Plant Status of Fukushima Daiichi Nuclear Power Station

January 10, 2012
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]

・14:36 on January 4, 2012: We restarted the 2nd cesium adsorption facility. At 14:48, we reached the regular flow rate.

10:40 on January 9, 2012: A water pond was found near the evaporative concentration apparatus 2B (under suspension) of the water treatment facility. The amount of the water is about 11 liter and is staying in the dam. The leakage was from float type flow meter at vent condenser spray line of evaporative concentration apparatus(*) and the amount of leakage is about one drop in 6 seconds. After closing the valve of the line, it was about one drop in 15 ～ 20 seconds. A dish will be settled under the leakage. The water is purified one in evaporative concentration apparatus (for water injection to the reactor). We conduct nuclide analysis for the water of the line regularly and the last result was as fallows: β-ray is 6.0×10^{-1}Bq/cm^3 (November 29, 2011) and γ-ray is below measurable limit （December 20, 2011）.

*Vent condenser spray line of evaporative concentration apparatus: cooling the vapor (purified water) that is generated in the evaporative concentration apparatus and supply water for injection to the reactor.

9:25 on January 10, 2012: We suspended the 2nd Cesium adsorption apparatus to conduct backwashing of the filter because we found gradual downward trend in processing flow rate. At 12:58 am, we started the apparatus, and at 1:04 pm, it reached the steady flow rate (approx. 36m^3/h).

10:28 on January 10, 2012: TEPCO's staff found water drop (about 1 drop per second) from packing of the base of the concentrated water tank of the water desalinations (reverse osmosis membrane). The leaked water accumulated on the concrete and the volume was about 10 liters. Afterward we retightened bolts of the tank joint, and at around 12:35 am, we confirmed stoppage of the leakage. Also we laid sandbags around the waterhole to prevent leakage spread. Because it was the leakage from the waste tank, there is no need to stop water desalinations and no impact to the water injection to the reactor.

[Storage Facility]

・June 8, 2011～: 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)］	・21:51 on January 9 – 7:57 on January 10 Implementation of Transfer ・From 8:17 on January 10 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)］	・21:55 on January 9 – 8:00 on January 10 Implementation of Transfer
Unit 6	・Unit 6T/B→Temporary tanks	・1/10 No transfer

* We transfer accumulated water from Unit 2 T/B to Central Radioactive Waste Treatment Facility [Process Main Building].

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

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on January 9)	O.P.+ 3,115 mm (16 mm increase since 7:00 on January 9)	O.P.+ 4,228 mm (2 mm increase since 7:00 on January 9)
Unit 2	O.P.+ 3,157 mm (1 mm increase since 7:00 on January 9)	O.P.+ 3,130 mm (1 mm decrease since 7:00 on January 9)	O.P.+ 3,286 mm (1 mm increase since 7:00 on January 9)
Unit 3	O.P.+ 3,151 mm (8 mm decrease since 7:00 on January 9)	O.P.+ 3,084 mm (8 mm decrease since 7:00 on January 9)	O.P.+ 3,363 mm (7 mm decrease since 7:00 on January 9)
Unit 4	—	O.P.+ 3,107 mm (6 mm decrease since 7:00 on January 9)	O.P.+ 3,122 mm (8 mm decrease since 7:00 on January 9)

<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
Around 30 m north from discharge channel of 5-6U, 1F	January 9	8:50	ND	0.02	0.02
Around 330 m south from discharge channel of 1-4U, 1F	January 9	8:25	ND	0.03	0.01
Around discharge channel of 3-4U, 2F	January 9	8:20	ND	0.02	0.02
Around 7 km south from discharge channel of 1-2U, 2F	January 9	8:00	ND	ND	0.01
15km offshore of Ukedo-gawa Upper Layer	January 9	9:15	ND	ND	0.01

・Others: Samples from 2 points at offshore of Fukushima Prefecture (sampled on January 8, 2012) showed ND for all three major nuclides (Iodine-131, Cs-134,137).

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

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation	13.0 ℃
Unit 2	Circulating Cooling System	Under operation	13.1 ℃
Unit 3	Circulating Cooling System	Under operation	15.7 ℃*
Unit 4	Circulating Cooling System	Under operation	21 ℃

【Unit 2】 ・13:38～15:43 on January 10: We injected hydrazine to the spent fuel pool (approx. 2 m^3).

< Water Injection to Pressure Containment Vessels > (As of January 10 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.4.6 m^3/h, Core Spray System: Approx.1.8 m^3/h)	25.7℃	26.3℃	106.9 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx.2.9 m^3/h, Core Spray System: Approx.7.1 m^3/h)	48.6℃	51.0℃	110 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.1.9 m^3/h, Core Spray System: Approx.6.9 m^3/h)	46.4℃	55.3℃	101.6 kPaabs

【Unit 3】 ・10:05 on January 10: We adjusted water injection from the reactor feed water system from approx 3.0 m^3/h to 2.0 m^3/h, and water injection from the core spray system from approx. 6.0 m^3/h to 7.0 m^3/h to replacement of the cooling system piping arrangement for the trial run of cooling system piping in Turbine Building.

【Unit 4】【Unit 5】【Unit 6】 ・No major change

<Others>

・October 7, 2011～: 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.

・14:22 on January 9, 2012: At the Spent Sludge Storage Facility (*) of Fukushima Daiichi Nuclear Power Station (1F), a partner company's worker who had been engaged in concrete placement work reported his physical disorder. He was carried to the emergency medical room of 1F's Unit 5/6 and received medical treatment. Because he was in cardiopulmonary arrest, he was carried from 1F to Iwaki Kyouritsu Hospital at 3:25 pm. For reference, no radioactive materials were found to be attached to the worker's body.

* Spent Sludge Storage Facility

The facility to store radioactive waste (spent sludge), which is produced during the process of accumulated water treatment, on a temporary basis.

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