

Plant Status of Fukushima Daiichi Nuclear Power Station

December 29, 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]

- 10:37 on December 27: We started 2nd cesium adsorption facility. At 10:43 am, we reached the regular flow rate.
- 10:12 on December 29: TEPCO staff observed a water leakage from the imperceptible leak in a hose around the concentrated water storage area of water desalinations (reverse osmosis membrane) while on patrol. We confirmed that filtrate water*, transferred with the hose from the filtrate tank to the boiler tank of the evaporative concentration apparatus, leaked from the water leakage. Just to be safe, we investigated nuclide analysis for the water, and the nuclide was below measurable limit.
After that, we stopped transferring filtrate water, and filled the hole with tape, and the leaked water is now an average of a drop every two minutes. We are planning to replace the hose. The leaked filtrate water will not expand around there because there are no street gutters.

*filtrate water: from Sakashita Dam

[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 [Process Main Building, Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	· 15:22 on December 28 - Transferring
Unit 3	· Unit 3T/B Central Radioactive Waste Treatment Facility [Process Main Building, Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	· 15:32 on December 28 - 9:03 December 29 Transferred
Unit 6	· Unit 6T/B Temporary tanks	· 12/29 No plan of transfer

Place transferred	Status of Water Level (As of December 29 at 7:00)
Process Main Building	Water level: O.P.+ 2,412 mm(Accumulated total increase:3,629 mm) 184mm increase since 7:00 on December 28
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 3,364 mm(Accumulated total increase:4,090 mm) 164mm increase since 7:00 on December 28

(Other transfer) · 10:14-15:18 on December 27, We transferred from side banker building to process main building in Centralized Radiation Waste Treatment Facility.

Water level of the vertical shaft of the trench, T/B and R/B(As of December 29 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on December 28)	O.P.+ 2,858 mm (22mm increase since 7:00 on December 28)	O.P.+ 4,246 mm (3mm decrease since 7:00 on December 28)
Unit 2	O.P.+ 3,172 mm (64mm decrease since 7:00 on December 28)	O.P.+ 3,149 mm (60mm decrease since 7:00 on December 28)	O.P.+ 3,293 mm (38mm decrease since 7:00 on December 28)
Unit 3	O.P.+ 3,170 mm (18mm decrease since 7:00 on December 28)	O.P.+ 3,104 mm (54mm decrease since 7:00 on December 28)	O.P.+ 3,369 mm (42mm decrease since 7:00 on December 28)
Unit 4	-	O.P.+ 3,125 mm (1mm decrease since 7:00 on December 28)	O.P.+ 3,147 mm (1mm decrease since 7:00 on December 28)

<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	12/28	8:35	ND	ND	0.02
Approx. 330m North of Discharge Channel of 1-4U, 1F	12/28	8:15	ND	0.02	0.02
Around Discharge Channel 3,4U, 2F	12/28	8:15	ND	ND	0.01
Approx. 5km of the coast, Souma City, Fukushima (high layer)	12/27	7:15	ND	ND	0.01

·Others: samples from 1 location at the coast of Fukushima Daiichi Nuclear Power Plant (sampled on December 28), from 11 locations at offshore of Fukushima Prefecture (sampled on December 27 showed ND for all three major nuclides (Iodine-131, Cs-134,137).

<Cooling of Spent Fuel Pools >(As of December 29 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation	11.5
Unit 2	Circulating Cooling System	Under operation	13.4
Unit 3	Circulating Cooling System	Under suspension	12.4 *
Unit 4	Circulating Cooling System	Under operation	22

*The temperature: was recorded as cooling under suspension, at 10:23 on December 29

[Unit 3] 12/29 10:23-12:09 in the alternative cooling system of the spent fuel pool of Unit 2, as the inhale pressure of the primary circulating pump showed the tendency of decrease, we conducted stopping the pump in order to conduct flushing of the strainer on its entry side and suspended cooling of the spent fuel pool (the temperature of the pool at the time of the suspension was approx. 12.4 , the restart was approx. 12.5)

[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 29 at 11:00)

Unit	Status of water injection	Feed-water nozzle Temp.	Reactor pressure vessel Bottom temp.	Pressure of primary containment vessel
Unit 1	Injecting freshwater (Feed Water System: Approx.4.3 m ³ /h,Core	27.5	27.9	106.6 kPaabs

	Spray System: Approx.1.9 m ³ /h)			
Unit 2	Injecting freshwater (Feed Water System: Approx.1.8 m ³ /h, Core Spray System: Approx.7.0 m ³ /h)	54.3	57.1	108 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.3.0 m ³ /h, Core Spray System: Approx.6.0 m ³ /h)	48.6	57.8	101.6 kPaabs

[Unit 4][Unit 5][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.
- 9:00-10:00 on December 28 We checked the instruments of one point in the Primary containment vessel, Unit 1 that indicated increase of measured atmospheric temperature from December 22 and confirmed soundness. The measured atmospheric temperatures at other points in the Primary containment vessel do not indicate increase.
As of December 22: Approx.38 , at 19:00 on December 27: Approx. 49
- 11:00-12:15 To identify cause with monitoring, we adjusted the volume of Nitrogen injection, from approx. 8 m³/h to approx.18 m³/h, and emission of the gas management system, from approx. 23 m³/h to approx.30 m³/h, as of before December 22.
The temperature, the maximum went up to approx. 54.6 at 6 pm on December 28, fell to approx. 52.3 at 10:00 and at 13:00 on December 29.
Other two temperature indicators were in gradual increases, but now the two are stable
The second: (Maximum) approx. 34.9 at 21:00 on December 28 – approx. 34.8 at 13:00 on December 29.
The third: (Maximum) approx. 39.2 at 1:00 on December 29 – approx. 39.2 at 13:00 on December 29.
We are planning to identify cause with monitoring, and investigate the plant status.

End