

# Plant Status of Fukushima Daiichi Nuclear Power Station

May 9, 2012

Tokyo Electric Power Company

## <1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of May 9 at 11:00 am)

Unit	Status of Water Injection		Bottom Temperature of Reactor Pressure Vessel	Pressure of Primary Containment Vessel*1	Hydrogen Density of Primary Containment Vessel
Unit 1	Injecting Fresh Water	Core Spray System: Approx. 2.0 m <sup>3</sup> /h	30.5 °C	106.6 kPa abs	A system:0.00 vol% B system:0.00 vol%
		Feed Water System: Approx. 4.5 m <sup>3</sup> /h			
Unit 2	Injecting Fresh Water	Core Spray System: Approx. 5.8 m <sup>3</sup> /h	48.3 °C	15.22 kPa g	A system:0.49 vol% B system:0.49 vol%
		Feed Water System: Approx. 3.0 m <sup>3</sup> /h			
Unit 3	Injecting Fresh Water	Core Spray System: Approx. 5.0 m <sup>3</sup> /h	60.0 °C	0.28 kPa g	A system:0.17 vol% B system:0.12 vol%
		Feed Water System: Approx. 2.0 m <sup>3</sup> /h			

\*1: absolute pressure (kPa abs) = gauge pressure (kPa g) + atmosphere pressure (normal atmosphere pressure 101.3 kPa).

【Unit 1】 May 8: The Xenon 135 which was confirmed by gas monitor of PCV gas control system was 1.4 to 2.8 × 10<sup>-3</sup>Bq/cm<sup>3</sup>, and was below the re-criticality criteria which is 1Bq/cm<sup>3</sup>.

【Unit 2】 May 8: Sampling was conducted at Unit 2 PCV gas control system. As a result of the analysis, the Xenon 135 which was confirmed at the inlet of the system was below the detection limit (1.1×10<sup>-1</sup>Bq/cm<sup>3</sup>) and also below the re-criticality criteria of 1Bq/cm<sup>3</sup>. The Xenon 135 which was confirmed by gas monitor was below the detection limit (2.3 to 2.5 ×10<sup>-1</sup>Bq/cm<sup>3</sup>), and also below the re-criticality criteria of 1Bq/cm<sup>3</sup>.

【Unit 3】 May 8: The Xenon 135 which was confirmed by gas monitor of PCV gas control system was below the detection limit (3.4 to 3.5 ×10<sup>-1</sup>Bq/cm<sup>3</sup>), and was below the re-criticality criteria of 1Bq/cm<sup>3</sup>.

## <2. Status of the Spent Fuel Pool > (As of May 8 at 11:00 am)

Unit	Cooling Type	Status of Cooling	Temperature of Water in Spent Fuel Pool
Unit 1	Circulating Cooling System	Under operation	21.0 °C
Unit 2	Circulating Cooling System	Under operation	22.0 °C
Unit 3	Circulating Cooling System	Under operation	21.1 °C
Unit 4	Circulating Cooling System	Under operation	30 °C

【Unit 3】 11:13 AM on April 29: An alarm which indicates an abnormality in the electro dialyzer was triggered, and the desalting equipment was stopped automatically. Alternate cooling system of spent fuel pool continued operation, and cooling system had no impact. As a result of investigation at the site, water leakage was not confirmed.

5:39 AM on April 29: Taking out the electro dialyzer, we restarted the isolated operation of RO unit.

We investigated the causes. In the operation after replacing the electro dialyzer fileter, the balance between the dilution water which reprocess the wastewater of the electro dialyzer (RO treatment water) and concentrated water was lost. Then, the calcium component dissolved in pool water was over the solubility limit, and it created the situation to easily precipitate the deposition as calcium carbonate etc. at the ion-exchange membrane.

As a result of this, fluctuation in the amount of water of the electro dialyzer was confirmed. So the operation for cleaning (the cycle operation inside the electro dialyzer utilizing the dilute hydrochloric acid) was conducted, and deposition was removed.

3:30 AM on May 9: The test operation was conducted, and no problem was found. The operation was restarted accordingly.

**<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)]	5/3 2:52 PM - Being transferred
Unit 3	Unit 3 T/B	Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	5/5 9:46 AM - 5/8 9:42 AM Transferred
	Unit 3 T/B	Central Radioactive Waste Treatment Facility [Process Main Building]	5/8 9:56 AM - Being transferred

**<4. Status of the Treatment Facility and the Storage Facility > (As of May 8 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	Operation *	Shutdown	Operating intermittently according to the water balance	Operating intermittently according to the water balance

\* Cleaning of filter is in progress.

- 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.
- 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).
- April 25, 2012 - : For the purpose of preventing further contamination to the ocean through grounder water, we started a full-scale construction of water shielding wall.
- Around 3:15 PM on May 7, 2012: A worker of a co-operating company, who did laying operation of desalination apparatus transfer polyethylene pipe at the east-side of SPT building, had the contamination test for his body at the seismic-isolated essential buildings, and radioactive material was detected around his mouth. (It was not detected in the nasal cavity.) After the decontamination of his face, the test was conducted again. As a result, radioactive material was not confirmed. We will measure the radiation by whole body counter to confirm that radioactive material was taken in or not.
- Around 12:45 PM on May 9: A monitoring camera caught water squirting near the filtrate water transfer pump room located in front of the former Administration Office Building. At 1:00 PM, the pump was stopped and at 1:07 PM, the filtrate water supply valve was closed. At 1:03 PM, it was confirmed that the water leak had stopped through the monitoring camera. The surface dose rate of the leaked water was approximately 300-400µSv/h, which was equivalent to the atmosphere dose rate. Upon investigation, we found that a crack on the hose connected to the pump (for filtrate water) was causing the water leak. As the leaked water was filtrate water and it did not flow downstream of the gutter or near the water leak spot, it has been concluded that there was no water leak outside the site. At 4:00 PM, the hose was replaced.

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