Plant Status of Fukushima Daiichi Nuclear Power Station

November 21, 2011

Tokyo Electric Power Company

<Draining Water on Underground Floor of Turbine Building (T/B) >

◇Status of highly concentrated accumulated radioactive water treatment facility and storage tank facility

[Treatment Facility]

・6/17 20:00 Full operation of radioactive material removal instruments started.

・6/24 12:00 Start of desalination facilities operation

・6/27 16:20 Circulating injection cooling started.

・8/7 16:11 Evaporative Concentration Facility has started full operation.

・8/19 19:33 We activated second cesium adsorption facility (System B) and started the treatment of accumulated water by the parallel operation of cesium adsorption instrument and decontamination instrument. At 19:41, the flow rate achieved steady state.

・11/21 Regarding the oil cooler of (in-vehicle) transformer B system of Okuma line power system 3, from which we observed a leakage at around 3:00 pm on October 3, materials and equipments have been prepared to start exchanging the oil cooler of the transformer from November 22. In order to change the power source of the loads which receive power from Okuma line 3 to Okuma line 2, we stopped operation of water treatment facilities (cesium adsorption apparatus, second cesium adsorption apparatus, water desalinations (reverse osmosis membrane), and evaporative concentration apparatus) one by one from 5:00 am today. At 2:06 pm, we completed switching the power source to Okuma line 2. There will be no influence on water injection into the reactor, because it will be continued using the desalinated water stored in the tank.

[Storage Facility]

・6/8～ Big tanks to store and keep treated or contaminated water have been transferred and installed sequentially.

◇Accumulated water in vertical shafts of trenches and at basement level of building

Unit	Draining water source→Place transferred	Status
Unit 2	・Unit 2T/B→Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	・From 9:10am on November 10 - Transferring
Unit 3	・Unit 3T/B→Central Radioactive Waste Treatment Facility [Process Main Building]	・From 9:25am on November 15 - Transferring
Unit 6	・Unit 6T/B→Temporary tanks	・From 10:00am to 4:00pm on November 21 - Transferred

Place transferred	Status of Water Level (As of November 21 at 7:00)
Process Main Building	Water level: O.P.+ 1,701 mm(Accumulated total increase:2,918 mm) 38mm increase since 7:00 on November 20
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,873 mm(Accumulated total increase:2,599 mm) 31mm decrease since 7:00 on November 20

◇Water level of the vertical shaft of the trench, T/B and R/B(As of November 21 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on November 20)	O.P.+ 3,738 mm (39mm increase since 7:00 on November 20)	O.P.+ 4,345 mm (53mm decrease since 7:00 on November 20)
Unit 2	O.P.+ 3,072 mm (13mm decrease since 7:00 on November 20)	O.P.+ 3,083 mm (11mm decrease since 7:00 on November 20)	O.P.+ 3,188 mm (15mm decrease since 7:00 on November 20)
Unit 3	O.P.+ 3,256 mm (9mm decrease since 7:00 on November 20)	O.P.+ 3,017 mm (13mm decrease since 7:00 on November 20)	O.P.+ 3,225 mm* (11mm decrease since 7:00 on November 20)
Unit 4	—	O.P.+ 3,025 mm (23mm decrease since 7:00 on November 20)	O.P.+ 3,059 mm (10mm decrease since 7:00 on November 20)

[Unit 3] ・ From 10:22am, November 21 Started transferring accumulated water from the condensate storage tank to basement of turbine building.

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater(Reference) ※Since Oct 24, an approach to decrease the detection limits of radioactivity density was started.

Place of sampling	Date of sampling	Time of sampling	Ratio of density limit (times)		
			I-131	Cs-134	Cs-137
Fukushima Daini North Discharge Channel (Approx. 10km from Fukushima Daiichi)	11/20	8:30	ND	0.02	ND

・The major three nuclides (Iodine-131, cesium-134, 137) were not detected in the samples taken at 1 seashore point of Fukushima prefecture on Nov 20.

<Cooling of Spent Fuel Pools > (As of November 21 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation(11:22 on August 10 -)	20.0 ℃
Unit 2	Circulating Cooling System	Under operation(17:21 on May 31 -)	21.4 ℃
Unit 3	Circulating Cooling System	Under operation(18:33 on June 30 -)	22.0 ℃
Unit 4	Circulating Cooling System	Under operation(10:08 on July 31 -)	30℃

【Unit 2】・11/6～ We started operation of radioactive material decontamination instrument of spent fuel pool.

【Unit 6】・11/15～ From November 15, due to cleanup work in order to prevent performance deterioration of pump caused by inletting sand or other materials piled up at the bottom of pump room of intake channel, Residual Heat Removal System (A) was shutdown, and stopped cooling the reactor. And Seawater pump of Equipment Water Cooing System (A) was shutdown, and stopped cooling the spent fuel pool. The stop is scheduled from 7:00 am to 5:00 pm everyday, and reactor water temperature will rise by approx. 12℃ per day, and spent fuel pool water temperature will rise by approx. 3℃ per day. (The cleanup work is planned to be finished in a week.)

<Water Injection to Pressure Containment Vessels >(As of November 21 at 11:00)

Unit	Status of injecting water	Feed-water nozzle Temp.	Reactor pressure vessel Bottom temp.	Pressure of primary containment vessel
Unit 1	Injecting freshwater (Feed Water System: Approx. 5.5 m^3/h)	38.6℃	39.6℃	117.4 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 2.9 m^3/h, Core Spray System: Approx.7.1 m^3/h)	65.0℃	67.3℃	109 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.3 m^3/h, Core Spray System: Approx.8.1 m^3/h)	58.3℃	67.0℃	101.5 kPaabs

【Unit 4】【Unit 5】【Unit 6】 No particular changes in parameters.

<Others>

・10/7～ 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.

End