

## Plant Status of Fukushima Daiichi Nuclear Power Station

August 2, 2011

Tokyo Electric Power Company

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

Status of highly concentrated accumulated radioactive water treatment facility and storage tank facility

#### [Treatment Facility]

- 6/17 20:00 Full operation started.
- 6/24 12:00 Treatment started at desalination facilities
- 6/27 16:20 Circulating injection cooling started.
- 7/2 18:00 We completed installing buffer tanks and resumed circulating injection cooling via buffer tanks.
- 7/24 11:57 Water desalinations were shut-downed due to annunciator alarmed with relation to sand filtration system.  
19:19 Water desalinations were restarted by switching to spare equipment. Water injection into reactors of Unit 1 to 3 were continued without interruption by feeding water from filtrate tank to buffer tank.
- 7/31 10:50 a leakage was detected between water desalination facility and primary storage tank of concentrated water of water desalination equipment along the transfer line.  
11:15 we stopped the transferring pumps. At 11:20 am, we stopped the water desalination facilities. After that, we closed the valves of the transfer line, confirming that the leakage stopped at 0:30 pm.  
15:02 After replacing the line material and checking the status of leakage, we started the water desalination facility again.
- 8/1 17:00 Water injection and water flow test of Cesium adsorption Instruments No.2 (SARRY) started.
- 8/2 10:00 Commissioning of desalination facility (evaporation method) started.

#### [Storage Facility]

From June 8, big tanks to store and 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 8/1 7:00 am)

Unit	Draining water source → Place transferred	Status
2u	2u Vertical Shaft of Trench → Process Main Building, Central Radioactive Waste Treatment Facility (4/19 ~ 5/26, 6/4 ~ 6/8, 6/8 ~ 6/16, 6/22 ~ 6/27, 6/27 ~ 7/7, 7/13 ~ 7/15, 7/16 ~ 7/21, 7/22 ~ 7/29, 7/30 16:10 ~ )	[Process Main Building] Water level: O.P.+5,337 mm 57 mm increase from 8/1 7:00 am) (Accumulated total increase : 6,554 mm)
3u	3u T/B → Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building) of Central Radioactive Waste Treatment Facility (5/17 ~ 5/25, 6/18 ~ 6/20) 3u T/B → Process Main Building of Central Radioactive Waste Treatment Facility (6/14 ~ 6/16, 6/21 ~ 6/27, 6/27 ~ 6/28, 6/30 ~ 7/9, 7/10 ~ 7/15, 7/16 10:50 am ~ 7/21 15:59, 7/22 ~ 7/29, 7/30 16:13 ~ )	[Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)] Water level: O.P.+3,424 mm (12 mm increase from 7/31 7:00 am) (Accumulated total increase: 4,150mm)
6u	6u Turbine Building → temporary tanks 5/1 ~ 6/22, 6/30 ~ 7/9, 7/11, 7/21 ~ 24, 7/26 ~ 31 as needed, 8/2 11:00 ~ 16:00 Temporary tanks Mega Float 6/30 ~ 7/5, 7/7 ~ 7/9, 7/11 ~ 16 and 7/27 ~ 28, 7/30 ~ 31 as needed, 8/2 10:00 ~ 17:00	-

- 7/30 11:04 ~ 8/2 5:45 We transferred from spent fuel common pool to the water desalinations tank for water treatment facility.
- 7/31 13:58 ~ 8/1 10:21 We transferred accumulated water at the Centralized Radiation Waste Treatment Facility (Miscellaneous Solid Waste Volume Reduction Treatment Building) to the Centralized Radiation Waste Treatment Facility (Process Main Building).

Water level at the vertical shaft of the trench and T/B (as of 7:00 am on August 2)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 8/1 7:00 am	O.P. +4,920mm, No change since 8/1 7:00 am
2u	O.P. +3,611mm (389mm), 10mm decrease since 8/1 7:00 am	O.P. +3,635mm, 3mm decrease since 7/31 7:00 am
3u	O.P. +3,748mm (252mm), 1mm decrease since 8/1 7:00 am	O.P. +3,589mm, 7mm increase since 7/31 7:00 am
4u	-	O.P. +3,604mm, 5mm decrease since 8/1 7:00 am

- Water level at Unit 1 R/B: 8/2 7:00 am, O.P. +4,777 mm, 7mm decrease since 8/1 7:00 am.

#### <Monitoring of Radioactive Materials>

##### Nuclide Analysis of Seawater (Reference)

Sampling Location	Date	Time	Ratio to Criteria (times)		
			Iodine-131	Cesium-134	Cesium-137
Iwasawa shore Fukushima Daini (approx. 16km from Fukushima Daiichi)	8/1	7:55 am	ND	ND	0.06

\* Samples collected at 3 points along the shores of Fukushima Prefecture, 6 points of offshore of Fukushima Prefecture, and 5 points offshore of Ibaraki Prefecture on August 1 were all below the detectable threshold.

#### <Cooling of Spent Fuel Pools>

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1u	Fuel Pool Cooling and Filtering System	No water injection plan on 8/2	-
2u	Circulating Cooling System	Operating from 5/31 5:21 pm	33.0 (8/2 11:00)
3u	Circulating Cooling System	Operating from 6/30 6:33 pm	30.1 (8/2 11:00)
4u	Circulating Cooling System	Operating from 7/31 10:08 pm	44 (8/2 11:00)*

\* 7/31 10:08 we started alternative cooling system for spent fuel pool of Unit 4, and implemented trial run.

\* 12:44 we conducted its performance assessment, and started the full-scale operation.

\*8/2 17:05 we started making up water of skimmer surge tank of Unit 4.

#### <Water Injection to Reactor Pressure Vessels> (at 11:00 am, 8/1)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel	Pressure of Primary Containment Vessel
1u	Injecting freshwater (approx. 3.8m <sup>3</sup> /h)	103.6	92.8	131.9kPaabs
2u	Injecting freshwater (approx. 3.8m <sup>3</sup> /h)	111.5	122.0	133kPaabs
3u	Injecting freshwater (approx. 9.0m <sup>3</sup> /h)	120.0	106.2	101.6kPaabs

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

- 8/1 17:56 water injection rate was adjusted to 3.9m<sup>3</sup>/h for unit 1 and 2.

#### <Others>

- 4/10 ~ Clearance of outdoor rubbles by remote control to improve working conditions.
- 6/3 ~ Restoration works of port related facilities has been under operation.
- 7/12~ Construction work of installing steel pipe sheet pile against water leakage in the water intake channel.
- 6/28 ~ Main construction work for installing the cover for the reactor building of Unit 1
- 8/2 11:00 ~ 11:30 Robot entered into reactor building for investigation.