

Plant Status of Fukushima Daiichi Nuclear Power Station

May 22nd, 2011
Tokyo Electric Power Company

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

Unit	Draining water source place transferred	Status
Unit 2	Unit2 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: 3,401 mm as of 7:00, May 22 (120 mm increase from 7:00, May 21)
Unit 3	Unit3 Turbine Building Miscellaneous Solid Waste Volume Reduction Treatment Building of Central Radioactive Waste Treatment Facility (from 18:04 am, May 17)	Increase of water level of Miscellaneous Solid Waste Volume Reduction Treatment Building: 1,918 mm as of 7:00, May 22 (413 mm increase from 7:00, May 21)
Unit 6	Unit6 Turbine Building temporary tanks (from May 1 on demand basis)	May 21: Transferred approx 80m3 May 22: No schedule for transfer

Water level at the vertical shaft of the trench and T/B (As of 7:00 am, May 22nd)

	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 21 st	O.P. +5,050 mm No change since 7:00 am, May 21 st
Unit 2	O.P. +3,240 mm (760 mm) 10 mm decrease since 7:00 am, May 19 th	O.P. +3,230 mm No change since 7:00 am, May 21 st
Unit 3	O.P. +3,360 mm (640 mm) 10 mm increase since 7:00 am, May 21 st	O.P. +3,330 mm 10 mm decrease since 7:00 am, May 21 st
Unit 4	-	O.P. +3,450 mm No change since 7:00 am, May 21 st

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

<Monitoring of Radioactive Materials> * Samples in some points off shore could not be taken due to bad weather.

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	Cesium-134	Cesium-137
Approx. 30m north to Discharge Canal of Units 5 & 6 of Fukushima Daiichi	5/21	9:10/13:40	0.33/0.38	1.5/1.4	1.2/1.3
Approx. 330m south to Discharge Canal of Units 1 to 4 of Fukushima Daiichi.	5/21	9:10/13:40	0.33/0.28	1.5/1.4	1.0/0.83
Around the north Discharge Canal of Fukushima Daini (10km from Fukushima Daiichi)	5/21	8:40/13:10	0.13/ND	1.1/1.3	0.90/0.82
Around Iwasawa Seashore, Naraha Town (approx. 16km from Fukushima Daiichi)	5/21	8:30	0.06	0.17	0.16
Approx. 3km from the offshore of northern part of Iwaki City*	5/21	7:50	ND	0.28	0.22
Approx. 3km from the offshore of Natsui River of Iwaki City*	5/21	9:10	ND	0.09	0.10
Approx. 3km from the offshore of Onahama Port of Iwaki City*	5/21	9:00	ND	0.18	0.16
Approx. 3km from the offshore of Ena of Iwaki City*	5/21	7:00	ND	0.22	0.12
Approx. 3km from the offshore of Numanouchi of Iwaki City*	5/21	8:40	ND	0.25	0.16
Approx. 3km from the offshore of Toyoma of Iwaki City*	5/21	7:20	ND	0.32	0.22
Approx. 15km from the offshore of Fukushima Daiichi	5/21	8:45	ND	ND	ND
Approx. 15km from the offshore of Fukushima Daini	5/21	8:25	ND	ND	ND

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

<Water Injection and Spraying to Spent Fuel Pools>

Result on May 21st

[Unit 4] From 16:00-19:56, we sprayed freshwater and hydrazine with the concrete pumping vehicle(approx.130 tons).

Plan and result on May 22nd

[Unit 2] From 13:02-14:40, we sprayed freshwater and hydrazine from Spent Fuel Pool Cooling and Filtering (Clean up) System (approx. 56 tons).

[Unit 1] From 15:00-, we started spraying freshwater with the concrete pumping vehicle.

Others

- We are conducting detailed nuclide analyses on the water collected on April 12th from the spent fuel pool of Unit 4.
- We are conducting detailed nuclide analyses on the water collected on April 16th from

the skimmer surge tank of Unit 2.

- We are conducting detailed nuclide analyses on the water collected on May 8th from the spent fuel pool of Unit 3.

<Water Injection to Reactor Pressure Vessels>

[Unit 1] Injecting fresh water (6.0 m³/h):

Reactor pressure vessel temperature:

At 11:00am, May 22nd, <Feed-water nozzle> 117.1

<Bottom of reactor pressure vessel>97.9

[Unit 2] Injecting fresh water (7.0 m³/h)

Reactor pressure vessel temperature:

At 11:00am, May 22nd, <Feed-water nozzle> 112.4

[Unit 3] Injecting fresh water (Fire Protection System 6.0 m³/h + Feed Water System 12.0 m³/h)

Reactor pressure vessel temperature:

At 11:00am, May 22nd, <Bottom of reactor pressure vessel> 102.9

- Since 4:53 pm, May 12th, injection line has been changed from fire protection system to feed water system. (monitoring the temperature trend)
- From 2:15 pm, May 20th, we changed the amount of water injected to the reactor pressure vessel by the feed water system from 9m³/h to 12m³/h.
- At 3:12 pm, May 21st, in order to transfer to a motor driven pump installed at a hill, we stopped the fire protection pump
- At 3:15 pm, May 21st, we started the motor driven pump installed at the hill (injecting to feedwater line)

[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 7th, we started to inject nitrogen gas to PCV using temporary nitrogen generators.
- At 1:20am, April 7th, the D/W pressure was 156.3 kPaabs and it has changed to 131.8 kPaabs, as of 11:00am, May 22nd. The injected amount of nitrogen gas was approx. 29,800m³.

<Others>

- Since April 10th, we have been clearing outdoor rubbles by a remote control to improve working environment.
- Since April 26th, we are continuing to spray the dust inhibitor. (On May 21st, the work was cancelled due to injury. On May 22nd, work cancelled due to bad weather).
- May 9th, we commenced preparation work for installing support structure into the bottom of fuel spent pool of reactor building of Unit 4.
- May 10th, commenced clearing of rubble in front of carry-in gate for large stuff of

reactor building of Unit 3 by using robots.

- May 12th, reinforcement work of power source line of Unit 3 and 4
- May 13th, preparation work for installation of a cover for the reactor building of Unit 1.
- From 4:30pm to 4:40pm on May 18th, in order to check the nitrogen gas injection to the Primary Containment Vessel of Unit 3, we conducted preliminary survey on the reactor building of Unit 3.
- May 20th, TEPCO staffs went into the reactor building of Unit 1 to monitor the water level and measure the radiation level by camera.
- May 20th, we implemented improvement of environment for a part of 8 monitoring posts (No.8) installed at the boundary of station site, by decontamination of detector and installation of cover under the detector.
- May 21st, the Mega Float arrived in Fukushima Daiichi port and berthed at the shallow draft quay.
- At 2:00 pm, May 21st, nitrogen gas injection to Unit 1 stopped due to trip of the compressor by high temperature
At 5:11 pm, May 21st, we started the back up compressor and resumed nitrogen gas injection at 20m³/h. (-8:31 pm, we adjusted the volume to 26m³/h)
At 10:56 am, May 22nd, we stopped the back up compressor.
At 11:23 am, May 22nd, we started the nitrogen gas compressor planned for Units 2 & 3 and resumed nitrogen gas injection at 28m³/h
- May 22nd, we sampled, on a trial basis, radioactive materials in the ambient air at the opening of the Reactor Building, Unit 1.

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