Chemical substance management

■Compliance with laws and setting goals for reduction of chemical substances

When using chemical substances, the effects on human health and ecological systems must be fully considered. The JR East Group not only rigidly adheres to established standard values, but sets its own ambitious targets as well. As much as possible, we restrict the use of such substances and adopt environmentally responsible substitutes.

■Reducing and replacing ozone depleting substances☆

We endeavor to reduce the use of substances specified as controlled substances under the Ozone Layer Protection Law and adopt environmentally friendly substitutes.

- Large heat exchangers (Large refrigerators)—Having steadily replaced air conditioning units using specified chlorofluorocarbons (CFCs) with systems that do not use them, we completed the removal of such units from buildings by the end of March 2008.
- Rolling stock—Except for some diesel railcars, all of our cars use CFC substitutes. As of March 2011, we were using 0.5 tons of CFCs and only 87 tons of CFC substitutes. We routinely check for gas leaks, and collect the refrigerants when scrapping retired railcars in accordance with applicable laws and regulations.
- Fire-extinguishing agent—Although 63 tons of halon gas was still in use as a fire-extinguishing agent as of March 2011, we have it under proper control and are replacing it with non-halon agents (such as powder agents and CO_2) when building new facilities or renovating existing ones.

■Chemical substance management☆

As JR East uses chemical substances primarily for painting and repairing our railcars, we take rigorous steps for their use and management in order to prevent their leakage. We are a company that handles a considerable amount of specified chemical substances, and 16 JR East facilities submitted the data regarding the release and transfer of these substances to relevant authorities in the fiscal year ended March 2011, pursuant to the PRTR System.*

We are also promoting the introduction of stainless steel railcars that do not require painting. At the end of March 2011, as many as 81% of the 10,703 cars operated on our conventional lines were stainless steel railcars. Beside their use for railcars, we used 321 tons of organic solvents for painting railway facilities and stabilizing track beds in the fiscal year ended March 2011.

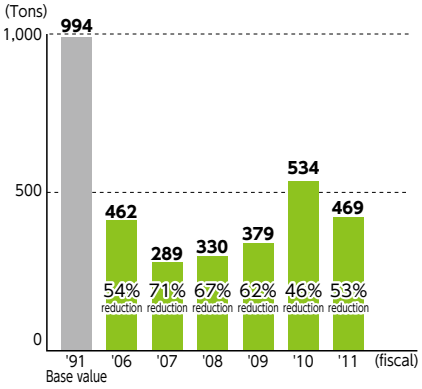
* PRTR system: A system where companies notify their releases and transfers of chemical substances obliged by the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. It encourages the monitoring and control of toxic chemical substances emitted into the environment and measures to prevent negative impact on the environment.

■Reducing emissions from JR East's thermal power plants☆

We use natural gas, kerosene and heavy fuel oil (especially, low-sulfur fuel oil) at JR East's thermal power plants. When these fuels burn, however, nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM) are emitted.

We are endeavoring to reduce the production of emissions the total emissions into the air by equipping our thermal power plants with NOx removal equipment, low NOx burners, dust collectors, etc.

■ NOx emissions from JR East's thermal power plants



* In FY 2009, there was an increase in the volume of NOx emissions due to the high operating rate of our thermal power plant. However, in FY 2010, the operating rate of the thermal power plant decreased after resuming operations of our hydroelectric power plants, resulting in a reduction in the volume of NOx emissions.

■Management of PCBs☆

Equipment containing PCB's is securely stored at 146 locations and reports on it are filed as required by laws and regulations. We render this equipment harmless to the extent that can be done by PCB waste treatment facilities.

In the fiscal year ended March 2011, we treated 273 units of equipment such as transformers and capacitors.