

Plant Status of Fukushima Daiichi Nuclear Power Station

November 10, 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 (RO membrane system)
- 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.

[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 9:10 on November 10 ~ Being transferred
Unit 3	· Unit 3T/B→Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	· From 10:11 on November 2 to 15:05 on November 8 Transferred
Unit 6	· Unit 6T/B→Temporary tanks	· On November 10 No transfer

Place transferred	Status of Water Level (As of November 10 at 7:00)
Process Main Building	Water level: O.P.+ 2,011mm(Accumulated total increase:3,228 mm) 116mm decrease since 7:00 on November 9
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,168 mm(Accumulated total increase:2,894 mm) 396mm decrease since 7:00 on November 9

Water level of the vertical shaft of the trench, T/B and R/B (As of November 10 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P.< + 850 mm (No change since 7:00 on November 9)	O.P.+ 3,931 mm (38mm increase since 7:00 on November 9)	O.P.+ 4,574 mm (25mm increase since 7:00 on November 9)
Unit 2	O.P.+ 3,124 mm (69mm increase since 7:00 on November 9)	O.P.+ 3,133 mm (64mm increase since 7:00 on November 9)	O.P.+ 3,215 mm* (62mm increase since 7:00 on November 9)
Unit 3	O.P.+ 3,220 mm (21mm increase since 7:00 on November 9)	O.P.+ 3,006 mm (26mm increase since 7:00 on November 9)	O.P.+ 3,194 mm (30mm increase since 7:00 on November 9)
Unit 4	-	O.P.+ 2,994 mm (15mm increase since 7:00 on November 9)	O.P.+ 3,000 mm (4mm decrease since 7:00 on November 9)

<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 of 1F	11/9	8:40	ND	0.05	0.06
Approx 330m South of Discharge Channel of 1-4u of 1F	11/9	8:20	ND	0.02	0.02
Around Discharge Channel of 3-4u of 2F	11/9	8:25	ND	ND	0.02
Approx 7km South of Discharge Channel of 1-2u of 2F	11/9	8:00	ND	0.02	0.01

· Results of nuclide analysis of seawater at 3 offshore points sampled on November 8 are all ND for the 3 major nuclides (iodine-131, cesium-134 and cesium-137).

<Cooling of Spent Fuel Pools> (As of November 10 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
<u>Unit 1</u>	Circulating Cooling System	Under operation(11:22 on August 10 -)	21.5
<u>Unit 2</u>	Circulating Cooling System	Under operation(17:21 on May 31 -)	26.1
<u>Unit 3</u>	Circulating Cooling System	Under operation(18:33 on June 30 -)	21.0
<u>Unit 4</u>	Circulating Cooling System	Under operation(10:08 on July 31 -)	29

[Unit 1] · 11/9 5:43 ~ 22:29 We stopped the circulating cooling system of spent fuel pool in accordance with the on-site power enhancement work.

(The temperature of the spent fuel pool: when the operation was stopped: approx. 22 , when restarted: approx. 20)

*The temperature became lower. This was presumed to be influenced by water in Skimmer Surge Tank whose temperature was lowered by open air.

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

· 11/8 16:24 ~ 11/9 20:47 We stopped radioactive material decontamination instrument of spent fuel pool in accordance with the on-site power enhancement work.

· 11/9 5:41 ~ 20:20 We stopped the circulating cooling system of spent fuel pool in accordance with the on-site power enhancement work.

(The temperature of the spent fuel pool: when the operation was stopped: approx. 23.9 , when restarted: approx. 26.3)

[Unit 4] · 8/20 ~ 11/8 We implemented the operation of desalinating facility of the spent fuel pool.

<Water Injection to Pressure Containment Vessels> (As of November 10 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. 7.8 m ³ /h)	39.4	40.3	121.5 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 3.0 m ³ /h, Core Spray System: Approx. 7.2 m ³ /h)	67.1	71.2	116 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.9 m ³ /h, Core Spr System: Approx. 7.9 m ³ /h)	60.8	70.3	101.5 kPaabs

[Unit 3] 11/10 13:10 ~ 14:49 We injected hydrazine [corrosion inhibitor] into the spent fuel pool (approx. 2 m³).

[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.
- 11/9 ~ sampling survey of gas at the gas management system of Unit 2 primary containment vessel was implemented. According to its analysis, it is considered that recriticality was not occurred because radioactive Xe135 at the entrance of gas management system of Unit 2 was below detection limit ($1.1 \times 10^{-1} \text{Bq/cm}^3$). In addition, Xe-135 ($1.9 \times 10^{-5} \text{Bq/cm}^3$) was detected by charcoal filter. This was measured value and evaluated to be the amount emitted from the gas management system. Thus, the value measured by gas vial was converted into the value of $1.1 \times 10^{-2} \text{Bq/cm}^3$ using achievement rate. This value was the same as $2.7 \times 10^{-2} \text{Bq/cm}^3$ that was evaluated before.
- 10/10 9:05~13:30 We conducted dust sampling by large crane at the upper part of the reactor building of Unit 3.