Plant Status of Fukushima Daiichi Nuclear Power Station

September 15, 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]

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- 6/17	20:00	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 has started full operation.
- 8/19	19:33	We activated second cesium adsorption facility (System B) and started the treatment of accumulated water by the parallel operation of cesium adsorption instrument and decontamination instrument. At 19:41, the flow rate achieved steady state.
- 9/12	10:06	Waste liquid discharge pump (B) in the suppression pool water surge-tank (SPT) stopped.
	11:23	We started SPT waste liquid discharge pump (A). After that, we checked the soundness of SPT waste liquid discharge pump (B) and at 11:53 am, restarted SPT waste liquid discharge pump (B) and stopped SPT waste liquid discharge pump (A).
- 9/13	3:58	In order to maintain the water treatment facility, we stopped the cesium adsorption instrument and the decontamination instrument.
- 9/14	18:16	After the completion of the maintenance work, we restarted the cesium adsorption instrument and the decontamination instrument, and at 19:20 the rated flow was achieved.

[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 \rightarrow Place transferred	Status	
2u	·2u Vertical Shaft of Trench \rightarrow Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building]		
3u	\cdot 3u T/B \rightarrow Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building(High Temperature Incinerator Building]		
	· 3u T/B Central Radioactive Waste Treatment Facility [Process Main Building]	·9/15 9:54 ~ Transferring	
6u	$^{\circ}$ 6u T/B \rightarrow temporary tanks	·9/15 10:00 ~ 16:00 Transferred	

Transfer to:	Status of Water Level (as of 7:00 on 9/15)	
Process Main Building	Water level: O.P.+ 4,934mm (Accumulated total increase: 6,151mm) 103 mm decrease from 9/14 7:00	
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,189mm (Accumulated total increase: 2,915mm 282 mm increase from 9/14 7:00	

Water level at the vertical shaft of the trench and T/B (as of 9/15 7:00)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 9/14 7:00	O.P. +4,920mm, No change since 9/14 7:00
2u	O.P. +2,807mm (1,193mm), 19mm decrease since 9/14	O.P. +2,862mm, 17mm decrease since 9/14
	7:00	7:00
3u	O.P. +3,173mm (827mm), 16mm decrease since 9/14	O.P. +2,970mm, 16mm decrease since 9/14
	7:00	7:00
4u		O.P. +3,014mm, 19mm decrease since 9/14
	-	7:00

• Water level at Unit 1 R/B: 9/15 7:00*, O.P. +4,611 mm, 50 mm increase since 9/14 7:00.

- Water level at Unit 3 R/B: 9/15 7:00, O.P. +3,035 mm, 12mm decrease since 9/14 7:00.
- 9/14 9:53 ~ We started transferring the accumulated water from the condenser of Unit 1 to the basement of T/B of Unit 1.

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

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Place of sampling	Date of	Time of	Ratio of density limit (times)		
Flace of sampling	sampling	sampling	I-131	Cs-134	Cs-137
Approx. 30m North of Discharge Channel of 5-6U of 1F	9/14	10:10	ND	0.11	0.11

*Results of nuclide analysis of seawater, sampled on September 14 at 3 points around the coastal area and 6 points offshore of Fukushima Pref. are all ND for the 3 major nuclides (iodine-131, cesium-134 and cesium-137).

<Cooling of Spent Fuel Pools> (as of 9/14 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1u	Circulating Cooling System	Operating from 8/10 11:22	30.5
2u	Circulating Cooling System	Operating from 5/31 17:21	34.0
3u	Circulating Cooling System	Operating from 6/30 18:33	32.8
4u	Circulating Cooling System	Operating from 7/31 10:08	41

[Unit 4] $8/20 \sim$ We started operation of desalinating facility of the spent fuel pool.

[Common pool] 9/14 11:08- we stopped the operation of cooling facilities for common pool because the common pool power center will be moved with the replace of power panel located at the basement of the spent fuel common pool's building.

<Water Injection to Pressure Containment Vessels> (as of 9/15 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. 3.6m ³ /h)	90.0	84.9	124.5 kPaabs
2u	Injecting freshwater (Feed Water System: approx. 4.1m³/h CS System: approx. 1.0 m³/h)	106.8	115.3	120 kPaabs
3u	Injecting freshwater (Feed Water System: approx. 3.9m³/h CS System: approx. 2.9 m³/h)	105.8	103.0	101.5 kPaabs

[Unit 2] 9/15 15:45 We adjusted the amount of water injection to the reactor through core spray system from 1.0 m^{3}/h to 2.0 m^{3}/h .

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

- <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. Main construction work for installing the cover for the reactor building of Unit 1 - 6/28 ~ Implemented setting up iron framework of the cover for the reactor building of Unit 1 - 8/10 ~ 9/9 Installment of wall panel for cover of reactor building of Unit1 started. - 9/10 - 9/14 9:15–12:20 Gas sampling inside the Primary Containment Vessel of Unit 1 was implemented. - 9/14 At approximately 4:00 pm, a TEPCO employee who returned from the patrol on the generators of Unit 1 – 4 (outdoors) to Visitors Hall of Fukushima Daini Nuclear Power Station got decontaminated since contamination at his chin and neck was detected. Then as a result of the measurement by whole body counter, we have confirmed that no radioactive materials were taken in. At approximately 8:18 am, we found a partner company worker unequipped with a charcoal - 9/15 filter to the full-faced mask after the worker entered the site of Fukushima Daiichi Nuclear Power Station. Then, as a result of the measurement by whole body counter, we have
- confirmed that the worker did not take in any radioactive materials.
- At 2:33 pm we started cooling the reactor and the spent fuel pool of Unit 6 through Residual - 9/15

Heat Removal System and Fuel Pool Cooling System respectively.