

Plant Status of Fukushima Daiichi Nuclear Power Station

July 23, 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 started.
- 6/24 12:00 Treatment started at desalination facilities
- 6/27 16:20 Circulating injection cooling started.
- 7/2 18:00 We completed installing buffer tanks and resumed circulating injection cooling via buffer tanks.
- 7/13 13:07 While conducting water treatment facility flashing in order to replace vessels, some leakage was found around the connection part at the liquid chemical injection line of coagulation setting devices (different location from the leakage points of July 10 and 12).
- 7/14 18:30 The repair for the leakage was completed. We restarted water treatment.
- 7/21 8:38 Water treatment was interrupted due to power switching with relation to restoration work of Yonomori Line 2 circuits. The water treatment facility stopped after the power stopped at water level gauge installed at suppression pool water surge tank (B).
- 7/22 0:28 Restarted water treatment facility.
- 0:40 Restarted water treatment.
- 7/22 7:10 Water treatment facility terminated by circuit breaker opening of spare transformer in the station due to overload.
- 15:37 Restarted water treatment facility.
- 15:51 Restarted water treatment.
- 7/23 8:45 Water treatment was interrupted due to power switching with relation to restoration work of Yonomori Line 2 circuits.
- 15:26 Restarted water treatment facility.
- 16:27 Restarted water treatment

[Storage Facility]

From June 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 (as of 7/23 11:00 am)

Unit	Draining water source → Place transferred	Status
2u	2u Vertical Shaft of Trench → Process Main Building, Central Radioactive Waste Treatment Facility (4/19 ~ 5/26, 6/4 ~ 6/8, 6/8 ~ 6/16, 6/22 ~ 6/27, 6/27 ~ 7/7, 7/13 ~ 7/15, 7/16 10:56 am ~ 7/21 16:04, 7/22 16:56 ~)	[Process Main Building] Water level: O.P.+5,024 mm 29 mm increase from 7/22 7:00 am)
3u	3u T/B → Miscellaneous Solid Waste Volume Reduction Treatment Building of Central Radioactive Waste Treatment Facility (5/17 ~ 5/25, 6/18 ~ 6/20) 3u T/B → Process Main Building of Central Radioactive Waste Treatment Facility (6/14 ~ 6/16, 6/21 ~ 6/27, 6/27 ~ 6/28, 6/30 ~ 7/9, 7/10 ~ 7/15, 7/16 10:50 am ~ 7/21 15:59, 7/22 16:53 ~)	(Accumulated total increase : 6,241 mm) [Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,682 mm (41 mm increase from 7/22 7:00 am) (Accumulated total increase: 4,408mm)
6u	6u Turbine Building → temporary tanks 5/1 ~ 6/22, 6/30 ~ 7/9, 7/11 as needed, 7/21 11:00 ~ 7/22 18:00, 7/23 11:00 ~ Temporary tanks Mega Float 6/30 ~ 7/5, 7/7 ~ 7/9, 7/11 ~ 16 as needed	

7/23 14:15 ~ Started transferring from Miscellaneous Solid Waste Volume Reduction Treatment Building of the Centralized Radiation Waste Treatment Facility to the Process Main Building

Water level at the vertical shaft of the trench and T/B (as of 11:00 am on July 23)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 7/22 7:00 am	O.P. +4,920mm, No change since 7/21 7:00 am
2u	O.P. +3,587mm (438mm), 25mm increase since 7/22 7:00 am	O.P. +3,594mm, 25mm increase since 7/22 7:00 am
3u	O.P. +3,758mm (252mm), 10mm increase since 7/22 7:00 am	O.P. +3,621mm, 5mm decrease since 7/22 7:00 am
4u	-	O.P. +3,632mm, 15mm increase since 7/22 7:00 am

- Water level at Unit 1 R/B: 7/23 11:00 am, O.P. +5,034mm, 2mm increase since 7/22 7:00 am.

Yesterday, the water level at Unit 1 R/B: was stated [O.P. +4,944mm], however the correct figure was [O.P. +5,032mm]. Our apologies for the mistake caused.

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

Density limit by the announcement of Reactor Regulation: I-131: 40Bq/L, Cs-134: 60Bq/L, Cs-137: 90Bq/L

Sampling Location	Date	Time	Ratio to Criteria (times)		
			Iodine-131	Cesium-134	Cesium-137
Around North Water Discharge Channel, 2F (approx. 10km from 1F)	7/22	8:30 am	ND	0.08	0.07
Around Iwasawa Shore, 2F (approx. 16km from 1F)	7/22	8:00 am	ND	ND	ND

* 2 coastal points and 4 offshore points of which the samples were planned to be taken on July 22 were canceled due to bad weather.

<Cooling of Spent Fuel Pools>

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1u	Fuel Pool Cooling and Filtering System	No water injection plan on 7/23	-
2u	Circulating Cooling System	Operating from 5/31 5:21 pm	30.5 (7/23 11:00)
3u	Circulating Cooling System	Operating from 6/30 6:33 pm	30.2 (7/23 12:00)
4u	Alternative Injection System	No water injection plan on 7/23	83 (7/20 15:30)*

* Remote monitoring gauges to measure the temperature of unit 4 fuel spent pool was paused due to power source switching.(7/21-24)

7/23 following facilities stopped operation due to power switching with relation to restoration work of Yonomori Line 2 circuits.;

Unit 3 spent fuel pool circulating cooling system (3:24 ~ 11:45), Common pool cooling facility (3:46 ~ 9:41)

<Water Injection to Reactor Pressure Vessels> (at 11:00 am, 7/23)

* Unit 3 temperature as of 7/23 10:30

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.5m ³ /h)	108.2	96.8
2u	Injecting freshwater (approx. 3.8m ³ /h)	112.1	126.5
3u	Injecting freshwater (approx. 9.1m ³ /h)	127.1	109.2

[Units 4] [Unit 5] [Units 6] [Common spent fuel pool] No particular changes in parameters.

- 7/23 9:35 amounts of water injection to Unit 2 was changed from 3.2m³/h to approx. 3.8m³/h.

<Injection of Nitrogen Gas into the Primary Containment Vessel> (at 11:00 am, 7/23)

• Unit 3 temperature as of 7/23 10:30

Unit	Pressure of Primary Containment Vessel	Total volume of injected Nitrogen *1
1u	156.3kPaabs (4/7 1:20) 135.4kPaabs	Approx. 71,000m ³
2u	20kPaabs (6/28 19:00) 135kPaabs	Approx. 7,700m ³
3u	99.6kPaabs (7/14 17:00) 101.6kPaabs	Approx. 2,900m ³

<Others>

- 4/10 ~ Clearance of outdoor rubbles by remote control to improve working conditions.
- 6/3 ~ Restoration works of port related facilities has been under operation.
- 7/12~ Started construction for installing steel pipe sheet pile against water leakage in the water intake channel.
- 6/7 ~ 6/20 Installation of support structure into the bottom of spent fuel pool of reactor building of Unit 4.
- 6/21 ~ Concrete establishment and preparation underway.
- 6/28 ~ Main construction work for installing the cover for the reactor building of Unit 1 started.
- 7/16, 17, 21 ~ 23 Under restoration work for 2 circuits of Yonomori Line
- 7/22 Facilities were powered off by circuit breaker opening of spare transformer in the station due to overload. Power recovered at 11:50 receiving directly from TEPCO nuclear line.
- 7/22 Dust sampling was carried out to the upper part of unit 2 reactor building by remote helicopter (T-Hawk)
- 7/23 Dust sampling was carried out to the upper part of unit 3 reactor building by remote helicopter (T-Hawk)

END