Plant Status of Fukushima Daiichi Nuclear Power Station

March 15, 2012
Tokyo Electric Power Company

<1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of March 15 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.1.7 m^3/h	23.1 ˚C	106.7 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	40.4 ˚C	120 kPaabs	0.11 vol%
		Feed Water System: Approx.2.7 m^3/h			
Unit 3	Injecting Fresh water	Core Spray System: Approx.5.4 m^3/h	52.7 ˚C	101.6 kPaabs	0.20 vol%*
		Feed Water System: Approx.1.7 m^3/h			

* This value was described from today because full operation of the PCV gas control system started.

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

【Unit 1】

March 14: Xenon 135 detected by a rare gas monitoring for the PCV gas management system was $1.6 \sim 2.6 \times 10^{-3}$Bq/$cm^3$, which is below the re-criticality criterion of 1 Bq/cm^3.

【Unit 2】

March 14: We implemented sampling survey of the gas of the PCV gas management system. The results confirmed that at the entrance of the system Xenon 135 was below detection limit (9.6×10^{-2}Bq/cm^3), and below the re-criticality criterion which is 1 Bq/cm^3. Xenon 135 detected by a rare gas monitoring was below detection limit ($2.3 \sim 2.4 \times 10^{-1}$Bq/$cm^3$), and below the re-criticality criterion which is 1 Bq/cm^3.

【Unit 3】

February 23: After the PCV gas control system was installed, trial operation started from 11:38. At 14:10 the amount of exhaust flowing was 33m^3/h and stable, and adjustment operation started.

March 14: Regarding the PCV gas control system, adjustment operation confirmed that parameters are stable. Thus, at 7:00 pm, the regular operation of the PCV gas control system started.

March 14: After the PCV gas management system was operated, Xenon 135 detected by a rare gas monitoring was below detection limit (3.5×10^{-1}Bq/cm^3), and below the re-criticality criterion which is 1 Bq/cm^3 (tentative value).

2. Status of the Spent Fuel Pool> (As of March 15 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	21.3 ˚C
Unit 3	Circulating Cooling System	Under operation	13.7 ˚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.
- 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 8:46am on March 15: Transferring
Unit 6	Unit 6 T/B	→	Temporary tank	From 10:00 am to 4:00 pm on March 15: Transferred

- Accumulated water in the trench located between the process main building of Centralized Radiation Waste Treatment Facility and Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building) found on December 18, 2011 was transferred to Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building) from 3:35 pm on March 14 to 8:20 am March 15.

<4. Status of the Treatment Facility and the Storage Facility> (As of March 15 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	In service	Out of service	Operating intermittently according to the water balance	Operating intermittently according to the water balance

- from June 8, 2011 Large tanks to store contaminated and decontaminated water are transported and installed.
- from 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 5:00 pm, 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 m^3/h).
- March 14 At 8:09 am, in order to investigate soundness of the transfer line from Centralized Radiation Waste Treatment Facility (Process Main Building) to cesium absorption instrument No.2, that was newly settled to enhance security in the water treatment system, cesium absorption instrument No.2 was suspended. A trial run confirmed there was no problem, and the transfer line was changed. From 7:32 pm, the system was started, and treatment of accumulated water was started for Centralized Radiation Waste Treatment Facility (Miscellaneous Solid Waste Volume Reduction Treatment Building <High Temperature Incinerator Building>). At 7:39 pm on the same day, we confirmed that the flow rate had steadied (42m^3/h).
- March 15 The Cesium adsorption apparatus was stopped to implement a work for improving reliability of the water treatment system. At 1:08 pm, we made a trial run of the added oil separator treated water transfer pump of the Cesium adsorption apparatus. At 2:40 pm, we confirmed that the flow rate had steadied (19.8m^3/h), the water treatment operation was stable, and that there were no operational problems.

<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.
- March 14, 2012~: In order to prevent the diffusion of ocean soil, we started the full-scale covering work of seafloor by solidification soil (covering material).

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