Plant Status of Fukushima Daiichi Nuclear Power Station

July 15, 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.

・7/12 8:51 We found some leakage around the connection part at the liquid chemical injection line of coagulation and therefore stopped the operation of the facilities its repair. We confirmed the corrosion of metallic connectors and the fact that leaked water had not been spread to the outside. We continued injecting water to the reactor.

16:19 After replacing the corroded connectors with corrosion-free metallic ones, we implemented flushing the system and switching the Cesium adsorption tower.

16:28 Started Water treatment facility.

16:58 Resumed water treatment.

・7/13 13:07 While conducting Water treatment facility flashing in order to change 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 12:07 The leakage was repaired, and we plan to resume water treatment.

14:58 Conduct leak check after Water treatment facility restarted. 18:30 Water treatment resumed.

・7/15 5:14 Water treatment facility stopped to investigate cause of rated water flow reduction.

14:21 Water treatment facility restarted.

※ Temporary suspension of Water treatment facility flashing in order to change vessels;
June 23, 24, 25, 26, 28, 29, 30, July 2, 3, 5, 7, 8, 13～14.

[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 7/15 7:00 am)

Unit	Draining water source → Place transferred	Status
2u	2u Vertical Shaft of Trench → Process Main Building, Central Radioactive Waste Treatment Facility	[Process Main Building] Water level: O.P.+4,693 mm

	(4/19～5/26, 6/4～6/8, 6/8～6/16, 6/22～6/27, 6/27～7/7, 7/13 10:09 am ～ 7/15 11:02)	266 mm increase from 7/13 7:00 am) (Accumulated total increase : 5,910 mm)
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, and 7/10 15:15～11:11)	[Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,433 mm (17 mm increase from 7/13 7:00 am) (Accumulated total increase: 4,159mm)
6u	6u Turbine Building → temporary tanks 5/1～6/22, 6/30～7/9 as needed, 7/11 10:30～16:30 Temporary tanks →Mega Float 6/30～7/5, 7/7～7/9, 7/11～14 as needed, 7/15 10:00～	

◇Water level at the vertical shaft of the trench and T/B (as of 7:00 am on July 15)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 7/14 7:00 am	O.P. +4,920mm, No change since 7/14 7:00 am
2u	O.P. +3,545mm (455mm), 27mm decrease since 7/14 7:00 am	O.P. +3,550mm, 27mm decrease since 7/14 7:00 am
3u	O.P. +3,719mm (281mm), 14mm decrease since 7/14 7:00 am	O.P. +3,605mm, 16mm decrease since 7/14 7:00 am
4u	—	O.P. +3,622mm, 11mm decrease since 7/14 7:00 am

・ Water level at Unit 1 R/B: 7/15 7:00 am, O.P. +4,369mm, 29mm increase since 7/14 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
Approx. 30m north of Discharge Channel of 5-6u of 1F	7/14	10:40 am	ND	0.83	0.82

Lower than detection limits at 15 locations below (27 sampling points sampled on 7/14);
Sea shore of “approx. 330m south of discharge channel of Units 1-4 of Fukushima Daiichi, around the north water discharge of Fukushima Daini , Fukushima Daini Iwasawa Shore” (upper layer).
3km offshore of “north of Iwaki city, Natsuigawa, Onahama Port, Ena, Numanouchi, Toyoma” (upper and lower

layer).
15km offshore of “Minami Soma City, Oitogawa, Fukushima Daiichi Site, Fukushima Daini Site, Iwasawa Shore, Hirono Town” (upper and 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 plan on 7/15	-
2u	Circulating Cooling System	Operating from 5/31	41.5℃ (7/15 11:00)
3u	Circulating Cooling System	Operating from 6/30 6:33 pm	31.5℃(7/15 11:00)
4u	Alternative Injection System	No plan on 7/15	85-86℃(7/13 14:00)※

※ Since 7/9, power supply to remote monitoring system of temperature of spent fuel pool has been suspended.

・ 7/15 13:05, after hose replacement and leak check, water injection into 4u reactor well and facility storage pool started.

<Water Injection to Reactor Pressure Vessels> (at 11:00 am, 7/15)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.9m^3/h) *	115.9℃	102.4℃
2u	Injecting freshwater (approx. 3.5m^3/h)	111.5℃	122.8℃
3u	Injecting freshwater (approx. 9.0m^3/h)	143.9℃	113.7℃

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

<Injection of Nitrogen Gas into the Primary Containment Vessel> (at 11:00 am, 7/15)

Unit	Pressure of Primary Containment Vessel	Total volume of injected Nitrogen *1
1u	156.3kPaabs(4/7 1:20) => 143.4kPaabs	Approx.65,700m^3
2u	20kPaabs(6/28 19:00) => 15kPaabs *2	Approx.5,200m^3
3u	99.6kPaabs(7/14 17:00) => 99.6kPaabs *2	Approx.200m^3

*1: approximate figure *2: monitoring the status

<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 fuel spent 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.

・7/12 Implemented connecting procedure of ducts for nitrogen injection into the reactor of Unit 3.

・7/14 Plan to inject nitrogen into the reactor of Unit 3(20:01～).

- 7/13 Found that portable monitoring post shows the value of exposure dose at the main entrance as zero. 7/14 18:15, replaced the data receiver at the main anti-earthquake building and confirmed the equipment backed in operation.
- 7/15 10:16 Started up 5u Residual Heat Removal System Pump (C) and commenced commissioning.
- 7/15 6:38 Confirmed make up cooling water of secondary cooling tower of circulating cooling system of 2u spent fuel pool was not sprayed.
- 8:22 Circulating water pump and fans inside the secondary cooling tower stopped. As a result of site survey, closure of a valve of the feed water line from filtrate tank was confirmed.
- 7/15 11:47 Opened the valve, after confirming feeding water from filtrate tank, circulating water pump and fans inside the secondary cooling tower started.