

Transfer to Process Main Building and to Miscellaneous Solid Waste Volume Reduction Treatment Building

1. Overview

In turbine buildings of Units 2 and 3, there are volumes of accumulated water which is dangerously very highly radioactive and is possibly contaminated by the damaged fuel. This water will be continuously generated more since we keep cooling reactors by continuous water injection.

Concentrations of Cesium 137, Iodine 131 in the water are very high, and some of the water was already directly leaked into the intake. We stopped the leakage, however, we cannot exclude the possibilities of the leakage again or from other places. Unless we secure places to transfer the contaminated water into, there is a possibility that a lot of the contaminated water directly flows into and contaminate the ocean considerably.

In order to make sure to prevent the leakage into the ocean, we need to transfer this accumulated water to tanks and buildings in which we can stably store from turbine buildings. Currently we can secure the volume of several tens of thousands of cubic meters.

Out of 4 buildings in Centralized Waster Treatment Facility (Process Main Building, Miscellaneous Solid Waste Volume Reduction Treatment Building, Site Banker Building, and Incineration Building), we will transfer the accumulated water to the Process Main Building where the waterproofing work was completed and to the Miscellaneous Solid Waste Volume Reduction Treatment Building where the waterproofing work was just finished.

We already started the transfer of the water from the turbine building of Unit 2 to the Process Main Building.

2. Implementation Plan

I. Overview of the transfer plan

We will transfer the water up using pumps to the following water level to Process Main Building and/or to Miscellaneous Solid Waste Volume Reduction Treatment Building from the turbine buildings of Units 2 and 3 confirming the safety;

Criterion : Up to the floor level in the first basement of the buildings

However, if there is a risk of the leakage from the building etc., we will transfer the water up to the water level rises up to 90cm below the underground water level.

3. Details of safety measures

I. We confirmed the earthquake gave no impacts on the safety of Process Main Building and Miscellaneous Solid Waste Volume Reduction Treatment Building by analysis and inspections.

II. We conducted waterproofing works to the penetration parts within the level the poured water might come up in Process Main Building and Miscellaneous Solid Waste Volume Reduction Treatment Building.

We will check the leakage of radioactive materials by monitoring the underground water after we start the transfer.

As a countermeasure to tsunami, we will close as many as doors above the ground and open mouths in the buildings to keep seawater from entering.

III. We will reduce the risk of leakage by checking leakage points by pouring less contaminated water before we transfer accumulated water in the basement of turbine buildings. We will also transfer the water through the inside of turbine buildings as much as possible to reduce the possibility of the leakage outside the system.

We monitor the water level gauges installed in the Main Process Building to make sure the transfer is being done well. We will also measure radioactive doses once per day on the routes outside of the buildings.

4. Policy for permanent water treatment

In order to balance the volume of water necessary to inject for cooling and the volume of treated water which are less radioactive and desalinated by the water treatment facilities, we will establish the water treatment system utilizing coprecipitation method (concentration precipitation method), ion exchange method etc by June. We will install more tanks to store large volume of middle and low level radioactive accumulated water generated by the above system.

In addition we will obtain the water to inject to the core by desalinating middle and low level radioactive accumulated water using seawater desalination equipments, starting in June.

By those systems, we will establish a closed water cycle targeting in July. By this, we will clean up highly radioactive accumulated water in Main Process Building and improve the quality of the water. Furthermore, at the last stage, we will take out the water and dispose the buildings properly. Until disposal, we will continue monitoring the water level.

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