

Plant Status of Fukushima Daiichi Nuclear Power Station

February 24, 2012

Tokyo Electric Power Company

<1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of February 24 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. 1.7 m ³ /h	24.3 °C	106.2 kPaabs	0.00 vol%
		Feed Water System: Approx. 4.6 m ³ /h			
Unit 2	Injecting Fresh water	Core Spray System: Approx. 6.0 m ³ /h	47.1 °C	118 kPaabs	0.08 vol%
		Feed Water System: Approx. 2.9 m ³ /h			
Unit 3	Injecting Fresh water	Core Spray System: Approx. 5.0 m ³ /h	51.4 °C	101.6 kPaabs	/
		Feed Water System: Approx. 2.0 m ³ /h			

[Unit 1] From 9:40 am to 1:10 pm on February 24, in order to increase reliability of nitrogen injection, additional flow indicator was installed in the nitrogen injection line on the PCV side. During the installation work, no significant variation of the parameters were observed while nitrogen injection was temporarily suspended.

* In the Chapter 12 of Nuclear Reactor Facilities Security Regulation "The Way of Ensuring Mid-term Security", as the treatments like "Operational limitation" or "Measures required in case of not satisfying the operational limitation" are determined, it is supposed the operator act per the required measures if it fails to satisfy the operational limitation. This time, to implement maintenance works, we have suspended the work of nitrogen injection at the side of Primary Containment Vessel of Unit 1 by conducting a planned shift beyond the range of operational limitation (from 9:40 am to 1:10 pm on February 24).

[Unit 2] From 12:21 pm to 2:48 pm on February 23, with regard to the water injection volume for reactor, which was increased with temperature figure raising, we have gradually adjusted it to the original volume before temperature increasing (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, 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 breaking wire and availability of the thermometer. But we confirmed that the DC resistance of it became higher than the previous measurement test data. We will evaluate the soundness of the concerned device and examine correspondence in future. We make sure no re-criticality state because there were no significant changes at the monitoring post and as the result of the sampling for the Gas Control System of the Unit 2, we confirmed that the concentration of Xe-135 was below the detectible limit.

At 11:00 am on February 24, the temperature of the lower part of the RPV (top of the lower head)(135 °) : approx 47.1 (Reference)

At 11:00 am on February 24, the temperature of the lower part of the RPV (top of the lower head)(270 °) : approx 38.5

[Unit 3]

- As installation works of the PCV gas control system was completed, at 11:38 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.
- At 10:05 am on February 24, as the change in the injected water amount was observed, the injected water

amount was adjusted from approx. 1.6m³/h to 2.0m³/h in the feed water system and from approx. 5.2m³/h to 5.0m³/h in the core spray system.

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

- No significant incidents have happened.

<2. Status of the Spent Fuel Pool> (As of February 24 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 °C
Unit 2	Circulating Cooling System	Under operation	14.2 °C
Unit 3	Circulating Cooling System	Under operation	14.4 °C
Unit 4	Circulating Cooling System	Under operation	26 °C

* 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.

[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.

[Unit4]

- At 3:11 pm on February 23, in the alternative cooling system of the spent fuel pool of Unit 4, as the inhale pressure of the primary circulating pump showed the tendency of decrease, we stopped the pump in order to conduct flushing of the strainer on its entry side and suspended cooling of the spent fuel pool (the temperature of the pool at the time of the suspension was approx. 25)
- At 5:18 pm on the same day, after the flushing, we resumed the cooling of the spent fuel pool and confirmed the recovery of the inhale pressure of the pump. (the temperature of the pool at the time of the resuming was approx. 26)

[Unit5]

- At 6:00 am on February 24, in order to change the delivery valve of the pump (A) of the reactor sea water system of Unit 5, we stopped the pump (C) of the reactor sea water system. As a result, the cooling of the spent fuel pool was stopped. (the temperature of the spent fuel pool at the time : approx 17.4)
- At 12:08 pm on the same day, the system was restarted after the completion of the work. Accordingly the cooling of the spent fuel pool was restarted as well. (pool temperature at the time of the cooling restart: approx 18.2)

<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)]	9:39 am on February 20 – 8:28 am on February 23, Transferred
	Unit 2 T/B →	Central Radioactive Waste Treatment Facility [Process Main Building]	2:04 pm on February 23 – Transferring

Unit 3	Unit 3 T/B	→ Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	9:30 am on February 20 – 9:52 am on February 22, Transferred
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<4. Status of the Treatment Facility and the Storage Facility> (As of February 24 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.

<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