Plant Status of Fukushima Daiichi Nuclear Power Station

July 22, 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). We have kept injecting water into the reactor.
・7/14	18:30	The repair for the leakage was completed. We resarted water treatment.
・7/15	5:14	Stopped water treatment facility to investigate causes of water flow reduction.
	14:21	Restarted water treatment facility.
	14:48	Restarted water treatment.
・7/21	8:38	Water treatment was interrupted due to power switching for restoration work of Yorunomori Line 2 circuits.
・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.

[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 7/22 7:00 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)	[Process Main Building] Water level: O.P.+4,995 mm 26 mm increase from 7/21 7:00 am) (Accumulated total increase : 6,212 mm) [Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,641 mm (67 mm increase from 7/21 7:00 am) (Accumulated total increase: 4,367mm)
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)	
6u	6u Turbine Building → temporary tanks 5/1～6/22, 6/30～7/9, 7/11 as needed, 7/21 11:00～ Temporary tanks →Mega Float 6/30～7/5, 7/7～7/9, 7/11～16 as needed	

◇Water level at the vertical shaft of the trench and T/B (as of 7:00 am on July 22)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 7/21 7:00 am	O.P. +4,920mm, No change since 7/21 7:00 am
2u	O.P. +3,562mm (438mm), 52mm increase since 7/21 7:00 am	O.P. +3,569mm, 49mm increase since 7/21 7:00 am
3u	O.P. +3,748mm (252mm), 23mm increase since 7/21 7:00 am	O.P. +3,626mm, 25mm increase since 7/21 7:00 am
4u	—	O.P. +3,617mm, 12mm increase since 7/21 7:00 am

・ Water level at Unit 1 R/B: 7/22 7:00 am, O.P. +4,944mm, 23mm increase since 7/21 7:00 am.

<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	Cecium-134	Cecium-137
Around North Water Discharge Channel, 2F (approx. 10km from 1F)	7/21	8:25 am	ND	0.15	0.10
Around Iwasawa Shore, 2F (approx. 16km from 1F)	7/21	7:55 am	ND	0.09	0.07

* Following 2 coastal points that were planned to be taken on July 21 were canceled due to bad weather: north of discharge channel of 5-6u of 1F(approx. 30m north of 5-6u discharge channel) and around south discharge channel of 1F (appox. 330m south of 1-4u discharge channel)

* Following 1 sampling point was below measurable limit: 3 km offshore of Hasaki shore upper/lower layer.

<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 7/22	—
2u	Circulating Cooling System	Operating from 5/31 5:21 pm	32.0℃ (7/22 11:00)
3u	Circulating Cooling System	Operating from 6/30 6:33 pm	30.0℃ (7/22 12:00)
4u	Alternative Injection System	No water injection plan on 7/22	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)

7/22 following facilities was powered off by circuit breaker opening of spare transformer in the station due to overload: the alternative cooling facility for spent fuel pool at Unit 3 (7:10-11:50) and the cooling facility of common pool (7:10-10:40).

<Water Injection to Reactor Pressure Vessels> (at 11:00 am, 7/22) * Unit 3 temperature as of 7/22 10:40

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.8m^3/h)	107.5℃	96.2℃
2u	Injecting freshwater (approx. 3.8m^3/h)	111.8℃	126.1℃
3u	Injecting freshwater (approx. 9.1m^3/h)	129.8℃	110.0℃

【Units 4】【Unit 5】【Units 6】【Common spent fuel pool】 No particular changes in parameters.

- 7/17, the motor driven pump which injected water to the reactor of Unit 1 and 2 was changed from the Unit 1 pump to the Unit 2 pump. (The motor driven pump for water injection to the reactor of Unit 1 was stopped.)
- 7/22 8:41-8:43 amounts of water injection to Unit 2 was changed from 3.3m^3/h to approx. 3.8m^3/h.
- 7/22 no affect by circuit breaker opening of spare transformer due to overload.

<Injection of Nitrogen Gas into the Primary Containment Vessel> (at 11:00 am, 7/22)

・ Unit 3 temperature as of 7/22 10:50

Unit	Pressure of Primary Containment Vessel	Total volume of injected Nitrogen *1
1u	156.3kPaabs (4/7 1:20) →134.6kPaabs	Approx. 70,300m^3
2u	20kPaabs (6/28 19:00) →134kPaabs*2	Approx. 7,370m^3
3u	99.6kPaabs (7/14 17:00) →101.6kPaabs*2	Approx. 2,560m^3

*1: approximate figure *2: 7/16 5:00 am～ changed the pressure indicator for PCVs, Units 2 and 3

・ 7/22 no affect by circuit breaker opening of spare transformer due to overload.

<Others>

・4/10 ～ Clearance of outdoor rubbles by remote control to improve working conditions.

・5/10 ～ Clearing of rubbles in and around Unit 3 reactor building etc using robots.

・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 filling and grout started.

・6/28～ Main construction work for installing the cover for the reactor building of Unit 1 started.

・7/16, 17, 21～ Under restoration work for 2 circuits of Yorunomiri Line

・7/22～ Facilities was 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～ Sampling radioactive materials in the air of upper unit2 reactor building by remote helicopter (T-Hawk)

END