

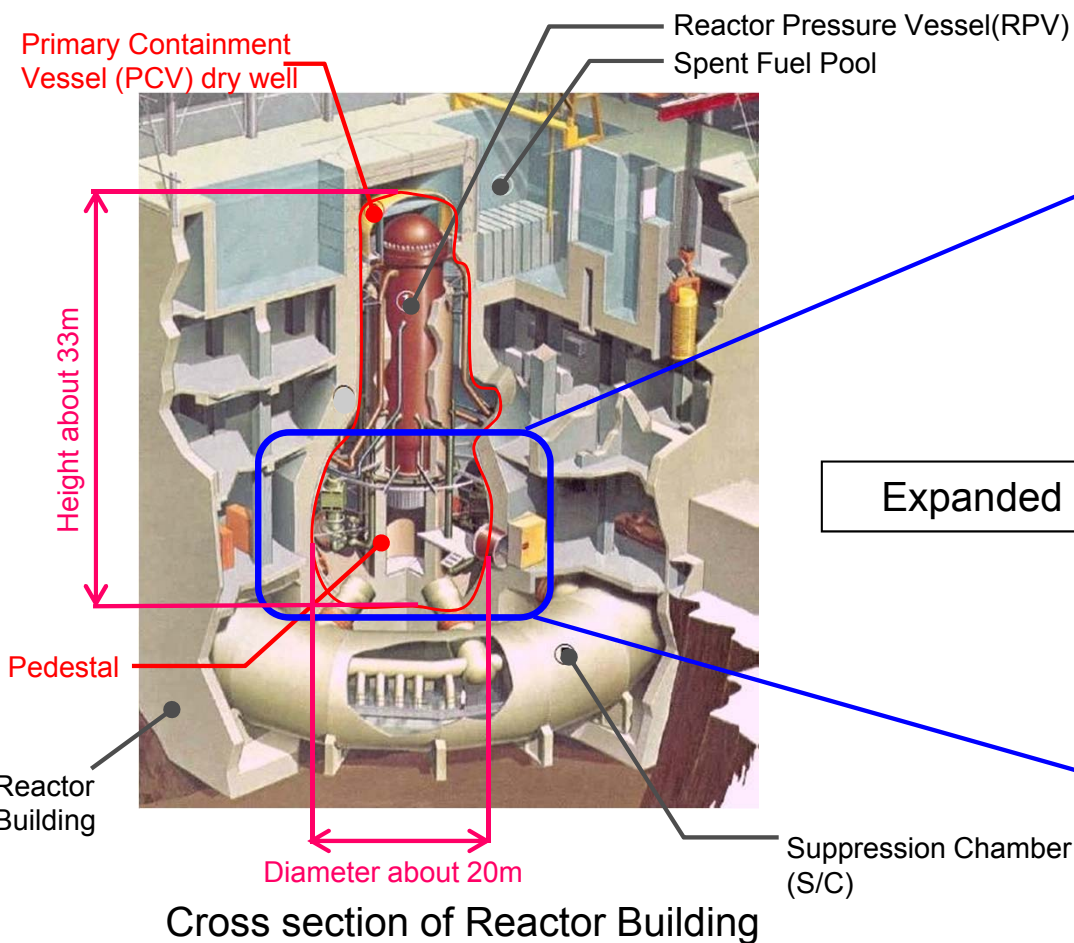
Pre-investigation results of the area inside the pedestal
for the Unit 2 Primary Containment Vessel Investigation
at Fukushima Daiichi Nuclear Power Station
(examination results of digital images)



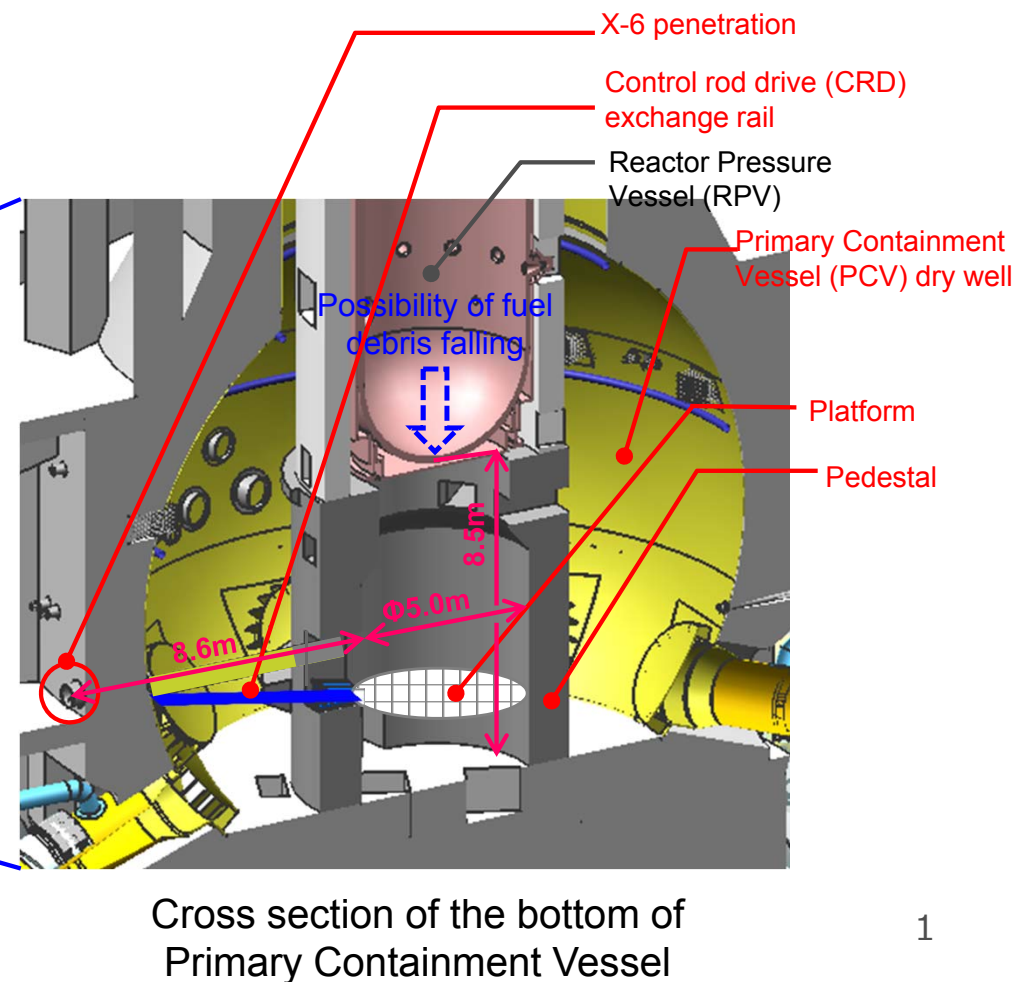
Tokyo Electric Power Company Holdings, Inc.

1. Current conditions of Unit 2 Primary Containment Vessel (PCV)

- Nuclear fuel in the Primary Containment vessel (PCV) was exposed to the air and melted from the impact of March 2011 Great Earthquake.
 - As a result of the accident analysis, it was found that a portion of melted nuclear fuel might have been fallen inside the pedestal.
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- To remove fuel debris, it is necessary to investigate the PCV and clarify the conditions of debris and surrounding structures.



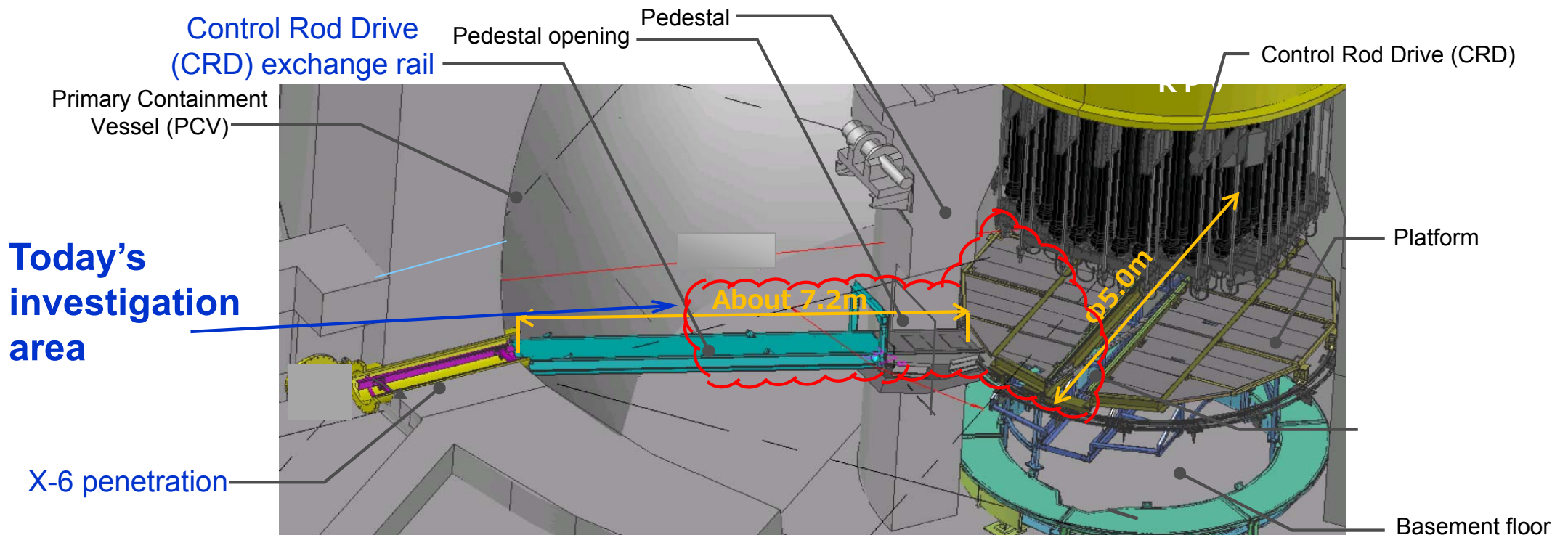
Expanded



2. 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.



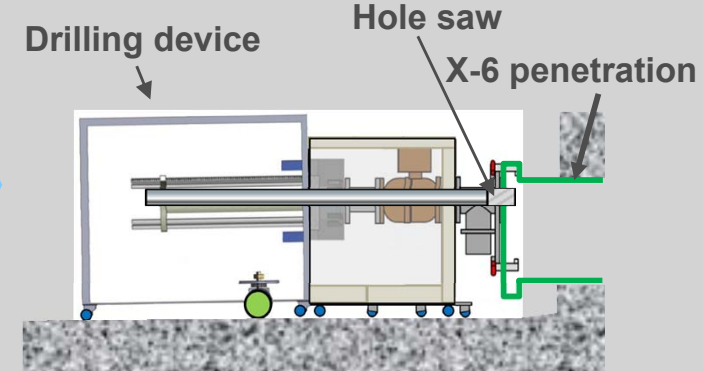
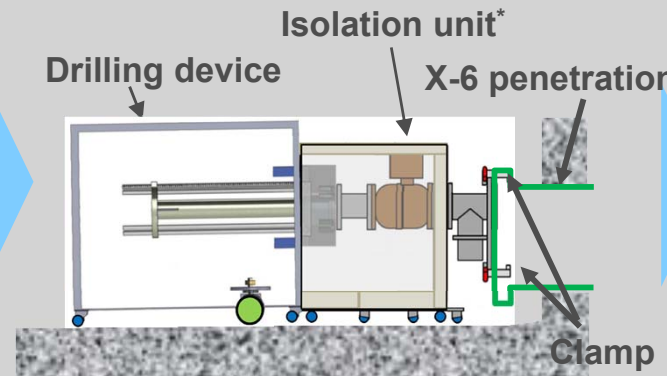
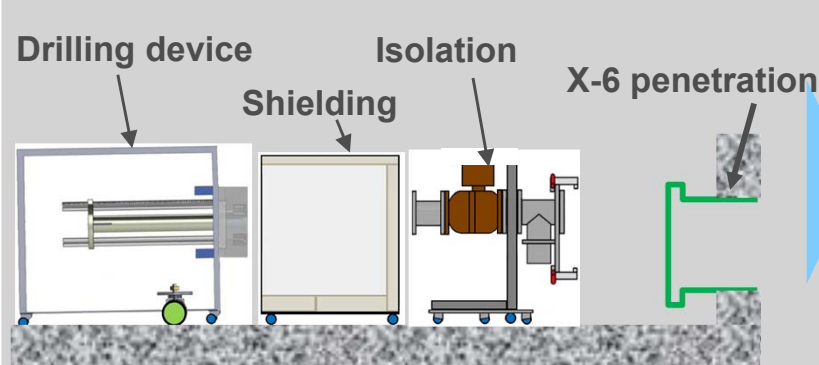
Investigation area inside the pedestal

3. Work steps for Unit 2 PCV investigation

Step 1. Drilling device carried in

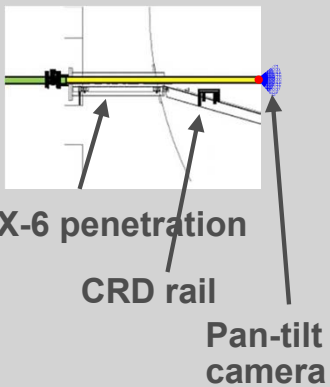
Step 2. Drilling device set up

Step 3. Drilling on X-6 penetration

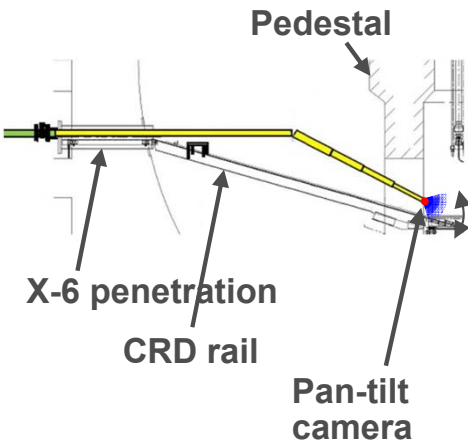


*Combination of isolation and shielding

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

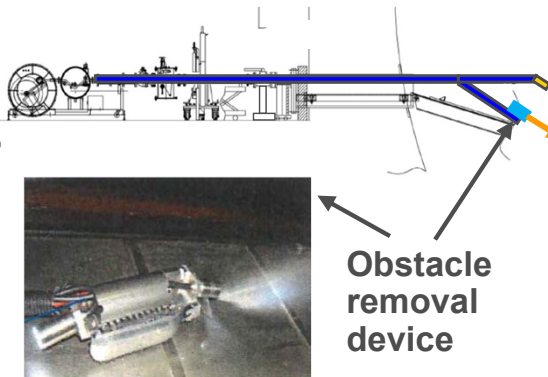


Step 5. Pre-investigation inside pedestal using guide pipe

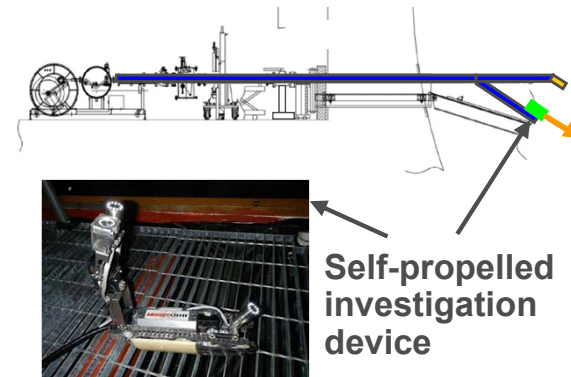


Step 6. Obstacle removal device inserted*

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

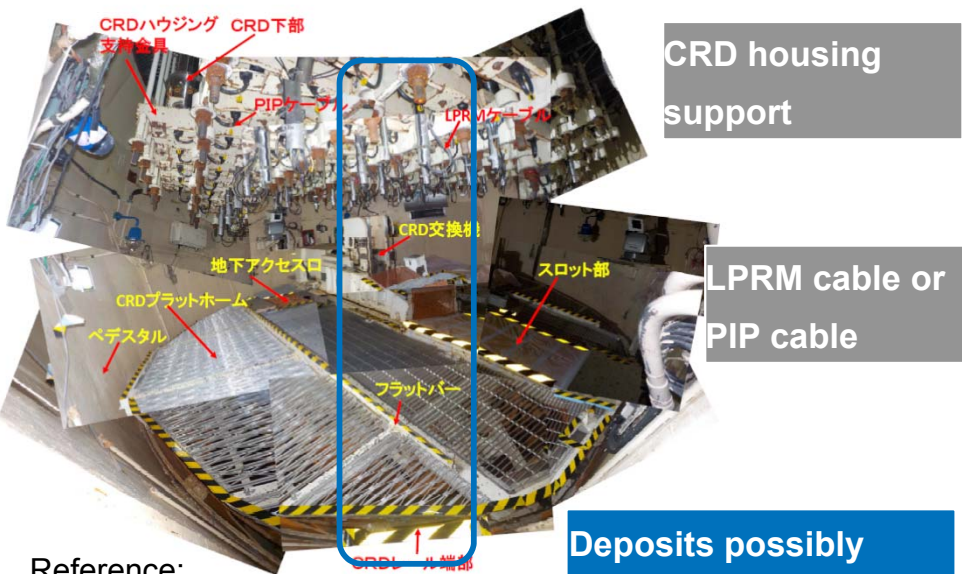


Step 7. Investigation using self-propelled investigation device



4-1. Pre-investigation results for the area inside the pedestal

(examination results of digital images)



CRD housing support

LPRM cable or PIP cable

Deposits possibly adhered to TIP guiding pipe support

Reference: the inside of Unit 5 pedestal

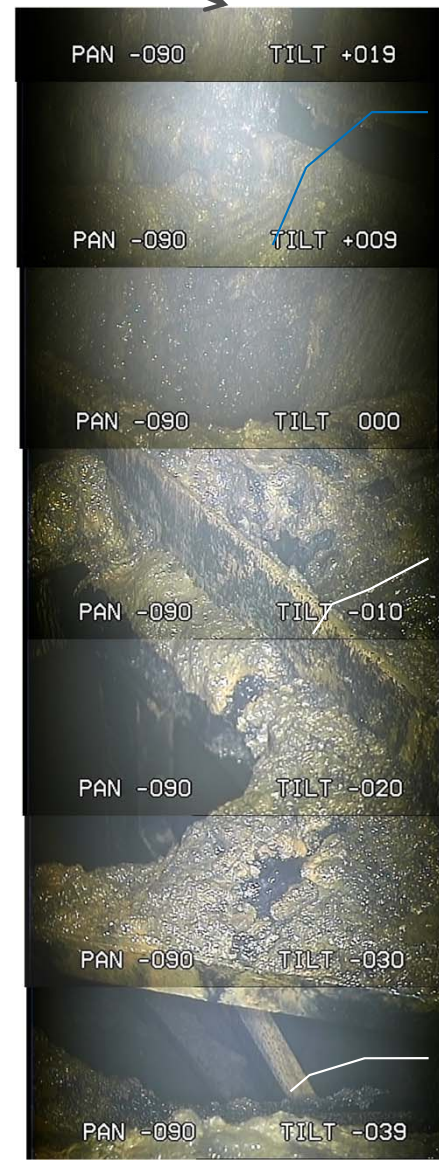
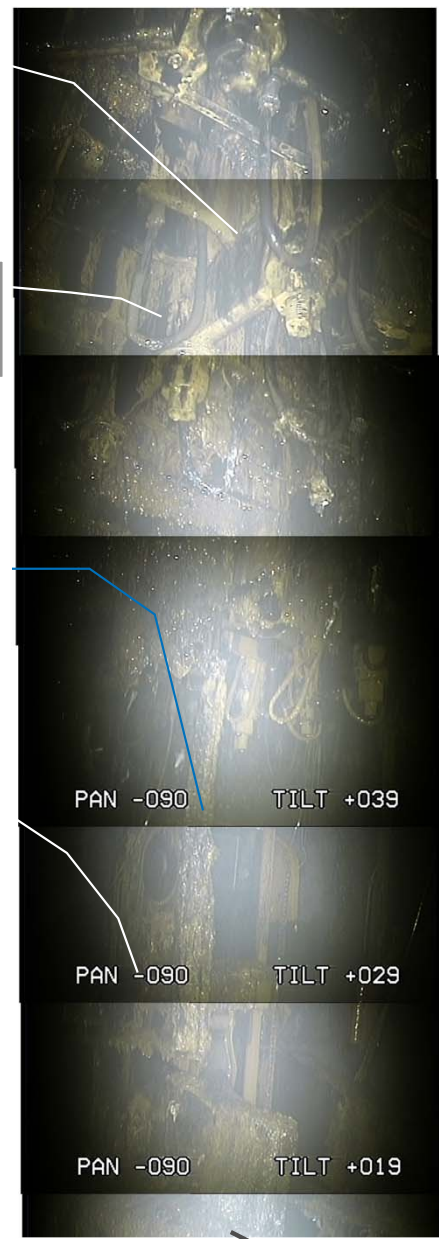


CRD exchanger

TIP guiding pipe support

Reference: the inside of Unit 2 pedestal during regular inspection

LPRM (Local Power Range Monitor) measures flux levels of neutron inside the reactor core.
 TIP (Traversing In-Core Probe System) proofs LPRM.
 PIP (Position Indicator Probe) detects positions of Control Rods.



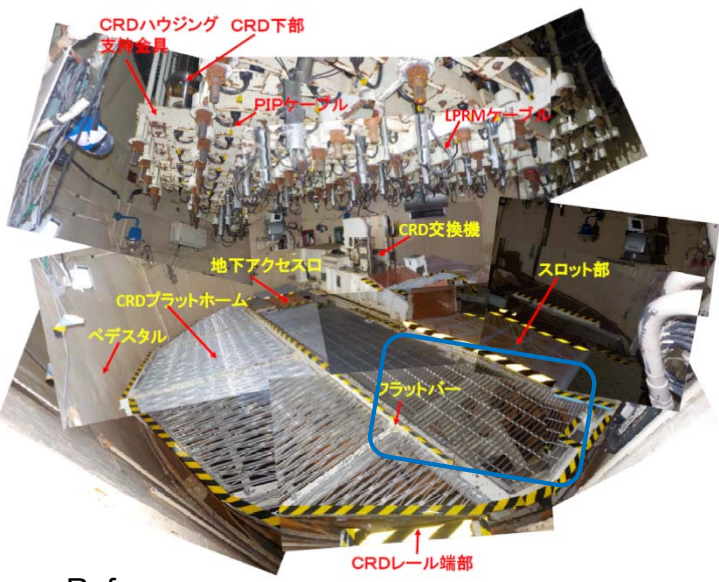
Deformed grating

Flat bar

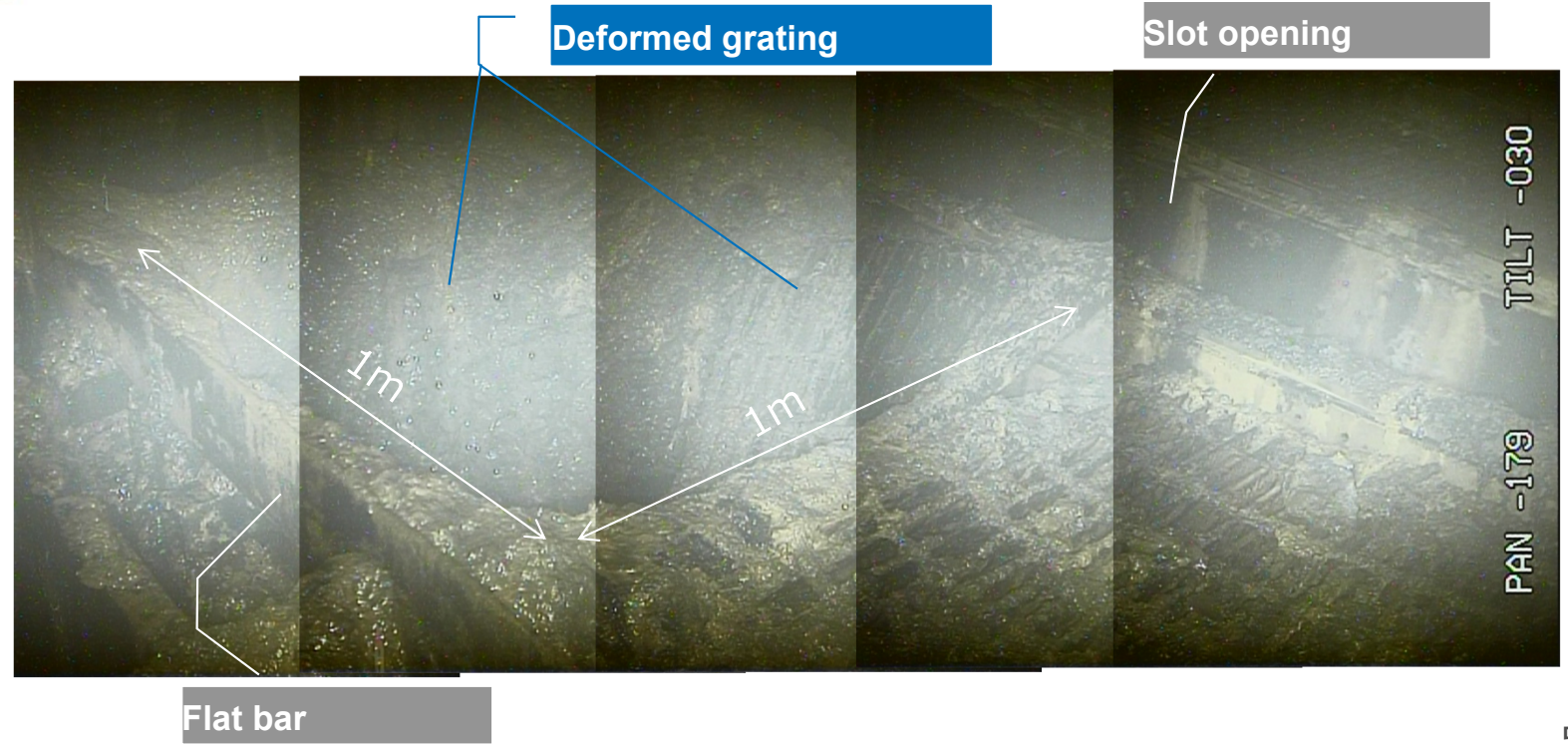
End of CRD rail

4-2. Pre-investigation results for the area inside the pedestal

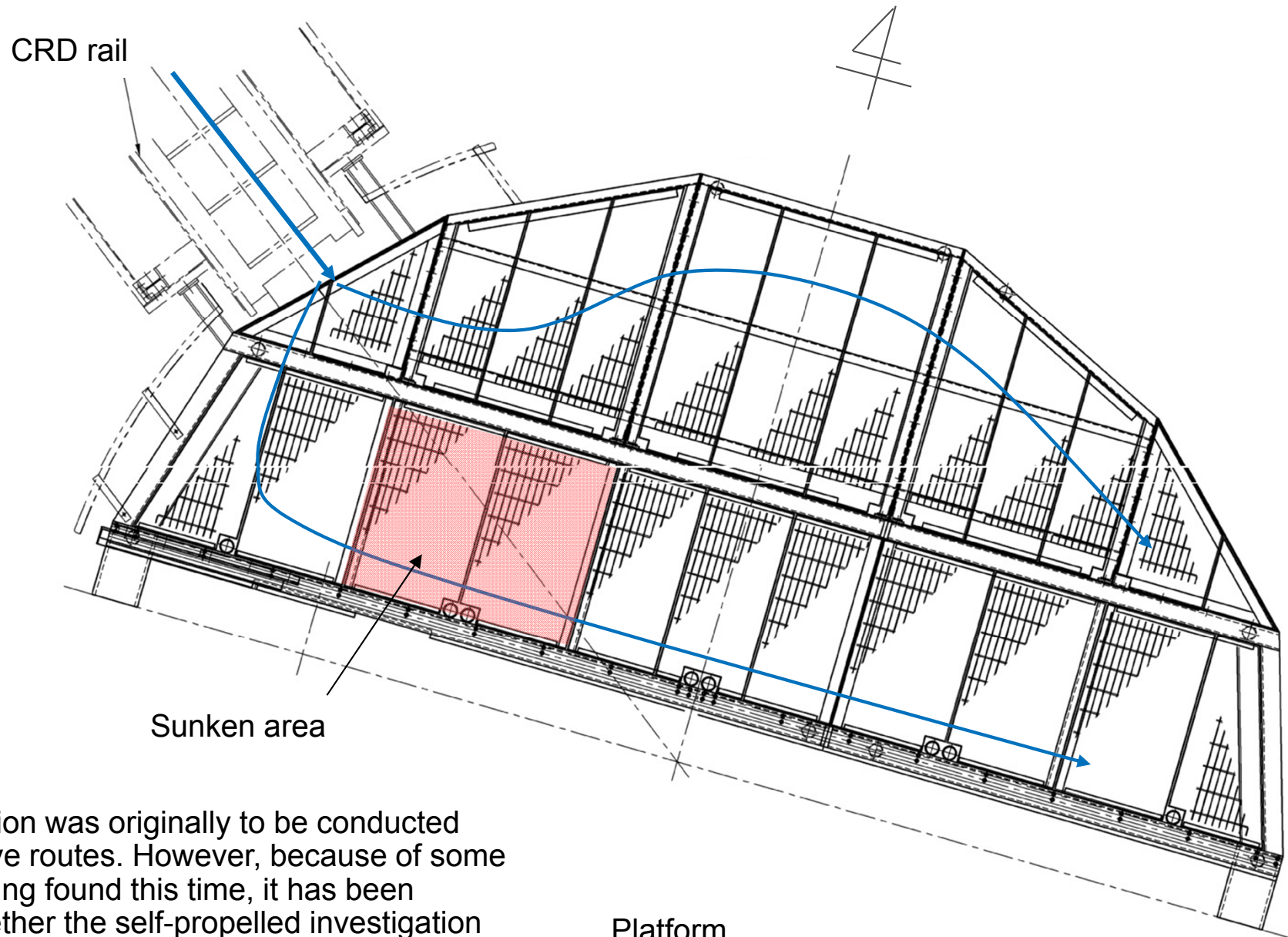
(examination results of digital images)



Reference:
the inside of Unit 5 pedestal



5. Expected investigation routes for the self-propelled Scorpion robot



The investigation was originally to be conducted using the above routes. However, because of some deformed grating found this time, it has been examined whether the self-propelled investigation robot can be inserted.

- To determine whether the obstacle removal robot and the self-propelled investigation robot can be inserted inside the pedestal, we examined digital images obtained from the pre-investigation conducted on January 30 and found detailed conditions inside the pedestal.
 - Some deposits possibly adhered to TIP guiding pipe support
 - A part of the grating sunken in at the center of the pedestal
- Based of the conditions inside the pedestal found this time, we will proceed with the examination on whether to insert the obstacle removal robot and the self-propelled investigation robot.