

Possibility of Debris (Assumed to be the Fuel Handling Machine Mast) Sinking in the Spent Fuel Pool at Debris Removal from the Upper Part of the Unit 3 Reactor Building at Fukushima Daiichi Nuclear Power Station (2)

February 8, 2013
Tokyo Electric Power Company

At the steel truss debris removal from the upper part of the spent fuel pool performed on February 6, 2013, the debris assumed to be the fuel handling machine mast* which was present before the steel truss removal was found to be missing in the image taken after the removal work. On February 7, we judged that there is a possibility that the missing debris has sunk into the pool.

*Fuel handling machine mast: Extendable pole used to lift the grip up and down when moving the fuel assemblies (Length: Approx. 5-23m, Weight: Approx. 1.5 tons)

Once the preparation is complete, we will investigate the condition of the sunken debris when we perform investigation of the inside of the spent fuel pool utilizing an underwater camera.



Before steel truss debris removal (Photo taken on February 4, 2013)

After steel truss debris removal (Photo taken on February 6, 2013)

No significant change was found with the following five items to confirm in the case that steel debris, etc. falls into the spent fuel pool.

1. Abnormal decrease of the skimmer surge tank water level
2. Abnormal increase of the atmosphere dose of the operation floor on the fifth floor of the Reactor Building
3. Abnormalities found on the spent fuel pool water surface (Sharp decrease of the water level, bubbles, discoloration, etc.)
4. Significant increase of the monitoring post readings (including the portable monitoring posts)
5. Significant increase of the radioactivity density of the spent fuel pool water*

*Nuclide analysis results of the pool water performed on February 8 (after the steel truss debris removal)

- Cesium 134: $5.0 \times 10^2 \text{Bq/cm}^3$
- Cesium 137: $9.3 \times 10^2 \text{Bq/cm}^3$
- Iodine 131: Below the detection limit ($6.8 \times 10^0 \text{Bq/cm}^3$)

Nuclide analysis results of the pool water performed on February 7 (after the steel truss debris removal)

- Cesium 134: $5.3 \times 10^2 \text{Bq/cm}^3$
- Cesium 137: $9.6 \times 10^2 \text{Bq/cm}^3$
- Iodine 131: Below the detection limit ($7.4 \times 10^0 \text{Bq/cm}^3$)

Nuclide analysis results of the pool water performed on February 5 (before the steel truss debris removal)

- Cesium 134: $5.0 \times 10^2 \text{Bq/cm}^3$
- Cesium 137: $9.0 \times 10^2 \text{Bq/cm}^3$
- Iodine 131: Below the detection limit ($6.7 \times 10^0 \text{Bq/cm}^3$)