Plant Status of Fukushima Daiichi Nuclear Power Station

July 1, 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.
- 6/29 9:30 Leakage from the drain at the bottom of temporary storage tank for concentrated water of desalination facilities confirmed.
  10:30 Leakage stopped by mounting a cap.
  10:59 Pumps stopped to replace hoses at the outlet of water transfer pumps
  13:33 After the replacement, circulating injection cooling resumed.
  14:53 An alarm indicating leakage at On-Site Bunker Building was reported and the operation of water treatment facility stopped. At 18:45 we resumed the operation.
  18:54 Radioactive material treatment facility (Cesium adsorption instrument and coagulation settling facility) stopped due to trouble of combined operation. 21:45 restarted.
- 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).

※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 and 10:46- 13:35 on June 30.

[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 7/1 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.+4,805 mm (74 mm decrease from 6/30 7:00am) (Accumulated total increase :

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 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～)	6,022 mm) [Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,196m (20 mm increase from 6/30 7:00am) (Accumulated total increase:3,922mm)
6u	6u Turbine Building → temporary tanks 5/1～6/22 as needed, 6/30 15:00～19:00, 7/1 10:00～ Temporary tanks →Mega Float 6:30 13:00～19:00, 7/1 10:00～	

◇Water level at the vertical shaft of the trench and T/B (as of 6/30 7:00)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 6/30 7:00am	O.P. +4,920mm, No change since 6/30 7:00am
2u	O.P. +3,566mm (399mm), 35mm decrease since 6/30 7:00am	O.P. +3,563mm, 32mm decrease since 6/32 7:00am
3u	O.P. +3,848mm (146mm), 6mm increase since 6/30 7:00am	O.P. +3,784mm 19mm increase since 6/30 7:00am
4u	—	O.P. +3,790mm, No change since 6/30 7:00am

- Water level at Unit 1 R/B: 7/1 7:00am, O.P. +4,505mm, 22mm decrease since 6/30 7:00am.
- Unit 2 and 3, blockage to the extension of the pit and the unidentified flow path is underway.
  (Blockage work of pits similar to outflow event or whose closure would ensure flow routes completed by 6/10)

<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
30m north of 5～6u Discharge Canal, Fukushima Daiichi	6/30	9:55 am	ND/ND	0.70	0.51
330m south of 1～4u Discharge Canal, Fukushima Daiichi	6/30	9:35 am	ND/ND	0.32	0.24

All the data at the following 14 locations (sampled at 26 points in total: seashore (upper), 3,15 km offshore (upper and lower layer) on June 30) are below the detection limit;

Around the north Discharge Canal of Fukushima Daini (10km from Fukushima Daiichi),
Around Iwasawa Seashore, Naraha Town (approx. 16km from Fukushima Daiichi),
Approx. 3 km offshore of the northern part of Iwaki City,

Approx. 3 km offshore of Natsuigawa,
Approx. 3 km offshore of Onahama Port,
Approx. 3 km offshore of Ena,
Approx. 3 km offshore of Numanouchi,
Approx. 3 km offshore of Toyoma,
Approx. 15 km offshore of Minamisouma City,
Approx. 15 km offshore of Ukedogawa River,
Approx. 15 km offshore of Fukushima Daiichi Nuclear Power Station,
Approx. 15 km offshore of Fukushima Daiini Nuclear Power Station,
Approx. 15 km offshore of Iwasawa seashore, and
Approx. 15 km offshore of Hironomachi,

All the data of samples collected at following 5 locations approx. 3 km offshore of Ibaraki Pref. (collected on June 28 and 29 at total 10 points (upper and lower respectively)) are below the detection limit;
Offshore of Takadokobama seashore, Kujihama seashore, Oarai seashore, Hirai seashore, and Hasaki seashore.

<Water Injection and Spraying to Spent Fuel Pools>

Result of yesterday	Unit 4	11:30 ～11:55: spraying fresh water using alternate water spraying facilities.
Today's plan	-	No action plan

- 5/31～, circulating cooling system for 2u Spent Fuel Pool is in service. Pool water temperature at 11:00 am, July 1 was 34℃.
- 6/30 commissioning of 3u Spent Fuel Pool Circulating Cooling System started.
- 7/1 After evaluations, its operation started. Pool water temperature at 9:00 am, July 1 was 55.8℃.

<Water Injection to Reactor Pressure Vessels> (as at 7/1 11:00)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.6m^3/h) *	117.9℃	102.4℃
2u	Injecting freshwater (approx. 3.5m^3/h)	112.7℃	127.8℃
3u	Injecting freshwater (approx. 8.9～9.0m^3/h)	154.3℃*	125.0℃

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

<Injection of Nitrogen Gas into the Primary Containment Vessel of Unit 1>

- Primary Containment Vessel pressure: 156.3 (4/7 1:20am) → 141.8 kPaabs, (7/1 11:00) approx. 56,300m³.
- 6/28 Nitrogen gas injection started to containment vessel of Unit 2.

<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.

END