

Plant Status of Fukushima Daiichi Nuclear Power Station

November 22, 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 In order to change the power source of the loads which receive power from the mobile (in-vehicle) transformer connected to Okuma line 3 to Okuma line 2, we stopped operation of water treatment facilities (cesium adsorption apparatus, 2nd cesium adsorption apparatus, water desalinations (reverse osmosis membrane), and evaporative concentration apparatus) one by one from 5:00 am. At 2:06 pm, we completed switching the power source to Okuma line 2. After that, we resumed operation of related facilities sequentially and at 11:50 pm, resumed operation of all facilities.

[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	· No plan for transfer on November 22

Place transferred	Status of Water Level (As of November 22 at 7:00)
Process Main Building	Water level: O.P.+ 1,782 mm(Accumulated total increase:2,999 mm) 81mm increase since 7:00 on November 21
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,012 mm(Accumulated total increase:2,738 mm) 139mm increase since 7:00 on November 21

Water level of the vertical shaft of the trench, T/B and R/B(As of November 22 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on November 21)	O.P.+ 3,772 mm (34mm increase since 7:00 on November 21)	O.P.+ 4,292 mm (53mm decrease since 7:00 on November 21)
Unit 2	O.P.+ 3,053 mm (19mm decrease since 7:00 on November 21)	O.P.+ 3,065 mm (18mm decrease since 7:00 on November 21)	O.P.+ 3,173 mm (15mm decrease since 7:00 on November 21)
Unit 3	O.P.+ 3,261 mm (5mm increase since 7:00 on November 21)	O.P.+ 3,035 mm (18mm increase since 7:00 on November 21)	O.P.+ 3,240 mm* (15mm increase since 7:00 on November 21)
Unit 4	-	O.P.+ 3,042 mm (17mm increase since 7:00 on November 21)	O.P.+ 3,055 mm (4mm decrease since 7:00 on November 21)

[Unit 3] · At 10:22am on 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
Approx. 30m North of Discharge Channel of 5-6U, 1F	11/21	8:50	ND	0.06	0.05
Approx. 330m South of Discharge Channel of 1-4U, 1F	11/21	8:30	ND	0.03	0.02
Around Discharge Channel of 3-4U, 2F	11/21	8:20	ND	0.02	ND
Approx. 7km South of Discharge Channel of 1-2U, 2F	11/21	7:55	ND	0.02	0.01

<Cooling of Spent Fuel Pools > (As of November 22 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 -)	18.0
Unit 2	Circulating Cooling System	Under operation(17:21 on May 31 -)	20.0
Unit 3	Circulating Cooling System	Under operation(18:33 on June 30 -)	19.5
Unit 4	Circulating Cooling System	Under operation(10:08 on July 31 -)	26

[Unit 2] · 11/6 ~ We started operation of radioactive material decontamination instrument of spent fuel pool.

[Unit 6] · 11/15 ~ 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 Cooling 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 22 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)	38.2	39.4	118.4 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 2.9 m ³ /h, Core Spray System: Approx.7.1 m ³ /h)	64.3	66.6	108 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.3 m ³ /h, Core Spray System: Approx.8.2m ³ /h)	57.9	667	101.5 kPaabs

[Unit 1] 9:30 am ~ 10:20 am on 11/22, replaced the pressure hose connecting point of suction side of emergency feed water injection pump located upland. There was no impact on Reactor water injection as the water injection is done from the main water injection line.

[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.
- 11/22 9:30 am ~ 1:16 pm Conducted sea area monitoring in front of 1F (within 15km radius) by an unmanned survey boat.
- 11/22 11:35 am ~ 1:45 pm Conducted gas sampling by Gas management system, Pressure Containment Vessel, Unit 2.

End