

# Eco-factories (environment-friendly production activities)

We strive for eco-factories with low environmental loads that prevent global warming by power conservation and facility improvement as well as by promoting waste reduction aiming at zero emissions.

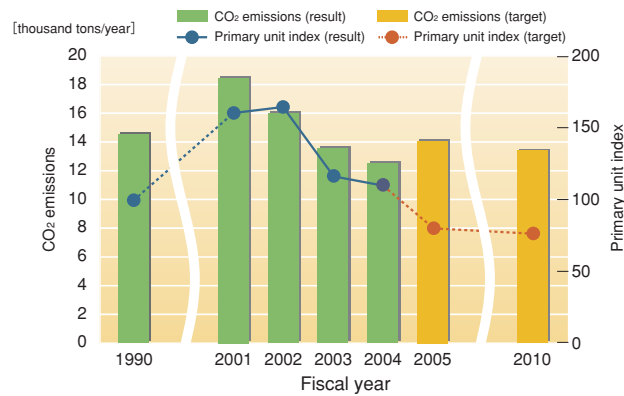
## Global warming prevention (energy conservation)

We have set ourselves the goal of reducing our carbon dioxide emission in primary unit index by 25% and in volume of emission by 7% by FY 2010 compared to FY 1990 levels. Carbon dioxide emissions were reduced by 12% in volume while our primary unit of carbon dioxide in production in FY 2004 increased by 10% compared to FY 1990 levels. The amount of carbon dioxide emissions from electricity use accounts for more than 91% of the total, and we are now engaged in upgrading energy-saving equipment and shifting to liquid-crystal-diaplay PCs to reduce carbon dioxide emissions further.

### <Major energy-saving measures in FY 2004>

1. Upgrading air-cooling equipment
2. Shifting to liquid-crystal-display PCs
3. Enhancing efficiency of lighting fixtures

### ■Trends in CO<sub>2</sub> emission and primary unit index



## Waste reduction

We have set ourselves the goal of reducing our final landfill amount by 90% as of FY 2010 compared with FY 1998 levels, and are working on reducing waste to achieve our goal of zero emissions.

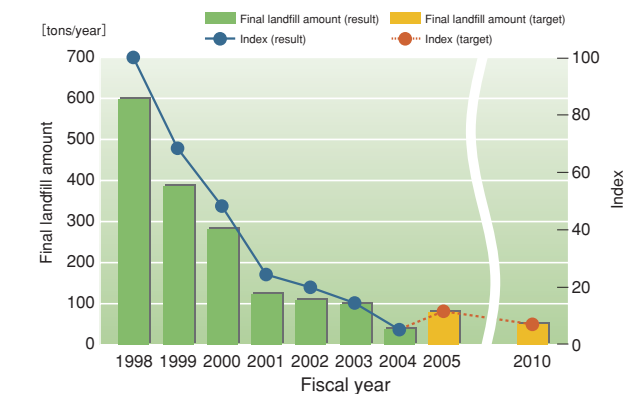
We reduced our final landfill amount in FY 2004 by 95% compared with our FY 1998 levels. In addition, we are engaged in efforts for waste control measures to ultimately reduce our final landfill amount to zero.

### <Major waste reduction measures in FY 2004>

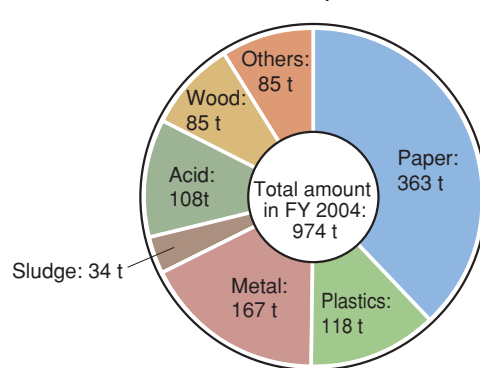
1. Thermal recycling (RDF) of waste plastics
2. Recycling of nitric acid fluoride
3. Recycling of sludge

※RDF:Refuse Derived Fuel

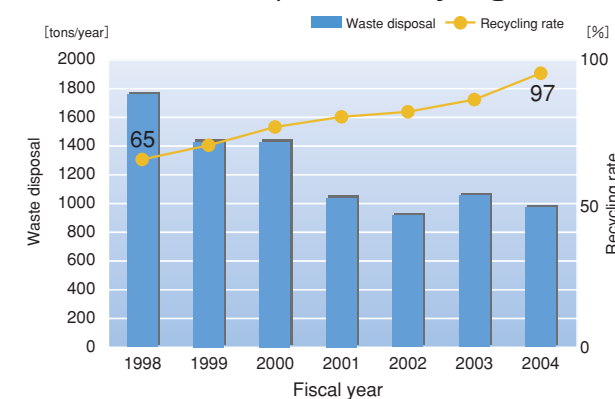
### ■Trends in final landfill amount



### ■Breakdown of waste disposal in FY 2004



### ■Trends of waste disposal and recycling rate



### Portable rechargeable battery recycling

In Japan, Hitachi Kokusai Electric participate in the End-of-Life Portable Rechargeable Battery Collection System managed by the JBRC (Japan Portable Rechargeable Battery Recycling Center). Both Hamura Works and Koganei Works placed battery collection bases to make efforts to recycle nicad batteries, nickel hydride batteries, and lithium-ion batteries.

## Prevention of soil and ground water pollution

Soil and ground water are part of the natural environment having close relations with our lives. Among the object substances specified in the Anti-Soil Pollution Law enacted in February 2003, we completely

eliminated volatile organic compounds by 2002. Each factory has conducted voluntary investigations of soil and ground water on the basis of laws and confirmed that there is no contamination.

### ■Results of soil investigation at Hamura Works

Object substance	Maximum amount detected	Standard amount
1,1-Dichloroethylene	Less than 0.0002 mg/L	0.02mg/L
Sis-1,2-Dichloroethylene	Less than 0.0002 mg/L	0.04mg/L
Tetrachloroethylene	0.0010mg/L	0.01mg/L
Trichloroethylene	0.0011mg/L	0.03mg/L



Sample collecting for soil investigation

## Investigation results of substances covered under the PRTR law

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 amounts of more than 1 ton from FY 2003. We have had no such chemicals.

The total amount of substances we handled among 354 object substances specified in the PRTR Law is 862 kg, which was reduced by 25% compared to the last fiscal year. This is mainly because we reduced the lead used by 55% compared with the last fiscal year thanks to introducing lead-free solder.

※PRTR:Pollutant Release and Transfer Register

### ■Results of PRTR object substances release and transfer amount (unit: kg/year)

Chemicals	Amount handled	Amount consumed	Amount recycled	Amount transferred	Amount released
Hydrogen fluoride and its water soluble salts	370	0	0	350	20
Toluene	187	1	0	48	138
Xylene	135	7	0	1	127
Lead and its compounds	92	91	0	1	0

※Main handling substances are shown above

## Reduction of environmental load from chemical substances

To reduce the amount of chemicals released into our atmosphere, water, and soil in order to minimize the environmental load, we are voluntarily managing approximately 1,400 chemical substances by categorizing them into 3 types, which are to be prohibited, to be reduced, and to be managed. Especially, for substances to be prohibited, we have set ourselves the goal of making the amount released into the environment be zero by FY 2005, and for

substances to be reduced having a 30% reduction by FY 2005, compared with FY 2000, in the amount released into the environment. In addition to complete elimination of the substances to be prohibited in FY2003, we have achieved our goal of 72% reduction, ahead of schedule, compared with FY 2000 by reducing the amount of substances used in the to be reduced category mainly by shifting to alternatives.

## PCB-contained equipment storage

Because of the Law Concerning Special Measures Against PCB Waste enforced in June 2001, we are obliged to enhance the storage management and to dispose of PCB waste until July 2016.

We, including affiliated companies, keep 36 high pressure capacitors, 176 low pressure capacitors, and 2,547 fluorescent light ballasts. We have put labels on those and locked the storage facilities in order to prevent loss and misplacement during long-term storage. We continue to put such items in storage boxes to prevent leakage due to damage and study appropriate disposal.



Repository

Inside container