

## Plant Status of Fukushima Daiichi Nuclear Power Station

January 21, 2012  
Tokyo Electric Power Company

### <Draining Water on Underground Floor of Turbine Building (T/B) >

Status of highly concentrated accumulated radioactive water treatment facility and storage tank facility

#### [Treatment Facility]

· At 12:12 on January 16, 2012: we started the second cesium absorption apparatus. At 12:17, the flow rate reached steady state.

· At 18:42 on January 17, 2012: We actuated Cesium adsorption apparatus. At 18:45, the flow rate reached steady state.

#### [Storage Facility]

· June 8, 2011 ~ : Large tanks to store and keep treated or contaminated water have been transferred and installed sequentially.

Accumulated water in vertical shafts of trenches and at basement level of building

| Unit   | Draining water source Place transferred  | Status   |
|--------|--|--|
| Unit 1 | · Unit 1T/B Unit 2T/B  | · 15:37 on January 20 - Transferring                           |
| Unit 2 | · Unit 2T/B Central Radioactive Waste Treatment Facility<br>[Process Main Building, Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)] | · 15:23 on January 20 - 1/21 7:48<br>Transferring <sup>1</sup> |
| Unit 3 | · Unit 3T/B Central Radioactive Waste Treatment Facility<br>[Process Main Building, Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)] | · 15:17 on January 20 -1/21 14:18<br>Transferring <sup>2</sup> |
| Unit 6 | · Unit 6T/B Temporary tanks  | · No plan to transfer on Jan 21                                |

1 At approx 7:20 am on January 21, a worker from the cooperating company found water leakage from the transfer piping at the large equipment hatch, T/B, Unit 4. We checked the work site and observed water leakage from a flange of the piping to a valve unit. Part of water dripped to the floor outside of the valve unit. At 7:48 am on the same date, we stopped the transfer pump for the accumulated water. At 7:55 am, we confirmed that the dripping of water stopped. The water was within the T/B and there was no leakage to outdoor, no leakage to the sea. The volume of water dripped to the floor of T/B was approx 2 liters. The surface dose rate was 0.1mSv/h. We estimated no highly concentrated contaminated water. This water leakage point is the new coupling of the pipe and we confirmed leak check after laying the applicable pipe by using the water in vertical shaft of Unit 1 and we estimated that inside water was pushed and dropped to floor.

From 1:58 pm to 2:49 pm on the same day, we conducted flushing of the transfer piping for accumulated water and confirmed the stop of accumulated water leakage. We will check the flange and repair.

2 We stopped transferring accumulated water and confirmed water leakage yes or no from the resemblance point.

At approx 2:30 pm, we confirmed one point where water blurred on (but no dropping water). We will examine the measure such as the repair in future.

| Place transferred   | Status of Water Level (As of January 21 at 7:00)  |
|---|---|
| Process Main Building   | Water level: O.P.+ 4,120 mm(Accumulated total increase:5,337 mm), decrease 152mm from 7:00 am on January 20 |
| Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building) | Water level: O.P.+ 2,356 mm(Accumulated total increase:3,082 mm), increase 359mm from 7:00 am on January 20 |

[Unit 3] From 9:42 am to 6:00 pm on January 19 and from 9:05 am to 5:40 pm on January 21, we injected the water into the Condensate Storage Tank.

Water level of the vertical shaft of the trench, T/B and R/B (As of January 21 at 7:00)

|        | Vertical Shaft of Trench                               | T/B  | R/B   |
|--------|--|--|---|
| Unit 1 | O.P. <+ 850 mm<br>(No change since 7:00 on January 20) | O.P.+ 3,040 mm<br>(232 mm decrease since 7:00 on January 20) | O.P.+ 4,204 mm<br>(14 mm increase since 7:00 on January 20) |

|        |   |  |  |
|--------|---|--|--|
|        |   | 20)  | 20)  |
| Unit 2 | O.P.+ 3,068 mm<br>(2 mm decrease since 7:00 on January 20)  | O.P.+ 3,043 mm<br>(6mm decrease since 7:00 on January 20)  | O.P.+ 3,208 mm<br>(9 mm increase since 7:00 on January 20) |
| Unit 3 | O.P.+ 3,089 mm<br>(14 mm decrease since 7:00 on January 20) | O.P.+ 3,008 mm<br>(53mm decrease since 7:00 on January 20) | O.P.+ 3,297 mm<br>(43mm decrease since 7:00 on January 20) |
| Unit 4 | -   | O.P.+ 3,032 mm<br>(4mm decrease since 7:00 on January 20)  | O.P.+ 3,055 mm<br>(3mm decrease since 7:00 on January 20)  |

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

| Place of sampling                                     | Date of sampling | Time of sampling | Ratio of density limit (times) |        |        |
|---|------------------|------------------|--------------------------------|--------|--------|
|   |                  |                  | I-131                          | Cs-134 | Cs-137 |
| Around 30 m north from discharge channel of 5-6U, 1F  | 1/20             | 8:40             | ND                             | 0.04   | 0.02   |
| Around 330 m south from discharge channel of 1-4U, 1F | 1/20             | 8:25             | ND                             | 0.04   | 0.03   |
| Around 7 km south from discharge channel of 1-2U, 2F  | 1/20             | 8:15             | ND                             | ND     | 0.02   |

<Cooling of Spent Fuel Pools > (As of January 21 at 11:00)

| Unit   | Cooling type               | Status of cooling | Temperature of water in Pool |
|--------|----------------------------|-------------------|------------------------------|
| Unit 1 | Circulating Cooling System | Under operation   | 16.5                         |
| Unit 2 | Circulating Cooling System | Under operation   | 14.0                         |
| Unit 3 | Circulating Cooling System | Under operation   | 13.8                         |
| Unit 4 | Circulating Cooling System | Under operation   | 24                           |

[Unit 2] · A desalination equipment has been activated in order to reduce density of salt from the spent fuel pool since 11:50 am on Jan 19, 2012.

[Unit 3] · A radioactive material removal equipment has been activated in order to remove radioactive materials from the spent fuel pool since 3:18 pm on Jan 14, 2012.

<Water Injection to Pressure Containment Vessels> (As of January 21 at 11:00)

| Unit   | Status of water injection   | Feed-water nozzle Temp. | Reactor pressure vessel Bottom temp. | Pressure of primary containment vessel |
|--------|---|-------------------------|--------------------------------------|--|
| Unit 1 | Injecting freshwater<br>(Feed Water System: Approx.4.5 m <sup>3</sup> /h,<br>Core Spray System: Approx.1.8 m <sup>3</sup> /h) | 26.6                    | 27.0                                 | 107.1 kPaabs                           |
| Unit 2 | Injecting freshwater<br>(Feed Water System: Approx.6.0 m <sup>3</sup> /h,<br>Core Spray System: Approx.4.0 m <sup>3</sup> /h) | 47.7                    | 50.5                                 | 110 kPaabs                             |
| Unit 3 | Injecting freshwater<br>(Feed Water System: Approx.5.0 m <sup>3</sup> /h,<br>Core Spray System: Approx.3.9 m <sup>3</sup> /h) | 45.4                    | 53.6                                 | 101.6 kPaabs                           |

[Unit 2] At 9:55 am on January 20: As the pump for Reactor water injection was switched to the reactor injection pump on the hill, we adjusted water injection from the reactor feed water system from approx 5.0 m<sup>3</sup>/h to 6.0 m<sup>3</sup>/h, and water injection from the core spray system from approx. 5.0 m<sup>3</sup>/h to 4.0 m<sup>3</sup>/h.

[Unit 4] [Unit 5] [Unit 6] · No major change

<Others>

- October 7, 2011 ~ : Continuously implementing water spray using water after purifying accumulated water of Unit 5 and Unit 6 to prevent spontaneous fire of trimmed trees and diffusion of dust.
- January 11, 2012 ~ : As finding accumulated water including radioactive materials (December 18, 2011) at the trench between Process Main Building of Central Radioactive Waste Treatment Facility and Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building), we started inspection of the other trenches in the site. \*Please refer to the other reference materials for the result of daily inspection.

End