

Plant Status of Fukushima Daiichi Nuclear Power Station

November 19, 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.
- 11/18 22:47 Desalination plant (RO) unit 2-2 suspended due to automatic suspend of a high pressure pump and a booster pump. There is no water leakage and the research is currently underway. There is no impact for the supply of fresh water, and for the time being we plan to operate with only desalination plant (RO) unit 2-1. Also there is no impact for water injection to the reactor because of enough fresh water stock.

[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)]	·9:10 on November 10 - Transferring
Unit 3	·Unit 3T/B Central Radioactive Waste Treatment Facility [Process Main Building]	·9:25 on November 15 - Transferring
Unit 6	·Unit 6T/B Temporary tanks	No transfer is scheduled on Nov 19

Place transferred	Status of Water Level (As of November 19 at 7:00)
Process Main Building	Water level: O.P.+ 1,626 mm(Accumulated total increase:2,843 mm) 47mm increase since 7:00 on November 18
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,944 mm(Accumulated total increase:2,670 mm) 43mm decrease since 7:00 on November 18

Water level of the vertical shaft of the trench, T/B and R/B(As of November 19 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on November 18)	O.P.+ 3,654 mm (37mm increase since 7:00 on November 18)	O.P.+ 4,444 mm (45mm decrease since 7:00 on November 18)
Unit 2	O.P.+ 3,093 mm (11mm decrease since 7:00 on November 18)	O.P.+ 3,101 mm (12mm decrease since 7:00 on November 18)	O.P.+ 3,208 mm (8mm decrease since 7:00 on November 18)
Unit 3	O.P.+ 3,271 mm (10mm decrease since 7:00 on November 18)	O.P.+ 3,037 mm (14mm decrease since 7:00 on November 18)	O.P.+ 3,242 mm * (27mm decrease since 7:00 on November 17)
Unit 4	-	O.P.+ 3,056 mm (8mm decrease since 7:00 on November 18)	O.P.+ 3,076 mm (6mm increase since 7:00 on November 18)

* We compare the amount with that was sampled at 7:00 on November 17, because no data was sampled at 7:00 on November 18 due to camera trouble.

<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	11/18	8:40	ND	0.05	0.05
Discharge Channel of 3,4U of 2F	11/18	8:25	ND	0.02	0.01

· The major three nuclide (Iodine-131, cesium-134, 137) in the sample, taken at 2 seashore points of Fukushima prefecture on Nov 18, are not detected at all.

<Cooling of Spent Fuel Pools > (As of November 19 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 -)	19.7
Unit 3	Circulating Cooling System	Under operation(18:33 on June 30 -)	20.3
Unit 4	Circulating Cooling System	Under operation(10:08 on July 31 -)	28

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

[Unit 3] · 11/18 past 23:00 It was confirmed that coolant water temperature at the heat exchange facility exit of unit 3 alternative cooling facility for the fuel spent pool tends to increase (16.5 at 8 pm on Nov 18 17.3 at 11 pm on Nov 18). We planned to investigate there the next day because there was no impact for the coolant of spent fuel pool soon.

· 11/19 7:00 it was confirmed main tap for watering was closed. The temperature decreased after tap opening (19.5 at 5 am on Nov 19 17.9 at 8 am on Nov 19) so we found the reason of temperature rise was tap close. The research for tap close is currently underway.

After that it was confirmed that the temperature of spent fuel pool of Unit 3 was tending upward again. We investigated there and found that the strainer in watering tank was tending to be choked though water was being sprinkled.

· 11/19 16:11 ~ 16:50 We switched the secondary cooling tower of the spent fuel pool for Unit 3 from A system to B system. Now we are investigating the tendency of the temperature.

[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 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 19 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. 5.4 m ³ /h)	37.0	37.6	117.8 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 3.0 m ³ /h, Core Spray System: Approx.7.0 m ³ /h)	65.1	68.0	111 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.4 m ³ /h, Core Spray System: Approx.8.1 m ³ /h)	57.9	67.2	101.5 kPaabs

[Unit 1] 11/18 16:10 Water leakage was confirmed by our employee, which was from pressure hose connecting point of absorption side of emergency feed water injection pump located upland of Unit 1. The leakage was one drop in 3 seconds and being received by saucer. We are planning to change the hose later.

There was no change in the injection amount due to this work because the pump is for emergency feed water injection and that is not operating at the present time. There are 3 emergency feed water injection pumps and we can operate without the said pump.

[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.
- 11/17 13:50 ~ 16:20 For the preparation of installation of PCV gas management system at unit 3 reactor building 1F, a robot entered into the building to wipe off water from northeast facilities hatch rail and investigate radiation dose. Due to arm operation failure, however, the operation was suspended.
- 11/18 15:50 ~ 18:40 After checking the robot's arm, 2 units of robot wiped off water from northeast facilities hatch rail.
- 11/19 approx 14:00 ~ After wiping off the water by 2 units of robot from northeast facilities hatch rail, we plan to investigate radiation dose.

End