

Ecological Factory

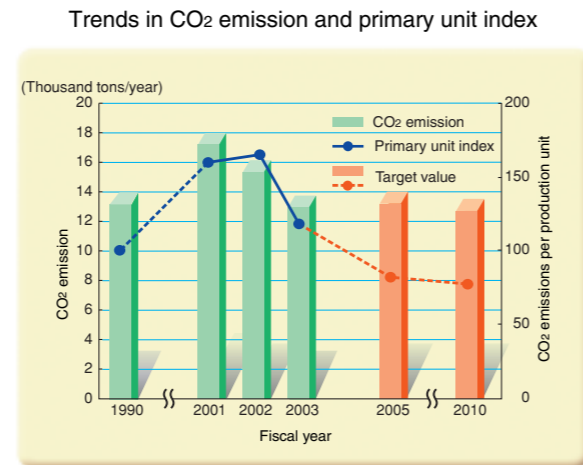
We are working on our Ecological Factory theme by controlling and minimizing environmental load at each of our factories.

1 Global warming prevention (energy conservation)

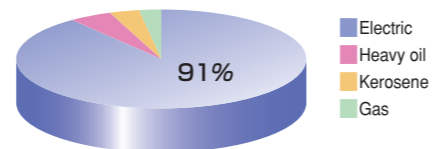
We have set ourselves the goal of reducing our primary unit of carbon dioxide emission in the production by 25% and carbon dioxide emission by 7%, from the 1990 levels by fiscal 2010. Carbon dioxide emission was reduced by 6% due to the consolidation of factories, while our primary unit of carbon dioxide in the production in fiscal 2003 increased by 17% from fiscal 1990 levels. The amount of carbon dioxide emission by use of electricity accounts for more than 91% of the total, and we are now engaged in upgrading energy-saving equipment and introducing ESCO business.

<Major energy saving measures taken in fiscal 2003>

1. Upgrading of air-cooling equipment
2. Review of heat exhaust system application
3. Enhancing efficiency of lighting fixtures



Usage breakdown of electric and various types of fuel (CO₂ conversion)

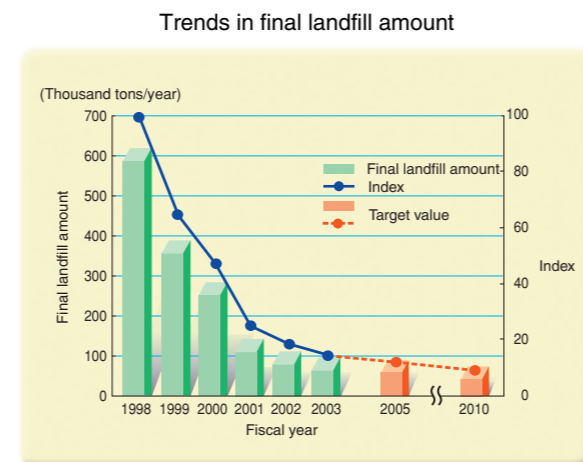


2 Waste reduction

We have set ourselves the goal of reducing our final landfill amount by 90% from the fiscal 1998 levels by fiscal 2010, and are working on further reduction of waste to achieve our goal of zero emissions. We reduced our final landfill amount in fiscal 2003 by 86% from the fiscal 1998 levels. In addition, we are engaged in our efforts for waste control measures to ultimately reduce our final landfill amount to zero.

<Major waste reduction measures taken in fiscal 2003>

1. Thermal recycling (RDF) of waste plastics
2. Thermal recycling (RPF) of vinyl and paper waste
3. Recycling of personal computers



Illegal dumping prevention (law compliance)

As to the status of disposal, we confirm the manifest (control manifest for industrial waste), periodically inspect waste disposal plants and confirm that waste disposal is properly performed.



Inspection of industrial waste disposers

3 Prevention of soil and ground water pollution

Soil and ground water is one of the natural environment having close relations with our lives. Anti-Soil Pollution Law was enacted in February 2003. Out of the object substances of this law, Trichloroethylene which is a volatile organic compound was completely abolished in 1992 and 1,1,1-Trichloroethane in 1996, Dichloromethane in 2002, respectively. Also, we implemented voluntary inspection of soil and ground water, and to date no contamination has been found. Further, the investigation was conducted based on the law due to the sale of a factory, and confirmed no contamination.



Collecting samples for underground water survey

Result of soil investigation at Yagi-Memorial Information & Communication Systems Research Laboratory (in Sendai)

Object substance	Maximum amount detected (extraction)	Standard amount	Maximum amount detected (content)	Standard amount
Fluorine and its compound	Less than 0.13 mg/l	0.8 mg/l	Less than 400 mg/kg	4000 mg/kg
Lead and its compound	Less than 0.005 mg/l	0.01 mg/l	Less than 15 mg/kg	150 mg/kg

Result of surface gas investigation at Yagi-Memorial Information & Communication Systems Research Laboratory (in Sendai)

Object substance	Maximum amount detected (extraction)	Standard amount
1,1-Dichloroethylene	Less than 0.1 ppm	0.1 ppm
Sis-1,2-Dichloroethylene	Less than 0.1 ppm	0.1 ppm
1,1,1-Trichloroethane	Less than 0.1 ppm	0.1 ppm
Trichloroethylene	Less than 0.1 ppm	0.1 ppm

4 Survey results for substances covered under the PRTR law social report

Based on the "Law Concerning Assessment of the Amounts of Specific Chemical Substances Released into the Environment and Promotion of Management Improvement (PRTR Law)" enacted in April 2001, it is required to report chemicals handled in the amount more than 1 ton in fiscal 2003. Out of 354 substance groups subject to reporting, the substances we handled in the amount of more than 100 kg were 4 substance groups, totaling 1,050 kg, which represented the reduction by 55% year-on-year. By introducing no lead solder, we reduced the use of lead and advanced reduction planning of the amount released, and it was found that there were no object substances to be reported to the government.

* PRTR : Pollutant Release and Transfer Register

The list below shows the substances handled in the amount of more than 100 kg in total by the entire company (Unit: kg/year)

Chemical	Amount handled	Amount consumed	Amount recycled	Amount transferred	Amount released
Hydrogen fluoride and its soluble salt	410.00	0.00	0.00	390.00	20.00
Toluene	254.28	1.56	0.00	57.04	195.68
Lead and its compound	203.41	23.67	179.25	0.49	0.00
Xylene	181.58	12.33	0.00	12.90	156.35

5 Reduction of the environmental load from chemical substances

To reduce the amount of chemicals released into atmosphere, water, soil, etc. and to cut down environmental load, we are exercising our voluntary management on approximately 1,400 chemical substances by categorizing them into 3 types; "to be prohibited", "to be reduced" and "to be managed". Especially, for the substances "to be prohibited", we have set ourselves the goal of making the amount released to the environment be "zero" by fiscal 2005, and for the substances "to be reduced", reducing by 30% (from fiscal 2000 levels) by fiscal 2005 in the amount released into the environment. In fiscal 2003, we completely abolished the substances "to be prohibited", and for the substances "to be reduced" we achieved, ahead of the schedule, our goal of 40% reduction from fiscal 2000 levels by reducing the usage and switching to alternate substances, etc.

6 Prevention of odors

In cases where there are no regulations or restrictions concerning odors, we have voluntarily set our own control standard and periodic inspections are implemented not to cause inconveniences to residents in the local community.



Collecting samples for voluntary investigations