

Reduction of Environmental Impact



Global Warming Prevention Activities

Reduction target for CO₂ emissions

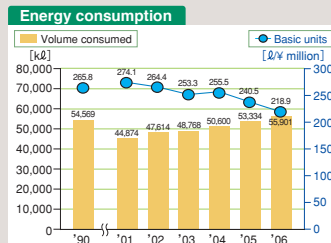
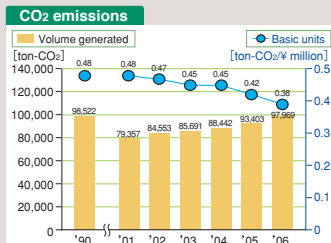
Reduction target for energy consumption

7% reduction by the end of fiscal 2010 from fiscal 1990 levels
6% reduction of total energy usage volume (basic unit) by the end of fiscal 2010 from fiscal 2004 levels

The annual target (5% increase or less) could not be achieved as amount of CO₂ emissions in fiscal 2006 was 10.8 more than in fiscal 2004.

The annual target of (2% reduction) was surpassed as unit energy consumption was 14.3% less than in fiscal 2004.

Energy consumption and CO₂ emissions rose in terms of absolute volumes due to a rapid increase in production volumes, despite low-key efforts including the installation of energy saving equipment and reductions in air leaks.



* The reduction in CO₂ emissions due to the use of cogeneration is calculated using a comparison based on the thermal power plant coefficient.

* Energy consumption: total electricity and fuel converted to crude oil.
* Basic units are calculated based on the shipment volume of production.
(Basic unit = energy consumption ÷ production/shipment volume)

[Main efforts in fiscal 2006]

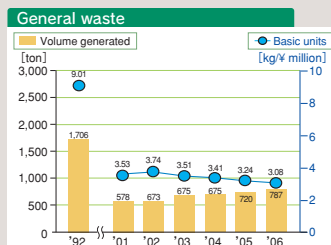
- Installation of cogeneration equipment by ESCO operation
- Shift of fuel from heavy oil to city gas
- Replacement of superannuated transformers with amorphous transformers
- Promotion of the use of inverters and intermittent machine operation
- Reduction of air pressure and repair of air leaks

Waste Reduction Activities

Reduction target for general waste

Reduction to fiscal 2004 levels or less by the end of fiscal 2010

The annual target (5% increase or less) was not achieved as waste generated in fiscal 2006 was 787 tons, 16.5% more than in fiscal 2004. The level state increases due to the increase in production.



[Main efforts in fiscal 2006]

- Eradication of paper through the expanded use of electronic office equipment
- Use of returnable cases instead of cardboards and plastic bags for deliveries
- Replace wooden pallets with steel and resin pallets
- Thorough efforts to microcopy and copy on both sides of each page
- Lower raw garbage volume due to use of raw garbage processing unit
- Recycle safety shoes

Water-saving disk was installed on the faucets in the restrooms of the Head Office. The disk reduces the amount of water used by half without any drop in the cleansing effect. Paper towels were removed and the use of own handkerchiefs after washing hands was addressed. This allowed about 7,500 sheets of paper towels to be saved a month.

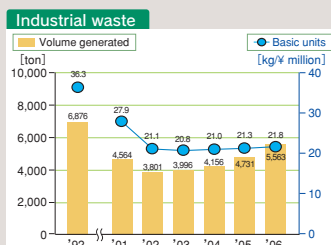


(Head Office restroom)

Reduction target for industrial waste

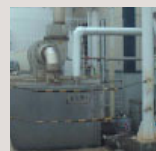
Reduction to fiscal 2004 levels or less by the end of fiscal 2010

The annual target (12% increase or less) was not achieved as waste generated in fiscal 2006 was 5,563 tons, 33.8% more than in fiscal 2004. The primary reason for the 832 tons increase was growth in the volume of alkaline effluents due to higher production volumes.



[Main efforts in fiscal 2006]

- Reuse of alkaline cleansing effluents
- Expanded use of recycled waste thinner
- Collect and use cutting oil and operating oil
- Use of microbes to reduce waste materials from painting booths



In order to reduce alkaline effluents, the amount used is reduced using cogeneration exhaust heat at the Sagami Plant. Steam is passed through a pipe installed within the effluent tank to evaporate and condense unneeded moisture by means of indirect heating. A second unit is scheduled for installation in 2007.

Alkaline effluent reduction machine (Sagami Plant)

Amount of separation is increased by eradicating containers and replacing them with drum cans to increase the amount of recycling and conversion of valuable resources.

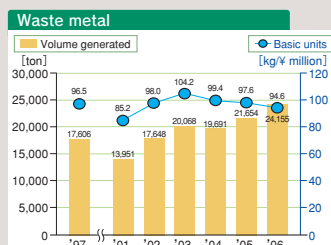


Thorough separation

Reduction target for waste metal

6% reduction in basic units by the end of fiscal 2010 from fiscal 2004 levels

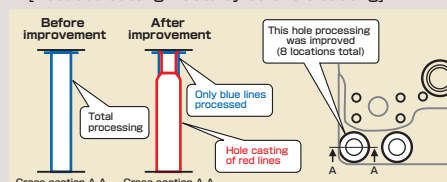
The annual target (2% reduction) in basic units was achieved as waste generated in fiscal 2006 was 4.8% less than in fiscal 2004. The amount of waste generated was 2,501 tons more than the previous fiscal year due to increase in production.



[Main efforts in fiscal 2006]

- Bolt hole casting of cast products
- Thorough nondestructive inspection, fractional management
- Reduction of discarded materials with smaller materials delivery
- Minimized cutting, grinding and polishing allowances
- Cold forging of cut parts

[Reduced cutting waste by bolt hole casting]



The amount of cutting waste was reduced by decreasing the cutting allowance through the bolt hole casting of valve casting materials. (Weight of reduced cutting waste: 2.7 tons/month)
Horizontal implementation will be made to other models in the future.