Plant Status of Fukushima Daiichi Nuclear Power Station

December 12, 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.

・12/11 15:48 We confirmed that the water was accumulated inside the gate in the house where the water desalination equipment (evaporative concentration equipment) 2 was installed. The amount of the leaked water is approx. 5 litters, and the water was kept within the gate. We also confirmed that it was leaked from a ventilation pipe at the tank storing the seal water for the evaporative concentration equipment 2B. We will investigate the cause. The source of the leaked water is the filtered water, and the radiation doses of the surface near the leaked water are 0.12 mSv/h (gamma ray), and less than 1 mSv/h (beta ray), which are the same level as the airborne radiation doses nearby. Since water desalination equipment (reverse osmosis membrane equipment) 2-1 and 2-2 are continuously working, which generate the sufficient amount of desalinated water, there is no impact on the water injection to the reactors

・12/12 approx. 11:00 We confirmed that the remaining water in the hose was oozing from the same point (the leakage amount is about 1 drop in 3 seconds). Later we removed the water from the tank for the seal water and from the hose. At approx. 3:00 pm on the same day,

Approx. 15:00 We confirmed that the water ceased to ooze.

[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 1	・Unit 1T/B→Unit 2T/B	・14:00 on December 10 -12/12 9:22 Transferring
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 - Transferring
Unit 3	・Unit 3T/B→Central Radioactive Waste Treatment Facility［Process Main Building］	・9:25 on November 15 -12/5 10:31
Unit 6	・Unit 6T/B→Temporary tanks	・10:00-16:00 on December 12 Transferring

Place transferred	Status of Water Level (As of December 12 at 7:00)
Process Main Building	Water level: O.P.+ 1,717 mm(Accumulated total increase:2,934 mm) 108mm decrease since 7:00 on December 11
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,069 mm(Accumulated total increase:1,795 mm) 39mm decrease since 7:00 on December 11

◇Water level of the vertical shaft of the trench, T/B and R/B(As of December 12 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850mm (No change since 7:00 on December 11)	O.P.+ 3,105 mm (353mm decrease since 7:00 on December 11)	O.P.+ 3,935 mm (29mm increase since 7:00 on December 11)
Unit 2	O.P.+ 2,818 mm (18mm increase since 7:00 on December 11)	O.P.+ 2,836 mm (15mm increase since 7:00 on December 11)	O.P.+ 2,959 mm (12mm increase since 7:00 on December 11)
Unit 3	O.P.+ 3,303 mm (18mm increase since 7:00 on December 11)	O.P.+ 3,072 mm (20mm increase since 7:00 on December 11)	O.P.+ 3,300 mm (20mm increase since 7:00 on December 11)
Unit 4	—	O.P.+ 3,060 mm (20mm increase since 7:00 on December 11)	O.P.+ 3,069 mm (17mm increase since 7:00 on December 11)

<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	12/11	8:30	ND	0.04	0.04
Approx. 330m South of Discharge Channel of 1-4U, 1F	12/11	8:10	ND	0.04	0.03
Approx. 7km South of 1,2U Discharge Channel of 2F	12/11	7:40	ND	0.03	0.02
15km offshore of 1F(lower layer)	12/10	9:00	ND	0.01	ND

・ ・Others, samples from 1 location at coast of Fukushima Daiichi Nuclear Power Station (sampled on December 11) , 6 locations at offshore (sampled on December 10) ,and 6 locations at offshore of Miyagi(sampled on December 7), showed ND for all three major nuclides (Iodine-131、Cs-134,137).

<Cooling of Spent Fuel Pools >(As of December 12 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1Unit	Circulating Cooling System	Under suspension	13.5 ℃
2Unit	Circulating Cooling System	Under operation	22.9 ℃
3Unit	Circulating Cooling System	Under operation	14.6 ℃
4Unit	Circulating Cooling System	Under operation	22 ℃

[Unit 1]・12/11 22:20 We stopped the alternative cooling equipment for spent fuel pool, in order to conduct house power source changeover work.(The temperature of the pool at the time of suspension:14℃)

[Unit 2]・12/10 11:37 We restarted the alternative cooling system for the 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 12 at 11:00)

Unit	Status of injecting water	Feed-water nozzle Temp.	Reactor pressure vessel Bottom temp.	Pressure of primary containment vessel
1Unit	Injecting freshwater (Feed Water System: Approx.4.4m^3/h,Core Spray System: Approx.1.9 m^3/h)	40.1℃	40.8℃	110.7 kPaabs
2Unit	Injecting freshwater (Feed Water System: Approx.2.7m^3/h,Core Spray System: Approx.6.1 m^3/h)	66.8℃	71.8℃	110 kPaabs
3Unit	Injecting freshwater (Feed Water System: Approx.2.8 m^3/h,Core Spr System: Approx.6.0 m^3/h)	58.2℃	65.1℃	101.6 kPaabs

【Unit 1】・12/12 10:38 When we cut the power of the PCV gas control system (Line A: under suspension) to switch the power source in order to conduct house power source changeover work. the monitoring system for the same system (Line B: under test operation) was stopped.

11:30 We confirmed on site that the same gas control system (Line B) was stopped.
Later, it was revealed that the power for controlling Line B comes from Line A, therefore we switched the power for the control.

- 12:00 We resumed Line B, and since Line B is normally operating after the re-start, we
- estimate that the reason Line B went down is that the power for Line A was cut.

※ There is no impact to the reactors, because injecting freshwater to the reactors and nitrogen enclosure facilities do not have the problem

【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.

End