

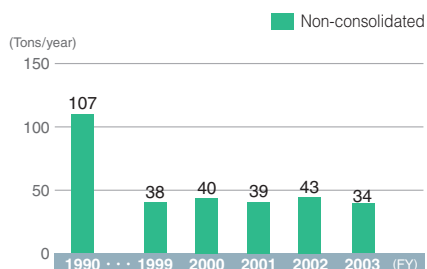
# Reducing Air Pollution Impacts

We protect the air quality of our neighborhoods by reducing emissions from the operation of our manufacturing facilities of substances that are possible causes of air pollution. This is another way in which we try to minimize the impact of our operations on the environment.

## Reduction of Sulfur Oxides (SOx)

We have changed the type of boiler fuel we use to one that has lower sulfur content so that the impact of SOx emissions on air quality from our manufacturing processes can be lowered. As a result, SOx emissions by Hitachi Chemical in fiscal 2003 were reduced to 32% of 1990 levels.

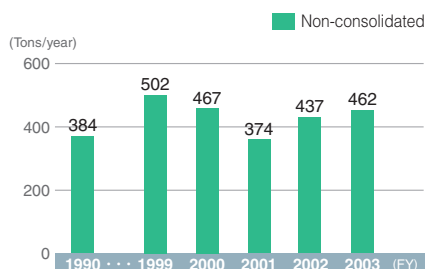
Amount of SOx emitted



## Reduction of Nitrogen Oxides (NOx)

The overall amount of NOx emissions has been increasing over the last few years, due to the installation of private electric generators and waste heat recovery systems. We will continuously take various measures, including controlled operation of combustion units, to reduce such emissions.

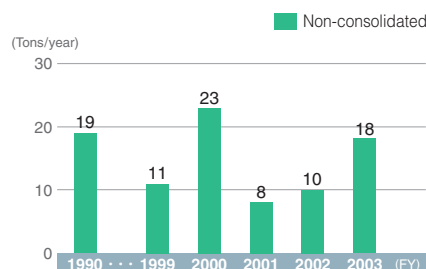
Amount of NOx emitted



## Reduction of Soot and Dust

The amount of soot and dust emitted has been increasing as our production increases and installation of new facilities continues in order to meet increasing demand. In order to reverse this trend and reduce the amount of soot and dust, we have been installing dust collectors with higher performances.

Amount of soot and dust emitted



## Approaches at Manufacturing Works

### Odor Control During Friction Material Manufacturing Procedures (Yamazaki Works, 2002)

At the Yamazaki Works, a regenerative deodorizing system was installed for the manufacturing process of automotive disk brake pads. The system has substantially reduced odors in the factory and its surrounding area and improved air quality. This regenerative type of deodorizing system was selected from the energy-saving point of view.

The Yamazaki Works is planning to install more regenerative deodorizing systems, as well as waste gas cleaning systems, into other manufacturing processes in order to further improve comfort levels in neighboring areas.



Regenerative deodorizing system

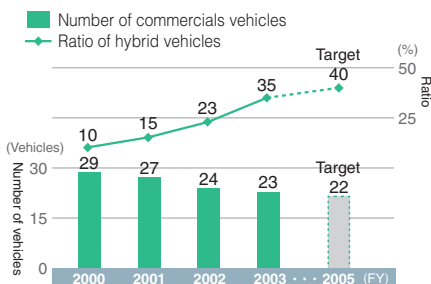
## Air Pollution Reducing Approaches for Distribution Systems

In cooperation with the distribution companies that deliver products and materials for us, the Hitachi Chemical Group has been working on the reduction of CO<sub>2</sub> emissions during the distribution processes. Specifically, we are promoting modal shifts and improvements to transportation efficiency.

Each sales office has been working on reducing exhaust gases from the vehicles used for sales activities. For example, the total number of vehicles has been reduced through a modal shift and some sales vehicles have been replaced by hybrid type vehicles,\* with the aim of reducing CO<sub>2</sub> emissions. We will continue to promote such modal shifts and the use of hybrid cars.

\* CO<sub>2</sub> emissions from hybrid cars are 50% lower than from gasoline-powered vehicles.

### Ratio of hybrid vehicles to Hitachi Chemical's commercial vehicles



## Next Step

We will continue our efforts to reduce emissions of SOx, NOx, soot and dust, and other air pollutants. We will increase the proportion of hybrid vehicles in the company to at least 40% by fiscal 2005.