Plant Status of Fukushima Daiichi Nuclear Power Station

July 5, 2011
Tokyo Electric Power Company

<Draining Water on Underground Floor of Turbine Building (T/B)>

◇ Construction status of accumulated radioactive water treatment system and storage tank facility

[Treatment Facility]

- 6/17 20:00～ Full operation started.
- 6/24 12:00～ Water treatment started at water desalination facilities
- 6/27 16:20 Circulating injection cooling started with treated water in the water treatment facilities in addition to water injection from filtration tank in Units 1 to 3.
- 6/30 9:00 We stopped desalination facility to treat condensed salt water in the treated water receipt tank.
  14:36 Water treatment facility was stopped automatically. At 18:50 we resumed the operation after adjusting the settings of water level value in of Coagulation Setting Facility treated water tank.
- 7/1 7:27 We stopped cooling by circulated water and switched to cooling by injecting filtrate water only in order to install the tank for injection to the reactor (buffer tank).
  15:52 We restarted the desalination facility after preparation of another tank for treated water.
- 7/2 18:00 We completed construction of installing the buffer tank, and recommenced circulating injection cooling going through buffer tank.
- 7/3 20:17 We stopped transfer pump due to the treated water level rose near upper limit.
- 7/4 17:18 We started transfer pump due to the treated water level decrease near lower limit.

※Water treatment was temporarily suspended for the flashing to change vessels during 13:00-14:00 on June 23, 10:00-12:50 on June 24, 10:00-15:00 on June 25, 10:00-18:10 on June 26, 10:06~12:24 on June 28, 10:45-14:13 on June 29, 10:46- 13:35 on June 30, 10:30- 13:45 on July 2, 10:39- 12:50 on July 3 and 10:30-12:55 on July 5.

[Storage Facility]

June 8, big tanks to store and to 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 7/4 7:00)

Unit	Draining water source → Place transferred	Status
2u	2u Vertical Shaft of Trench → Process Main Building, Central Radioactive Waste Treatment Facility (4/19 10:08am～5/26 4:01pm, 6/4 6:39pm～6/8 2:20pm, 6/8 6:03pm～6/16 8:40am, 6/22 9:56am～6/27 9:02am, 6/27 5:07pm～)	[Process Main Building] Water level: O.P.+4,861 mm (2 mm increase from 7/4 7:00) (Accumulated total increase : 6,078 mm)
3u	3u T/B → Miscellaneous Solid Waste Volume Reduction Treatment Building of Central Radioactive Waste Treatment Facility (5/17 18:04～5/25 9:10, 6/18 13:31～6/20 0:02) 3u T/B → Process Main Building of Central Radioactive Waste	[Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,274m

	Treatment Facility (6/14 10:05～6/16 8:46, 6/21 15:32～, 6/27 15:44~6/28 9:58 and 6/30 8:56～)	(19 mm increase from 7/4 7:00) (Accumulated total increase:4,000mm)
6u	6u Turbine Building → temporary tanks 5/1～6/22 as needed, 6/30 15:00～19:00, 7/1 10:00～7/3 16:00, 7/4 10:00～16:00, 7/5 10:30～ Temporary tanks →Mega Float 6:30 13:00～19:00, 7/1 10:00～7/3 16:00 , 7/4 13:30～17:00, 7/5 10:30～	

◇Water level at the vertical shaft of the trench and T/B (as of 7:00 on July 5)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 7/3 7:00	O.P. +4,920mm, No change since 7/3 7:00
2u	O.P. +3,456mm (544mm), 25mm decrease since 7/4 7:00	O.P. +3,459mm, 23mm decrease since 7/4 7:00
3u	O.P. +3,806mm (194mm), 11mm decrease since 7/4 7:00	O.P. +3,723mm, 15mm decrease since 7/4 7:00
4u	—	O.P. +3,734mm, 14mm decrease since 7/4 7:00

- Water level at Unit 1 R/B: 7/5 7:00, O.P. +4,402mm, 10mm decrease since 7/4 7:00.
- Unit 1-4: On June 29, the blockage to the extension of the pit as a countermeasure for polluted water leakage, and installation of sliding concrete plate to the intake channel were completed.

<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
Discharge channel, Fukushima Daini (about 10 km from Fukushima Daiichi)	7/3	8:10	ND	0.08	0.08

Not detected at following 7 points(11 points in total: Sampled at Coast [Upper Layer], Offshore [Upper/Lower Layer] on 7/4)

30m north of 5～6u Discharge channel, Fukushima Daiichi
330m south of 1～4u Discharge channel, Fukushima Daiichi
Iwasawa shore, Naraha town (approx. 16km from Fukushima Daiichi)
3km offshore north of Iwaki city
3km offshore of Natsui river
3km offshore of Numanouchi
3km offshore of Toyoma

Not detected at followed 5 points (10 points in total [Upper/Lower layer] sampled on July 1, 2) around Ibaraki offshore

Offshore of Takadokohama coast, Offshore of Kujihama coast, Offshore of Oarai coast, Offshore of Hirai coast,

Offshore of Hasaki coast

<Water Injection and Spraying to Spent Fuel Pools>

Unit	Coolong type	Status of cooling	Temperature of water in Pool
1u	Fuel Pool Cooling and Filtering System	Planned injection from 7/5 15:00	-
2u	Circulating Cooling System	Operating from 5/31	35℃ (7/5 11:00)
3u	Circulating Cooling System	Operating from 6/30 18:33	32.4℃(7/5 11:00)
4u	Alternative Injecting System	7/5 no plan	85-87℃(7/4 18:20)

<Water Injection to Reactor Pressure Vessels> (as of 7/5 11:00)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.8m^3/h) *	117.2℃	102.2℃
2u	Injecting freshwater (approx. 3.5m^3/h)	112.3℃	121.3℃
3u	Injecting freshwater (approx. 8.9m^3/h)	151.0℃*	120.7℃

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

<Injection of Nitrogen Gas into the Primary Containment Vessel> (as of 7/5 11:00)

Unit	Pressure of Primary Containment Vessel	Total volume of injected Nitrogen *1
1u	156.3kPaabs(4/7 1:20) => 142.8kPaabs	Approx.59,000m^3
2u	20kPaabs(6/28 19:00) => 20kPaabs *2	Approx.2,100m^3

*1:rough estimate, *2 keep observing the trend

<Others>

- 4/10 ～ Clearance of outdoor rubbles by a 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 carried out.
- 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.
- 6/25 Airflow survey was conducted near the airlock and the large equipment carry-in entrance, reactor buildings, Units 1&2.
- 6/28 Injection water into the reactor well of reactor building of Unit 4
- 6/28～ Main construction work for installing the cover for the reactor building of Unit 1 started.
- 6/30 Construction of temporary tide embankment completed.
- 7/1 Cleaning by a robot to reduce the radioactive level in the 1st floor of the reactor building of Unit 3
- 7/2 Measurement of radiation by a robot in the 1st floor of the reactor building of Unit 3
- 7/3 Under construction for installation of steal plates in the 1st floor of the reactor building of Unit 3
- 7/4 9:13～ Water injection into the reactor well and the equipment storage pool of Unit 4

END