# Protection of Water, Air, and Soil Environments

### **Performance Exceeding Targets**

Our aim from FY2007 is to reduce water use per unit output by 1% year on year. In FY2007, this target was exceeded with a reduction of 1.2%.



#### Water use and use per unit output

\* Use per unit output = volume of water use / volume of production

### Significant Reduction of SOx Emissions

The concentrations of NOx and SOx in emissions are kept within legal limits. NOx emissions in FY2007 and the emission per unit output increased compared with FY2006, but SOx emissions and emission per unit output both fell dramatically.



# NOx and SOx emissions and emissions per unit output

\*\*Emission per unit output = volume of emissions / volume of production

# Action Against Soil Pollution

Shallow observation wells had been established at seven domestic operations by FY2006 (at the Nagano Plant, where the water vein is deep underground, direct soil analysis is employed). In FY2007, all standards were again cleared at all production establishments in Japan,

#### Management of BOC and COD Loads

BODs and CODs have been target managed based on emission concentrations at all plants since FY2007 to ensure legal limits are met. However, BOD and COD loads have increased since FY2006 due to increases in individual emission concentrations.



BOD and COD emission loads and wastewater emission

\*BOD: Biochemical oxygen demand \*COD: Chemical oxygen demand BOD is a measure of water pollution in rivers, and COD is a measure of water pollution in seas and lakes. The higher the value, the greater is the level of pollution. \*Corrections have been made to the BOD and COD loads in past years due to some establishments not having been equipped with wastewater flowmeters during these periods. The effect of these changes is minimal.

# Action against Dioxins

Concentrations are regularly measured once a year at the Mie Plant, which has a waste incinerator, and regulatory values were once again cleared in FY2007.

#### Dioxin levels observed at Mie Plant (FY2007)

Category	Regulatory value	Mesured value
Exhaust gas (ng-TEQ/m <sup>3</sup> N)	10	0.015
Wastewater (pg-TEQ/L)	10	0.012
Incineration residue (ng-TEQ/g)	3	0.000006
Fly ash (ng-TEQ/g)	3	0.076

and we plan to continue to periodically monitor and measure soil pollution. At the Hiratsuka Factory, where the concentration of chlorinated organic solvents in groundwater used to exceed limits, aerated cleaning is still employed.