

Reference
January 30, 2017

Tokyo Electric Power Company Holdings, Inc.

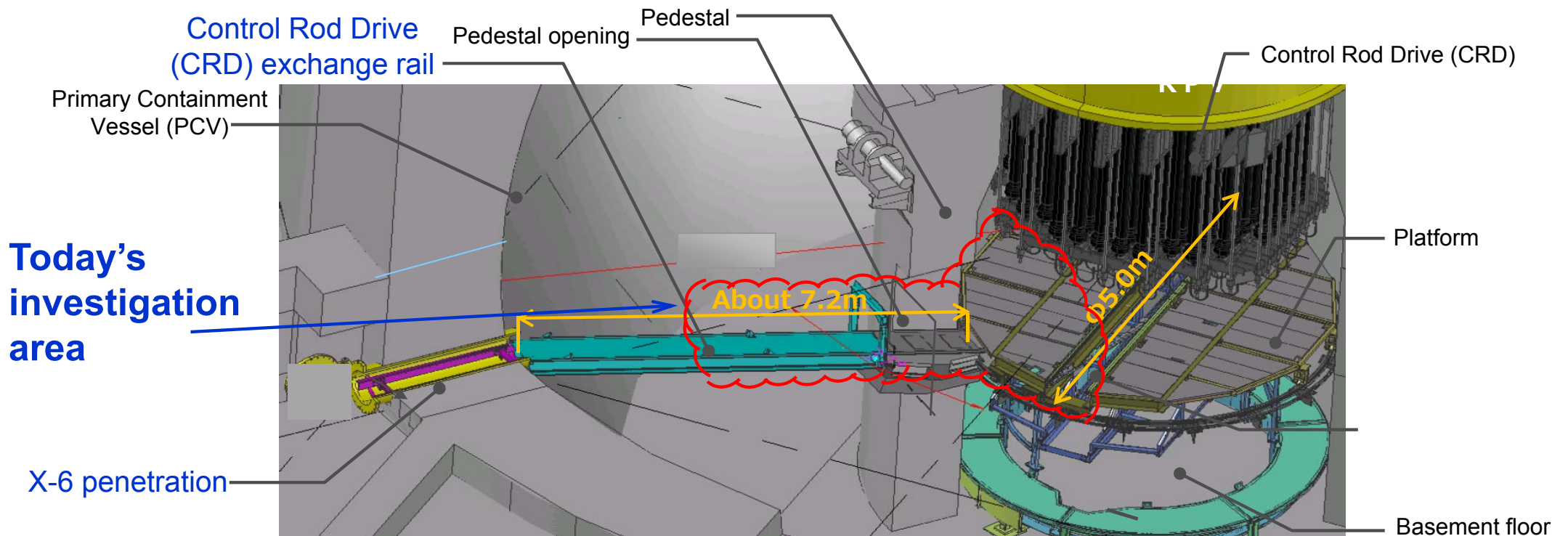
Pre-investigation results of the area inside the pedestal
for the Unit 2 Primary Containment Vessel Investigation
at Fukushima Daiichi Nuclear Power Station

IRID **TEPCO**

1. Unit 2 Primary Containment Vessel investigation

The purpose of this investigation is to inspect the platform inside the pedestal, fuel debris fallen to the Control Rod Drive (CRD), and structures inside the pedestal.

Today, preparatory investigation was conducted for X-6 penetration and CRD exchange rail which the self-propelled Scorpion robot will take to the pedestal.



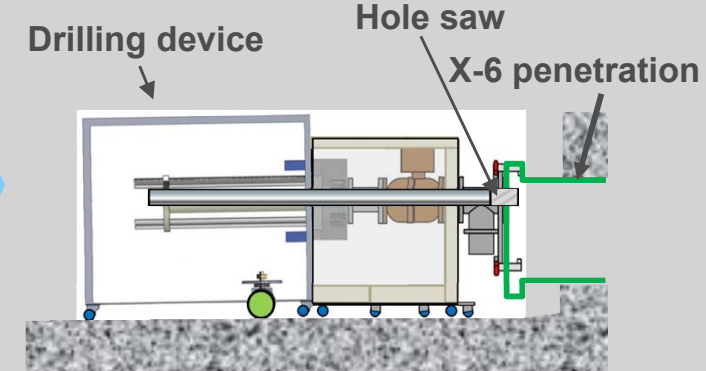
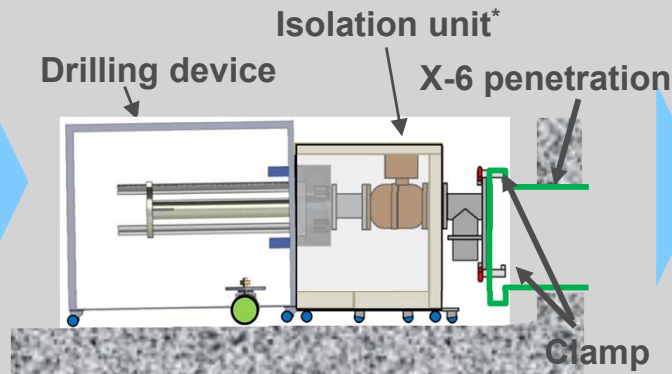
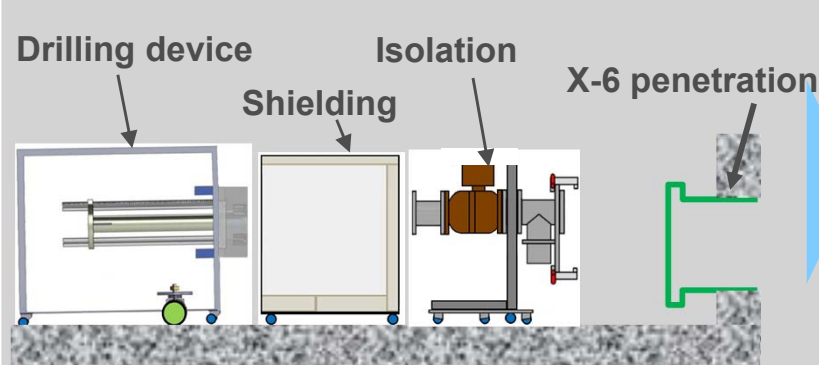
Investigation area inside the pedestal

3. Work steps for Unit 2 PCV investigation

Step 1. Drilling device carried in

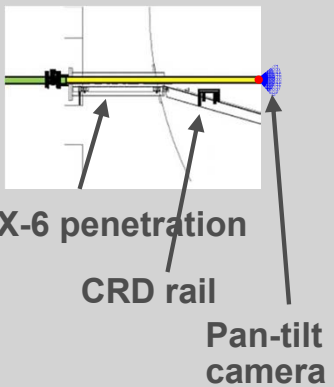
Step 2. Drilling device set up

Step 3. Drilling on X-6 penetration

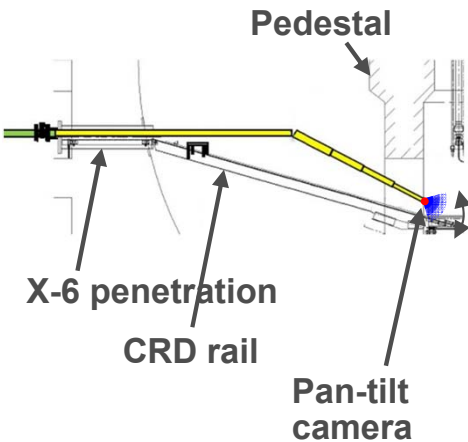


*Combination of isolation and shielding

Step 4. Pre-investigation of X-6 penetration and CRD rail using guide pipe

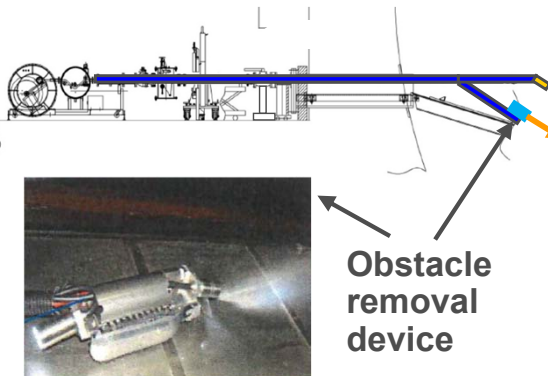


Step 5. Pre-investigation inside pedestal using guide pipe

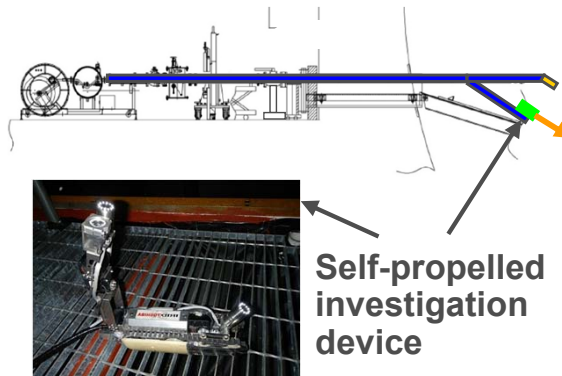


Step 6. Obstacle removal device inserted*

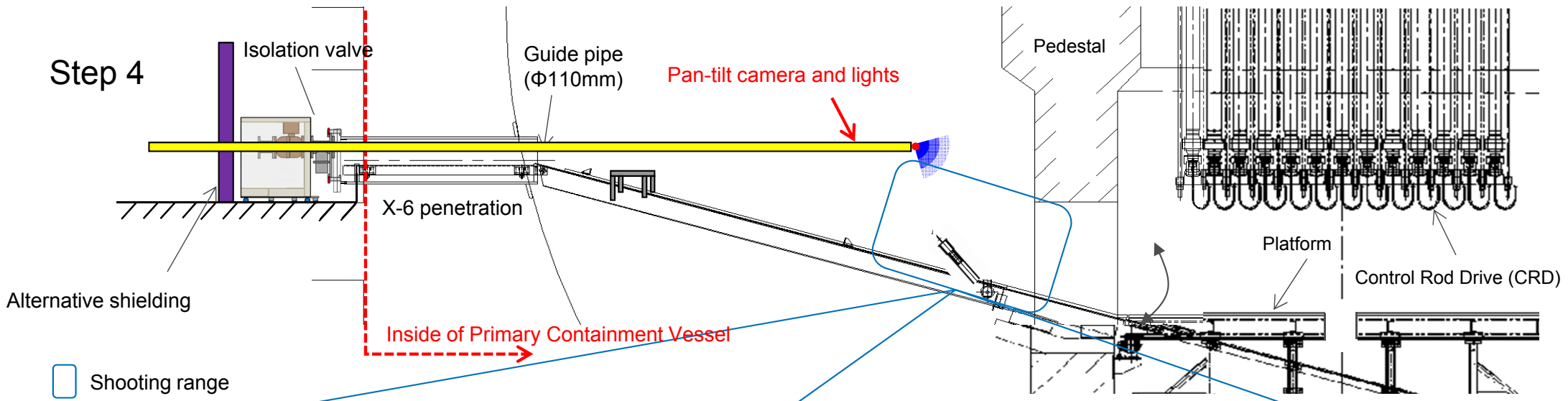
*The device may not be inserted depending on the obstacle conditions.



Step 7. Investigation using self-propelled investigation device



3-1. Pre-investigation results for the area inside the pedestal



CRD rail



Lifting balance

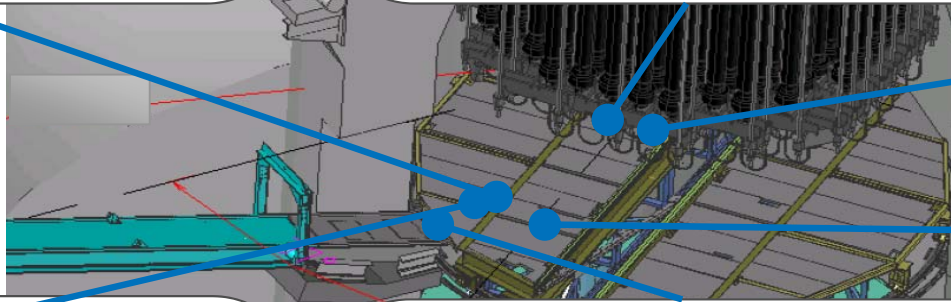
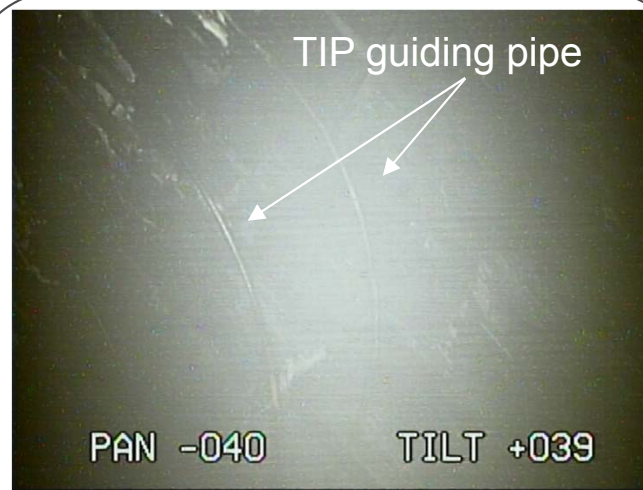
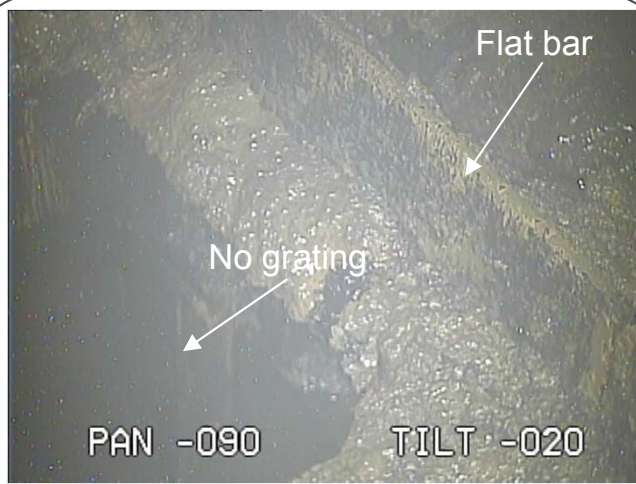


Pedestal opening



Pedestal wall

3-2. Pre-investigation results for the area inside the pedestal



4. Summary

- The pre-investigation was conducted as planned. In the pre-investigated area,
 - No changes in positions of Control Rod Drive (CRD) housing, Position Indication Probe (PIP) cable, and CRD exchanger
 - A part of the grating deformed
 - Some deposits on the CRD rail and grating found
 - Water dripping found in some areas
- Visual images obtained through this pre-investigation will be analyzed to determine whether a rubble removal device and a self-propelled investigation robot can be inserted.
- The Unit 2 PCV is stably cooled because no abnormalities in reactor core cooling have been found in PCV/RPV temperatures and plant parameters such as parameters related gases inside the PCV.
- No leakage has been found to the outside of PCV because air tightness is secured by using isolation valve and O-ring during the pre-investigation work and the area around the O-ring is pressurized more than the pressure inside the PCV.
- No external impacts have been found from the radiation doses inside the PCV because they are appropriately managed by buildings and shielding.

Reference: Work site scenes

The pre-investigation was conducted by remotely operating the camera in the remote operation room and by inserting/pulling out the guide pipe at the field headquarters and inside the Unit 2 Reactor Building.



Remote operation room
in the main administrative office



Inside the Unit 2 Reactor Building

Work site scenes