

Plant Status of Fukushima Daiichi Nuclear Power Station

June 29, 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.
- 6/23 0:43 ~ Passing water test started at water treatment facilities with high radiation water
- 6/24 12:00 ~ Water treatment started at water desalination facilities
- 6/27 16:20 We started circulating injection cooling with treated water in the water treatment facilities in addition to water injection from filtration tank in Unit 1 to 3.
- 17:55 We stopped supplying treatment water because we found water leakage in pipes that connect treatment water tank with reactor injection pumps.
- 6/28 15:55 Resuming circulating injection cooling after fixing pipes.
- 6/29 9:30 We confirmed leakage from the drain at the bottom of temporary storage tank for concentrated water of desalination facilities.
- 10:30 We stopped the leakage by mounting a cap.
- 10:50 We stopped the pumps to replace hoses at the outlet of water transfer pumps
- 13:33 After the replacement, we resumed circulating injection cooling.
- 14:53 An alarm indicating leakage at On-Site Bunker Building was reported and we stopped the operation of water treatment facility.

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 and 10:06~12:24 on June 28.

[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 6/29 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.+4,772 mm (103 mm decrease from 6/28 7:00am) (Accumulated total increase :
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	5,989 mm) [Miscellaneous Solid Waste Volume Reduction Treatment Building]

	Treatment Facility (6/14 10:05am ~ 6/16 8:46am, 6/21 3:32pm ~ , 6/27 3:44pm~ and 6/27 5:00pm~6/28 9:58pm)	Water level: O.P.+3,155m (20 mm increase from 6/28 7:00am) (Accumulated total increase:3,881mm)
6u	6u Turbine Building → temporary tanks (5/1 ~ 6/22 on demand basis)	

Water level at the vertical shaft of the trench and T/B (as of 6/28 7:00)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 6/28 7:00am	O.P. +4,920mm, No change since 6/28 7:00am
2u	O.P. +3,632mm (368mm), 21mm decrease since 6/28 7:00am	O.P. +3,628mm, 20mm decrease since 6/28 7:00am
3u	O.P. +3,831mm (169mm), 11mm increase since 6/28 7:00am	O.P. +3,782mm 38mm increase since 6/28 7:00am
4u	-	O.P. +3,777mm, 2mm increase since 6/28 7:00am

- Water level at Unit 1 R/B: 6/29 7:00am, O.P. +4,539mm, 8mm decrease since 6/28 7:00am.
- Unit 2 and 3, blockage to the extension of the pit and the unidentified flow path is underway.
(Blockage work of pits similar to outflow event or whose closure would ensure flow routes completed by 6/10)

<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 Canal, Fukushima Daiichi	6/28	9:40 am	ND/ND	0.72	0.50
330m south of 1 ~ 4u Discharge Canal, Fukushima Daiichi	6/28	9:15 am	ND/ND	0.43	0.31
Around north water discharge channel, Fukushima Daini (10km from Fukushima Daiichi)	6/28	8:35 am	ND	0.10	0.07
Iwasawa shore, Naraha town (16km from Fukushima Daiichi)	6/28	8:10 am	ND	0.14	0.05

All the data of the following 9 locations (20 points in total: 3, 8 am 15km offshore (upper and lower layer) and 30km offshore (upper, middle and lower layer) collected on June 28) are below the detection limit.

- Soma city: 3 and 5 km offshore,
- Kashima shore, Minami-soma City: 5km offshore
- Namie-machi, Ukedogawa: 15 and 30 km offshore
- Fukushima Daiichi: 15 km offshore
- Fukushima Daini: 15 km offshore
- Minami-soma City: 15 and 30 km offshore

<Water Injection and Spraying to Spent Fuel Pools>

Results	-	No results
Plans	Unit 3	From 2:45 pm to 3:53 pm: injection of fresh water from fuel pool cooling and filtering system..
	Unit 4	From 11:47 am to 12:01 pm: spraying water using alternate water spraying facilities.

- 5/31 ~ , circulating cooling system for 2u Spent Fuel Pool is in service. Pool water temperature at 11:00 am, June 29: was 34 .

<Water Injection to Reactor Pressure Vessels> (as at 6/29 11:00)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel
1u	Injecting freshwater (approx. 361m ³ /h) *	116.5	101.2
2u	Injecting freshwater (approx. 3.5m ³ /h)	111.9	124.9
3u	Injecting freshwater (approx. 9.1 ~ 9.2m ³ /h)	155.4 *	128.4

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

<Injection of Nitrogen Gas into the Primary Containment Vessel of Unit 1>

- Primary Containment Vessel pressure: 156.3 (4/7 1:20am) → 138.3 kPaabs, (6/29 11:00pm) approx. 54,900m³.

<Others>

- 4/10 ~ Clearance of outdoor rubbles by a remote control to improve working conditions.
- 4/26 ~ Spraying dust inhibitor in the site of the power station. (on 6/28, approx. 541 m2 around the filtrating tanks: Planned spraying was completed.)
- 5/10 ~ Clearing of rubbles in front of carry-in gate for large stuff of reactor building of Unit 3 by 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, R/B, Units 1&2.
- 6/27 ~ Following the completion of Okuma line 2 stoppage work (June 20 to 26) in order to conduct repair of Unit 1 and 2 switching station, the internal power line switch is being conducted.
- 6/27 Operating an emergency diesel generator of Unit 5 (5A) on trial, and operate practically.
- 6/28 Operating an emergency diesel generator of Unit 5 (5B) on trial, and operate practically.
- 6/28 Injection water into the reactor well of reactor building of Unit 4
- 6/28 Construction of the main body of the building for installing the cover for the reactor building of Unit 1 began.
- 6/28 Injection of nitrogen gas into the Primary Containment Vessel of Unit 2 began.
- 6/29 From 10:44 am to 11:30 am, heavy oil tanks were removed using crawler cranes.

END