

## Plant Status of Fukushima Daiichi Nuclear Power Station

June 15, 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]

- From 3:45 am to 2:00 pm, on June 14: stand-alone commissioning of Cesium absorption Instruments (Kurion)
- From 1:10 pm on June 15, decontamination instruments (AREVA) stand-alone commissioning was started. After commissioning, both Cesium absorption instruments and decontamination ones will be commissioned in combination.
- From June 16 the overall treatment facility will be commissioned in combination and then full operation will be started.

#### [Storage Facility]

- From June 8, big tanks to store and keep treated or contaminated water are being transferred and installed sequentially.

Treatment status of accumulated water in vertical shafts of trenches and at basement level of each building (as of 7:00 am on June 15)

Unit	Draining water source -> place transferred	Status
<u>Unit 1</u>	Unit 1 Condenser -> CST (10:33 am, June 15 ~ )	[Process Main Building]
Unit 2	Unit 2 Vertical Shaft of Trench -> Process Main Building of Central Radioactive Waste Treatment Facility (10:08 am, April 19 ~ 4:01 pm, May 26 and 6:39 pm, June 4 ~ 2:20 pm, June 8, 6:03 pm, June 8 ~ )	Water level: O.P.+4,727 mm (294 mm increase from 7:00 am, June 14) Accumulated total increase in water level: 5,944 mm
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) Unit 3 Turbine Building -> Process Main Building of Central Radioactive Waste Treatment Facility (3:30pm, June 11 ~ 5:01pm, June 12, from 10:05 am on June 14)	[Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+2,338 mm (12 mm increase from 7:00 am, June 14) Accumulated total increase in water level: 3,064 mm
Unit 6	Unit 6 Turbine Building temporary tanks (from May 1 on demand basis, from 2:45 pm on June 5 to 6:00 pm on June 8, from 9:00 am on June 9 on demand basis, and from 10:09 am to 4:00 pm on June 15)	

Water level at the vertical shaft of the trench and T/B (As of 7:00 am, June 15)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
Unit 1	O.P. below +850 mm (>3,150mm) No change from 7:00 am, June 14	O.P. +4,920 mm No change from 7:00 am, June 14
Unit 2	O.P. +3,679 mm (321mm) 17 mm decrease since 7:00 am, June 14	O.P. +3,664 mm 16 mm decrease since 7:00 am, June 14
Unit 3	O.P. +3,835 mm (165 mm) 10 mm increase since 7:00 am, June 14	O.P. +3,814 mm 18mm decrease since 7:00 am, June 14
Unit 4	-	O.P. +3,815mm 4 mm decrease since 7:00 am, June 14

- Water level at Unit 1 Reactor Building: as of 7:00 am on June 15, O.P. +4,530mm, 69mm decrease since 7:00 am, June 14
- With regard to Unit 2 and 3, blockage work to the extension of the pit and the pit whose flow path is not identified is underway.  
(Blockage work of pits where incidents similar to outflow ones occurred or whose closure would ensure flow routes was completed by June 10.)

<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 Location	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	6/14	9:30/13:50	ND/ND	0.72/0.47	0.46/0.34
Approx. 330m south to Discharge Canal of Units 1 to 4 of Fukushima Daiichi	6/14	9:15/13:35	ND/ND	0.47/0.67	0.43/0.53
Around the north Discharge Canal of Fukushima Daini (10km from Fukushima Daiichi)	6/14	6:55	ND	0.12	0.07
Around Iwasawa Seashore, Naraha Town (approx. 16km from Fukushima Daiichi)	6/14	7:55	ND	0.10	0.08
Approx. 30km offshore of Minamisoma City	6/14	7:15/7:15/7:15	ND/ND/ND	ND/ND/0.11	ND/ND/ND

Analyses Results Left: Upper Layer, Right: Lower Layer

All the data in the following nine locations (nineteen points in total where data were collected from upper and lower layers [3km/5km/15km offshore] and from upper, middle and lower layers [30 km offshore]) were below measurable limit

- Approx 3km offshore of Soma City/ approx. 5km offshore of Soma City/ approx. 5km offshore of Kashima, MinamiSoma City/ approx. 15 km offshore of Ukedogawa, Namie Town/ approx. 15km offshore of 1F site/ approx. 15km offshore of 2F site/ approx.15km offshore of Iwasawa Shore, Naraha Town/ approx. 15km offshore of Minamisoma City/ approx. 30 km offshore of Ukedogawa, Namie Town

<Water Injection and Spraying to Spent Fuel Pools>

Results	Unit 4	4:10 pm ~ 8:52 pm on June 14	Injected approx. 150 tons of freshwater and hydrazine by
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		concrete pump vehicle
Plan		No water injection or spray is planned

- From May 31, cooling using the circulating cooling system for Spent Fuel Pool, Unit 2 is underway.  
Spent fuel pool water temperature at 11:00 am on June 15: 32

<Water Injection to Reactor Pressure Vessels>

[Unit 1] Injecting freshwater (reactor feed water system: 4.5 m<sup>3</sup>/h):

At 11:00am, June 14, <Feed-water nozzle> 112.8

<Bottom of reactor pressure vessel>97.4

Water injection volume was changed to approx. 4.5m<sup>3</sup>/h from approx. 5.0 m<sup>3</sup>/h through reactor feed water system lines.

[Unit 2] Injecting freshwater (reactor feed water system:5.0m<sup>3</sup>/h)

At 11:00am, June 15, <Feed-water nozzle> 108.1

<Bottom of reactor pressure vessel> 106.9

[Unit 3] Injecting freshwater (reactor feed water system: 11.2-11.3 m<sup>3</sup>/h)

At 11:00am, June 15, <Feed-water nozzle> 141.8

<Bottom of reactor pressure vessel> 154.4

[Unit 4] Units 5] [Units 6] [Common spent fuel pool] No particular changes on parameters.

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

Injection of nitrogen gas

- Primary Containment Vessel pressure: 156.3 (1:20am, April 7) 133.2kPaabs, (2:00pm, June 15) approx. 45,700m<sup>3</sup>.

<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 dust inhibitor in the site of the power station. (On June 13, around Main Gate etc, 8,750m<sup>2</sup>, on June 14, around UHV Switching Station for Units 5 & 6 etc).
- 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 13, preparation work for installation of a cover for the reactor building of Unit 1.
- Since June 3, we have been carrying out restoration works of port related facilities
- Since June 7, we have been installing support structure into the bottom of fuel spent pool of reactor building of Unit 4.
- From June 11, we started the work to improve inside working environment of Unit 2 Reactor Building.  
At 12:39 pm, we opened air-lock double doors of Reactor Building.  
From 12:42 pm we started to operate an ambient air filtration system.
- From approx. 10:00 am on June 13, we started operation of the circulating seawater purification facility.
- On June 14, to inspect a condition of rubble to install a cover for the reactor building of Unit 1, we inspected the condition of the site by T-Hawk.
- On June 15 decontamination commissioning was conducted at the inside of the truck bay door.

- At approximately 11:05 am on June 16, we confirmed that one employee from a partner company was smoking without a full mask when he was assembling a crane at the shallow draft quay as preparation work for an installation of a cover for the reactor building of Unit 1. Each density of radioactive materials of particulate and iodine in the air at the site was below measurable limit.

Today as a result of dose evaluation for the employee internal exposure dose was 0.13 mSv and external exposure dose was 0.24 mSv.

END