November 30, 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 of radioactive material removal instruments started.

・6/24 12:00 Start of desalination facilities operation

・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.

[Storage Facility]

・6/8～ 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
Unit 2	・Unit 2T/B→Central Radioactive Waste Treatment Facility [Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)]	・11/10 9:10 – 11/30 8:59 Transferred
Unit 3	・Unit 3T/B→Central Radioactive Waste Treatment Facility [Process Main Building]	・9:25 on November 15 - Transferring
Unit 6	・Unit 6T/B→Temporary tanks	・No Transferring Planed

Place transferred	Status of Water Level (As of November 30 at 7:00)
Process Main Building	Water level: O.P.+ 2,207 mm(Accumulated total increase:3,424 mm) 39mm increase since 7:00 on November 29
Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)	Water level: O.P.+ 2,025 mm(Accumulated total increase:2,751 mm) 101mm decrease since 7:00 on November 29

◇Water level of the vertical shaft of the trench, T/B and R/B(As of November 30 at 7:00)

	Vertical Shaft of Trench	T/B	R/B
Unit 1	O.P. <+ 850 mm (No change since 7:00 on November 29)	O.P.+ 3,352 mm (31mm increase since 7:00 on November 29)	O.P.+ 4,019 mm (25mm decrease since 7:00 on November 29)
Unit 2	O.P.+ 2,980 mm (24mm decrease since 7:00 on November 29)	O.P.+ 2,992 mm (23mm decrease since 7:00 on November 29)	O.P.+ 3,110 mm (21mm decrease since 7:00 on November 29)
Unit 3	O.P.+ 3,223 mm (13mm decrease since 7:00 on November 29)	O.P.+ 2,970 mm (14mm decrease since 7:00 on November 29)	O.P.+ 3,184 mm (13mm decrease since 7:00 on November 29)
Unit 4	－	O.P.+ 3,000 mm (12mm decrease since 7:00 on November 29)	O.P.+ 3,020 mm (5mm increase since 7:00 on November 29)

<Monitoring of Radioactive Materials>

Nuclide Analysis of Seawater (Reference)

Place of sampling	Date of sampling	Time of sampling	Ratio of density limit (times)		
			I-131	Cs-134	Cs-137
Approx. 30m North of Discharge Channel of 5-6U, 1F	11/29	8:55	ND	0.06	0.05
Approx. 330m South of Discharge Channel of 1-4U, 1F	11/29	8:20	ND	ND	0.02

・The major three nuclides (Iodine-131, cesium-134, 137) were not detected in the samples taken at 2 coast points of Fukushima Daiichi on Nov 29, 11 offshore points of Fukushima Daiichi on Nov 28 and 5 points sampled by unmanned survey ship on Nov 28.

<Cooling of Spent Fuel Pools >(As of November 30 at 11:00)

Unit	Cooling type	Status of cooling	Temperature of water in Pool
Unit 1	Circulating Cooling System	Under operation(11:22 on August 10 -)	17.5 ℃
Unit 2	Circulating Cooling System	Under operation(17:21 on May 31 -)	23 ℃
Unit 3	Circulating Cooling System	Under operation(18:33 on June 30 -)	20.5 ℃
Unit 4	Circulating Cooling System	Under operation(10:08 on July 31 -)	28 ℃

【Unit 2】・ 11/6～ We started operation of radioactive material decontamination instrument of spent fuel pool.

・ 11/30 13:26～15:04 we injected hydrazine (Approx. 2m^3).

【Unit 4】・ 11/29 10:58 in order to lower the salt density of the Spent Fuel Pools we fully activated the newly introduced ion exchanging device.

<Water Injection to Pressure Containment Vessels >(As of November 30 at 11:00)

Unit	Status of injecting water	Feed-water nozzle Temp.	Reactor pressure vessel Bottom temp.	Pressure of primary containment vessel
Unit 1	Injecting freshwater (Feed Water System: Approx.4.3 m^3/h)	44.3℃	45.5℃	116.4 kPaabs※
Unit 2	Injecting freshwater (Feed Water System: Approx.3.1 m^3/h, Core Spray System: Approx.4.3m^3/h)	71.2℃	76.7℃	111 kPaabs
Unit 3	Injecting freshwater (Feed Water System: Approx.2.1 m^3/h, Core Spray System: Approx.6.0 m^3/h)	60.1℃	68.2℃	101.5 kPaabs

*We found out that there were errors in the figures of the pressure of the Primary Containment Vessel (PCV) of Unit 1 from 5:00pm of 11 May to 5 am of 29 November due to an error in the calculating formula (from 5:00pm of 11 May to 5 am of 28 October) and lack of required correction after switching the data recorder to a digital recorder (from 11:00am of 28 October to 5 am of 29 November). Correct formula is adopted for the figures from 11 am of 29 November.

【Unit 1】11/29 9:55 Due to installation works of the nitrogen injection line to the Reactor Pressure Vessel we suspended the operation of the nitrogen injection device.

11:05 Installation completed and operation of the nitrogen injection device restarted.

11:30 Reached fixed amount of 28Nm^3/h

11/30 11:40 Due to installation works of the nitrogen injection line to the Reactor Pressure Vessel we suspended the operation of the nitrogen injection device.

12:20 Installation completed and operation of the nitrogen injection device restarted.

12:23 Reached fixed amount of 28Nm^3/h

16:04 Started nitrogen injection to the Reactor Pressure Vessel

16:08 Injection amount of nitrogen reached to 5Nm^3/h (Injection amount of nitrogen injection line of reactor containment vessel side had no change from 28 Nm^3/h)

【Unit 2】11/29 13:47 Due to installation works of the nitrogen injection line to the Reactor Pressure Vessel we suspended the operation of the nitrogen injection device.

14:21 Installation completed and operation of the nitrogen injection device restarted.

14:37 Reached fixed amount of 26Nm^3/h

11/30 13:45 Started nitrogen injection to the Reactor Pressure Vessel.

14:47 As we confirmed nitrogen injection had not increased, we resumed the operation. The cause is under investigation.

[Unit 3] 11/30 11:33 Due to installation works of the nitrogen injection line to the Reactor Pressure Vessel we suspended the operation of the nitrogen injection device.

13:07 Installation completed and operation of the nitrogen injection device restarted.

13:20 Reached fixed amount of 28Nm^3/h

16:26 Started nitrogen injection to the Reactor Pressure Vessel

16:40 Injection amount of nitrogen reached to 5Nm^3/h (Injection amount of nitrogen injection line of reactor containment vessel side had no change from 28 Nm^3/h)

[Unit 4] [Unit 5] [Unit 6] No particular changes in parameters.

<Others>

- 10/7~ Continuously implementing water spray using water after purifying accumulated water of Unit 5 and Unit 6 to prevent spontaneous fire of trimmed trees and diffusion of dust.
- 11/29 Sampling survey of gas at the gas management system of Unit 2 primary containment vessel was implemented. As a result of the analysis, we regarded the situation was not erratically because the radioactive density at the gas management system of Unit 2 primary containment vessel was under ND (1.1×10^{-1}Bq/cm^3), the criteria of erratically is 1 Bq/cc. Regarding Xe-135, its radioactive density was detected by charcoal filter* (we regarded spontaneous fission). According to the Report with regard to “Policy on the mid term security” for the Units 1 to 4 of Fukushima Daiichi Nuclear Power Station to Nuclear and Industrial Safety Agency at the Ministry of Economy, Trade and Industry (1) (revision) (for public on November 9), the situation of erratically therefore should be regarded by the sampling survey of gas at the gas management system of Unit 2 primary containment vessel by vial.
  * Detection Limit Charcoal filter: 10^{-6} level, Vial: 10^{-1} level
- 11/30 9:00-12:30 Conducted dust sampling above the reactor building of Unit 3 with a large crane.
- 11/30 10:00-10:30 Conducted dust sampling by a robot near the equipment hatch of ground floor, reactor building unit 3.

End