



Environmental Report 2013





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Basic Policy on the Environment

Management philosophy

Visionary Technology, Reliable Quality, and Meticulous Service

Making use of our greatest strength — our ability to develop our core technology — with interface treatment related to electronics, we will expand our global business activities to help create a rich and wonderful society with the principles of Visionary Technology, Reliable Quality, and Meticulous Service

Corporate
Motto:

“Enjoy your work”

1. Let's always aim to achieve new targets without fear of failure
2. Let's make improvements with an insatiable curiosity
3. Let's carry out work with our combined power and a feeling of gratitude and cooperation
4. Let's make a fun workplace where people pay attention to health and safety
5. Let's contribute to society

Based on the above-mentioned management policy, we have established the following environmental policy to guide us in taking our environmental protection activities. In accordance with this policy, we are making efforts to protect the environment and conserve resources and energy, and we will continue to contribute to the creation of a sustainable and rich society in harmony with the global environment.

1

Environmental Policy

In accordance with the environment management system in compliance with ISO 14001, we are promoting environmental pollution prevention and environmental protection in carrying out design and development, manufacturing, and sales of high-quality materials of electronic boards.

1. Recognizing the environmental aspects in our activities, we will strive to continuously improve our environmental management system and prevent environmental pollution.
2. In addition to complying with environmental laws and regulations and other requirements in our activities, we will strive to improve our management level.
3. In order to make efficient use of resources and prevent environmental pollution, we will save energy, reduce waste and promote recycling, while also promoting the purchase and supply of environmentally friendly goods and products.
 - We will make efforts to prevent global warming and promote measures for the conservation of resources and energy.
 - We will make efforts to reduce waste generation, and focus on waste reduction and recycle waste.
 - We will promote the development and improvement (supply) of environmentally friendly products.
 - We will promote green purchasing (purchase of environmentally friendly products).
4. In order to achieve our environmental policy, we will set environmental objectives and environmental targets and review them.
5. We will make this environmental policy well known to all those who are commissioned to carry out work including our employees and part-time staff and also disclose it to the general public.

January 1, 2006
Kazuo Maeda, President

2 Environmental Management

Basic Policy on the Environment

ISO14001 status

The Company has established an environmental management system (EMS) that conforms to ISO14001 in order to promote ongoing environmental protection activities. We have obtained ISO14001 certification in all our places in Japan. In September 2000 we obtained this certification in Nagaoka Factory and Nishinomiya Factory, and in July 2006, we obtained it in Headquarters, R&D Center, and Tokyo Sales Office. We will continue working on our improvement activities with the PDCA cycle as the base.

Internal audit

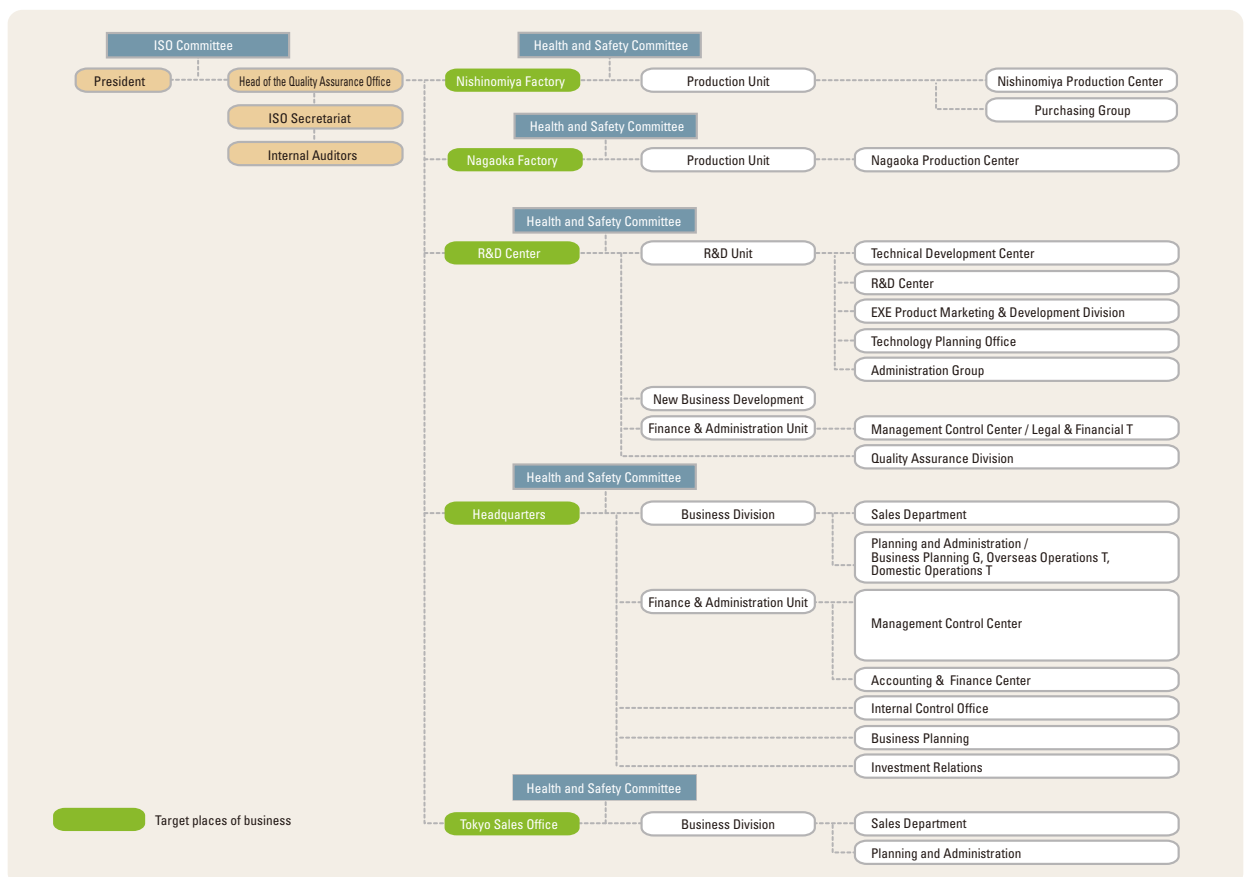
We conducted an internal audit in October 2012 for FY2012. In addition to an audit that focused mainly on the progress of improvement activities and operational status of EMS, we confirmed the status of complying with laws, regulations and other requirements and also the status of preventing the recurrence of non-conformities that had been pointed out in the previous internal audit and external audit. There were no cases of non-conformity, but there were many observing matters and opportunities in carrying out improvements, and we are working to improve them according to their degree of importance. We plan to check the status of such improvement in the internal audit of FY2013.

There was one case of noncompliance pointed out in the external audit of February 2013 but we have completed correcting it and maintained EMS certification.

Nine people who received education were certified as new internal environmental auditors in FY2012, and so currently there are 43 people who have been certified as internal environmental auditors.

Environmental promotion

In our Company, the Head of the Quality Assurance Office is appointed as the Environmental Management Representative. And with the ISO Committee — consisting of committee members elected at the ISO Secretariat and each office, including the persons responsible at the business locations — we are taking firm control of the status of progress of various activities at each office and progress of improvement targets, and advancing them. We are making environmental efforts under the following organization (as of April 2013).



Environmental Targets and Results

The following shows the results of our efforts to reach major environmental targets for FY2012.

Environmental targets for FY2012 and results

Environmental objectives	Environmental objectives for FY2012	Results for FY2012	Evaluation
3R Promoting the 3R's (reduce, reuse and recycle)	Increasing the recycling rate for all waste (valuable ratio): Up 5% compared with FY2011 (Nishinomiya Factory)	In terms of disposal costs, it is almost unchanged	×
	Ecocap Movement: Reduce CO ₂ emissions by 19,000 g, vaccine for 3 people (Headquarters)	CO ₂ emissions reduced by 46,500 g Vaccines for 7.4 people	○
	Reduction of power consumption: Down 10% compared with FY2010 (Headquarters)	Down 11.4%	○
	Reusing of files: 107 unnecessary files remain (Headquarters)	Reused 107 files (100%)	○
Promoting the development of products with low harmful substances (environmentally friendly products)	Develop environmentally friendly products: At least 1 product (R&D Center; R&D C, CS Technology C, EXE Product Marketing & Development Division)	Interruption of the development theme	×
Promoting sales of products that contribute to environmental improvement	Contribute to the environmental improvement of key customers: Proposals for 25% of the corresponding number of items, up 2% year-on-year (Tokyo Sales Office)	Proposals for 17% of the corresponding number of items, down 17% year-on-year	×
	Make proposals that contribute to environmental improvement for the customer: Proposals for 30% of the corresponding number of items (Nagaoka Factory, Sales Division)	Achieved 33%	○
Appropriately manage chemical substances	Enhance the green purchasing system (R&D Center, Quality Assurance Office)	Information on chemical content and regulatory information of each country can be confirmed and it has become possible to make a check at the time of making designs and sales. We have set the rules of providing information to customers about the chemical substances contained in products.	○
Adhere to voluntary drainage standards	Reduce to zero the number of items that deviate from voluntary drainage standards: (Nishinomiya Factory)	Twice over the BOD voluntary standards No problem with legal compliance	×
	(Nagaoka Factory, Production Department)	No problem with legal compliance	×

2 Environmental Management

Environmental Accounting for FY2012

Environmental accounting is made up environmental conservation costs (expenses) and conservation effects (quantitative).

In FY2012, our environmental conservation costs amounted to 92,718 thousand yen. Of those costs, 30% were research and development costs that were associated with the reduction or abolition of the use of environmentally harmful substances.

We are actively engaged in collecting the empty containers after chemicals have been used and our upstream and downstream costs account for 9% of expenses. The main costs are associated with collecting and cleaning empty containers and outsource recycling work for 20L plastic containers and 200L plastic drums.

[Basis of preparation]

- Data collection period: April 1, 2012 to March 31, 2013
- Scope of data collection: MEC Co., Ltd. only (excluding subsidiaries) (Nishinomiya Factory, Nagaoka Factory, R&D Center, Headquarters and Tokyo Sales Office)
- Environmental costs are only considered if it can be determined that they are clearly related to conservation activities.
- With regards to research and development costs, individual items that can be calculated by each theme are aggregated, and items that cannot be directly calculated are prorated based on the working hours of each theme.
- Costs include depreciation of equipment used for the purpose of environmental conservation, maintenance costs, and personnel costs.

Environmental conservation costs for FY2012 (thousand yen)

Classification		Contents of major initiatives	Amount of investment	Amount of costs
(1) Cost in the business area			0	26,899
Breakdown	(1)-1 Cost of pollution prevention	Maintenance of equipment for wastewater treatment, water pollution prevention, etc.	0	8,736
	(1)-2 Global environmental conservation costs	Measures to save labor and energy	0	0
	(1)-3 Resource recycling costs	Cost of outsourcing the processing of industrial waste	0	18,163
	(2) Upstream and downstream costs	Costs for outsourcing the recovery of containers and re-commodifying them	0	8,437
(3) Management costs		Costs for maintaining and operating the environmental management system, cost of greening around the places of business	0	3,321
(4) Research and development costs		Costs of research and development of products with a low environmental impact	0	27,842
(5) Cost of social activities		Activities to protect the local environment	0	26,220
(6) Environmental remediation costs		N/A	0	0
Total				92,718

Item	Amount
Total investment amount in the corresponding period	276,812
Total research and development expenses in the corresponding period	741,382
Proceeds from sales of valuable items pertaining to (1)-3	404
Proceeds from sales of valuable items pertaining to (2)	0

The effect of incurring costs for a "conservation effect" in the business area are shown as an increase or decrease in absolute amount compared with the previous year (FY2011) and as a basic unit. The basic unit represents the amount for 1 t of production volume.

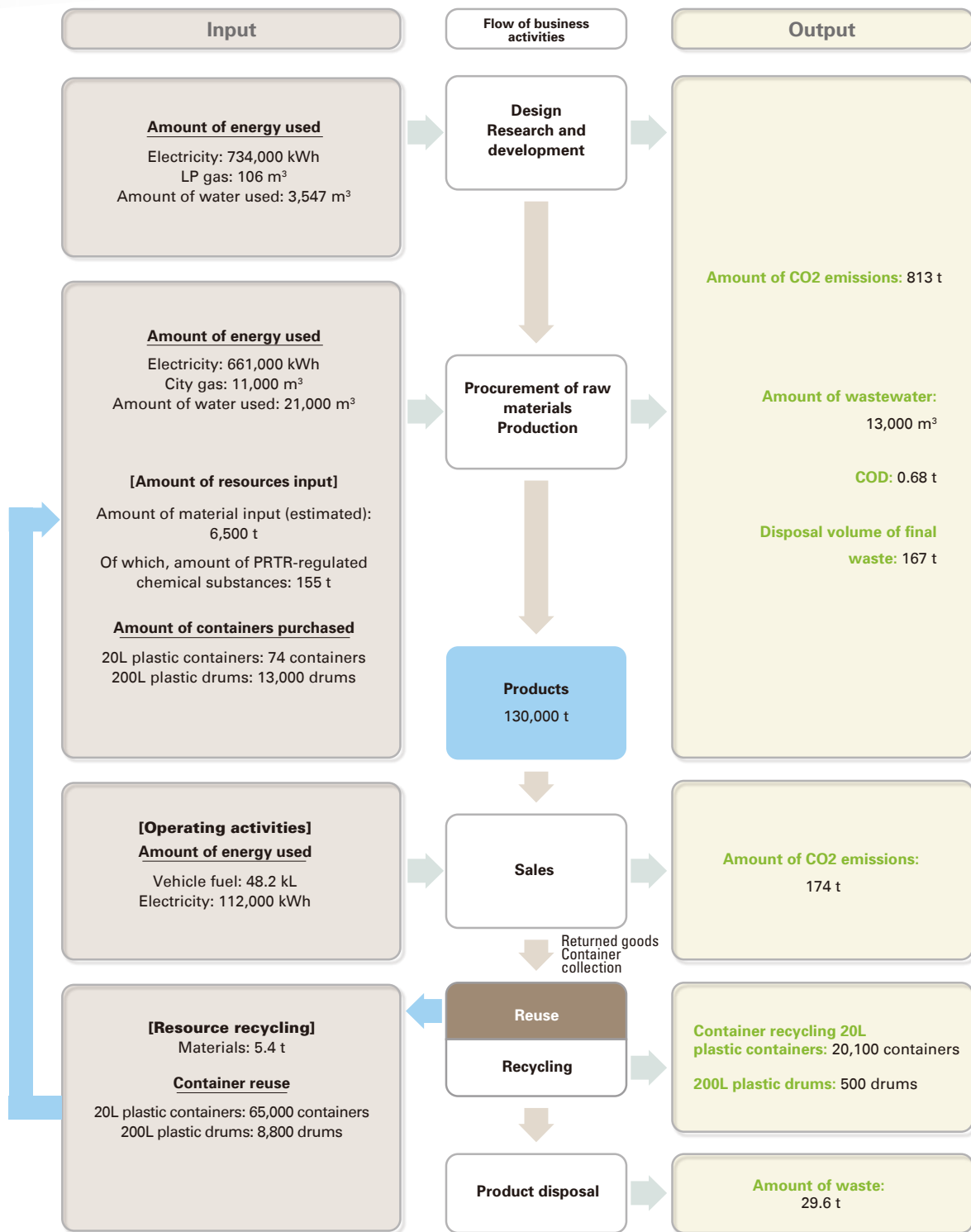
Other effects show the absolute amount for FY2012.

Environmental conservation effects for FY2012

Content of the effect			Index environmental conservation effect			
			Index (amount)	Year-on-year	Index (basic unit)	Year-on-year
(1) Effect corresponds to the business area costs	Effect on resources invested in business activities	electrical power consumption	1,507 (thousand kWh)	+64 (thousand kWh)	115.7 (thousand kWh/t)	+0.7 [%]
		city gas consumption	11 (thousand m ³)	-0.7 (thousand m ³)	0.8 (thousand m ³ /t)	-9.6 [%]
		water consumption	25 (thousand m ³)	-0.2 (thousand m ³)	1.9 [thousand m ³ /t]	-4.3 [%]
	Effect on the environmental impact and waste emissions generated by business activities	Carbon dioxide emissions	987 [t-CO ₂]	+43 [t-CO ₂]	75.7 [kg-CO ₂ /t]	+0.8 [%]
		COD emissions	0.68 [t]	+0.3 [t]		
		Emissions of industrial waste (waste acid, waste alkali, waste plastic, metal, etc.)	186 [t]	-56 [t]		
	Other	Amount of PRTR-regulated substances handled	155 [t]	+3 [t]		
(2) Effect corresponds to the upstream and downstream costs	Purchase of green office supplies		2,347 [thousand yen]			
(3) Other environmental conservation effects	Effect regarding reuse	1) Reuse of containers (total number)				
		Plastic containers	64,505 [containers]			
		Plastic drums	8,767 [drums]			
		2) Re-utilization rate of containers				
		Plastic containers	76.2 [%]			
		Plastic drums	96.8 [%]			

3 Environmental protection activities

Environmental impacts associated with business activities



The figures above show the entire amount with regards to the business and environmental activities of the Company for FY2012.

Changes in environmental performance

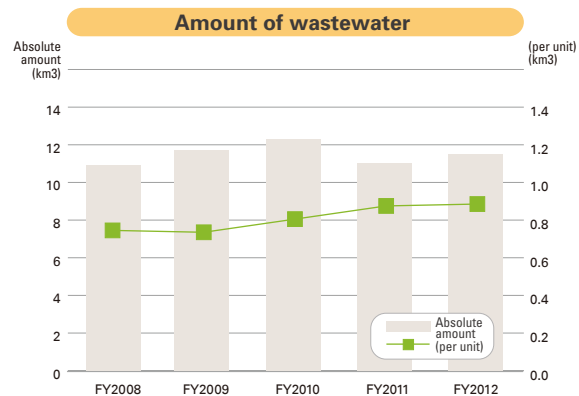
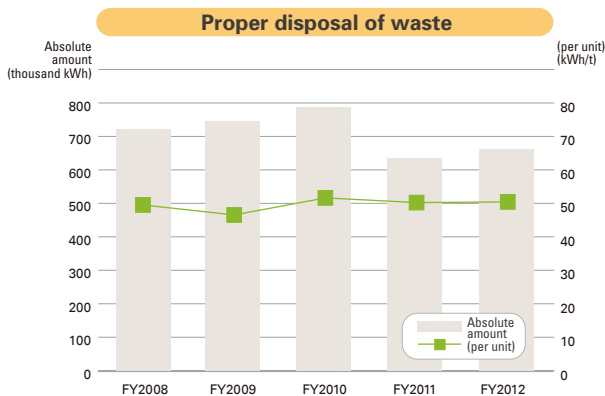
Reduction of electricity

Electricity consumption in FY2012 at the plants was 661,000 kWh, which was up 26,000 kWh compared with FY 2011. Since the production volume also increased, there was no change per unit of usage.

Amount of water used

Our factories use water as one of raw materials and also use a lot of water in activities like cleaning of production equipment. In order to promote the effective use of water resources, we are working to improve manufacturing operations and equipment cleaning methods.

The amount of wastewater emitted in FY2012 was 11.5 km³, up 0.5 m³ compared with FY2011. There was a slight increase in both amount of wastewater emitted and production, so there was no change per unit of usage.



Proper disposal of waste

We are promoting the recycling of industrial waste discharged from our business activities, and working to reduce the final disposal volume.

The amount of waste generated in FY2012 was 236 t, down 2.4% compared with FY2011.

The final disposal amount of waste in FY2012 was 167 t, down 3.3% compared with FY2011. Since FY2008, we have been promoting the recycling of plastic waste in our factories, and we are continuing to do so. The main sources of waste plastic are plastic containers, plastic drums, and pallets that can no longer be reused. We will continue to promote the recycling of waste plastic in the future.

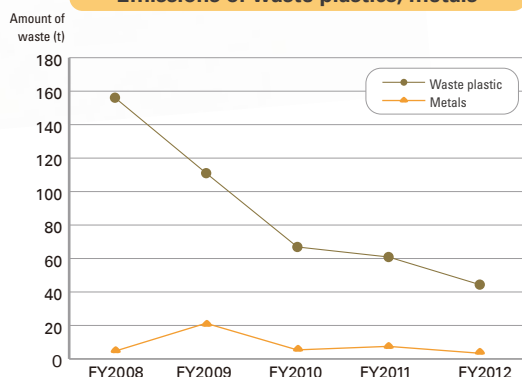
We separate metals and sell those parts that have value. For that reason, the amount of metal we dispose of has become very small.

Waste acids and alkalis are chemical waste from both Factories or waste liquid from R&D Center. Because the amount of waste acids and alkalis from two Factories and R&D Center increased, overall the waste amount was up 25.8% compared with FY2011. Few of our products are alkaline ones and so the amount of waste alkali does not vary much from year to year, and this waste amount does not have any impact on the amount of entire waste.

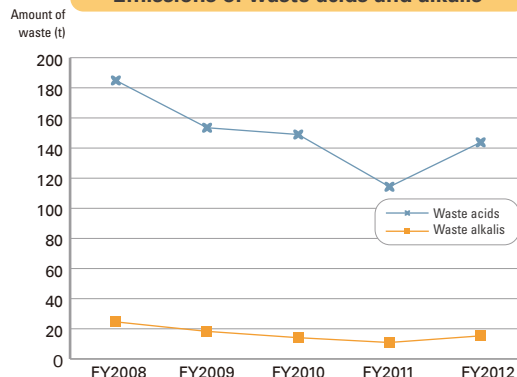
Waste from the offices is separated on the basis of the classification rules of each office and we periodically confirm the status of such separation and of maintenance. We will continue working to curb the amount of waste produced, while also striving to ensure that the waste is thoroughly separated, improve the recycling rate and reduce the final disposal amount of waste generated.

3 Environmental protection activities

Emissions of waste plastics, metals



Emissions of waste acids and alkalis



Efforts for reusing containers

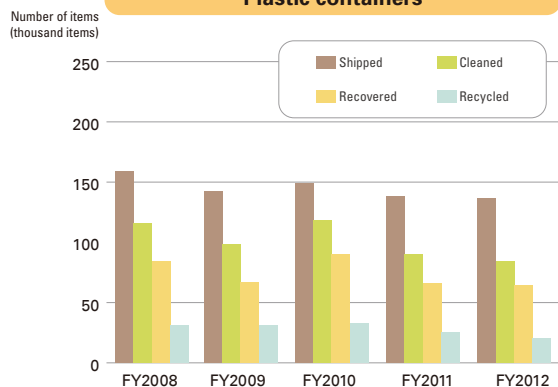
We will continue to promote the reuse of containers in order to avoid wasting resources and to make effective use of them.

The main containers we use are 20L plastic containers and 200L plastic drums. We outsource work to collect empty containers after the product has been used by our customers, and we separate the recovered containers into those that can and cannot be reused at each Factory. We clean plastic containers ourselves, and we clean some of the plastic drums and outsource the cleaning work for the rest, and we recycle them.

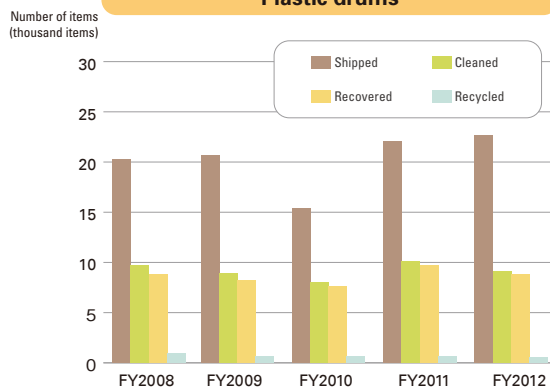
The accompanying graph shows changes in the number of plastic containers and plastic drums that we cleaned and recovered, and changes in the recovery, reuse and recycling rates. The recovery rate is the number of items recovered divided by the total number of such items shipped; the reuse rate is the number of items we collect divided by the number of items cleaned; and the recycling rate is the number of items recovered divided by the number of items recycled.

In FY2012, the recovery rates for plastic containers and plastic drums were 62.1% and 40.0% respectively, down 4.4% and 12.3% respectively compared with FY2011.

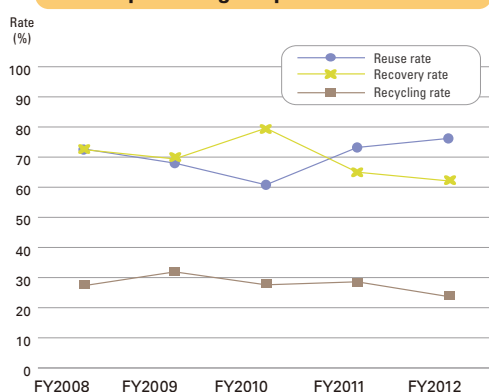
Plastic containers



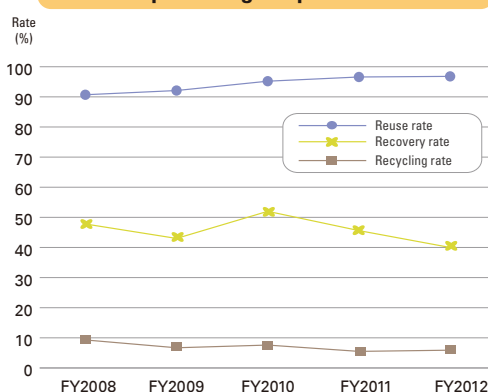
Plastic drums



Each percentage of plastic containers



Each percentage of plastic drums



Management of chemical substances

Management of Chemical

We build a system for the management of chemical substances in order to prevent our products being contaminated by banned substances in all stages of production from the purchase of raw materials to shipment. We are using the Standards for the Management of Chemical Substances in Products that were revised in June 2012 to improve our operations. We will continue to thoroughly implement a system for managing chemical substances and continue to promote sustainable management of chemical substances in products in various locations including our suppliers and factories.

PRTR

Of the substances which we handled in FY2012, the transaction volume of PRTR-listed substances came to 155t for 20 substances, up 3t compared with FY2011.

**We recognize that environmental protection
is an important issue, and we will continue
to be actively engaged in environmental
protection activities in the future.**



<http://www.mec-co.com>