Plant Status of Fukushima Daiichi Nuclear Power Station

May 27th, 2011
Tokyo Electric Power Company

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

Unit	Draining water source → place transferred	Status
Unit 2	Unit 2 Vertical Shaft of Trench → Process Main Building of Central Radioactive Waste Treatment Facility (from 10:08 am, April 19 to 4:01 pm, May 26)	Increase of water level of Process Main Building: 3,891 mm as of 7:00am, May 27 (49 mm increase from 7:00, May 26)
Unit 3	Unit 3 Turbine Building → Miscellaneous Solid Waste Volume Reduction Treatment Building of Central Radioactive Waste Treatment Facility (from 6:04 pm, May 17～9:10am, May 25)	Increase of water level of Miscellaneous Solid Waste Volume Reduction Treatment Building: 3,002 mm as of 7:00am, May 27 (58 mm decrease from 7:00, May 26)
Unit 6	Unit 6 Turbine Building →temporary tanks (from May 1 on demand basis)	May 26: approx. 400m^3 May 27: planned transfer from approx. 9:00 am (approx. 400m^3)

◇Water level at the vertical shaft of the trench and T/B (As of 7:00 am, May 27)

	Vertical Shaft of Trench （from top of grating to surface）	T/B
Unit 1	O.P. below +850 mm Water level decreased since 7:00 am, May 26	O.P. +4,920 mm 130mm decrease since 7:00 am, May 26
Unit 2	O.P. +3,359 mm (641mm) 100 mm increase since 7:00 am, May 26	O.P. +3,322 mm 99 mm increase since 7:00 am, May 26
Unit 3	O.P. +3,544 mm (456 mm) 28 mm increase since 7:00 am, May 26	O.P. +3,542 mm 30 mm increase since 7:00 am, May 26
Unit 4	—	O.P. +3,520 mm 26 mm increase since 7:00 am, May 26

- Blockage work at the vertical shaft of trench has been implemented at Unit 2 and Unit 3.

<Monitoring of Radioactive Materials>

◇ Nuclide Analysis of Seawater (Reference purpose)
Density limit by the announcement of Reactor Regulation:
I-131: 40Bq/L, Cs-134: 60Bq/L, Cs-137: 90Bq/L, Sampling: Everyday

Sampling Location (seacoast)	Date	Time	Ratio to Criteria (times)		
			Iodine-131	**Cecium-134**	**Cecium-137**
Approx. 30m north to Discharge Canal of Units 5 & 6 of Fukushima Daiichi	May 26	9:40/14:00	ND/ND	0.55/0.92	0.41/0.68
Approx. 330m south to Discharge Canal of Units 1 to 4 of Fukushima Daiichi.	May 26	9:20/13:40	ND/ND	1.4/0.58	0.96/0.50
Around the north Discharge Canal of Fukushima Daini (10km from Fukushima Daiichi)	May 26	8:35	ND	0.33	ND
Around Iwasawa Seashore, Naraha Town (approx. 16km from Fukushima Daiichi)	May 26	8:05	ND	0.32	0.37
Approx. 3km from the offshore of north part, Iwaki City*.	May 26	6:50/6/50	ND/ND	ND/0.12	0.06/0.06
Approx. 3km from the offshore of Natsui river, Iwaki City*.	May 26	6:25/6:25	ND/ND	0.11/0.15	ND/0.07
Approx. 3km from the offshore of Onahama harbor, Iwaki City*.	May 26	5:45/5:45	ND/ND	ND/ND	ND/0.22
Approx. 3km from the offshore of Ena, Iwaki City*.	May 26	6:10/6:10	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Numanouchi, Iwaki City*.	May 26	6:15/6:15	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Toyoma, Iwaki City*.	May 26	5:55/5:55	ND/ND	ND/ND	ND/ND

* left number: Upper Layer, right number: Lower Layer

<Water Injection and Spraying to Spent Fuel Pools>

◇Result on May 26

【Unit 2】From 10:06 am - 11:36 pm, we injected freshwater and hydrazine from Spent Fuel Cooling and Filtering System (approx. 53 tons).

◇Plan on May 27

【Unit 4】From 4:00 pm – 7:00 pm, we plan to spray freshwater and hydrazine by a concrete pumping vehicle (approx. 100 tons).

Others

- We are conducting detailed nuclide analyses on the water collected on April 12 from the spent fuel pool of Unit 4.
- We are conducting detailed nuclide analyses on the water collected on April 16 from the skimmer surge tank of Unit 2.
- We are conducting detailed nuclide analyses on the water collected on May 8 from the spent fuel pool of Unit 3.

<Water Injection to Reactor Pressure Vessels>

【Unit 1】Injecting fresh water (approx. 6 m³/h):
Reactor pressure vessel temperature:
At 11:00am, May 27, <Feed-water nozzle> 115.3℃
<Bottom of reactor pressure vessel>97.1℃

【Unit 2】Injecting fresh water (approx. 7 m³/h)
Reactor pressure vessel temperature:
At 11:00am, May 27, <Feed-water nozzle> 111.7℃

【Unit 3】Injecting fresh water (Fire Protection System approx. 2 m³/h + Feed Water System approx. 13.5 m³/h)
Reactor pressure vessel temperature:
At 11:00am, May 27, <Bottom of reactor pressure vessel> 110.5℃

- Since 4:53 pm, May 12, injection line has been changed from fire protection system to feed water system (monitoring the temperature trend).
- From 2:15 pm, May 20, we changed the amount of water injected to the reactor pressure vessel by the feed water system from 9m³/h to 12m³/h.
- From 5:39 pm, May 20, we gradually decreased the amount of water injected to the reactor pressure vessel by the fire protection system (from 5:00 am, May 21st : 6m^3/h, from 11:31 am, May 23: 5m^3/h, from 2:08 pm, May 23: 4m^3/h, from 5:19 pm, May 23: 3m^3/h)
- On May 26, we are scheduling to change the injection rate for fire protection system from 3m^3/h to 2m^3/h.

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

【Units 5/6】Reactor cold shutdown. No particular changes on parameters.

<Injection of Nitrogen Gas to the Primary Containment Vessel of Unit 1 (PCV)>

◇Injection of nitrogen gas

- From 1:31 am, April 7, we started to inject nitrogen gas to PCV using temporary nitrogen generators.
- Approx. 2:00 pm on May 21, nitrogen supply was stopped as a result of a trip of compressors due to high temperature. At 5:11 pm, we started up a back-up nitrogen generator to resume nitrogen supply at approx. 20 m^3/h (it was adjusted to approx. 26 m^3/h before 8:31 pm).
- At 11:23 am, May 22, we started up nitrogen generators planned to be used at Units 2 and 3 and resumed nitrogen supply at approx. 28 m^3/h
- From 9:14 am to 9:18 am, May 25, we temporarily stopped nitrogen injection due to change of power source associated with stoppage of temporary power panel (Then nitrogen injection was resumed). From 3:16 pm to 3:18 pm, nitrogen injection was stopped due to connection change of power source (temporary power source to permanent power source). (Then nitrogen injection was resumed). At 3:45 pm, we confirmed a trip of one of the feed compressors. At 7:44 pm, an alternative compressor was activated and injection was resumed at approx. 28 m^3/h.
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- D/W pressure: 156.3 kPaabs (1:20am, April 7) -> 132.9 kPaabs, (11:00am, May 27) Injected amount of nitrogen gas was approx. 32,900m³.

<Others>

- Since April 10, we have been clearing outdoor rubbles by a remote control to improve working environment.
- Since April 26, we are continuing to spray the dust inhibitor. (On May 25, sprayed in the area of approx. 8,750m^2. On May 26, we are spraying the dust inhibitor around Incombustibles Treatment Facility and north side of the reactor building of Unit 1).
- Since May 9, we commenced preparation work for installing support structure into the bottom of fuel spent pool of reactor building of Unit 4.
- Since May 10, we commenced clearing of rubble in front of carry-in gate for large stuff of reactor building of Unit 3 by using robots.
- Since May 12, reinforcement work of power source line of Unit 3 and 4
- Since May 13, preparation work for installation of a cover for the reactor building of Unit 1.
- May 21, the Mega Float arrived in Fukushima Daiichi port and berthed at the shallow draft quay.
- Since May 24, we are installing major equipments such as heat exchange units regarding installing cyclic cooling system for spent fuel pool at Unit 2. (Planned commencement of cooling: May 31)
- May 25, power center (2C system) was stopped due to the composition change of onsite power system but resumed at 2:59pm.
- Since May 26, TEPCO employees have entered Unit2 to conduct dust sampling around double doors (inside) of reactor building.
- Since May 26, we have removed water from the condenser of the turbine building in order to be prepared for the construction for water injection through feed water system piping arrangement into the reactor of Unit 2.
- May 27, we started to enter the reactor building of Unit 1 in order to conduct sampling survey of accumulated water on the underground floor, to install water level gauge, and to lay hoses.

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