## 4.2

Environment-Oriented Production

1

Global warming prevention (energy conservation)

To combat global warning, we have set a goal of reducing the primary unit of carbon dioxide emission by 25% from the 1990 levels by fiscal 2010. However, the index of the primary unit has worsened. The major factors leading to this included the expansion of clean rooms for manufacturing and evaluating semiconductor production devices in 1995 and subsequent years and the establishment and expansion of works in 1997 to meet the increasing demand for semiconductors.

In the future, we will be striving forward to achieve our goals through the following activities and obtain the maximum benefit from the merger:
1 Make a company-wide review of conventional production systems and construct a more efficient one.
2 Drastically improve individual production processes.
3 Improve the efficiency of high energy consumption facilities through energy saving diagnosis by external experts and know-how exchange between works.
4 Continuously strengthen company-wide energy-saving activities through the participation of all employees.

Trends in CO_2 Production-Related Emissions
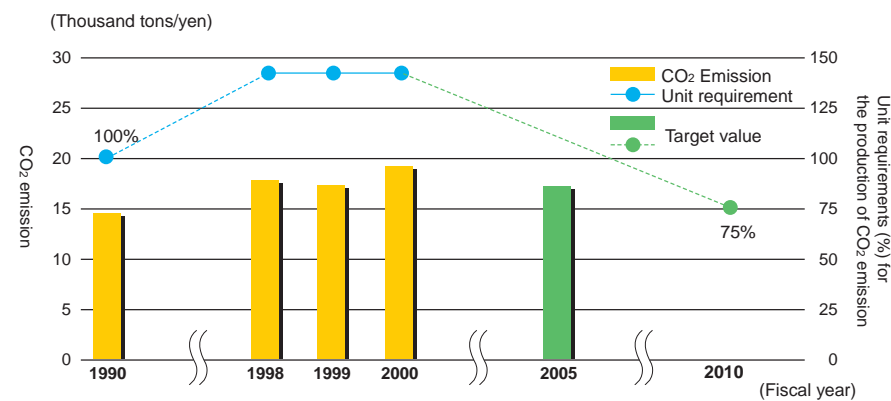
Concrete energy conservation measures implemented by the end of 2000

Concrete measures	Site						
	Yagi Memorial Laboratory*	Hamura	Chitose	Toyama	Fujiyoshida	Koganei	Ohmiya
1 Underwent energy conservation diagnosis by The Energy Conservation Center, Japan.		○	○			○	
2 Underwent preliminary investigation by ESCO service provider	○			○			○
3 Cases of energy conservation		○				○	○
(a) Air conditioners were demand controlled.		○				○	○
(b) An inverter was mounted on the cooling water and ventilation pipes.			○	○	○		
(c) The lights were replaced by high-efficiency lights.	○	○				○	
(d) Personal computer energy consumption was reduced by the use of FETs.			○				
(e) A light-reducing film was attached to windows.	○					○	
(f) Production process improvement	○	○					

Note and legend. *: Yagi Memorial Information Communications System Laboratory, O: Implemented.

2

Waste reduction

We have strived to reduce waste. Our current major activities include recycling and thermal recycling through separate recovery.

The waste containers were replaced with separate recovery containers for different types of waste. Also, a goal has been set to reduce the final landfill amount (*1) to 10% or less of the 1991 levels by 2010. This will be achieved by recycling the resources that were conserved by sorting (which reduce the amount to 23% of the 1991 levels in 2000.

We will also strive to achieve zero emissions (*2) as a challenging goal.
The major measures we have taken so far are as follows:

1 Recycling of waste acid and waste alkali
2 Thermal recycling (RDF) of waste plastics
3 Recycling of sludge

(*1) Final landfill amount = direct final landfill amount + final landfill amount after intermediate processing
(*2) We define zero emission to be a final disposal rate of 1% in the relevant year.

Trends in final disposal waste reduction
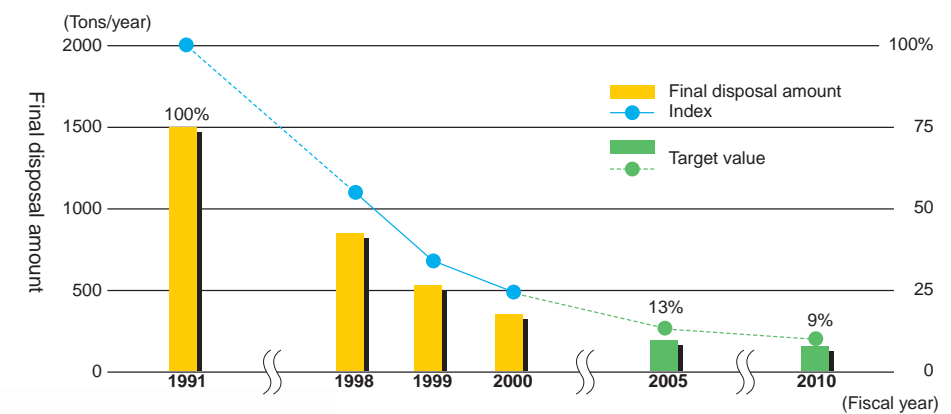
Implementation examples of concrete waste-reduction measures implemented by the end of 2000

Concrete measures	Site						
	Yagi Memorial Laboratory*	Hamura	Chitose	Toyama	Fujiyoshida	Koganei	Ohmiya
(1) Separate recovery	○	○	○	○	○	○	○
(2) Recycling of waste paper	○	○	○	○	○	○	○
(3) RDF of waste plastics		○	○	○	○	○	
(4) Recycling of waste acid	—		—	○	—	○	—
(5) Recycling of waste alkali	—	○	—	○	—	○	—
(6) Recycling of waste wood			—	○	○	○	
(7) Recycling of sludge	—	○	—	—	—	○	—

Note and legend. *: Yagi Memorial Information Communications System Laboratory, O: Implemented.