

## (2) Status of Solid-Waste Management

The status of radioactive solid waste management in FY2000 was as below. No nuclear facility stored an amount of radioactive solid waste in excess of its total storage capacity.

### 1) Commercial Nuclear Power Reactor Facilities

The amount of low-level radioactive solid waste generated at commercial nuclear power reactor facilities in FY2000 was equivalent to approximately 44,700 200-liter drums. Due to the amount of waste transported to the Low-Level Radioactive Waste Disposal Center and the volume-reducing effects of measures such as incineration, etc., the amount of cumulative stored waste increased by approximately 18,500 drums. Accordingly, at the end of FY2000 the amount of waste in solid-waste storage at commercial power reactor facilities was equivalent to approximately 519,800 drums, which is 61.5% of the total storage capacity of approximately 845,600 drums.

A steam-generator storage facility is intended exclusively for the radioactive solid waste generated through processes including the replacement of steam generators and reactor vessel heads in pressurized-water reactor (PWR) power plants. In FY2000 a total of 362 m<sup>3</sup> of storage containers was generated as a result of the replacement of reactor vessel heads at three power plants.

Spent control rods, channel boxes, spent resin and a portion of the waste generated through replacement of the shroud, etc., are stored in the spent fuel pool, storage bunker, tank, etc.

In a solid storage facility, radioactive solid waste is packed in drums and stored.

The amount of radioactive solid waste in drums is expressed as the equivalent number of 200-liter drums. Other types of radioactive solid waste are large-size equipment, etc., which do not fit in drums. The amount generated and amount of accumulated storage of this kind are indicated by the estimated equivalent number of 200-litre drums.

The “reduction within plant” amount is the sum of the amount of incinerated combustible waste and the amount of volume reduction by the compressed packaging of waste, while the “reduction outside plant” amount is the amount of waste transported to the Low-Level Radioactive Waste Disposal Center.

The amount of radioactive solid waste stored in steam-generator storage facilities is shown by the number of steam generators removed and stored and the volume of storage containers.

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

The amount of low-level radioactive solid waste generated at the Fugen Nuclear Power Plant in FY2000 was equivalent to approximately 700 drums. Due to the volume-reducing effects of measures such as incineration, etc., the amount of cumulative storage increased by approximately 500 drums. As a result, the amount in storage at the end of FY2000 was equivalent to approximately 18,100 drums, compared to the 21,500-drum capacity of the storage facility. The amount of low-level radioactive solid waste generated at the Monju facility was equivalent to 200 drums. As a result, the amount in storage at the end of FY2000 was equivalent to approximately 1,900 drums, compared with the 23,000-drum capacity of the storage facility.

### 3) Nuclear Fuel Fabrication facilities

In FY2000 the amount of low-level radioactive solid waste generated at a total of six fabrication facilities (operated by five companies) was equivalent to approximately 3,000 drums. Due to the volume-reducing effects of measures such as incineration, etc., the amount of cumulative storage increased by approximately 1,200 drums. As a result, the amount of low-level radioactive solid waste stored at the end of FY2000 was equivalent to

approximately 35,300 drums, compared with the approximately 49,260-drum total capacity of the storage facilities.

#### 4) Reprocessing Facilities

The amount of radioactive solid waste generated at the Tokai Works (reprocessing facility) of the Japan Nuclear Cycle Development Institute in FY2000 was equivalent to approximately 1,200 drums of low-level radioactive solid waste, 86 drums of high-level radioactive solid waste and 35 containers (120-liter containers) of vitrified waste. As a result, the amount of low-level radioactive solid waste stored at the end of FY2000 was equivalent to approximately 73,200 drums, compared with the approximately 92,140-drum capacity of the storage facility. The amount of high-level radioactive solid waste was equivalent to approximately 5,500 drums, compared with the approximately 10,300-drum capacity of the storage facility. The amount of vitrified waste (120-liter containers) was 97 containers, compared to the 420-container capacity of the storage facility.

The amount of low-level radioactive solid waste generated at the reprocessing plant (reprocessing facilities) of the Japan Nuclear Fuel Ltd. in FY2000 was equivalent to approximately 600 drums. As a result, the amount of low-level radioactive solid waste stored at the end of FY2000 was equivalent to approximately 800 drums, compared with the approximately 11,350-drum capacity of the storage facility. High-level radioactive solid waste and vitrified waste have yet to be generated at the plant concerned.

#### 5) Waste Burial Facilities and Waste Management Facilities

At the end of FY2000, at the Waste Burial Plant of the Japan Nuclear Fuel Ltd., solidified waste equivalent to approximately 131,000 drums was buried at the No. 1 waste burial facility (capacity, approx. 200,000 drums) and injected grout equivalent to approximately 1,400 drums was buried at the No. 2 waste burial facility (capacity, approx. 200,000 drums). No low-level radioactive solid waste was generated in association with the burial activities concerned.

Approximately 1,670 tons of solid waste associated with the dismantling of JPDR has already been buried at the Tokai Research Establishment of the Japan Atomic Energy Research Institute (waste burial facility). No low-level radioactive solid waste has been generated in association with the burial activities concerned.

As of the end of FY2000, at the Waste Management Plant of the Japan Nuclear Fuel Ltd., 464 containers of vitrified waste have been received and managed in the waste-management storage facility, which has a capacity of 1,440 containers of high-level radioactive solid waste (vitrified waste). The amount of low-level radioactive solid waste generated in association with the management activities concerned was equivalent to approximately 30 drums. As a result, the amount of low-level radioactive solid waste stored at the end of FY2000 was equivalent to approximately 400 drums, compared with the approximately 1,200-drum capacity of the storage facility.

At the end of FY2000, in the Oarai Research Establishment of the Japan Atomic Energy Research Institute (a waste-management facility), low-level radioactive solid waste equivalent to approximately 24,600 drums (including approximately 300 drums of low-level radioactive solid waste generated in association with the activities concerned) is managed in the waste-management storage facility, which has a capacity of approximately 35,870 drums.

The status of solid-waste management in each fiscal year since FY1991 is shown in Reference Document 5, and the amount of waste in each fiscal year since FY1992 transported to the Low-Level Radioactive Waste Disposal Center is shown in Reference Document 6.