

Plant Status of Fukushima Daiichi Nuclear Power Station

March 13, 2012
Tokyo Electric Power Company

<1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of March 13 at 11:00 am)

Unit	Status of Water injection		Bottom temp. of Reactor pressure vessel	Pressure of primary containment vessel	Hydrogen density of Primary containment vessel
Unit 1	Injecting Fresh water	Core Spray System: Approx.1.6 m ³ /h	22.9 °C	106.6 kPaabs	0.00 vol%
		Feed Water System: Approx.4.7 m ³ /h			
Unit 2	Injecting Fresh water	Core Spray System: Approx.6.0 m ³ /h	39.5 °C	120 kPaabs	0.08 vol%
		Feed Water System: Approx.2.7 m ³ /h			
Unit 3	Injecting Fresh water	Core Spray System: Approx.5.3 m ³ /h	52.7 °C	101.6 kPaabs	/
		Feed Water System: Approx.1.8 m ³ /h			

【Unit 1】【Unit 2】【Unit 3】

- At around 11:47 am on March 12, our staff found that the nitrogen supply equipment (nitrogen gas separator A), which supplied nitrogen to the PCVs and the RPVs of Unit 1-Unit 3, stopped at the site, caused by the over current alarm of fan motor of compressor. At 12:09 pm, we started the stand-by nitrogen supply equipment (nitrogen gas separator B) and at 12:19 pm, nitrogen injection started again. Regarding the pressure of PCVs of Unit 1 – Unit 3 and hydrogen density, we did not confirm any significant fluctuation (hydrogen density of Unit 3 is monitored as reference data because the PCV gas control system is now under test operation).

【Unit 4】【Unit 5】【Unit 6】·No major change

2. Status of the Spent Fuel Pool> (As of March 13 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	Out of service	14.1 °C
Unit 3	Circulating Cooling System	Under operation	14.0 °C
Unit 4	Circulating Cooling System	Under operation	27 °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.

At 10:31 am on March 13, because the suction pressure of the primary system Circulating Water Pump had a tendency to decrease in the substitute cooling system of spent fuel pool, we stopped the cooling of spent fuel pool in order to change the primary system Strainer to manual cleaning system and conduct the check of valves etc. until March 16. The temperature rise on this period is expected approx. 21 °C. (Temperature of water in spent fuel pool when we stopped: approx. 14.1 °C)

<3. Status of water transfer from the basement floor of the Turbine Building etc.>

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)]	From 8:47am on March 11: Transferring
Unit 3	Unit 3 T/B →	Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	From 10:10 am on March 10 to 9:53 am on March 13: Transferred
Unit 6	Unit 6 T/B →	Temporary tank	From 10:00 am to 4:00 pm on March 13: Transferred

<4. Status of the Treatment Facility and the Storage Facility> (As of March 13 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	Out of service	Out of service	Out of service	Out of service	Operating intermittently according to the water balance

- June 8, 2011～ Large tanks to store contaminated and decontaminated water are transported and installed.
- March 1, 2012, In order to conduct the work to improve the reliability of water treatment facilities, we stopped the cesium adsorption apparatus. (It will be out of service until March 15.)
- March 10 At 5:00pm, we started the 2nd cesium adsorption apparatus after the improvement works. At 6:34 pm, the water injection volume reached at normal level (approx.42 m³/h).
*We confirmed that water level would be below the limit based on the water level impact study. We also have sufficient volume of treated water. Therefore there will be no impact on the water injection to the reactors.)
- March 13,2012. At 4:25 am, In order to stop the offset power and change the station power supply with starting to operate the south switching station, we stopped the operation of desalination facility (reverse osmosis membrane type).We stopped the cesium adsorption instrument No.2 at 5:43 am on the same day.
At 12:23 pm,. We resumed the operation of desalination facility (reverse osmosis membrane type) since we finished changing the station power supply, and at 12:39 pm, we resumed the operation of cesium adsorption instrument No.2

<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.
- February 23, 2012～: Test of drawing water in the Unit 6 sub drain to the temporary tank through the temporarily storage tank was implemented.
- March 6, 2012～: we have been conducting the transfer test of sub-drain Water of Unit 5 to the temporary tank via the interim storage tank.
- February 20, 2012: At around 3:43pm, we found that an error message was displayed in the screen of the noble gas monitoring system B of the gas management system of the primary containment vessel of Unit 2. Accordingly, the density of the noble gas in the system B was no longer observable at the Central Monitoring Station in the Main Anti-Earthquake Building. Monitoring was continued using the system A, one of the two systems A and B, which did not display any error message.
- February 21, 2012: at around 5:20pm, the same error message was issued in the screen of system A. As a result, the density of the noble gas was no longer observable at Central Monitoring Station in the Main Anti-Earthquake Building. After investigating the situation at the site, we detected a failure of the data transmission system which connects the site and the Central Monitoring Station in the Main Anti-Earthquake Building. However, there is no difficulty in confirming the subcriticality, as both the system A and B can be checked from the monitor at the site and, at the moment, the monitor screen can be remotely watched from the Central Monitoring Station in the Main Anti-Earthquake Building. The gas management system of the primary containment vessel of Unit 2 itself is in normal operation.
- March 12, 2012: At 2:00pm, data collection was started at the Central Monitoring Station in the Main Anti-Earthquake Building, since data can be obtained at the Main Anti-Earthquake Building after the data transmission software for both systems was modified (System A: March 9, System B: March 12).
- March 12, 2012: At 11:17am, according to the power supply construction for reliability improvement and reinforcement of offsite power after the earthquake disaster, we started conducting to receive with ookuma-line No.4 and south switching station. We finished conducting to receive at 3:58 pm on the same day.

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