Plant Status of Fukushima Daiichi Nuclear Power Station

December 5, 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 steady state.

・12/4 11:33 Workers found that there was puddle water inside the barrier around the evaporative condensation apparatus (the estimated volume of water was approx.45 m^3). At 11:52, we stopped the apparatus.
12:14 Workers made visual inspection of the apparatus and thought that the leakage stopped. At 14:30, we found crack in the barrier made of concrete, water was leaking to the gutter and that the leaked water was seen between the barrier and base concrete (surface dose rate of leaked water: beta ray 110mSv/h, gamma ray 1.8mSv/h).
15:30 We confirmed that the leakage had stopped by piling up sandbags between the barrier and base concrete, and in the gutter. From 18:20 to 22: 20 we sent the leaked water remaining in the barrier to the waste water RO supply tank with a water pump. Since the gutter led to the generally used channel of the power plant, we have taken sea water from the channel around the water desalinations (evaporative concentration apparatus) and the south drain (drain for the generally used channel) and have conducted a nuclide analysis. We concluded that the figures of the results of the analysis were as the same or slightly higher than the usual results we are announcing daily. We are considering emergency response to stop leakage of water to the outside of the barrier. In the meantime, water desalination apparatus is continuing operation. As we have sufficient volume of desalinated water, there is no impact on the Reactor water injection.

・12/5 We sampled the water of the channel near the water desalination (evaporative concentration apparatus) and the south drain (exit of the channel) and conducted a nuclide analysis, and the results of the south drain showed the same level as the results we are announcing daily.

[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)］	・18:03 on 11/30 - Transferring
Unit 3	・Unit 3T/B→Central Radioactive Waste Treatment Facility［Process Main Building］	・From 9:25 on 11/15 to 10:31 on 12/05 – Transferred
Unit 6	・Unit 6T/B→Temporary tanks	・10:00 on 12/5 - Transferring

Place transferred	Status of Water Level (As of December 5 at 7:00)
Process Main Building	Water level: O.P.+ 2,457 mm(Accumulated total increase:3,674 mm) 38mm increase since 7:00 on December 4
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,471 mm(Accumulated total increase:2,197 mm) 69mm decrease since 7:00 on December 4

◇Water level of the vertical shaft of the trench, T/B and R/B(As of December 5　at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P.< + 850mm (No change since 7:00 on December 4)	O.P.+ 3,530mm (37mm increase since 7:00 on December 4)	O.P.+ 4,106mm (30mm increase since 7:00 on December 4)
Unit 2	O.P.+ 2,906mm (21mm decrease since 7:00 on December 4)	O.P.+ 2,923mm (18mm decrease since 7:00 on December 4)	O.P.+ 3,045mm (19mm decrease since 7:00 on December 4)
Unit 3	O.P.+ 3,173mm (11mm increase since 7:00 on December 4)	O.P.+ 2,913mm (13mm decrease since 7:00 on December 4)	O.P.+ 3,131mm (12mm decrease since 7:00 on December 4)
Unit 4	－	O.P.+ 2,947mm (6mm decrease since 7:00 on December 4)	O.P.+ 2,966mm (9mm decrease since 7:00 on December 4)

<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. 7m South of Discharge Channel of 1,2U, 2F	12/4	8:00	ND	ND	0.01

・Others, samples from 6 locations offshore of Miyagi Prefecture (sampled on November 28) showed ND for all three major nuclides (Iodine-131、Cs-134,137).

<Cooling of Spent Fuel Pools> (As at 11:00 on December 5)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation(11:22 on August 10 -)	16.5 ℃
Unit 2	Circulating Cooling System	Under operation(17:21 on May 31 -)	21.8 ℃
Unit 3	Circulating Cooling System	Under operation(18:33 on June 30 -)	18.0 ℃
Unit 4	Circulating Cooling System	Under operation(10:08 on July 31 -)	26 ℃

【Unit 2】・11/6～ We started operation of radioactive material decontamination instrument of spent fuel pool.

【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 5 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. 4.1 m^3/h)	44.7℃	45.8℃	117.9 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx. 3.1m^3/h,Core Spray System: Approx. 4.3 m^3/h)	71.4℃	70.9℃	114 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx. 2.0 m^3/h,Core Spray System: Approx. 6.1 m^3/h)	60.8℃	67.8℃	101.6 kPaabs

【Unit 1】12/5 10:44 Since it has been confirmed that parameters of the facilities of the power plants such as the Reactor Pressure Vessel and the Primary Containment Vessel are stable, we adjusted nitrogen injection from approx. 5 ㎥/h to 10 ㎥/h.

【Unit 3】12/5 10:25 Since it has been confirmed that parameters of the facilities of the power plants such as the Reactor Pressure Vessel and the Primary Containment Vessel are stable, we adjusted nitrogen injection from approx. 5 ㎥/h to 10 ㎥/h.

<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.

・12/5 10:35-12:05 We conducted dust sampling at upper part of reactor building, Unit 3 by a large crane.

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