

Plant Status of Fukushima Daiichi Nuclear Power Station

February 2, 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]

- At 18:42 on January 17, 2012: We actuated Cesium adsorption apparatus. At 18:45, the flow rate reached steady state.
- At 12:06 on January 29, 2012, we restarted the second Cesium adsorption apparatus (Sarry). At 12:18 it reached its regular flow rate.
- At 8:36 on February 2, 2012, as we observed declining trend on the processing volume of the 2nd Cesium adsorption apparatus (Sarry), in order to wash the filter, we suspended operation. At 11:12, we started the apparatus. At 11:15, we reached the rated flow (approx 36m³/h). We are planning to conduct periodic washing of the filter.

[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 [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	·16:05 on January 30 - transferring
Unit 3	·Unit 3T/B Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	·16:12 on January 30 - transferring
Unit 6	·Unit 6T/B Temporary tanks	· Transferred from 10:00 to 16:00 on February 2

Place transferred	Status of Water Level (As of 7:00 am on February 2)
Process Main Building	Water level: O.P.+ 3,860 mm(Accumulated total increase:5,077 mm), decreased 180mm since 7:00 am on February 1
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 3,024mm(Accumulated total increase:3,750 mm), increased 360mm since 7:00 am on February 1

Water level of the vertical shaft of the trench, T/B and R/B(As of 7:00 am on February 2)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on February 1)	O.P.+ 2,802 mm (16mm increase since 7:00 on February 1))	O.P.+ 4,271 mm (23mm increase since 7:00 on February 1))
Unit 2	O.P.+ 3,054 mm (2mm decrease since 7:00 on February 1))	O.P.+ 3,028 mm (2mm decrease since 7:00 on February 1))	O.P.+ 3,196 mm (2mm increase since 7:00 on February 1))
Unit 3	O.P.+ 3,011 mm (7mm decrease since 7:00 on February 1))	O.P.+ 2,921 mm (11mm decrease since 7:00 on February 1))	O.P.+ 3,219 mm (14mm decrease since 7:00 on February 1))
Unit 4	-	O.P.+ 2,937 mm (4mm decrease since 7:00 on February 1)	O.P.+ 2,957 mm (15mm decrease since 7:00 on February 1)

<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 30m the north of the discharge canal of 5-6 Units, 1F	2/1	8:35	ND	0.07	0.05
Around 330m the north of the discharge canal of 1-4 Units, 1F	2/1	8:15	ND	0.02	0.03
Around 7km south of the discharge channel of 1-2Units, 2F	2/1	8:00	ND	ND	0.02
3km offshore of Iwasawa shore, lower layer	1/31	9:00	ND	0.02	0.01

· At other 9 points (sampled on January 31) offshore Fukushima Prefecture, all the major 3 nuclides (I-131, Cs-134 and Cs-137) were ND. Sampling at 1 coast point in Fukushima Prefecture was cancelled due to bad weather.

<Cooling of Spent Fuel Pools >(As of 11:00 am on February 2)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation ^{*1}	15.0
Unit 2	Circulating Cooling System	Under operation	12.6
Unit 3	Circulating Cooling System	Under operation ^{*2}	20.9
Unit 4	Circulating Cooling System	Under operation	29

*1: Air fin cooler of Secondary System out of service

*2: Cooling tower of Secondary System out of service

[Unit 2] · A desalination equipment has been activated in order to reduce density of salt from the spent fuel pool since 11:50 on January 19.

[Unit 3] · A radioactive material removal equipment has been activated in order to remove radioactive materials from the spent fuel pool since 15:18 on January 14.

<Water Injection to Pressure Containment Vessels > (As of 11:00 am on February 2)

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. 4.8m ³ /h, Core Spray System: Approx.1.9m ³ /h)	24.0	24.4	104.8 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx.3.0m ³ /h, Core Spray System: Approx.6.0m ³ /h)	45.8	52.9	111 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.3.0m ³ /h, Core Spray System: Approx.6.0m ³ /h)	41.5	51.4	101.6 kPaabs

[Unit 1] · In order to enhance reliability of the reactor water injection, we are replacing the water injection line of the reactor water injection pump on the hill with polyethylene piping. At 10:35 on February 2, as we completed replacement of feed water system piping, we switched from the reactor water injection pump in the T/B to the reactor water injection pump on the hill for water injection from the feed water system. At 15:15 on February 2, as we observed reduction of water injection rate, we adjusted the water injection volume from the feed water system from approx. 4.2 m³/h to approx. 4.5 m³/h, that from the reactor core spray system from approx. 1.5 m³/h to approx. 2.0 m³/h.

[Unit 2] · At 10:55 on February 2, we adjusted the water injection volume from the feed water system from approx. 3.9 m³/h to approx. 3.0 m³/h, that from the reactor core spray system from approx. 5.1 m³/h to approx. 6.0 m³/h*. At 15:15 on February 2, as we observed reduction of water injection rate, we adjusted the water injection volume from the feed water system from approx. 2.5 m³/h to approx. 3.0 m³/h, that from the reactor core spray system from approx. 5.2 m³/h to approx. 5.5 m³/h.

[Unit 3] · At 11:10 on February 2, we adjusted the water injection volume from the feed water system from approx. 3.8 m³/h to approx. 3.0 m³/h, that from the reactor core spray system from approx. 5.2 m³/h to approx. 6.0 m³/h*. At 15:15 on February 2, as we observed reduction of water injection rate, we adjusted the water injection volume from the feed water system from approx. 2.5 m³/h to approx. 3.0 m³/h, that from the reactor core spray system from approx. 5.2 m³/h to approx. 5.5 m³/h.

* As the replacing work of the water injection line of the reactor water injection pump on the hill into the polyethylene pipe was finished, the water injection amount has been gradually adjusted.

[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.
- January 11, 2012 ~ : As finding accumulated water including radioactive materials (December 18, 2011) at the trench between Process Main Building of Central Radioactive Waste Treatment Facility and Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building), we started inspection of the other trenches in the site.
 - *Please refer to the other reference materials for the result of daily inspection.
- Approx. 22:30 on January 31, 2012: The water leak from the indicator test line in the rack for instruments of the jet pump on the 1st floor of Unit 4 Reactor Building was confirmed.
- 22:43 The water leakage was stopped by closing the main valve leading to the instrument rack. Debris were scattered around on the floor, and volume of leaked water confirmed was approx. 6 L. No run-off to the outside of the reactor building. After sampling and measuring the radiation concentration of the water in the test line, we estimated that the water leaked from the reactor well.
- 15:20 on February 4: In the process of patrolling R/B, Unit 4, TEPCO staff found water leakage with the diameter of approx pencil leads at the northeast corner, 1FL, R/B. The leakage was supposed to be from the water supply line to Reactor well. As the valve to the Reactor well of the water supply line was fully closed, the water was supposed to be not from Reactor well. We are investigating the detail. There is no leakage to outside of R/B.
- February 1, 2012: We conducted sampling of gas at the PCV gas administration system, Unit 2. The analysis result of gas sampled at the entrance of the system indicated that Xenon 135 was below detection limit (9.5×10^{-2} Bq/cm³), below the re-criticality determination threshold, 1 Bq/cm³.
- February 2, 2012: After yesterday's "Plant Status of Fukushima Daiichi Nuclear Power Station", below water leakages were newly found around 15:30, February 2.
 - 2 valves located at piping (drainage) in the water treatment building that purifies filtered water (found approx. 15:30 on February 2). Filtered water*: approx. 0.5 liter. *filtered water: water taken from the dam.