# Plant Status of Fukushima Daiichi Nuclear Power Station

August 31, 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]

0/47	20.00	ı Full amanatian atantad
- 6/17		Full operation started.
- 6/24	12:00	Treatment started at desalination facilities
- 6/27	16:20	Circulating injection cooling started.
- 8/7	16:11	Evaporative Concentration Facility, which was additionally installed to Water Treatment Facility to produce fresh water from concentrated seawater generated at Water Desalination Facility, has started full operation.
- 8/18	14:43	We started operation of the water treatment facility.
		(We started treatment of accumulated water at series operation including highly concentrated radioactive materials by cesium adsorption Instrument, 2 <sup>nd</sup> cesium adsorption Instrument and decontamination instrument)
	15:50	We confirmed flow rate reached normal level ,water treatment facility operated stably and operation status had no problem)
- 8/19	19:33	We activated second cesium adsorption facility (System B) and started parallel operation. At 19:41, the flow rate achieved steady state.
- 8/29	7:00	We stopped the operation of the desalination facilities (1B) in order to change filters.
- 8/30		In order to modify the software, we stopped the following desalination facilities
	32 ~ 16:34	evaporative concentration apparatus 2A
4:16 ~ 15:44		evaporative concentration apparatus 2B
		desalination facility (RO) (1A)
7:09 ~ 12:28		desalination facility (RO) (2)
7:1	16 ~ 12:42	accamination racinity (i.e.) (2)
- 8/31	14:00	We started full operation of three evaporative concentration apparatuses which we had additionally installed and conducted commissioning of.

## [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

Unit	Draining water source → Place transferred	Status
	$\cdot$ 2u Vertical Shaft of Trench $\rightarrow$ Central Radioactive Waste Treatment Facility [Process Mail Building)]	·8/30 9:39 ~ Transferring
2u	·2u Vertical Shaft of Trench Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	·8/25 10:03 ~ 8/30 9:31 Transferred
	·3u T/B → Central Radioactive Waste Treatment Facility [Process Main Building]	·8/23 16:15 ~ Transferring is in operation
3u	·3u T/B → Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building)]	
6u	·6u Turbine Building → temporary tanks	·8/29 10:00 ~ 16:00 Transferred

Transfer to:	Status of Water Level (as of 7:00 on 8/30)
Process Main Building	Water level: O.P.+ 5,011 mm (Accumulated total increase: 6,228mm) 69 mm decrease from 8/30 7:00
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,714 mm (Accumulated total decrease: 3,440mm) 63 mm decrease from 8/30 7:00

Water level at the vertical shaft of the trench and T/B (as of 8/31 7:00)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 8/30 7:00	O.P. +4,920mm, No change since 8/30 7:00
2u	O.P. +3,385mm (615mm), 48mm decrease since 8/30	O.P. +3,417mm, 44mm decrease since 8/30
	7:00	7:00
3u	O.P. +3,426mm (574mm), 28mm decrease since 8/30	O.P. +3,234mm, 7mm increase since 8/30
	7:00	7:00
4u		O.P. +3,311mm, 20mm decrease since 8/30
	-	7:00

Water level at Unit 1 R/B: 8/31 7:00, O.P. +4,750 mm, 17mm decrease since 8/30 7:00.

### <Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

Sampling Location	Date	Time	Ratio to Criteria (times)		
Sampling Location			lodine-131	Cesium-134	Cesium-137
Approx. 30m North from Discharge Channel of 5-6u of 1F	8/30	10:25	ND	ND	0.27

<sup>·</sup> As for the samples collected at 3 points at shore and 10 points offshore of Fukushima Prefecture on August 30, main three nuclides (lodine-131, Cesium-134 and Cssium-137) were all ND (not detected.)

<Cooling of Spent Fuel Pools> (as of 8/31 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1u	Circulating Cooling System	Operating from 8/10 11:22	30.0
2u	Circulating Cooling System	Operating from 5/31 17:21	34.0
3u	Circulating Cooling System	Operating from 6/30 18:33	32.0
4u	Circulating Cooling System	Operating from 7/31 10:08	40

<sup>[</sup>Unit 4] 8/20 ~ We started operation of desalinating facility of the spent fuel pool.

<u><Water Injection to Pressure Containment Vessels></u> (as of 8/31 11:00)

Unit	Status of injecting water	Temp. of feed-water nozzle	Bottom of reactor pressure vessel	Pressure of Primary Containment Vessel
1u	Injecting freshwater (approx. 3.6m³/h)	92.2	87.4	125.9kPaabs
2u	Injecting freshwater (approx. 3.8m³/h)	106.9	113.5	115kPaabs
3u	Injecting freshwater (approx. 7.0m³/h)	118.6	109.2	101.5kPaabs

<sup>• 8/30 18:56 ~</sup> As we confirmed that the rate of water injection to the reactor of Unit 2 dropped, we adjusted the rate to approx. 3.8m<sup>3</sup>/h.

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

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- 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
- 8/10	Started setting up iron framework of the cover for the reactor building of Unit 1
- 8/23	We confirmed minute amount of water leakage from the hose of primary system of alternative cooling facility for Unit 4 Spent Fuel Pool. We are continuing cooling the Spent Fuel Pool.
- 8/28	We conducted dust sampling at the upper part (apertural area) of reactor building of Unit 1
- 8/29	We conducted dust sampling at the apertural area (blow-out panel) of reactor building of Unit 2