

Plant Status of Fukushima Daiichi Nuclear Power Station

February 27, 2012

Tokyo Electric Power Company

<1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of February 27 at 11:00 am)

Unit	Status of Water injection		Bottom temperature of Reactor pressure vessel	Pressure of primary containment vessel	Hydrogen density of Primary containment vessel
Unit 1	Injecting Fresh water	Core Spray System: Approx.1.8 m ³ /h	24.0	106.6 kPaabs	0.00 vol%
		Feed Water System: Approx.4.5 m ³ /h			
Unit 2	Injecting Fresh water	Core Spray System: Approx.5.8 m ³ /h	44.3	117 kPaabs	0.07 vol%
		Feed Water System: Approx.3.0 m ³ /h			
Unit 3	Injecting Fresh water	Core Spray System: Approx.5.1 m ³ /h	52.8	101.6 kPaabs	/
		Feed Water System: Approx.1.8 m ³ /h			

[Unit 2]

- From 12:21 pm to 2:48 pm on February 23, with regard to the volume of injected water to reactor, which was increased with rise of indicated figure of temperature, we have gradually adjusted it to the original volume before temperature rise (feed water system: approx. 3.0m³/h, core spray system: approx. 6.0m³/h). During our observing the plant parameter after decreasing the flow rate of feed water system on February 22, since we found that one thermometer in the lower part of the RPV (top of the lower head 135 °) indicated the different movement from others, we investigated the concerned device.
- As the result of the measurement of DC resistance, we found no disconnection. It can be enabled, however, we confirmed that the DC resistance was higher than the previous measurement test data. We will evaluate the soundness of the device and will examine correspondence. We think it is not re-criticality state because there were no significant changes in the monitoring post data and, as the result of the sampling for the Gas Control System of the Unit 2, the concentration of Xe-135 was lower than the detectible limit.

At 11:00 am on February 27, the temperature of the lower part of the RPV (top of the lower head 135 °) was approx. 44.3 .

- At 10:15 am on February 25, because the variation was observed in the volume of injected water to reactor, the volume of injected water from feed water system was adjusted from approx. 2.6 m³/h to approx. 3.0 m³/h (the volume from core spray system is still approx. 6.0 m³/h).

[Unit 3]

- As installation works of the PCV gas control system was completed, at 11:38 am on February 23 we started the test operation, at 2:10 pm we confirmed that an exhaust flow amount was stable at 33m³/h and started adjustment operation.

[Unit 4] [Unit 5] [Unit 6]

- No significant incidents have happened.

<2. Status of the Spent Fuel Pool> (As of February 27 at 11:00 am)

Unit	Cooling type	Status of cooling	Temperature of water in Spent Fuel Pool
Unit 1	Circulating Cooling System	Under operation *	26.5
Unit 2	Circulating Cooling System	Under operation	13.4
Unit 3	Circulating Cooling System	Under operation	13.4
Unit 4	Circulating Cooling System	Under operation	25

* System secondary air fin cooler: out of service

[Unit 2]

- Desalination equipment has been activated in order to reduce density of salt from the spent fuel pool since 11:50 am on January 19.
- We injected Hydrazine [corrosion inhibitor] (approx. 2 m³) to spent fuel pool from 1:26 pm to 3:28 pm on January 27

[Unit 3]

- Radioactive material removal equipment has been activated in order to remove radioactive materials from the spent fuel pool since 3:18 pm on January 14.

<3. Status of water transfer from the Vertical Shaft of the Trench and the basement floor of the Turbine Building>

Unit	Draining water source	Place transferred	Status
Unit 2	Unit 2 T/B	Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	2:04 pm on February 26 – 10:37 am on February 27 Transferred
		Central Radioactive Waste Treatment Facility [Process Main Building]	10:50 am on February 27 – Transferring
Unit 3	Unit 3 T/B	Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	2:09 pm on February 25 – Transferring
Unit 6	Unit 6 T/B	Temporary tank	10:00 am on February 27 – 4:00 pm on February 27 Transferred

[Unit 3]

- According to the investigation on trenches on January 19, 2012, high density contaminated water inside was found inside circulating water pump discharge valve pit of Unit 3 water pump room Therefore, from 10:13 am to 3:34 pm on February 27, 2012, we started to transfer the accumulated water from the pit to the basement of Unit 2 Turbine Building.

<4. Status of the Treatment Facility and the Storage Facility> (As of February 27 at 7:00 am)

Facility	Cesium adsorption apparatus	Secondary Cesium adsorption apparatus (sarry)	Decontamination instruments	water desalinations (reverse osmosis membrane)	water desalinations (evaporative concentration)
Operating status	Under operation	Under operation*	Out of service	Operating intermittently according to the water balance	Operating intermittently according to the water balance

*Cleaning of filter is implemented accordingly.

- June 8, 2011 ~ Large tanks to store contaminated and decontaminated water are transported and installed.

[2nd Cesium adsorption apparatus (SARRY)]

- At 8:30 am of February 25, TEPCO worker and partner companies' worker found water leakage at welded part of piping at B line of 2nd Cesium adsorption apparatus (SARRY) placed on the 1st floor in Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building) of Fukushima Daiichi Nuclear Power Station. The leakage is just a drop per second and the amount of water leaked is approx. 10 liters. Those leaked water are stayed in barrier in the building and it did not leaked to out of the building. At 10:44 am, we stopped operation of SARRY and closed valve positioned in the upstream of leaked point to prevent further leakage of the water. We confirmed that the leakage was stopped at 11:10 am. Surface radiation is approx. 4-5mSv/h (2mSv/h in the back ground). We sampled the leaked water and analyzed the radioactivity concentration. The result is that I-131 was lower than the detectible limit, Ce-134 was 1.3×10^5 Bq/cm³ and Ce-137 was 1.8×10^5 Bq/cm³. The treatment of accumulated water is not affected by suspending the SARRY and there is no effect to the water injection to the reactor since there is a lot of purified water in the buffer tank. Then the B line of 2nd Cesium adsorption apparatus, with which the water leakage had been confirmed, was isolated and the A line of the apparatus was started operation at 6:41 am. At 6:44 pm, the water flow amount reached 20 m³/h, and the stable treatment of the accumulated water started.
- At 8:35 am on February 26, the A line of the apparatus was stopped in order to replace the pipes and filters of the B line of the apparatus. As the replacement finished, at 1:31 pm on the same day, both A and B lines of the apparatus were restarted, and the water flow amount reached the rated flow (33.6 m³/h) at 1:50 pm, and the stable treatment of the accumulated water started.

<5. 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 31, 2012 Test of drawing water in the Unit 6 sub drain to the temporarily storage tank was implemented
- February 23, 2012 Test of drawing water in the Unit 6 sub drain to the temporary tank through the temporarily storage tank was implemented

End