

<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.

[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 and Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	· 10:12 on December 17 – 9:58 on December 18, transferred*
Unit 3	· Unit 3T/B Central Radioactive Waste Treatment Facility [Process Main Building]	· 14:22 on December 15 – 10:04 on December 17, Transferred
Unit 6	·Unit 6T/B Temporary tanks	·On December 18, no scheduled

\* At 12:24 pm on December 17, we stopped the transfer since the water level at Unit 2 turbine building did not change. Then we confirmed that there was no leakage from the line. Then we opened the valve and restarted the transfer at 1:22 pm on the same day.

Place transferred	Status of Water Level (As of 12/18 at 7:00)
Process Main Building	Water level: O.P.+ 1,739 mm(Accumulated total increase:2,956 mm) 103mm increase since 7:00 on December 17
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 1,678 mm(Accumulated total increase:2,404 mm) 123mm increase since 7:00 on December 17

Water level of the vertical shaft of the trench, T/B and R/B(As of December 18 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on December 17)	O.P.+ 3,253 mm (28mm increase since 7:00 on December 17)	O.P.+ 4,228 mm (28mm increase since 7:00 on December 17)
Unit 2	O.P.+ 2,943 mm (72mm decrease since 7:00 on December 17)	O.P.+ 2,949 mm (66mm decrease since 7:00 on December 17)	O.P.+ 3,088 mm (49mm decrease since 7:00 on December 17)
Unit 3	O.P.+ 3,124 mm (4mm increase since 7:00 on December 17)	O.P.+ 3,091 mm (41mm increase since 7:00 on December 17)	O.P.+ 3,326 mm (33mm increase since 7:00 on December 17)
Unit 4	-	O.P.+ 3,090 mm (3mm increase since 7:00 on December 17)	O.P.+ 3,094 mm (10mm decrease since 7:00 on December 17)

<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	12/17	8:40	ND	0.04	0.03
Approx. 330m South of Discharge Channel of 1-4U, 1F	12/17	8:20	ND	0.02	0.02
Approx. 7 km South of Discharge Channel of 1,2U, 2F	12/17	8:05	ND	ND	0.01

·Others: samples from 1 location at the coast of Fukushima Prefecture (sampled on December 17) and from 2 locations offshore of Fukushima Prefecture (sampled on December 16) showed ND for all three major nuclides (Iodine-131,Cs-134,137).

<Cooling of Spent Fuel Pools >(As of December 18 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation	12.5
Unit 2	Circulating Cooling System	Under operation	15.9
Unit 3	Circulating Cooling System	Under operation	13.5
Unit 4	Circulating Cooling System	Under operation	20

[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 18 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.4.7 m <sup>3</sup> /h,Core Spray System: Approx.2.0 m <sup>3</sup> /h)	32.9	33.5	110.1 kPaabs
Unit 2	Injecting freshwater (Feed Water System: Approx.2.7 m <sup>3</sup> /h,Core Spray System: Approx.6.0 m <sup>3</sup> /h)	61.9	65.7	111.0 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.2.8 m <sup>3</sup> /h,Core Spray System: Approx.5.8 m <sup>3</sup> /h)	55.6	62.4	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.
- 12/17 one of the TEPCO's employees serving for restoring work at Fukushima Daiichi Stabilization Center was diagnosed with Norovirus. Up until now, there have been no reports of Norovirus onset other than this employee. We have disinfected the working area etc. of this employee. With advice from doctors, we plan to inform persons/parties concerned of fundamental matters such as strict enforcement of washing hands and gargling, re-enforcement of disinfecting ways in case of onset, a medical team responding system etc. within this week.
- 12/18 At 10:00 am, during the patrol activity, a TEPCO employee found an accumulated water in the trench located between the process main building of Centralized Radiation Waste Treatment Facility and Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building). The depth of the water was estimated to be 50 cm and the amount was to be 125 m<sup>3</sup>. The radiation dose at the water surface was 3 mSv/h (provisional value). As no radioactive materials have been detected during the last sampling survey of sub drain water near the trench, the source of the accumulated water is estimated to be the ground water or dew condensation water. We will continue our investigation of the water source and sampling survey of the water in the trench.

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