XVI-1 Status of Radioactive Waste Management

(1) Release of Gaseous and Liquid Radioactive Waste

1) Commercial Nuclear Power Reactor Facilities

The release of gaseous and liquid radioactive waste is controlled at every nuclear power plant not to exceed the prescribed dose limit for the public in the area (i.e., 50 microsievert/year) in accordance with the "Guideline concerning the target dose level of the local residents of light water nuclear power reactor facilities." The annual emission control target levels are determined in the safety provisions based on the values evaluated at the time of the safety assessment which takes place prior to the establishment of the facilities, and the emission is controlled not to exceed the target levels.

In FY2005, the emissions were lower than the target emission levels at all nuclear power plants.

The results of an evaluation performed in accordance with the "Guideline concerning the target dose level of the local residents of light water nuclear power reactor facilities" show that the equivalent dose of public exposure was less than 1 microsievert per year.

2) Nuclear Power Reactor Facilities in a Research and Development Stage

The release of gaseous and liquid radioactive waste is controlled not to exceed the annual emission control levels, which was determined in the safety provisions based on the emission level used at the time of assessment for the licensing of the construction of the reactor.

In FY2005, the amount of released waste was lower than the target emission control levels at both the Fugen Power Station and Monju facilities.

The results of an evaluation performed in accordance with the "Guideline concerning the target dose level of the local residents of light water nuclear power reactor facilities" show that the equivalent dose of public exposure was less than 1 microsievert per year.

3) Nuclear Fuel Fabrication Facilities

The release of gaseous and liquid waste from nuclear fuel fabrication facilities is controlled by setting concentration targets in the safety provisions, so that concentration levels specified by law are not exceeded the three-months average concentrations.

In each quarter of FY2005, the amount of released waste satisfied the target concentration control levels.

4) Reprocessing Facilities

The release of gaseous and liquid radioactive waste is controlled by setting in the safety provisions annual release targets based on the release levels used for the evaluation of surrounding environments at the time of assessment for licensing of the facilities (approval of construction), and not exceed the value.

In FY2005, the amount of released waste was lower than the target control limit levels at both the Nuclear Fuel Cycle Engineering Laboratories at the Tokai Research and Development Center of the Japan Atomic Energy Agency and the Japan Nuclear Fuel Limited, Reprocessing Plant (reprocessing facility).

The results of an evaluation performed based on the evaluation method used in the assessment for the business licensing of the facilities (approval of construction) show that the equivalent dose of public exposure was less than 1 microsievert per year.

5) Radioactive Waste Disposal and Waste Management Facilities

The release of gaseous and liquid waste of radioactive waste disposal and waste management facilities is controlled so that the three-month average concentrations do not exceed the target concentration control limit levels, which were determined in the safety provisions.

In each quarter of FY2005, the amount of released waste were within the target concentration control levels.

For reference purposes, the amounts of released gaseous and liquid radioactive waste from nuclear power reactor facilities in a commercial and research and development stage on an annual basis since FY1996, are shown in reference documents 1 to 4.
The radioactivity of released gaseous and liquid radioactive waste was measured in accordance with the "Guideline for Measurement of Released Radioactive Materials at Light Water Nuclear Power Reactor Facilities." Concentrations of released radioactivity that are below the detection limit are indicated as N.D. in the tables.