

Plant Status of Fukushima Daiichi Nuclear Power Station

August 20, 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.
- 8/1 17:00 Water injection and water flow test of Cesium adsorption Instruments No.2 (SARRY) 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.
- 8/16 12:04 We stopped the operation of the water treatment facility and started the test operation of Cesium adsorption Instruments No.2.
- 8/17 10:40 Water leakage from mechanical seal on Concentrated Water Transfer Pump for Evaporative Concentration Apparatus was found and the pump was manually stopped. Water injection to Desalination System, Evaporative Concentration Apparatus and Reactor is continued.
- 8/19 9:43 Concentrated Water Transfer Pump for Evaporative Concentration Apparatus was started again, and at 12:00 noon we confirmed that operation status had no problem.
- 14:43 We started the operation of the water treatment facility.
(We started treatment of accumulated water at series operation including highly concentrated radioactive materials by cesium adsorption Instrument, 2nd 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 14:00 We stopped operation of Water Treatment Facility in order to transition to parallel operation of the line from cesium adsorption instrument to decontamination instrument and the line of 2nd cesium adsorption instrument.
- 15:44 We started operation of the line from cesium adsorption instrument to decontamination instrument of Water Treatment Facility. At 15:54 the flow rate achieved steady state.
- 19:33 We activated second cesium adsorption facility (System B) and started parallel operation. At 19:41, the flow rate achieved steady state.

[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
2u	·2u Vertical Shaft of Trench → Central Radioactive Waste Treatment Facility [Process Main Building]	·8/18 16:19 ~ Transferring is in operation
3u	·3u T/B → Central Radioactive Waste Treatment Facility [Process Main Building]	·8/19 8:51 ~ Transferring is in operation
6u	·6u Turbine Building → temporary tanks	·8/20 No transfer
	·Temporary tanks →Mega Float	·8/20 No transfer

Transfer to:	Status of Water Level (as of 7:00 on 8/20)
Process Main Building	Water level: O.P.+ 5,229mm (Accumulated total increase: 6,446mm) 15mm increase from 8/19 7:00
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 3,340mm (Accumulated total increase: 4,066mm) 267 mm decrease from 8/19 7:00

Water level at the vertical shaft of the trench and T/B (as of 8/20 7:00)

	Vertical Shaft of Trench (from top of grating to surface)	T/B
1u	O.P. <+850mm (>3,150mm), No change since 8/19 7:00	O.P. +4,920mm, No change since 8/19 7:00
2u	O.P. +3,577mm (423mm), 11mm decrease since 8/19 7:00	O.P. +3,593mm, 13mm decrease since 8/19 7:00
3u	O.P. +3,680mm (320mm), 1mm increase since 8/19 7:00	O.P. +3,578mm, 15mm decrease since 8/19 7:00
4u	-	O.P. +3,584mm, 5mm increase since 8/19 7:00

- Water level at Unit 1 R/B: 8/20 7:00, O.P. +4,605 mm, 78mm increase since 8/19 7:00.

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

Sampling Location	Date	Time	Ratio to Criteria (times)		
			Iodine-131	Cesium-134	Cesium-137
Approx. 330m South from Discharge Channel of 1-4u of 1F	8/19	10:30	ND	0.80	0.74

- 3 main nuclide were not detected from 3 points along the coast and 1 point offshore of Fukushima Prefecture where we sampled sea water.

<Cooling of Spent Fuel Pools> (as of 8/20 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
1u	Circulating Cooling System	Operating from 8/10 11:22	32.0
2u	Circulating Cooling System	Operating from 5/31 17:21	36.0
3u	Circulating Cooling System	Operating from 6/30 18:33	32.8
4u	Circulating Cooling System	Operating from 7/31 10:08 ¹	42.0

<Water Injection to Pressure Containment Vessels> (as of 8/20 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)	97.9	90.4	127.3kPaabs
2u	Injecting freshwater (approx. 3.7m ³ /h)	107.4	113.0	117kPaabs
3u	Injecting freshwater (approx. 8.0m ³ /h)	108.0	103.9	101.5kPaabs

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

- 8/20 13:00 We adjusted the rate of water injection of Unit 3 from 8m³/h to 7m³/h.

<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
- 8/10 Started setting up iron framework of the cover for the reactor building of Unit 1
- 8/19 We implemented sampling of spent fuel pool water of Unit 1 to 3
- 8/20 We started sampling water in Spent fuel Pool of Unit 4.
We started trial operation of desalting facility for Unit 4 spent fuel pool at 10:24, and after confirmed no-problems, we started full scale operation at 11:34..

END