

## Summary of Progress Status of “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO”

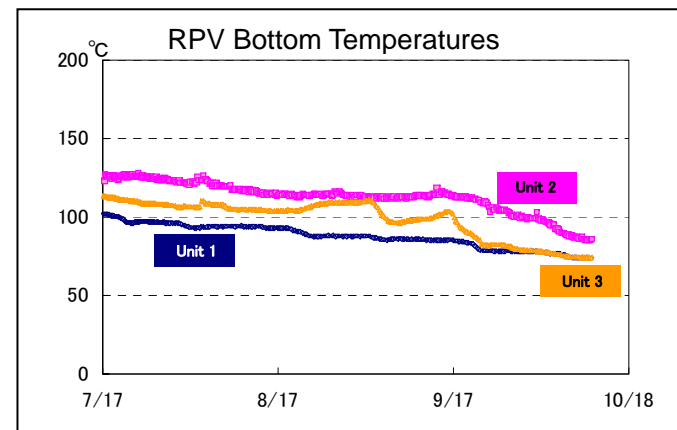
**1. Basic policy (no change)**

By bringing the reactors and the spent fuel pools to a stable cooling condition and mitigating the release of radioactive materials, we will make every effort to enable evacuees to return to their homes and for all citizens to be able to secure a sound life.

**2. Targets and achievement date, etc.**

[Step 2: Release of radioactive materials is under control and radiation dose is being significantly held down]

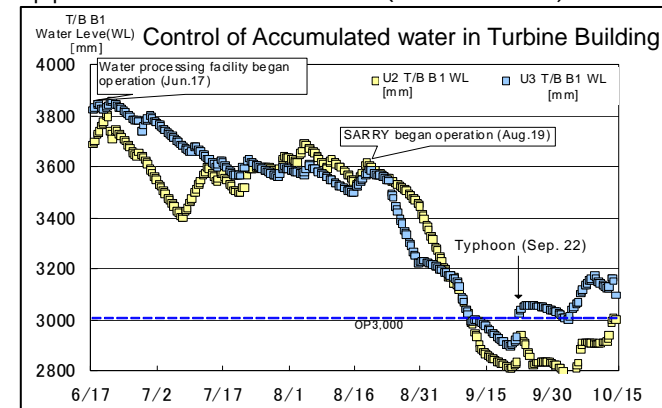
- Aim to achieve within the year. As for [Issue (2) Spent fuel pools], [Issue (3) Accumulated water] and [Issue (7) Tsunami, Reinforcement, etc.], the Step 2 targets have already been achieved.
- The total volume of accumulated water is kept to a level that is able to withstand heavy rains and long-term processing facility outages, and the circulating water cooling is ongoing towards achieving “cold shutdown condition.”
- RPV bottom temperature was 74 °C for Unit 1, 83 °C for Unit 2 and 73 °C for Unit 3 (as of Oct. 15), having reached below 100 °C.
- The current release rate of radioactive materials from the PCVs is estimated to be approx. 0.1 billion Bq/h (provisional figure.) The radiation exposure at the site boundaries due to this release is assessed at 0.2 mSv / year at the maximum (provisional figure.)
- Ensure a “cold shutdown condition” by carefully assessing the RPV bottom temperatures, current release rate of radioactive materials from PCVs together with the radiation exposure due to this release and the securement of the mid-term safety of the circulating cooling system.
- Hereafter, the start of the water shielding wall construction and the completion of the Unit 1 reactor building cover are scheduled.

**3. Summary of the past one month and future plans (major changes)****[Issue (1) Reactors]: Water injection towards achieving “a cold shutdown condition”**

- The RPV bottom temperatures of Units 1 and 3 have stabilized below 100 °C. By changing the water injection volume on a trial basis, it has been verified that Unit 2’s RPV bottom temperature can stabilize below 100 °C. \*Injecting water via Feed Water line and Core Spray line
- Currently, water injection towards achieving cold shutdown is being implemented at the volume of approx. 3.7m<sup>3</sup>/h for Unit 1, approx. 10.4m<sup>3</sup>/h for Unit 2\*, approx. 10.2m<sup>3</sup>/h for Unit 3\*(as of Oct.15).

**[Issue (3) Accumulated water]: Processing accumulated water at a level where it is able to withstand heavy rains as well as long-term facility outages**

- Approx. 128,140 tons have been processed in total (as of Oct. 13). The accumulated water level is being kept at the present target level of O.P 3,000.
- The desalination processing facility utilizing the evaporation concentration apparatus has been reinforced (Oct. 9), that will enable more stable water injection into the reactors.

**[Issue (4) Groundwater]: Beginning soon construction work of the water shielding wall**

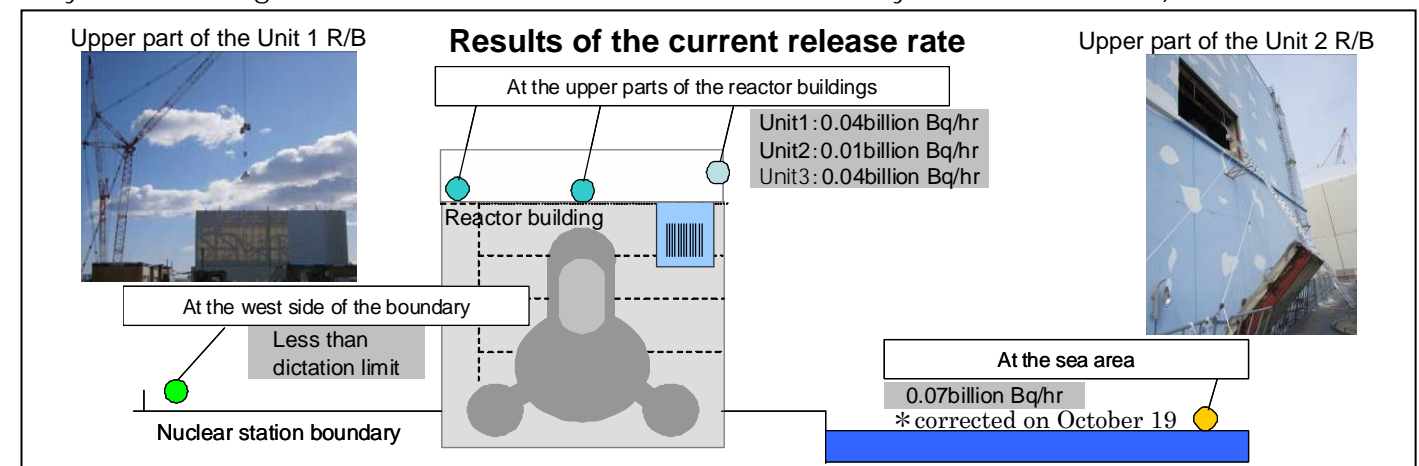
- Basic design of the water shielding wall has been completed (Aug.31) Construction work will begin from around the end of October.

**[Issue (5) Atmosphere/Soil]: Completing soon the Unit 1 reactor building cover**

- The Unit 1 reactor building cover will be completed by around the end of October.
- Following the Unit 3 (Sep.10), debris removal at the upper part of the Unit 4 reactor building has begun (Sep.21).
- Installation work of the PCV gas control system has begun (Unit 1-Oct. 7, Unit 2-Oct. 10, Unit 3-Sep. 30.)

**[Issue (6) Measurement, Reduction and Disclosure]: Estimated the amount of radioactive materials currently released from the PCVs**

- Comprehensively estimate the current release rate from the PCVs of Units 1-3 based on the airborne radioactivity concentration (dust concentration) at the upper parts of the reactor buildings and in surrounding area (land and sea).
  - The current total release rate from Units 1-3 based on the assessment this time is estimated at approx. 0.1 billion Bq/h at the maximum (provisional figure), which is 1/8,000,000 of that at the time of the accident.
  - The radiation exposure per year at the site boundaries is assessed at approx. 0.2 mSv / year at the maximum (provisional figure) based on the aforementioned release rate (The target is 1 mSv / year. Excluding the effect of the radioactive materials already released until now).



- Continuously implement the measurements of airborne radioactivity concentration at the upper parts of the reactor buildings and in the surrounding area (land and sea), thus grasping the reduction tendency of the release rate due to the mitigation countermeasures.
- A decontamination model project focused on the Deliberate Evacuation Area and the Restricted Area is being prepared in a rapid manner. Currently, pre-monitoring is being implemented at a part of the area.

**[Issue (9) Radiation control/medical care]: Improved Health Care for workers**

- Internal exposures are being measured once a month with the expansion of the Whole Body Counters (twelve units in total).
- Ordinance on Prevention of Ionizing Radiation Hazards has been amended, requiring Utilities to report records of exposure dose for long-term health care. The guideline stating the implementation of the inspection according to the exposure amount has been released (Oct. 11).

**[Action plan for mid-term issues] Released “Policy on the mid and long term security”**

- NISA released “Policy on the mid and long term security” (Oct. 3).
- The Utility reported on the operating plan as well as safety assessment regarding the circulating water cooling system (Oct. 17). Other systems, etc. shall be reported on as well in a rapid manner.