

# Plant Status of Fukushima Daiichi Nuclear Power Station

July 3, 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]

- 6/17 20:00~ Full operation started.
- 6/24 12:00~ Water treatment started at water desalination facilities
- 6/27 16:20 Circulating injection cooling started with treated water in the water treatment facilities in addition to water injection from filtration tank in Units 1 to 3.
- 6/29 9:30 Leakage from the drain at the bottom of temporary storage tank for concentrated water of desalination facilities confirmed.  
 10:30 Leakage stopped by mounting a cap.  
 10:59 Pumps stopped to replace hoses at the outlet of water transfer pumps  
 13:33 After the replacement, circulating injection cooling resumed.  
 14:53 An alarm indicating leakage at On-Site Bunker Building was reported and the operation of water treatment facility stopped. At 18:45 we resumed the operation.  
 18:54 Radioactive material treatment facility (Cesium adsorption instrument and coagulation settling facility) stopped due to trouble of combined operation. 21:45 restarted.
- 6/30 9:00 We stopped desalination facility to treat condensed salt water in the treated water receipt tank.  
 14:36 Water treatment facility was stopped automatically. At 18:50 we resumed the operation after adjusting the settings of water level value in of Coagulation Setting Facility treated water tank.
- 7/1 7:27 We stopped cooling by circulated water and switched to cooling by injecting filtrate water only in order to install the tank for injection to the reactor (buffer tank).  
 15:52 We restarted the desalination facility after preparation of another tank for treated water.

※Water treatment was temporarily suspended for the flashing to change vessels during 13:00-14:00 on June 23, 10:00-12:50 on June 24, 10:00-15:00 on June 25, 10:00-18:10 on June 26, 10:06~12:24 on June 28, 10:45-14:13 on June 29, 10:46- 13:35 on June 30, 10:30- 13:45 on July 2 and 10:39- 12:50 on July 3.

### [Storage Facility]

June 8, big tanks to store and to 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 7/3 7:00)

Unit	Draining water source → Place transferred	Status
2u	2u Vertical Shaft of Trench → Process Main Building, Central Radioactive Waste Treatment Facility (4/19 10:08am~5/26 4:01pm, 6/4 6:39pm~6/8 2:20pm, 6/8 6:03pm~6/16 8:40am, 6/22 9:56am~6/27 9:02am, 6/27 5:07pm~ )	[Process Main Building] Water level: O.P.+4,834 mm (31 mm increase from 7/2 7:00) (Accumulated total increase : 6,051 mm)

3u	3u T/B → Miscellaneous Solid Waste Volume Reduction Treatment Building of Central Radioactive Waste Treatment Facility (5/17 18:04~5/25 9:10, 6/18 13:31~6/20 0:02) 3u T/B → Process Main Building of Central Radioactive Waste Treatment Facility (6/14 10:05~6/16 8:46, 6/21 15:32~, 6/27 15:44~6/28 9:58 and 6/30 8:56~)	[Miscellaneous Solid Waste Volume Reduction Treatment Building] Water level: O.P.+3,236m (20 mm increase from 7/2 7:00) (Accumulated total increase:3,962mm)
6u	6u Turbine Building → temporary tanks 5/1~6/22 as needed, 6/30 15:00~19:00, 7/1 10:00~7/3 16:00 Temporary tanks →Mega Float 6:30 13:00~19:00, 7/1 10:00~7/3 16:00	

Water level at the vertical shaft of the trench and T/B (as of 7:00 on July 3)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 7/2 7:00	O.P. +4,920mm, No change since 7/2 7:00
2u	O.P. +3,508mm (492mm), 30mm decrease since 7/2 7:00	O.P. +3,508mm, 27mm decrease since 7/2 7:00
3u	O.P. +3,828mm (172mm), 11mm decrease since 7/2 7:00m	O.P. +3,753mm, 15mm decrease since 7/2 7:00
4u	—	O.P. +3,759mm, 17mm decrease since 7/2 7:00

- Water level at Unit 1 R/B: 7/3 7:00, O.P. +4,442mm, 33mm decrease since 7/2 7:00.
- Unit 1-4: On June 29, the blockage to the extension of the pit as a countermeasure for polluted water leakage, and installation of sliding concrete plate to the intake channel were completed.
- In the previous information from 6/30 to 7/2, "Unit 2 and 3, blockage to the extension of the pit and the unidentified flow path is underway", was explained. However, this work was completed on June 29. I would like to make my apologies for the revision.

#### <Monitoring of Radioactive Materials>

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

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
30m north of 5 ~ 6u Discharge channel, Fukushima Daiichi	7/2	11:30	ND	0.57	0.41
330m south of 1 ~ 4u Discharge channel, Fukushima Daiichi	7/2	11:30	ND	ND	0.24

Discharge channel, Fukushima Daini (about 10 km from Fukushima Daiichi)	7/2	8:00	ND	0.12	0.07
Iwasawa coast of Naraha Town (about 16 km from Fukushima Daiichi)	7/2	7:40	ND	ND	0.07

<Water Injection and Spraying to Spent Fuel Pools>

- 5/31~, circulating cooling system for 2u Spent Fuel Pool is in service. Pool water temperature at 11:00, July 3 was 34 .
- 6/30 ~ , commissioning of 3u Spent Fuel Pool Circulating Cooling System is in service. Pool water temperature at 11:00, July 3 was 34 .
- 7/3, water injection to spent fuel pools of Unit 1-4 is not planned.

<Water Injection to Reactor Pressure Vessels> (as at 7/3 11:00)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 3.7m <sup>3</sup> /h) *	117.6°C	102.2°C
2u	Injecting freshwater (approx. 3.6m <sup>3</sup> /h)	112.9°C	122.9°C
3u	Injecting freshwater (approx. 9.0m <sup>3</sup> /h)	146.4°C*	122.8°C

**【Units 5】**

- At about 6:55, 7/3, a seawater leakage was found in the water pipe (exit side) of one pump, installed in the outside temporary seawater cooling system (total 2 pumps are installed). This pump was stopped at 10:00, the RHR system was stopped at 10:15, and the other pump was stopped at 10:20. And then the leaking pipe was changed. After that, 2 pumps of the cooling system were restarted at 13:36 and the RHR system was also restarted at 13:40.

**【Unit 4】【Units 6】【Common spent fuel pool】** No particular changes on parameters.

<Injection of Nitrogen Gas into the Primary Containment Vessel of Unit 1> \* Accumulated volume of nitrogen gas is an estimated value.

- Primary Containment Vessel pressure of Unit 1: 156.3 kPaabs (4/7 1:20) → 142.5 kPaabs, (7/3 11:00) approx. 57,600m<sup>3</sup>.
- Primary Containment Vessel pressure of Unit 2: 5 kPaabs (6/28 19:00) → 25 kPaabs, (7/3 11:00) approx. 1,500m<sup>3</sup>.

<Others>

- 4/10 ~ Clearance of outdoor rubbles by a remote control to improve working conditions.
- 5/10 ~ Clearing of rubbles in and around Unit 3 reactor building etc using robots.
- 6/3~ Restoration works of port related facilities carried out.
- 6/7~6/20 Installation of support structure into the bottom of fuel spent pool of reactor building of Unit 4.
- 6/21~ Concrete filling and grout started.
- 6/25 Airflow survey was conducted near the airlock and the large equipment carry-in entrance, reactor buildings, Units 1&2.
- 6/28 Injection water into the reactor well of reactor building of Unit 4
- 6/28~ Main construction work for installing the cover for the reactor building of Unit 1 started.

- 6/30 Construction of temporary tide embankment completed.
- 7/1 Cleaning by a robot to reduce the radioactive level in the 1st floor of the reactor building of Unit 3
- 7/2 Measurement of radiation by a robot in the 1st floor of the reactor building of Unit 3
- 7/3 Under construction for installation of steel plates in the 1st floor of the reactor building of Unit 3

END