XIV-1 Status of Radioactive Waste Management at Nuclear Facilities

(1) Released Amount of Radioactive Gaseous and Liquid Waste

1) Commercial Nuclear Power Reactor Facilities

To achieve the target exposure dose level for the public around facilities at all the nuclear power plants (i.e., 50 μSv per year) in accordance with the "Guide for Dose Objectives around Light-Water Nuclear Power Reactor Facilities," the released amount of radioactive gaseous and liquid waste is evaluated at the time of safety assessment and controlled so as not to exceed the annual emission control target levels, as prescribed in the "Fitness-for-Safety Program".

The released amount in FY2001 was lower than the target emission levels at all power plants.

The results of the evaluation, which was performed in accordance with the "Evaluation Guide for Dose Objectives around Light-Water Nuclear Power Reactor Facilities," etc., show that the effective dose of public exposure was less than 1 μSv per year.

2) Nuclear Power Reactor Facilities in the Research-and-Development Stage

The released amount of radioactive gaseous and liquid waste is controlled so as not to exceed the annual release control targets, as determined in the "Fitness-for-Safety Program" based on the release amount used at the time of assessment for the licensing of reactor construction.

The released amount in FY2001 was less than the release control targets at the Fugen Power Station and Monju facilities.

The results of the evaluation, which was performed in accordance with the "Evaluation Guide for Dose Objectives around Light-Water Nuclear Power Reactor Facilities," etc., show that the effective dose of public exposure was less than 1 μSv per year.

3) Nuclear Fuel Fabrication Facilities

The release of radioactive gaseous and liquid waste of fabrication facilities is controlled so that the three-month average concentrations do not exceed the concentration control targets, as prescribed in the "Fitness-for-Safety Program" so as not to exceed the limits stipulated by ordinances.

In each quarter of FY2001, the amount of released waste satisfied the concentration control targets.

4) Reprocessing Facilities

The released amount of radioactive gaseous and liquid waste is controlled so as not to exceed the annual release control targets, as prescribed in the "Fitness-for-Safety Program" based on the released amount used in evaluating impacts on ambient environment at the time of assessment for operation licensing of the facilities (approval of construction).

The released amount in FY2001 was less than the release control targets at the Tokai Works (reprocessing facility) of the Japan Nuclear Cycle Development Institute and the Reprocessing Plant (reprocessing facility) of the Japan Nuclear Fuel Ltd.

The results of the evaluation, which was performed based on the evaluation method used in the assessment for the operation licensing of the facilities (approval of construction), show that the effective dose of public exposure was less than 1 μSv per year.

5) Radioactive Waste Burial and Waste Management Facilities

The release of radioactive gaseous and liquid waste of waste burial and waste management facilities is controlled so as not to exceed the three-month average concentration targets or the annual release control targets, as prescribed in the" Fitness-for-Safety Program".

In each quarter of FY2001, the amount of released waste satisfied the concentration control targets or the annual release control targets.

For reference, the annual released amounts of radioactive gaseous and liquid waste since FY1992 from nuclear power reactor facilities in a commercial or research-and-development stage is shown in reference documents 1 through 4.

The radioactivity of released radioactive gaseous and liquid waste was measured in accordance with the “Guide for Measurement of Released Radioactive Materials from Light-Water Nuclear Power Reactor Facilities.” “N.D.” in the tables indicates a level of concentration of released radioactivity below the limit of detection at the time of measurement.