Plant Status of Fukushima Daiichi Nuclear Power Station

March 27, 2012
Tokyo Electric Power Company

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

Unit	Status of Water injection		Reactor pressure vessel Bottom temp.	Pressure of primary containment vessel*	Hydrogen density of Primary containment vessel
Unit 1	Injecting Fresh water	Core Spray System: Approx.2.0 m^3/h Feed Water System: Approx.4.8 m^3/h	24.1 ℃	107.3 kPa abs	A system:0.00 vol% B system:0.00 vol%
Unit 2	Injecting Fresh water	Core Spray System: Approx.6.0 m^3/h Feed Water System: Approx.2.7 m^3/h	49.3℃	12.89 kPa g	A system:0.30 vol% B system:0.29 vol%
Unit 3	Injecting Fresh water	Core Spray System: Approx.4.9 m^3/h Feed Water System: Approx.1.8 m^3/h	54.4 ℃	0.30 kPa g	A system:0.20 vol% B system:0.18 vol%

* absolute pressure(kPa abs) = gauge pressure (kPa g) + atmosphere pressure (normal atmosphere pressure 101.3 kPa).

【Unit 2】

・From 9:40 am to 12:30 pm on March 26: We confirmed the water level and checked the water temperature in the reactor containment vessel using industrial endoscope. It was confirmed that the water level was approx. 60 cm above the bottom of the vessel and the water temperature was within the range from approx. 48.5℃ to approx.50.0℃.

・At 12:10 pm on March 27: Since the investigation of the inside of the primary containment vessel was completed, we changed the volume of nitrogen injection into the primary containment vessel from 0m^3／h to approx.5m^3／h.

<**2. Status of the Spent Fuel Pool** >(As of March 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	13.5 ℃
Unit 2	Circulating Cooling System	Under operation	13.6 ℃
Unit 3	Circulating Cooling System	Under operation	13.4 ℃
Unit 4	Circulating Cooling System	Suspended	24 ℃

【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 4】・

・At 5:41 am on March 27: Due to switching of the flexible hose of the spent fuel pool primary cooling system and switching of the pump suction strainer of the secondary cooling system etc., the cooling of the pool stopped (the pool water temperature at the time of the stop: approx.24℃). The period of the stop is scheduled to be until March 28. Since we estimate that the increase of the pool water temperature will be approx.0.5℃/h, there is no problem regarding the control of the pool water temperature.

・From 2:00 pm to 4:00 pm on March 27: Hydrazine was injected into the reactor well (the injections were conducted several times after that).

<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)］	10:14 am on March 20 - Transferring
Unit 3	Unit 3 T/B	→	Central Radioactive Waste Treatment Facility ［Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)］	10:10 am-4:34 pm on March 26 Transferring
Unit 6	Unit 6 T/B	→	Temporary tanks	10:00 am-4:00 pm on March 27 Transferring

<4. Status of the Treatment Facility and the Storage Facility >(As of March 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	Shutdown	Shutdown*	Shut down	Operating intermittently according to the water balance	Operating intermittently according to the water balance

* Cleaning of filter is in progress.

- From June 8, 2011: Large tanks to store contaminated and decontaminated water are transported and installed.
- On March 26, 2012: At around 8:30 am, in the area of condensed water tanks for water desalinations (reverse osmosis membrane) of Fukushima Daiichi Nuclear Power Station, a partner company worker found that water was leaked from a pipeline (anti-pressure hose) which transferred the condensed water from the water desalinations to the condensed water tanks. In order to stop the water leakage, we stopped the transfer pumps of the water desalinations (reverse osmosis membrane) and then the leakage stopped. After that, we closed the valves at the both sides to the leakage point of the pipeline (anti-pressure hose). When we checked the leakage on the site later, we found that a part of the leaked water had been poured into a nearby drainage for general draining water. And then we conducted sampling surveys on the leaked water, the water which was poured into the drainage, and the seawater around the exit of the drainage. As a result, we judged that some water including radioactive materials was poured into the sea from the exit of the drainage located at about 300 m south from the discharge channel of Unit 1-4 of Fukushima Daiichi Nuclear Power Station. At this moment, the water desalinations (reverse osmosis membrane and evaporative concentration apparatus) are not in service. However, because we have much treated fresh water, it does not affect water injection to the reactors. After that, we stopped the cesium adsorption apparatus at around 5:00 pm and the second cesium adsorption apparatus at around 5:29 pm. We estimated that the amount of the leaked water was approx. 120 m^3 in total based on the pump operating time etc. and that the amount of the water flown out to the sea was approx. 80 liter at a maximum.

<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~: Test of drawing water in the Unit 5 sub drain to the temporary tank through the temporarily storage tank was implemented.
- 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).
- March 27, 2012 around 9:30 am: When a worker of a subcontracting company was removing the ground burial pipe arrangement (the disaster prevention pipe arrangement of the Unit 4 transformer) using a heavy equipment as ground preparation work for the Unit 4 covering, he confirmed leakage from the pipe arrangement. As a result of site investigation, it was found out that the pipe arrangement has already been segregated and the leaked water was strained and residual in the pipe arrangement.

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