Plant Status of Fukushima Daiichi Nuclear Power Station

March 21, 2012
Tokyo Electric Power Company

<1. Status of the Nuclear Reactor and the Primary Containment Vessel> (As of March 21 at 11:00 am)

Unit	Status of Water injection		Bottom temp. of Reactor pressure vessel	Pressure of primary containment vessel*	Hydrogen density of Primary containment vessel
Unit 1	Injecting Fresh water	Core Spray System: Approx.1.5 m^3/h Feed Water System: Approx.4.7 m^3/h	23.7 ˚C	106.6 kPa abs	A system: 0.00 vol% B system: 0.00 vol%
Unit 2	Injecting Fresh water	Core Spray System: Approx.6.0 m^3/h Feed Water System: Approx.2.9 m^3/h	44.2˚C	16.71 kPa g	A system: 0.17 vol% B system: 0.18 vol%
Unit 3	Injecting Fresh water	Core Spray System: Approx.4.9 m^3/h Feed Water System: Approx.1.9 m^3/h	53.7 ˚C	0.30 kPa g	A system: 0.19 vol% B system: 0.20vol%

* absolute pressure(kPa abs) = gauge pressure (kPa g) + atmosphere pressure (normal atmosphere pressure 101.3 kPa).

【Unit 1】 - At 8:52pm on March 16, regarding the atmospheric temperature in the reactor containment vessel, some of the thermometers show a rising tendency and thus we changed the amount of nitrogen injection into the reactor containment vessel from approx. 18m^3/h to approx. 23m^3/h.

【Unit 2】 At 10:33am on March 19, to prepare for the inspection inside the PCV, we reduced the flow of nitrogen gas to PCV from approx. 10m^3/h to approx. 5m^3/h. (no flow changes of nitrogen gas to RPV)

2. Status of the Spent Fuel Pool> (As of March 21 at 11:00 am)

Unit	Cooling type	Status of cooling	Temperature of water in Spent Fuel Pool
Unit 1	Circulating Cooling System	Under operation*1	20.0 ˚C
Unit 2	Circulating Cooling System	Under operation	14.3 ˚C
Unit 3	Circulating Cooling System	Under operation	19.7 ˚C
Unit 4	Circulating Cooling System	Out of service	30.0 ˚C*2

*1: System secondary air fin cooler: in-service at 1:32 pm on March 19

*2: The closest available data (at 5:00 am on March 21) is shown due to data loss caused by stop of cooling system of the spent fuel pool.

【Unit 2】

- Desalination equipment has been activated in order to reduce density of salt from the spent fuel pool since 11:50 am on January 19.

【Unit 3】

- From 9:38am on March 18 to 1:01 pm on March 20, the cooling system of the spent fuel pool was temporarily suspended in order to implement the disassemble inspection of valve in the primary coolant system. (Temperature of the pool during the suspension: approx. 15.0˚C, Temperature of the pool during reactivation: approx. 21.2˚C).

【Unit 4】

- From 9:58am to 1:44pm on March 20, the cooling system of the spent fuel pool was temporarily suspended in order to survey inside the pool. (Temperature of the pool during the suspension: approx. 32.0˚C, Temperature of the pool during reactivation: approx. 31.0˚C).
- From 9:46am to 12:01pm on March 20, the cooling system of the spent fuel pool was temporarily suspended in order to survey inside the pool. (Temperature of the pool during the suspension: approx. 28.0˚C, Temperature of the pool during reactivation: approx. 28.0˚C).

<3. Status of Water Transfer from the Basement Floor of the Turbine Building etc.>

Unit	Draining water source	→	Place transferred	Status
Unit 1	Unit 1 T/B	→	Unit 2 T/B	From 9:37am on March 20 to 9:48 am on March 21: Transferred
Unit 2	Unit 2 T/B	→	Central Radioactive Waste Treatment Facility ［Process Main Building ］	From 10:13am on March 18 to 9:48 am on March 20: Transferred
	Unit 2 T/B	→	Central Radioactive Waste Treatment Facility ［Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)］	From 10:14am on March 20: Transferring
Unit 3	Unit 3 T/B	→	Central Radioactive Waste Treatment Facility ［Miscellaneous Solid Waste Volume Reduction Treatment Building (High Temperature Incinerator Building)］	From 8:41am on March 19: Transferring

<4. Status of the Treatment Facility and the Storage Facility> (As of March 21 at 7:00 am)

Facility	Cesium adsorption apparatus	Secondary Cesium adsorption apparatus (SARRY)	Decontamination instruments	Water desalinations (reverse osmosis membrane)	Water desalinations (evaporative concentration)
Operating status	In service	In service*	Out of service	Operating intermittently according to the water balance	Operating intermittently according to the water balance

* Cleaning of filter is in-process.

- From June 8, 2011 Large tanks to store contaminated and decontaminated water are transported and installed.

<5. Others>

- October 7, 2011~: 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.
- February 23, 2012~: Test of drawing water in the Unit 6 sub drain to the temporary tank through the temporarily storage tank was implemented.
- March 6, 2012~: we have been conducting the transfer test of sub-drain Water of Unit 5 to the temporary tank via the interim storage tank.
- March 14, 2012~: In order to prevent the diffusion of ocean soil, we started the full-scale covering work of seafloor by solidification soil (covering material).
- March 19, 2012: In order to stop the offset power and change the station power supply with starting to operate the south switching station, at 5:12 am we stopped the operation of reactor monitoring indicator of Unit 3 (the temperature of reactor pressure vessel)＊and the cooling operation of spent fuel pool in Unit 4. At 5:33 am, we stopped the cooling operation of common spent fuel pool. After that, the cooling operation of the common pool was restarted at 6:30 pm according to change of the station power supply (Temperature of the common pool during the suspension: approx. 21˚C, Temperature of the common pool when started: approx. 23˚C). At 7:41 pm, reactor monitoring indicators (temp. indicators of reactor pressure vessel) of Unit 3 were back to normal operation. At 7:56 pm, cooling of the spent fuel pool Unit 4 was restarted (Temperature of the spent fuel pool during the suspension: approx. 28˚C, Temperature of the spent fuel pool when restarted: approx. 32˚C)

  ＊: During the suspension of operating power supply, it is not content with Article 138 and 143 (limiting condition for operation) in Safety Regulation. Therefore, we apply the Article 136 (exemption of limiting condition for operation in order to conduct maintenance work). Using temporary generator, we can monitor the temperature.(At 5:56 am on March 19, temporary generator started to supply power.) At 7:41 on March 19, the temperature can be monitored by the normal power supply according to power restoration, the exemption was dissolved.
- 11:20 am on March 21, 2012: When workers of TEPCO's partner company were doing welding operation of plumbing for foam type fire extinguish equipment near No. 3 light oil tank (outdoor type) of Unit 5 and 6, lawn of 3m X 3m was burned due to fire spark by the welding operation. We used non-burnable sheets to cover the lawn for fire protection, however, it was blown about by the wind and the fire broke out by the spark. At 11:25 am, we confirmed that the worker had extinguished the fire by the water. At 12:13 pm, we reported to the Namie fire department and they confirmed extinction at 1:13 pm. No one was injured by this accident and this gives no impact on monitoring values of surrounding area and cooling system of nuclear reactor & spent fuel pool.

END