Results of Investigation of the Personnel Access Lock Room on the First Floor of Unit 1 Reactor Building at Fukushima Daiichi Nuclear Power Station

April 9, 2013
Tokyo Electric Power Company

東京電力

TEPCO

Overview of the Investigation

- **Purpose**

  Measure the ambient dose rate and investigate the surrounding area of the PCV penetration in the personnel access lock room in the Reactor Building via a robot. The results obtained will be utilized for the future PCV investigation and consideration of repair methods.

- **Investigation items**

  Investigation of the personnel access lock room on the first floor of Unit 1 Reactor Building
  - Dose rate measurement
  - Visual inspection (Conditions of the PCV penetration, the floor and the ceiling)
  - Measurement of temperature and humidity

- **Workers involved**

  TEPCO employees: 8 (4 at the site and 4 at the Main Anti-earthquake Building)
  Cooperative company employees: 3 (at the Main Anti-earthquake Building)

- **Equipment used**

  Remotely controlled robot FRIGO-MA: 1, Packbot: 1

- **Day and time of investigation**

  Tuesday, April 9
  11:29 AM: Robot entered the Reactor Building
  2:21 PM: Robot left the Reactor Building
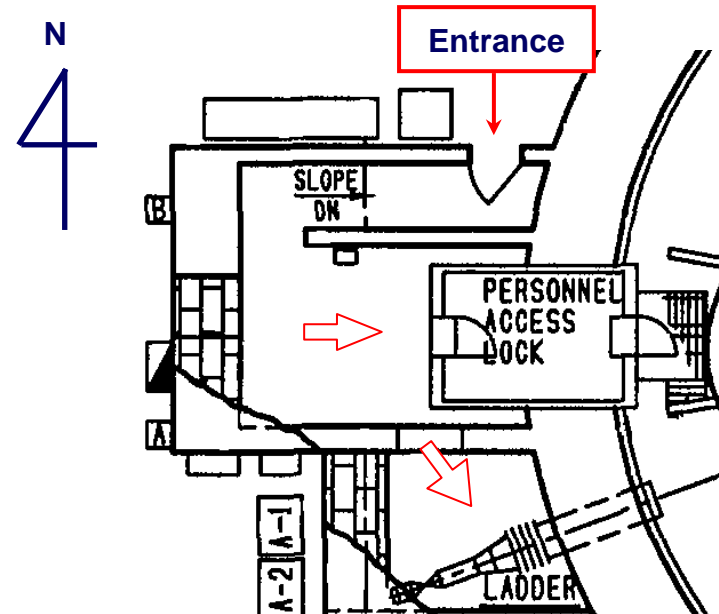
- **Maximum radiation exposure dose**

  Workers: 0.72mSv (Planned dose: 7.0mSv)
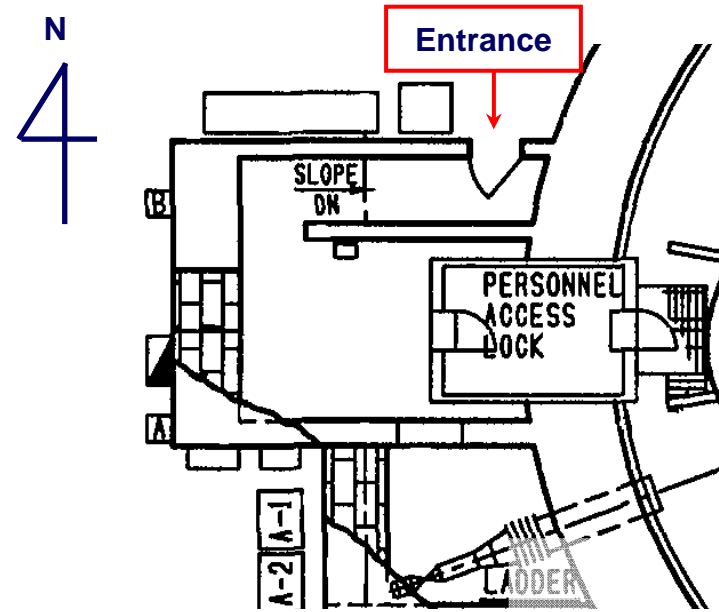 Robots: FRIGO-MA: 57mSv, Packbot: 210mSv

FRIGO-MA

Condition of the Personnel Access Lock Room (Full-view)

N

Entrance

SLOPE UP

PERSONNEL ACCESS LOCK

LADDER

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Condition of the Personnel Access Lock Room (Ceiling)
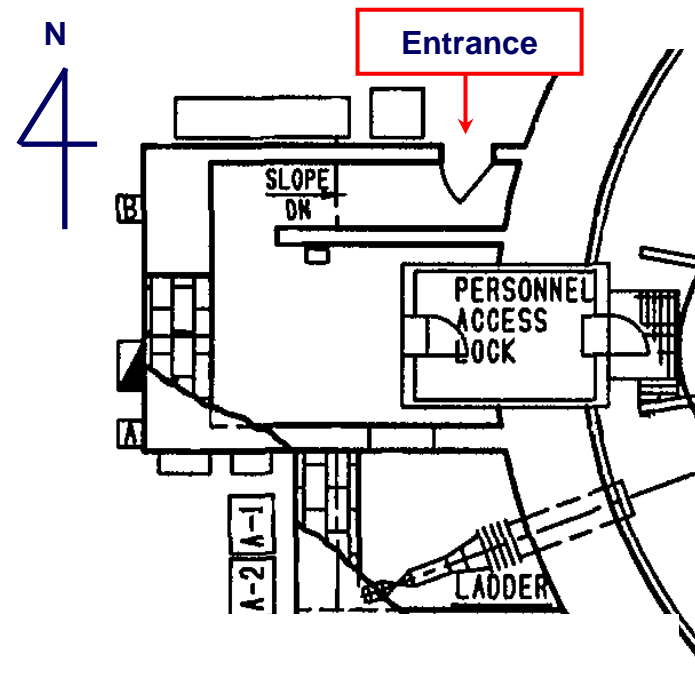
Ceiling

N

Ceiling

Ceiling

Condition of the Personnel Access Lock Room (Floor)

Floor

Floor

N

Entrance
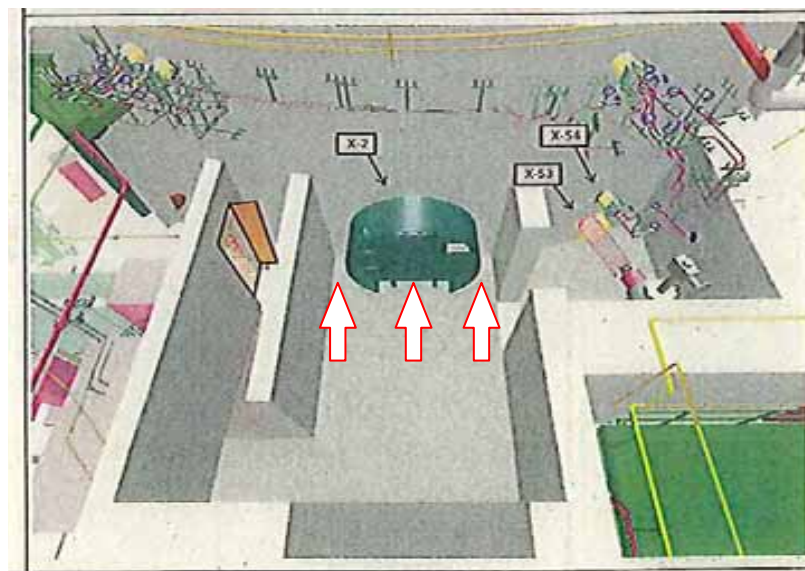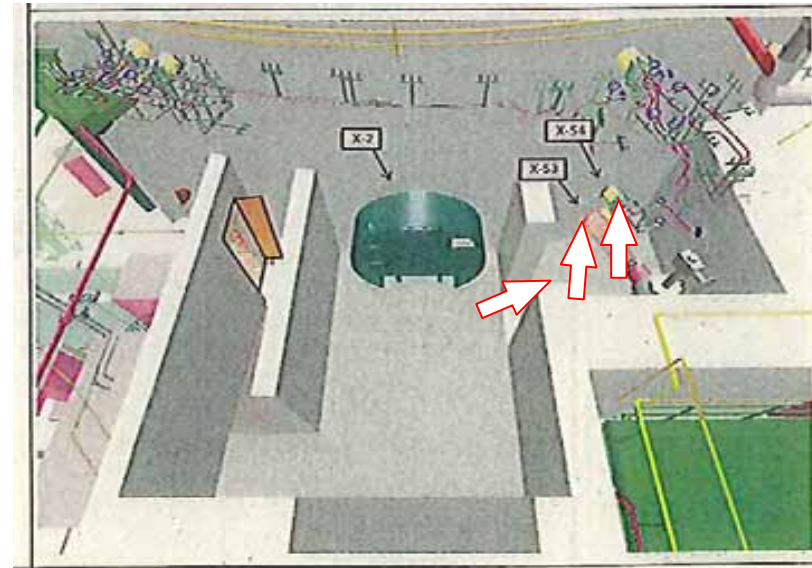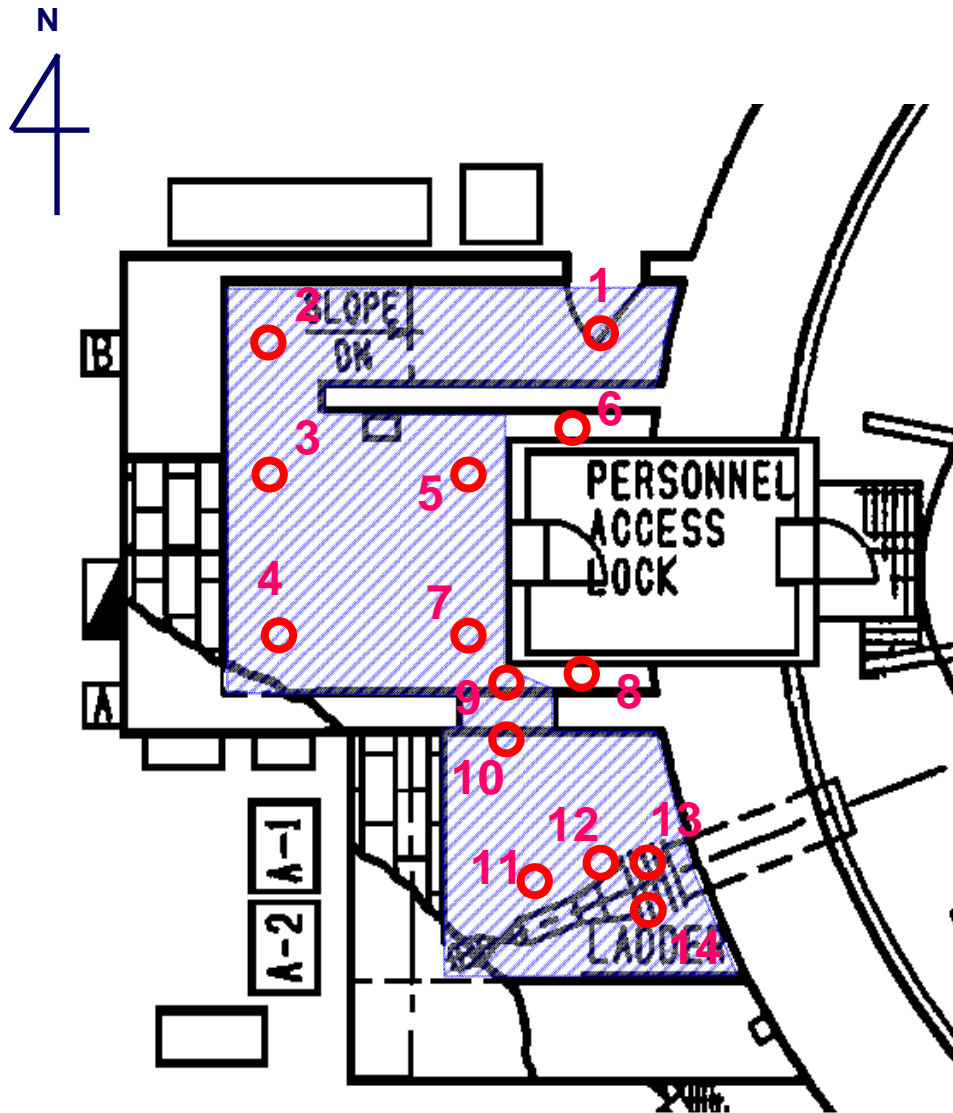
Condition of the Personnel Access Lock Room (Personnel Access Lock)

Condition of the Personnel Access Lock Room (Penetration)

Ambient Dose Rates in the Personnel Access Lock Room

Height	Dose rate [mSv/h]		Remarks
-			
-			
		-	Near the floor
		-	Near the floor
-			On the pipe
-			On the pipe

⬚ : Scope of investigation by the robot

Inside the personnel access lock room
Temperature: 14 , Humidity: 50%