Plant Status of Fukushima Daiichi Nuclear Power Station

December 14, 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 2nd 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 a steady state.

[Storage Facility]

・6/8～ Large 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)］	・18:03 on November 30 -12/13 7:51 Transferring
Unit 3	・Unit 3T/B→Central Radioactive Waste Treatment Facility［Process Main Building］	・9:25 on November 15 -12/5 10:31 Transferring
Unit 6	・Unit 6T/B→Temporary tanks	・12/14 No plan of transfer

Place transferred	Status of Water Level (As of 12/14 at 7:00)
Process Main Building	Water level: O.P.+ 1,507 mm(Accumulated total increase:2,724 mm) 105mm decrease since 7:00 on December 13
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,552 mm(Accumulated total increase:2,278 mm) 22mm increase since 7:00 on December 13

◇Water level of the vertical shaft of the trench, T/B and R/B(As of December 14 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on December 13)	O.P.+ 3,131 mm (32mm increase since 7:00 on December 13)	O.P.+ 4,035 mm (51mm increase since 7:00 on December 13)
Unit 2	O.P.+ 2,848 mm (59mm increase since 7:00 on December 13)	O.P.+ 2,865 mm (55mm increase since 7:00 on December 13)	O.P.+ 2,985 mm (47mm increase since 7:00 on December 13)
Unit 3	※ O.P.+ 3,136 mm (16mm increase since 7:00 on December 13)	O.P.+ 3,106 mm (17mm increase since 7:00 on December 13)	O.P.+ 3,340 mm (21mm increase since 7:00 on December 13)
Unit 4	—	O.P.+ 3,089 mm (12mm increase since 7:00 on December 13)	O.P.+ 3,084 mm (16mm increase since 7:00 on December 13)

※It was found that actual water level of the Unit 3 vertical shaft of trench was 200mm lower than the record of hydraulic water level indicator when we directly measured the water level from Oct. 18 to Dec. 12 using liquid level gauge. Therefore, we amended the water level of the Unit 3 vertical shaft of trench as from Dec. 14 decreasing by 200mm. From now on we will adjust the water level indicator periodically (about once in a month) using the liquid level gauge.

<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, 1F	12/13	8:45	ND	0.08	0.07
Approx. 330m South of Discharge Channel of 1-4U, 1F	12/13	8:20	ND	0.04	0.03
Around Discharge Channel of 3,4U, 2F	12/13	8:25	ND	ND	0.01

- ・Others, samples from 1 location at coast of Fukushima Daiichi Nuclear Power Station (sampled on December 13) , and 11 locations at offshore (sampled on December 12), showed ND for all three major nuclides (Iodine-131、Cs-134,137).

<Cooling of Spent Fuel Pools >(As of December 14 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation	14.0 ℃
Unit 2	Circulating Cooling System	Under operation	18.9 ℃
Unit 3	Circulating Cooling System	Under operation	14.6 ℃
Unit 4	Circulating Cooling System	Under operation	22 ℃

【Unit 2】・12/14 6:54 An alarm went off indicating that there was a significant gap in the flow rates at the inlet and the outlet of the primary system pump of the spent fuel pool alternative cooling system of Unit 2. There was no accident such as a leakage found at the site. Later we implemented a vibration experiment on the instrumentation piping and confirmed that the alarm has stopped. Hereafter, we will check the flow rates every one hour. The spent fuel pool alternative cooling system has been kept in operation without any trouble in cooling

【Unit 4】・11/29～ We started operation of the ion exchange equipment to remove salt from spent fuel pool.

< Water Injection to Pressure Containment Vessels > (As of December 14 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.4.4 m^3/h,Core Spray System: Approx.1.8 m^3/h)	37.4℃	38.3℃	110.5 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx.3.0 m^3/h,Core Spray System: Approx.5.9 m^3/h)	64.9℃	68.7℃	110 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.2.7 m^3/h,Core Spr System: Approx.6.0 m^3/h)	57.4℃	64.1℃	101.6 kPaabs

【Unit 2】・12/14 10:40 - As the decreasing of injecting water from feed water system was confirmed, we adjusted injection rate from approx.2.5m^3/hour to approx.3m3 /hour. And also adjusted injection rate of core spray system from approx. 6.2m3/hour to approx.6m^3/hour.

【Unit 5】・12/14 - Due to the reconstruction work of the residual heat removal system sea water pump (B) of Unit 5, which had been out of order after the Tsunami, from 6:29 am, we stopped cooling the reactor of Unit 5 by suspending the operation of the residual heat removal system pump (B) and the residual heat removal system pump (D). At 16:29 we restarted cooling the reactor activating the residual heat removal system pump (B) and the residual heat removal system pump (D). The temperature of the reactor temporarily increased from 26.5℃ to 38.2℃.

【Unit 4】【Unit 6】 No major change.

<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