Plant Status of Fukushima Daiichi Nuclear Power Station

May 24th, 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)	Increase of water level of Process Main Building: 3,639 mm as of 7:00, May 24 (119 mm increase from 7:00, May 23)
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)	Increase of water level of Miscellaneous Solid Waste Volume Reduction Treatment Building: 2,712 mm as of 7:00, May 24 (386 mm increase from 7:00, May 23)
Unit 6	Unit 6 Turbine Building →temporary tanks (from May 1 on demand basis)	May 23: No Transferring (planned transfer from approx. 9:00 am on May 24 (approx. 200m^3)

◇Water level at the vertical shaft of the trench and T/B (As of 7:00 am, May 23rd)

	Vertical Shaft of Trench （from top of grating to surface）	T/B
Unit 1	O.P. +1,020 mm（2,980 mm） No change since 7:00 am, May 23rd	O.P. +5,050 mm No change since 7:00 am, May 23rd
Unit 2	O.P. +3,220 mm (770 mm) 10 mm decrease since 7:00 am, May 23rd	O.P. +3,220 mm 10 mm decrease since 7:00 am, May 23rd
Unit 3	O.P. +3,350 mm (650 mm) 10 mm decrease since 7:00 am, May 23rd	O.P. +3,340 mm 10 mm increase since 7:00 am, May 23rd
Unit 4	—	O.P. +3,480 mm 30 mm increase since 7:00 am, May 23rd

- 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 23	9:15 am/ 2:15 pm	ND/ND	0.92/0.83	0.66/0.51
Approx. 330m south to Discharge Canal of Units 1 to 4 of Fukushima Daiichi*	May 23	9:00 am/ 1:50 pm	ND/ND	0.52/0.82	0.36/0.50
Around the north Discharge Canal of Fukushima Daini (10km from Fukushima Daiichi)	May 23	8:45 am	ND	0.25	0.22
Around Iwasawa Seashore, Naraha Town (approx. 16km from Fukushima Daiichi)	May 23	8:05 am	ND	ND	ND
Approx. 3km from the offshore of Iwasawa seashore, Naraha Town.	May 23	7:25 am	ND	0.12	0.08
Approx. 3km from the offshore of northern part of Iwaki City*	May 23	5:00 am/ 5:00am	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Natsui River of Iwaki City*	May 23	5:20 am/ 5:20 am	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Onahama Port of Iwaki City*	May 23	5:40 am/ 5:40 am	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Ena of Iwaki City*	May 23	6:00 am/ 6:00 am	ND/ND	ND/ND	ND/ND
Approx. 3km from the offshore of Numanouchi of Iwaki City*	May 23	5:35 am/ 5:35 am	ND/ND	0.11/ND	0.09/0.08
Approx. 3km from the offshore of Toyoma of Iwaki City*	May 23	5:50 am/ 5:50/am	ND/ND	0.10/ND	0.09/0.06
Approx. 8km from the offshore of Iwasawa seashore, Naraha Town.	May 23	7:10 am	ND	0.13	0.10
Approx. 15km from the offshore of Fukushima Daiichi	May 23	8:15 am	ND	0.17	0.09
Approx. 15km from the offshore of Fukushima Daini	May 23	7:40 am	ND	ND	ND
Approx. 15km from the offshore of Iwasawa seashore, Naraha Town.	May 23	8:05 am	ND	0.10	0.06
Approx. 15km from the offshore of Hirono Town.	May 23	8:25 am	ND	ND	ND

* Left Number: Upper Layer, Right Number: Lower Layer

<Water Injection and Spraying to Spent Fuel Pools>

◇Result on May 23

【Unit 4】From 4:00 pm - 7:09 pm, we sprayed freshwater and hydrazine by the concrete pumping vehicle (approx. 100 tons).

◇Result and plan on May 23

【Unit 3】From 10:15 am - 1:35 pm, we injected freshwater from Spent Fuel Cooling and Filtering System.

◇ 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.

<u><Water Injection to Reactor Pressure Vessels></u>

【Unit 1】Injecting fresh water (approx. 6 m³/h):
Reactor pressure vessel temperature:
At 11:00am, May 24th, <Feed-water nozzle> 115.4℃
<Bottom of reactor pressure vessel>96.7℃

【Unit 2】Injecting fresh water (approx. 7 m³/h)
Reactor pressure vessel temperature:
At 11:00am, May 24, <Feed-water nozzle> 112.2℃

【Unit 3】Injecting fresh water (Fire Protection System approx. 3 m³/h + Feed Water System approx. 12 m³/h)
Reactor pressure vessel temperature:
At 11:00am, May 24, <Bottom of reactor pressure vessel> 101.3℃

- 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)

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

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

◇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
- D/W pressure: 156.3 kPaabs (1:20am, April 7) -> 133.4 kPaabs, (11:00am, May 24th) Injected amount of nitrogen gas was approx. 31,100m³.

<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 23, sprayed in the area of approx. 14,750m^2. On May 24, we are spraying the dust inhibitor around Noninflammables Treatment Facility and east sides of the turbine building of Unit 3).
- May 9, we commenced preparation work for installing support structure into the bottom of fuel spent pool of reactor building of Unit 4.
- May 10, commenced clearing of rubble in front of carry-in gate for large stuff of reactor building of Unit 3 by using robots.
- May 12, reinforcement work of power source line of Unit 3 and 4
- May 13, preparation work for installation of a cover for the reactor building of Unit 1.
- May 20, TEPCO staffs went into the reactor building of Unit 1 to monitor the water level and measure the radiation level by γ camera.
- May 21, the Mega Float arrived in Fukushima Daiichi port and berthed at the shallow draft quay.
- May 22, we sampled, on a trial basis, radioactive materials in the ambient air at the opening of the Reactor Building, Unit 1.
- May 23, we sampled, on a trial basis, radioactive materials in the ambient air at the opening of the Reactor Building, Unit 4.
- May 23, we improved the working environment around a monitoring post (No.3) out of 8 posts located at the border of the plant site by decontaminating the detectors and installing shields to the lower half of detector (May 20, we improved the working environment at the monitoring post (No. 8)).
- At 10:20 am, May 23, a partner company's worker who was unloading a tank for the reatment water at the carry-in gate for large stuff, the 1st floor of Side Bunker Building, had his left hand injured.
  At 12:50 pm, May 23, he was transferred to Iwaki Kyouritsu Hospital by an ambulance. No contamination to his body was confirmed. At 2:45 pm, medical examination was finished.
- We started 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)

END