Water Flow Identified at First Floor of Unit 3 Reactor Building

-Water which flows from near the Main Steam Isolation Valve Room to the Drainage Ditch on the Floor-

January 20, 2014
Tokyo Electric Power Company
Overview

- At around 2:40 PM on January 18, a TEPCO employee found* a water flow from near the door of the main steam isolation valve room in the northeast area on the first floor of Unit 3 Reactor Building to the nearby drainage ditch installed on the floor.
  *He was watching the live image on the screen which was sent by a debris-removal robot working in the Unit 3 Reactor Building

- The leakage water flows to the drainage ditch on the floor inside the Reactor Building. There is no fear of leaking to the outside of the Reactor Building.

- Neither remarkable changes in the indication value of the monitoring posts nor abnormalities of the plant parameters have been found.
Floor plan of the first floor of Unit 3 Reactor Building
<table>
<thead>
<tr>
<th>Sampling</th>
<th>Time and date of sampling</th>
<th>Gross-β</th>
<th>Cs-134</th>
<th>Cs-137</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bq/cm³</td>
<td>Bq/cm³</td>
<td>Bq/cm³</td>
</tr>
<tr>
<td>Leaked water obtained at the main steam isolation valve room on the first floor at the Unit 3 Reactor</td>
<td>Jan 19, 2014, 11:20 AM</td>
<td>2.4E+04</td>
<td>7.0E+02</td>
<td>1.7E+03</td>
</tr>
<tr>
<td>Accumulating water on the basement floor of the Unit 3 Turbine Building</td>
<td>Dec 6, 2013, 11:00 AM</td>
<td>5.7E+04</td>
<td>7.3E+03</td>
<td>1.8E+04</td>
</tr>
<tr>
<td>Water at inlet of desalination apparatus</td>
<td>Dec 10, 2013, 10:06 AM</td>
<td>2.3E+04</td>
<td>6.2E-01</td>
<td>2.0E+00</td>
</tr>
<tr>
<td>Water at outlet of desalination apparatus</td>
<td>Dec 10, 2013, 10:18 AM</td>
<td>2.8E+00</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>
Specification of the leak path

- **Pipe penetrating parts in PCV**
  - There are all in 9 pipe penetrating parts in the MS tunnel room.
    - Main steam isolation system (X-7A to D)
    - Main steam isolation system drainage (X-8)
    - Water supply system (X-9A and B)
    - Preliminary penetration (X-46 and 47)
  - It is assumed that the main steam isolation system and main steam isolation system drainage (all in 5 penetrating parts) are located at the lower level than the water level in PCV.

- **Water level in PCV (estimated based on converted-pressure)**
  - O.P. 12020 ~ 12090

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Unit 3 Reactor Building [cross sectional]
Specification of the leakage path

Preliminary (X-46 and 47)

Pipe penetrating part of water supply system (X-9A and B)
(Penetration external diameter: Approx. 850mm)

Main steam isolation system pipe penetrating part (X-7A to D)
(Penetration external diameter: Approx. 1,000mm)

Pipe penetrating part of main steam isolation system drainage (X-8)
(Penetration external diameter: Approx. 450mm)

Water level in PCV
(estimated based on converted-pressure)
O.P.12020～12090

Preliminary (X-46 and 47)

O.P.15280

O.P.13270

O.P.11670

O.P.10610

Pipe penetrating parts inside the MS tunnel room [cross sectional chart]
Pipe penetrating part (Bellows style)

Water level in PCV (estimated based on converted-pressure) O.P.12020～12090

Relation of heights of water level in PCV and pipe penetrating parts (X-7A to D) of main steam isolation system

Inside of the PCV

Outside of the PCV

Penetrating upper part O.P.12203

Penetrating lower part O.P.11136

Nozzle stub

Bellows