

Plant Status of Fukushima Daiichi Nuclear Power Station

October 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 started.
- 6/24 12:00 Treatment started at desalination facilities
- 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.
- 10/19 21:06 In the Water Treatment Facility under operation, a SMZ pump of the 4th process line of cesium adsorption apparatus automatically stopped. Water treatment by the cesium adsorption apparatus is continuously operated at the flow rate approx. 17m³/h.

[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 [Process Main Building]	·10:12 on October 20 -Transferring
Unit 3	· Unit 3T/B Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	·10:00 on October 20 -Transferring
Unit 6	·Unit 6T/B Temporary tanks	·10/21 No plan of transfer
	·Temporary tanks Mega float	·10:00 -16:00 on October 21 Transferring

Place transferred	Status of Water Level (As of October 21 at 7:00)
Process Main Building	Water level: O.P.+ 2,735 mm(Accumulated total increase:3,952 mm) 139mm increase since 7:00 on October 20
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,439 mm(Accumulated total increase:3,165 mm) 94mm decrease since 7:00 on October 20

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

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P.< + 850 mm (No change since 7:00 on October 20)	O.P.+ 4,902 mm (8mm decrease since 7:00 on October 20)	O.P.+ 4,360 mm (6mm decrease since 7:00 on October 20)
Unit 2	O.P.+ 3,020 mm (82mm decrease since 7:00 on October 20)	O.P.+ 3,043 mm (76mm decrease since 7:00 on October 20)	O.P.+ 3,135 mm (57mm decrease since 7:00 on October 20)

Unit 3	O.P.+ 3,221 mm (5mm decrease since 7:00 on October 20)	O.P.+ 2,998 mm (25mm decrease since 7:00 on October 20)	O.P.+ 3,162 mm (19mm decrease since 7:00 on October 20)
Unit 4	-	O.P.+ 3,025 mm (7mm increase since 7:00 on October 20)	O.P.+ 3,048 mm (5mm increase since 7:00 on October 20)

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater(Reference)

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	10/20	8:55	ND	0.11	ND

· Results of nuclide analysis of seawater, sampled on October 20 at 3 points around the Fukushima coastal area are all ND for the 3 major nuclides (iodine-131, cesium-134 and cesium-137).

<Cooling of Spent Fuel Pools> (As of October 21 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 -)	23.0
<u>Unit 2</u>	Circulating Cooling System	Under operation(17:21 on May 31 -)	26.0
<u>Unit 3</u>	Circulating Cooling System	Under operation(18:33 on June 30 -)	24.4
<u>Unit 4</u>	Circulating Cooling System	Under operation(10:08 on July 31 -)	33

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

<Water Injection to Pressure Containment Vessels> (As of October 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. 3.7 m ³ /h)	70.0	72.1	121.5 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 3.3 m ³ /h, Core Spray System: Approx. 7.0 m ³ /h)	74.3	80.0	120 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.1 m ³ /h, Core Spray System: Approx. 8.1 m ³ /h)	69.3	71.8	101.5 kPaabs

[Unit 4] [Unit 5] [Unit 6] No particular changes in parameters.

<Others>

- 4/10 ~ Clearance of outdoor rubbles by remote control to improve working conditions.
- 6/28 ~ Main construction work for installing the cover for the reactor building of Unit 1
- 8/10 ~ 9/9 Implemented setting up iron framework of the cover for the reactor building of Unit 1
- 9/10 ~ 10/14 Implemented installation of panels of the cover for the reactor building of Unit 1
- 10/15 ~ Continuously implementing the relating work for the installation of the cover for the reactor building of Unit 1.
- 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.
- 10/21 At 9:05 am on October 20, we suspended cooling of the spent fuel pool by shutting off the auxiliaries cooling system seawater pump in order to inspect the intake canal of Unit 6 for review of necessity of cleaning. At 9:13 am, we suspended cooling the reactor by stop of the residual heat removal system pump (D). At 9:15 am, we suspended the residual heat removal system seawater pump (C). We activated the residual heat removal system (C) at 3:37 pm and restarted cooling of the reactor by the residual heat removal system pump (A). At 4:01 pm, the auxiliaries cooling system seawater pump was activated and cooling of the spent fuel pool was restarted. The water temperature of the reactor had been temporarily increased from 24 deg. to 32.1 deg. according to this interruption. The temperature of spent fuel had been temporarily increased from 25 deg. to 26.5 deg. during the cooling interruption.
- 11:20 ~ 11:52 October 21 In order to recover a water level measuring function of the nuclear reactor Unit 2, plumbing for measurement was filled with water through temporary measuring instrument (in temporary panel) installed in the main water level indicator of the nuclear reactor Unit 2

End