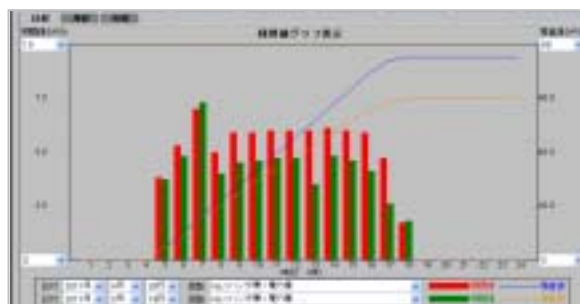
- (1) We installed insulator to the pre-heater areas to reduce opening.
- (2) We modified the heaters from 3 heater types to 2 heater types.
- (3) We started to turn off the pre-heaters during lunch break.

Thanks to these countermeasures, we were able to reduce power consumption of the soldering pots used for the production of unit type power supplies by about 20%.

In FY2010, we implemented these countermeasures on 12 soldering pots within Cosel. In FY2011, we are planning to implement the same countermeasures to soldering pots in our suppliers.



Preheater of Soldering Pot After the Countermeasure



Power Consumption Before and After the Countermeasure

Highlights of Our Environmental Activities

Participation in "Volunteer Meeting for Toyama no Moridukuri (Forest Improvement and Maintenance)"



Volunteer Meeting for Toyama no Moridukuri (Forest Improvement and Maintenance for Toyama Prefecture) was held on Saturday, September 18, 2010 at Tateyama-cho Sogo Koen Park co-sponsored by Toyama Prefecture and Support Center for Toyama no Moridukuri.

The objectives of the meeting were to encourage the citizens of the Toyama prefecture to participate in forest maintenance and improvement, and to promote volunteer activities for forest improvement and maintenance. The meeting was held as a networking event for organizations which were registered with the Support Center for Toyama no Moridukuri. A volunteer tour was also given to the citizens of the prefecture where they had a first-hand experience in forest improvement activities.

Many employees of Cosel and their families participated in the meeting and sweated over chopping underbrush, cutting down bamboo trees and clearing bamboo grass in the park.

Given the fact that bears are making appearances recently, we cannot afford to ignore forest devastation. However, maintaining a vast area of forest requires both manpower and money. It would be difficult for the local government to do it alone.

In this respect, cooperation from businesses is important. We would like to be involved in forest maintenance and improvement of Toyama prefecture in one way or another.

As one step to start our involvement, Cosel registered as a corporation with Support Center for Toyama no Moridukuri which was established by the Toyama prefecture.

From FY2011 and forward, we would like to actively participate in events and training sessions concerning forest improvement and maintenance.



Presentation of a Banner from the Governor



Volunteers Cutting Down Trees

Highlights of Our Environmental Activities

Addition of Solar Power Generators in Tateyama Plant

Starting from the installation of 60kw solar power generator at the rooftop of the new headquarters building in 2002, we have installed solar power generators to reduce CO₂ emission by using renewable energy as follows.

- In FY2004, 50kw solar power generator was installed at the rooftop of the Tateyama Plant
- In FY2006, 50kw solar power generator was added at the rooftop of the Tateyama Plant
- In FY2010, 50kw solar power generator was added at the rooftop of the Tateyama Plant

A panel displaying the amount of power generated by our solar power generators was installed inside our building so that our visitors and employees could always see it (please see page 15 for related topic).



Solar Power Generator at the Rooftop of the Tateyama Plant



A panel displaying the amount of power generated by our solar power generators installed at a business meeting area of Tateyama Plant

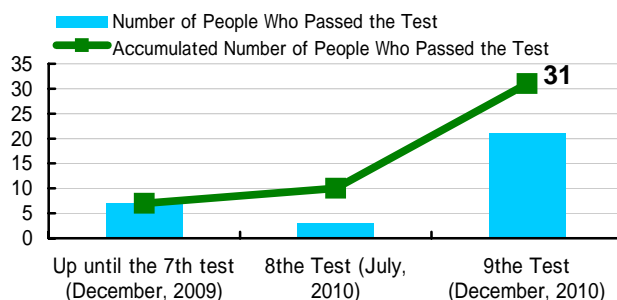
Encouraging taking Eco Test: Developing People who Work on Environmental Issues

Eco Test (officially known as Certification Test for Environmental Specialists) is a certification test run by the Tokyo Chamber of Commerce in order to develop people with a wide range of knowledge who can play a leading role in tackling environmental issues and facilitate the realization of a sustainable society where we can protect environment and achieve economic growth at the same time.

Cosel's employees started to take the test from the 6th test and 31 of them have passed the test so far.

We are encouraging our employees to take the test by subsidizing a test fee and making those who passed the test eligible for certification reward money.

We will continue this effort in FY2011.



"I decided to take the test because I thought as a working adult it would be better to know about environment. The scope of the test was wider than I expected and it was hard to memorize a lot of information, but I am glad that I passed the test."

Left in Picture: Megumi Nakata, Sales
(Past the 9th Test)

"I took the eco test because I wanted to learn about environmental issues covered by TV new programs and news papers.

I would like to practice what I have learned from the test starting from the areas close to me."

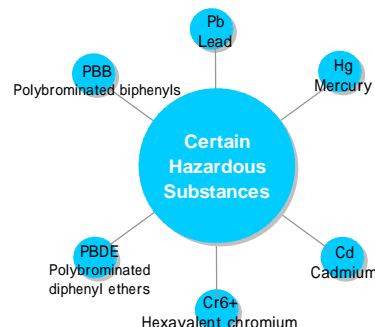
Right in Picture: Noriko Sakai, Administration Dept.
(Past the 9th Test)

Controlling Environmentally Unfriendly Chemicals

EU RoHS Directive (*1) came into effect on July 1, 2006.

Cosel had achieved 100% compliance with RoHS Directive in February, 2006 (*2).

REACH(*3) and PFOS came into effect in FY2007 and FY2008, respectively. Requirements to control environmentally unfriendly chemicals became even stricter. We have established the systems to control environmentally unfriendly chemicals and using these systems so that environmentally unfriendly chemicals are not used in our products.



Green Procurement

At Cosel, we are facilitating "Green Procurement" in which we procure environmentally friendly components and materials in order to deliver environmentally friendly products to our customers.

We have defined "prohibited materials," "materials targeted for elimination" and "materials targeted for reduction" for components and materials which comprise our products. By doing this, we can prevent the entry of environmentally unfriendly chemicals into our products.

Education on Environmentally Unfriendly Chemicals

In FY2006, we conducted an educational campaign on environmentally unfriendly chemicals.

Not only people working at our headquarters and Tateyama Plant, but also people who are involved with Cosel's products as our contractors and at transportation companies also participated in our test and training sessions.

Using a training material developed by our department which is responsible for environmental issues, training sessions were held by department and tests were given to participants to check their understanding about environmental issues. This enabled them to deepen their understanding of the objectives and the importance of managing environmentally unfriendly chemicals as well as activities taken by Cosel.

Supplier Management

We are evaluating the risk of use of environmentally unfriendly chemicals by our suppliers and ranking them at 3 levels.

This ranking is used for the "Measurement of Environmentally Unfriendly Chemicals of Purchased Materials" and "Audit of Suppliers' Management of Environmentally Unfriendly Chemicals." This ranking is reviewed once every year.

Under this system, we audit and review how environmentally unfriendly chemicals are controlled by high risk suppliers and how high-risk components and materials are controlled by suppliers. We also facilitate registration of high-risk suppliers, materials and components.

(*1) What is RoHS Directive?

RoHS Directive is an EU directive that will restrict the use of certain hazardous materials in electrical and electric equipment. The use of six substances, mercury (Hg), cadmium (Cd), lead (Pb), hexavalent chromium (Cr6+), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), will be prohibited from July, 2006.

(*2) Excluding Maintenance Items

(*3) What is REACH?

REACH is a regulation in which manufacturers or importers of chemical substances are obliged to register and evaluate chemical substances in manufacturing or importing them and, in the case of chemical substances of very high concern, an authorization from relevant authorities is required and high risk substances are subject to limitation including ban. REACH entered into force in June 2007.

Controlling Environmentally Unfriendly Chemicals

New Components, New Products and Mass Production Management

Since FY2006, we have been conducting fluorescence X-ray tests (*4) by target measurement area to prevent the entry of environmentally unfriendly chemicals into our products. The fluorescence X-ray test allows us to confirm and verify whether or not a component is complying with our "Green Procurement Standards."

The evaluation is performed at the following 3 levels.

We have four X-ray fluorescence instruments in total, two units at our headquarter plant and another two at our Tateyama plant.

New Product Launch

In the past when we adopted a new component, we conducted a "Quality Evaluation" to prevent the use of defective components. However, we decided to conduct fluorescence X-ray tests for mass production components to check the presence of environmentally unfriendly chemicals in newly adopted components. Test results are compared to the data about environmentally unfriendly chemicals which are submitted from suppliers before components are officially registered.

Acceptance of Purchased Components

We also conduct fluorescence X-ray tests by target measurement area when we accept purchased components.

After Shipping Mass Production Products

After we ship mass production products, we evaluate the presence of environmentally unfriendly chemicals to make sure that Green Procurement Standards are met on an ongoing basis, in addition to our longstanding electrical quality and mechanical quality evaluations.

(*4)What is fluorescence X-ray test?

It is an analytical method in which information on the existence of an atom is acquired based on the wavelength of a specific X-ray and the intensity of the energy of the X-ray which is generated when X-ray is irradiated to an atom which comprise molecules.



Fluorescence X-ray Instrument

Management of Production Lines

In order to prevent the entry of environmentally unfriendly chemicals into our products, RoHS-compliant products and non-RoHS-compliant products are manufactured in separate lines on our production floor by using separate equipment, jigs and tools.

Equipment, jigs and tools for soldering process are identified by signs and labels as shown in the following pictures.



Indication of Lead-free Solder



Indication of Eutectic Solder



Indication of Solder tank

Environmental Conservation Activities

1 . Energy Saving

87% of the energy Cosel consumes is electric power. Since the inception of the Company, all our fluorescent lamps at our shop floors and offices have had pull switches to reduce the amount of power consumed. We are making sure that lights are turned off during breaks and when not in use.

Furthermore, all the personal computers used at Cosel are set in the energy-saver mode and our monitors are automatically turned off when not in use. We are always taking small but important measures.

Cutting Down Power Consumption of Computers

Entire company has adopted a power-saving configuration in which a monitor goes off and a computer goes to a stand-by mode when it is not in use for a certain period of time.

Power switches are provided for each computer or for each area so that when somebody goes home, he or she can turn off the power to reduce power consumption of computers not in use.



2 . Use of Renewable Energies

- In FY2004, 50kw solar power generator was installed at the rooftop of the Tateyama Plant
- In FY2006, 50kw solar power generator was added at the rooftop of the Tateyama Plant
- In FY2010, 50kw solar power generator was added at the rooftop of the Tateyama Plant

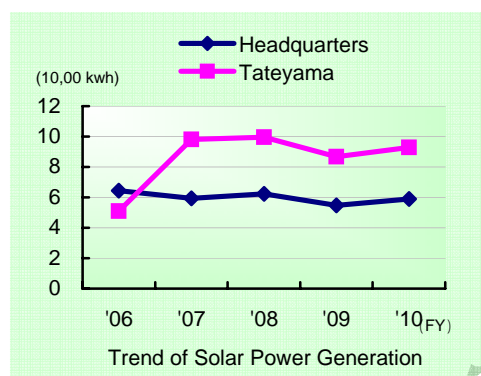
The impact of these generators is about 150,000kwh annually (CO₂ emission of about 64t-CO₂ reduction).



Solar Panels at New Headquarters



Solar Panels at Tateyama Plant



3 . Reduce

Reduction of Use of Air Cap Bags for Packing

Air cap bags were used when we shipped transformers and sheet metals, etc. to contract manufacturers. Once packages were opened at contract manufacturers' site, the air cap bags were disposed of as industrial waste.

We reduced the use of air cap bags by changing our packing methods using reusable Tupperware and containers.

Unpacking at contract manufacturers' site also became more efficient.

(This is one example of our QC circuit activities)



Air Cap Bags



Reusable Tupperware and Container

Environmental Conservation Activities

Elimination of Styrofoam

We had been using styrofoam as a buffer material for the shipment of our products because it was cheap and excellent to protect our products. After being used, it had been discarded as the industrial waste.

We have replaced plate-shaped styrofoam with cardboards and small styrofoam balls with biodegradable resin in order to reduce industrial wastes.

4. Reuse

Reuse of Tape Reels and Semiconductor Sticks

We use chips to assemble power supplies. These chips are shipped from manufacturers reeled up onto plastic reels.

When chips are used up, the reels are left, which used to be discarded as industrial waste of stabilized type. Some semiconductors come in plastic sticks when shipped from manufacturers. These sticks had been discarded once semiconductors were used up just like the reels.

Because they do not get deformed or worn after use, we have changed our procedures to reuse them by having manufacturers collect them after use.



5. Recycle

Paper Recycling

We are using both sides of copy paper sheets and, after both sides are used, segregating them together with confidential documents and magazines for collection and recycling by external organization.

Used paper collection boxes are placed at our workplace to promote paper recycling.



Recycling of Waste Products and



Defective products, unusable bottom plates and dummy circuit boards that were cut off in production processes had been discarded as industrial waste.

Now we are dividing these wastes into metals and plastics, etc. before disposing them so that they can be used as ingot and furnace combustion improver.

Environmental Burden Data

Every year, we at Cosel are investigating environmental burden in our business activities for management purpose.

() YoY Jan, 2010 to Dec, 2010

INPUT

Energy

Electrical Power	LPG
About 458millionkwh (118%)	About 50,000m ³ (147%)
Kerosene	Gasoline
About16kℓ (160%)	About10kℓ (143%)

Materials

Solders with lead(*1)	Lead-free Solders
About0.1 t (100%)	About12 t (200%)
Flux/IPA	
About27 t (180%)	

Office Paper

Copy Paper
About8 t (160%)

Packing Materials

Packing Boxes (Cardboard Boxes)	Buffer Materials (Cardboard Boxes)	Buffer Materials (Plastics)
About183 t (168%)	About124 t (159%)	About0.2 t (100%)

Water Resources

Water	Underground Water
About5,000m ³ (160%)	About89,000m ³ (116%)



OUTPUT

Products

Wastes

Domestic Waste	Industrial Waste of Stabilized
About3.4 t (57%)	About1.4 t (87%)
Industrial Waste of Controlled	Industrial Waste subject to Special Control
About4.8 t (120%)	About2kg (-)

Recycling

Cardboard Boxes	Used Papers	Plastics	Waste
About76 t (120%)	About23 t (120%)	About18 t (150%)	About7.5 t (150%)
→Cardboard Boxes	→Toilet paper, Newspaper	→Accelerants	→Accelerants
Waste Liquid	Styrene Foams	Fluorescent	Conductive
About0.8 t (100%)	About1.5 t (150%)	About89kg (180%)	About67kg (100%)
→Accelerants	→Polystyrene materials	→Glass materials	→Trail tarp

Valuable Resources

Lead-free Solders Balls	Waste Metal(*2)
About7t (233%)	About35 t (167%)

CO₂ Emission

CO₂
About2,299 t -CO ₂ (122%)

Discharged Water

Sewage
About5,100m ³ (160%)

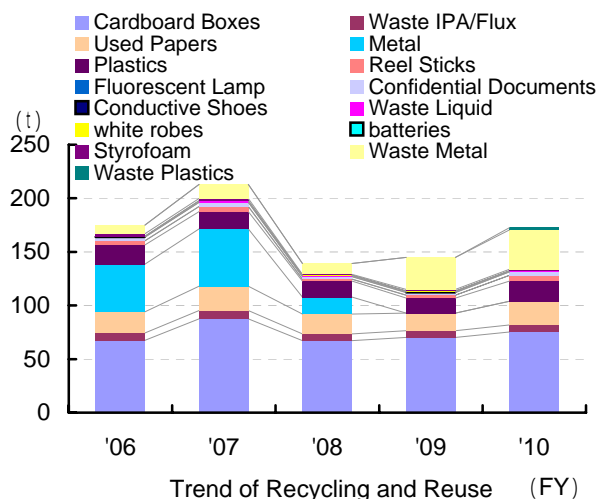
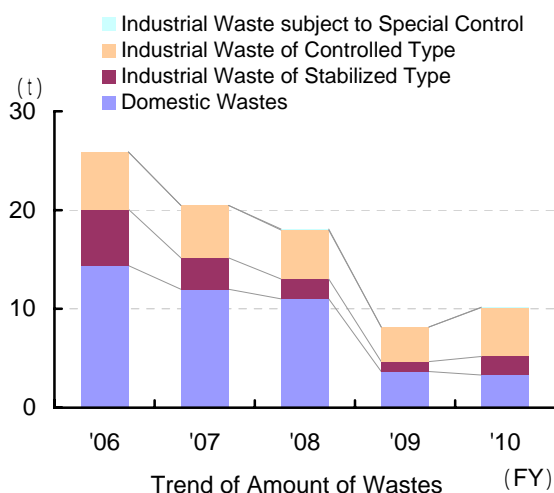
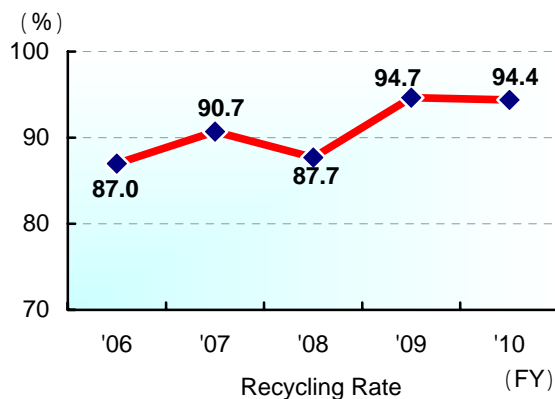
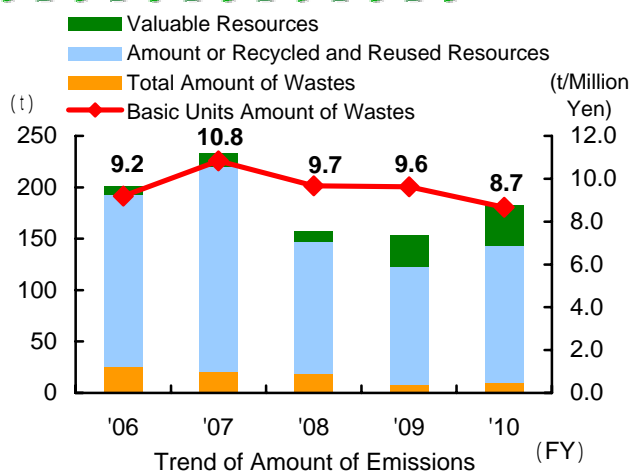
(*1)Became completely lead-free

(*2)It is changed from recycling to valuable resources

Environmental Burden Data

1. Amount of Emissions

(Amount of Wastes/ Sales)



Many types of wastes are generated in our business activities. Many of them are recyclable, if we segregate them properly.

We at Cosel, Environmental Committee and Beautification and Recycling Committee are working together in such activities as making sure wastes are properly separated and emissions are reduced.

In FY2010, benefits of countermeasures taken in FY2009 continued to be seen and the amount of domestic wastes didn't increase. However, the amount of industrial wastes of stabilized type and controlled type increased.

In FY2011, we will continue working with Beautification and Recycling Committee to reduce the amount of industrial wastes of stabilized type and controlled type.



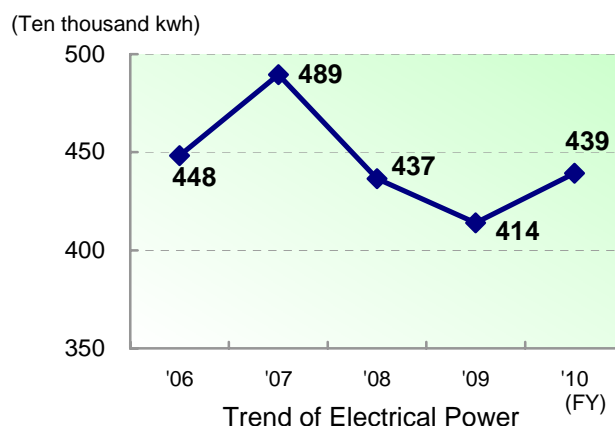
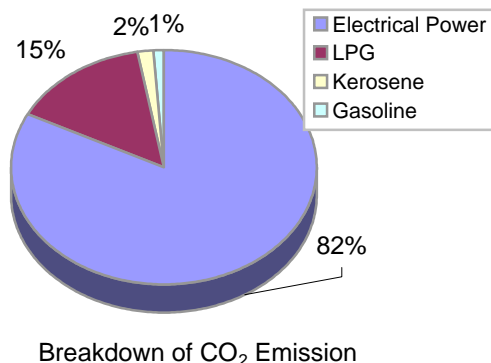
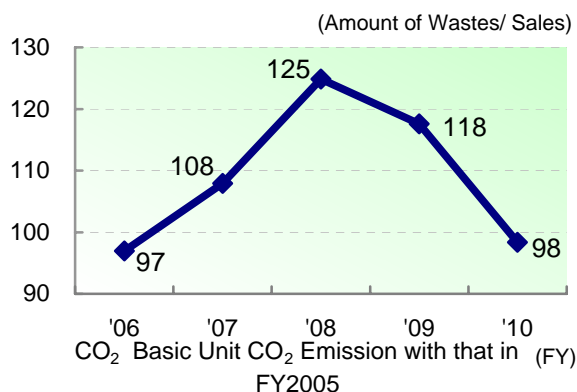
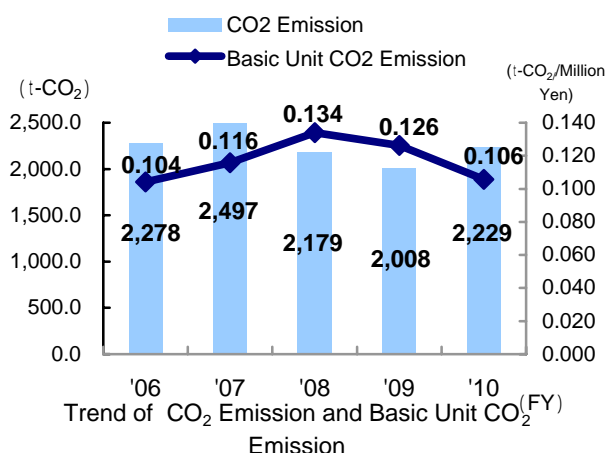
Chairman of
Environment Committee
Yutaka Tamou

Environmental Committee is focusing on (1) reduction of CO₂ emission and (2) improving recycle ratio. In this fiscal year, the benefits of "modification of soldering machines to save energy" started to be seen, making a big contribution to power consumption reduction.

As for improving recycle ration, we continued to implement the countermeasures taken in the previous financial year. However, due to the increase of our production volume, the amount of industrial wastes of stabilized type and controlled type increased and our recycle ration didn't improve. We will continue our efforts to reduce wastes.

Environmental Burden Data

2. Total Energy Amount



As we mentioned before, 82% of our CO₂ emission comes from electrical power consumption. In order to reduce this, our Environmental Committee is playing a central role in implementing many activities.

As for our total energy use (crude oil equivalent) as a business operator under the Law Concerning the Rational Use of Energy was 1,321kl, which was not subject to notification requirement. However, it is expected that our energy use will exceed the 1,500kl criteria within several years. Therefore 2 employees took the Energy Management Training in FY2010.

We have also confirmed that we are not specified consigner as defined by Law Concerning the Rational Use of Energy.

3. Amount of Environmentally Unfriendly Chemicals

Among chemical substances handled by Cosel, Class I Designated Chemical Substances whose handling amounts are subject to notification requirement with PRTR are "lead and its compounds." However, lead solder which falls under "lead and its compounds" is not subject to the notification requirement because we have already changed all of our solder to lead-free solder.

Environmental Accounting

In FY2010, environmental conservation cost was about 87 million yen.

Environmental Conservation Cost (Covered Area: Head Office and Plant, Tateyama Plant
Unit: Thousands of Yen)

Category	Description	Investment	Cost
(1) Cost within Business Area Cost incurred to curb environmental burden through production and service activities implemented within business areas.			
Pollution Prevention Cost		0	0
Global Environment Conservation Cost	(Investment) Addition of Solar Power Generators in Tateyama Plant	37,390	4,737
Resource Circulation Cost	(Investment) IPA Regenerator (Cost) Waste Disposal and Collection of Recyclable Items	1,320	3,746
(2) Cost at Upstream and Downstream Cost incurred to curb environmental burden generated at upstream and downstream of production and service activities.	(Cost) Green procurement	0	66,387
(3) Management Cost Environmental Conservation Management Cost	(Cost) Management of Environmental activities. Monitoring and measuring data from facilities with Environmental burdens. Handling of Responses to Survey on Chemicals.	0	11,493
(4) R&D Cost Environmental Conservation R&D Cost	—	0	0
(5) Social Activities Cost Environmental Conservation Cost for Social Activities	(Cost) Sponsoring Environment-related radio program	0	1,200
(6) Environmental Damage Control Cost Cost to Control Environmental Damages		0	0
Total		38,710	87,563

Environment Conservation Cost includes depreciation of capital investment of the past year and labor cost.

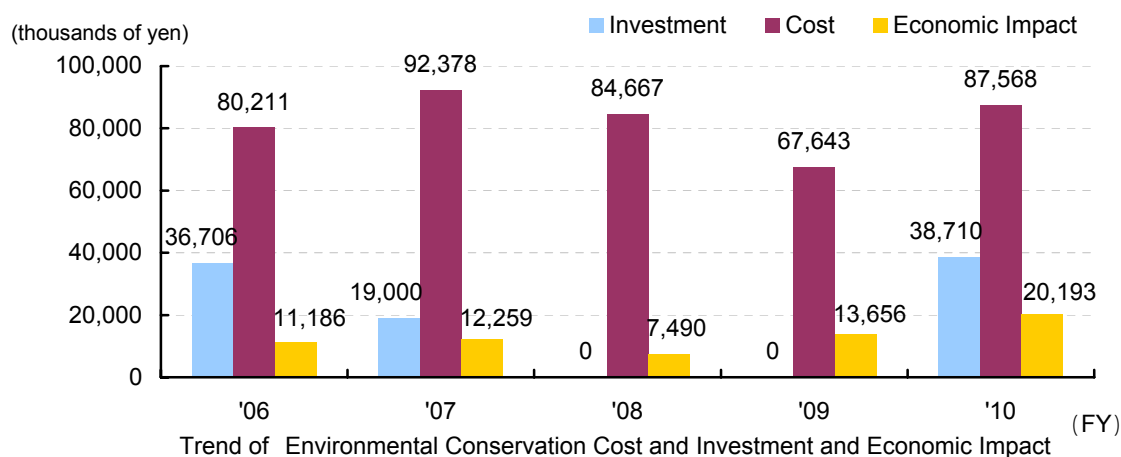
Environmental Conservation Effect (Substance Volume)

Item	Effect
CO2 Reduction	78(t -CO ₂)
Effective Use of Wastes	173(t)
Use reduction quantity of IPA	4.3(t)

Environmental Conservation Effect (Economic Impact) (thousands of yen)

Item	Amount
Savings from Power Usage Reduction	2,556
Proceeds of Sales of Recyclable Items(Valuable Items)	17,637
Total	20,193

Economic effect based on assumption such as risk avoidance (expected effect) is not posted as effect.



Environmental Education

For the purpose of Environmental Management, we have clearly identified types of the training in need. We are offering;

- (1) General trainings to raise awareness among employees about Environmental issues.
- (2) Professional trainings to improve technical skills in specialized areas as shown below.
- (3) Training on environmentally unfriendly chemicals (please see page 13)

(1) General trainings cover all the employees, including part-timers, temporary employees, if engaged for a certain period. As for the new employees, they are trained at first. If they do not understand enough, they will be trained till satisfaction.

List of professional training

No.	Operation	Description of Training	The concerned
1	Soldering	<ul style="list-style-type: none"> • How to dispose of solder wastes • Check soldering machine • Emergency measures 	Persons who handle them
2	Treatment of Waste Organic Solvent	<ul style="list-style-type: none"> • How to dispose fluid containing flux and/or IPA • Emergency measures 	People in charge of relevant tasks
3	Paper work concerning industrial waste	How to process industrial waste control slips (manifest)	
4	Confirmation of Revision of and Evaluation of Compliance with Environmental Laws and Regulations	How to confirm the revision of, and evaluate compliance with environmental laws and regulations	
5	Observe nitrogen gas filling	<ul style="list-style-type: none"> • Check when observing liquid nitrogen filling • Daily check 	
6	Controlling chemicals and hazardous substance	Control methods based on internal regulations	
7	Confirmation of Kerosene Tank Check Results and Emergency Response	How to train, provide hands-on exercises and check understanding based on "Kerosene Tank Control Procedures (PEC018)."	

Improve environmental awareness

Segregate plastic bottles

Beverage bending machines are installed in our premises. Used plastic bottles are separated into exterior films, caps and bottles (main bodies) before being discarded.

We are trying to improve environmental awareness through an easy-to-do environmentally friendly activity.



Introduction of the hybrid car

Headquarters plant and Tateyama plant both have one corporate hybrid car each.

In FY2010, we introduced 5 hybrid cars as sales vehicles for our sales offices.

We are planning to replace all our corporate cars with hybrid cars gradually in the future.



hybrid car

Social Contribution

JEITA Toyama District Manufacturing Class



On May 7, 2011 (Saturday), "4th JEITA Toyama District Manufacturing Class" was held at Toyama Murata Manufacturing Co., Ltd. 38 male and female students in grades 5 and 6 from nearby 4 elementary schools participated in the class and engaged in an electrical engineering project under the theme of "Let's create an electric roulettes."

Cosel has been a part of this class since the 1st class. In the 4th class too, our employees served as instructors and gave students guidance.

Students seemed to have struggled in unfamiliar tasks such as assembling and soldering components. We received such comments as "it looked difficult in the beginning, but once I started, I was able to see progress and it became fun," "I was told that I was good at soldering and I was pleased to hear that," "I thought it was fun to make things."

What is JEITA?

Japan Electronics and Information Technology Industries Association.
An organization composed of manufacturers and sellers of such products as electrical and electronic equipment, electronic devices, electronic components, electronic materials and software.

Cosel Cup Challenge Super Kids

This is our 23th anniversary since we became a special sponsor for a sport event for boys and girls of grades 4 through 6 hosted by a local TV station.

About 346 children in Toyama prefecture participated in 5 events ranging from 100-meter sprints, ball throwing, broad jump, zigzag dribbling and swimming.

It became a sparkling day as children competed, family and friends cheered for them.



Fund-raising Activities

Proceeds from the sales of our internal bazaar and donation from our employees are donated to Toyama Prefecture Cooperative Donation Society.

Donation amount is approximately 100,000 yen per year, which is enough to buy a wheelchair for the disabled or elderly.

The donation can be also applied to home-based service, volunteer training, accident prevention programs for children and fostering and nurturing of young people.



In FY2008, we sent about 100 spoiled postcards to National Federation of UNESCO Associations in Japan. The spoiled postcards are replaced with new stamps and then sold. The proceeds of the sales of these new stamps is donated.

The donation is used for the World Terakoya Movement, a program for people who had not been fortunate to have educational opportunities.



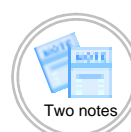
Two erasers

Cambodia



One pencil

Nepal



Two notes

Afghanistan

An article is equivalent in a sheet of spoiled postcard

Benefits with Employees

Activities for Labor Safety and Hygiene

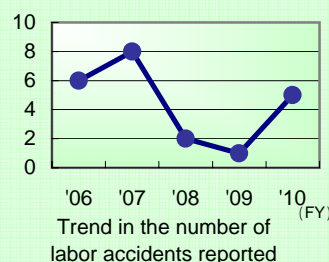
Safety and Hygiene Committees organized separately for the headquarters and Tateyama Plant are taking a lead and conducting a safety and hygiene patrolling for the purposes of maintaining and improving the safety of work environment (bimonthly).

When a problem is found as a result of the parole, a recommendation for improvement is issued, upon which a relevant department takes actions and reports back to the committee.

The number of labor accidents in the past 5 years is as follows.



Safety and Hygiene Committee members on patrol.



Maintaining and Promoting Health

We are trying to maintain and improve mental and physical health of our employees through the following trainings.

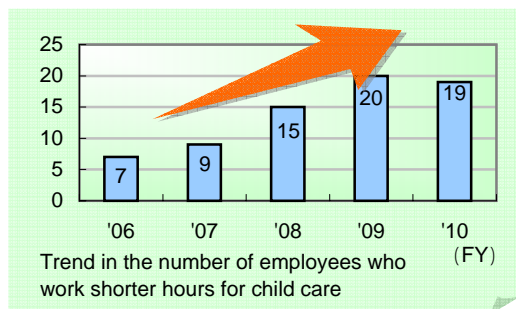
- Sexual harassment prevention
- Power harassment prevention
- Mental illness prevention
- Plan and prepare for pandemic flu



Class in Session

Work and Life Balance

It is very challenging to raise children in single or dual-income families. This is one of the factors which invited declining birth rates and decreasing population of children. In this environment, one of the social responsibilities of businesses is to "support life and work balance" for their employees.

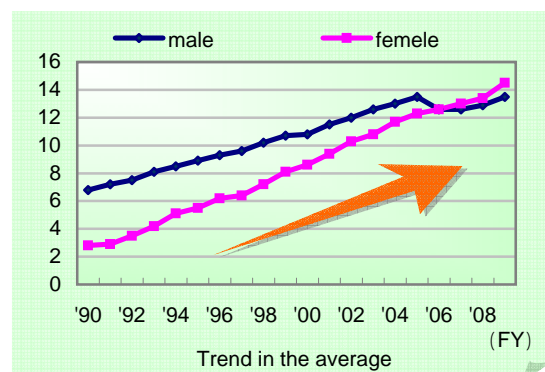


Promoting the use of shorter work hours for child care system

Employees who are raising children in the 3rd grade or younger (as of the end of March of a fiscal year) can work shorter hours within the prescribed hours under our flexible work hour system.

The number of employees who use this system is showing an upward trend.

In response to the legislation of maternity leave and other leaves, we have introduced and implemented our internal programs since the 1990's. As a result, an average year of service of our female employees jumped 5 times in the past 20 years. It is now longer than that of male employees.



Postface

Thank you very much for reading our "Environmental Report 2011."

Since we started to issue "Environmental Report" in 2000, we have expanded the coverage of our articles by adding articles about our social activities in addition to environmental activities in order to bring a better disclosure.

In this "Environmental Report 2011," we highlighted on our departmental activities in order to achieve our mid and long-term goals of CO₂ emission reduction.

We have also reported on our environmental conservation activity which was executed as a part of our QC activities and made a difference.

As a part of corporate social responsibilities, we will make our company-wide efforts to achieve our goals and disclose our activities.

July, 2011
Cosel, Co., Ltd.
Quality Management Dept.
Quality Management Div.1
<http://www.cosel.co.jp/en/>

Cover Picture: Taken from our Digital Photo Club

Revision 1: October, 2011

Change due to change in President

· Changed the message and the name of representative in "Message from the President."

· Changed the name of representative in "Company Overview" "Environmental Policies"

