

< Reference >

Unit 3 PCV Gas Control System Duct Inspection at Fukushima Daiichi Nuclear Power Station

November 26, 2012

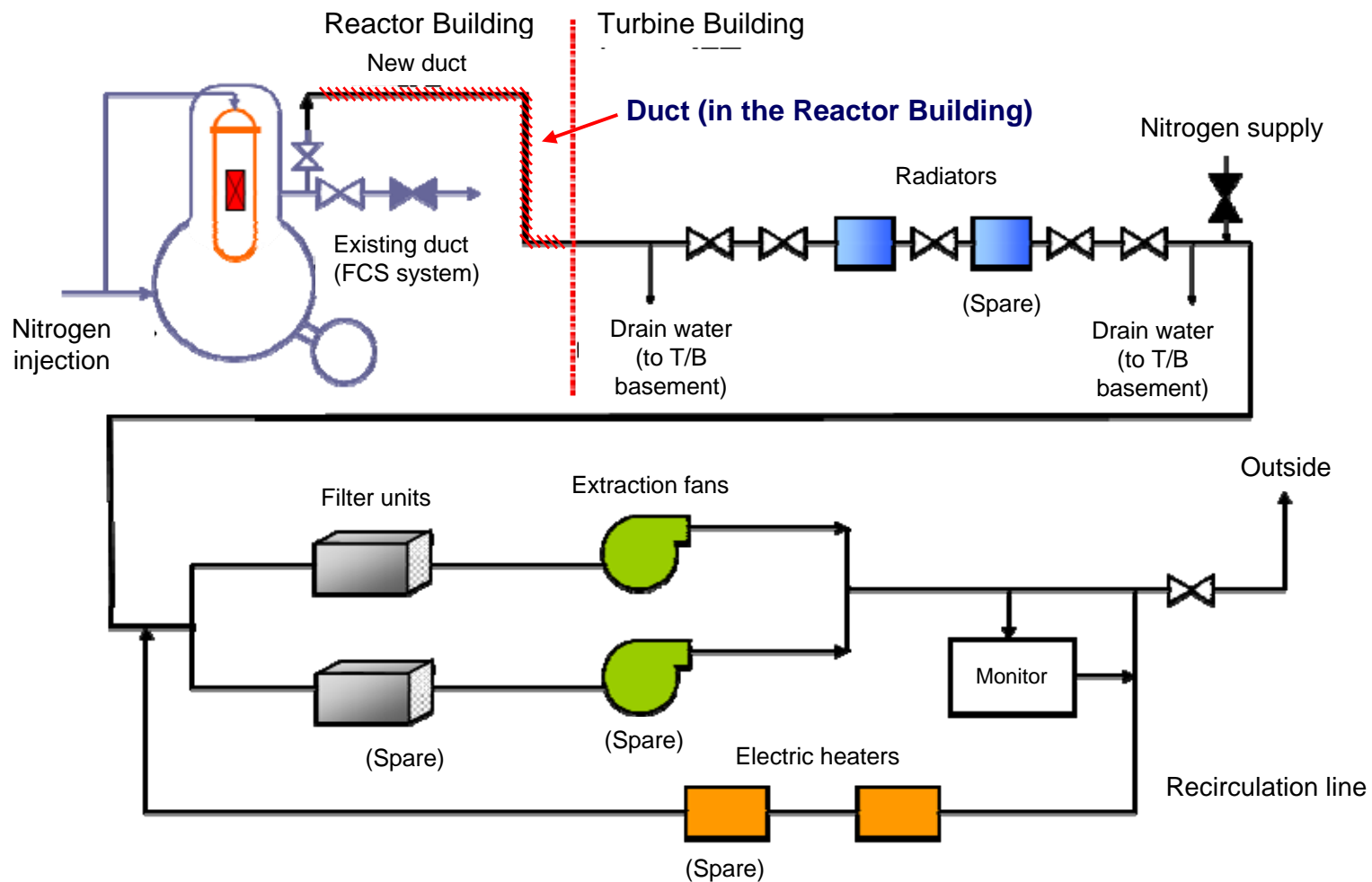
Tokyo Electric Power Company



東京電力

1. Purpose of Inspection

Inspection of the duct in Unit 3 Reactor Building

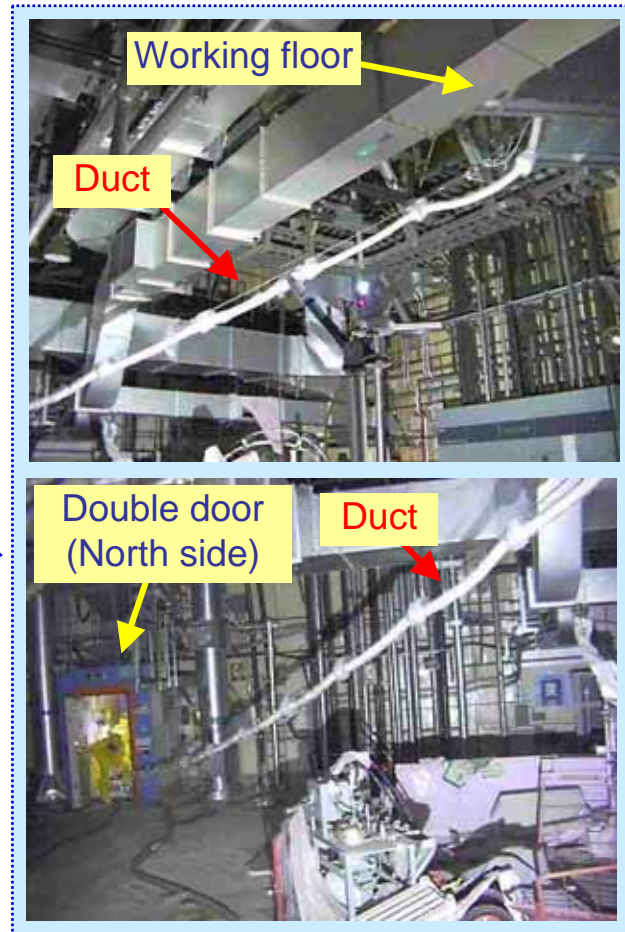
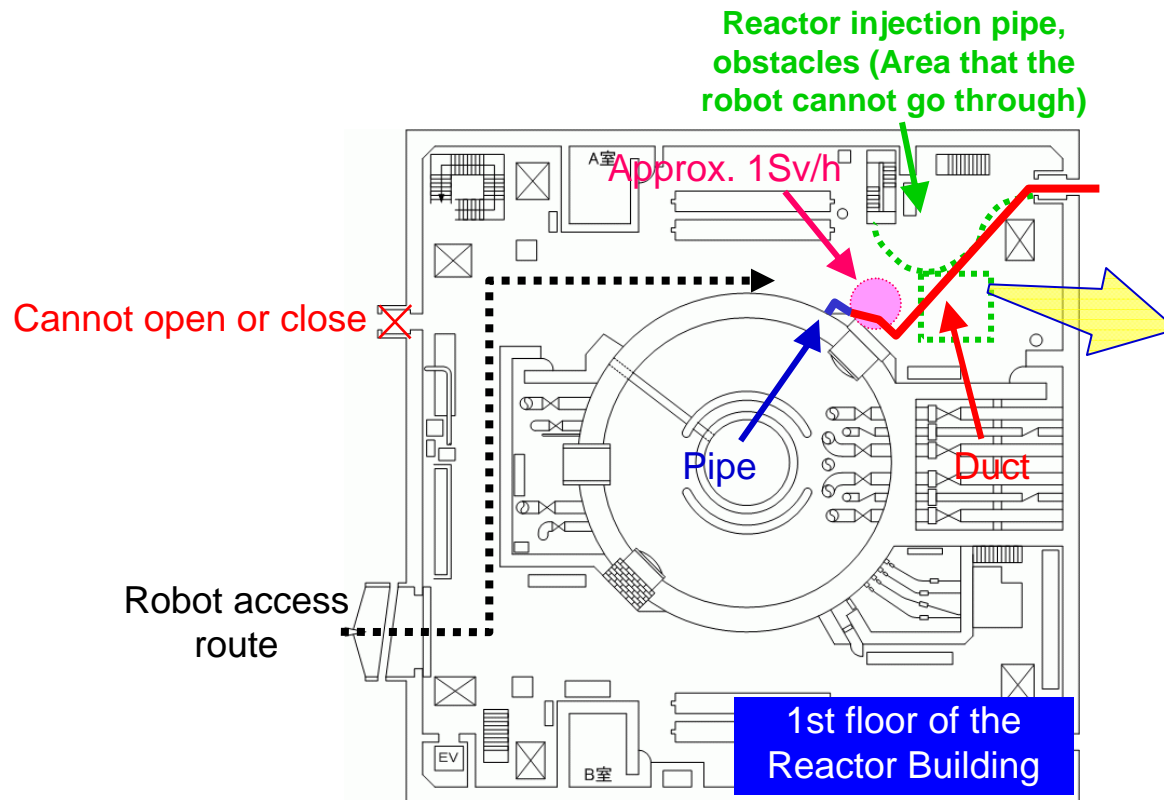


* As for Unit 2, the soundness of the duct was inspected upon repair on October 16.

2. Inspection Method

Since the area surrounding the duct in Unit 3 Reactor Building is high radiation area (Max. approx. 1Sv.h), the inspection will be performed by a robot with a camera attached.

The inspection is scheduled on November 27 (and 28), 2012



PCV gas control system duct installation condition

3. New Type Robot

Name: FRIGO-MA

Manufacturer: Mitsubishi Electric TOKKI Systems Corporation

Specification

Weight: Approx. 38kg

Size: 650mm (Length) x 490mm (Width) x 750mm (Height)

Features: Going up and down the stairs, image/sound recording, dose rate measurement, temperature/humidity measurement

Operated by cable (Wireless support function available in the case that cable is disconnected)



Introduced to Fukushima
Daiichi Nuclear Power Station
on November 7, 2012

4. Robots Used in the Inspection

- FRIGO-MA with optimum functions such as a pan-tilt camera allowing to inspect in upward direction and image recording will be used for the inspection.
- Packbot used to provide enhanced brightness for FRIGO-MA camera.
- FRIGO-MA is operated by cable while Packbot is operated wirelessly by utilizing FRIGO-MA as a relay.
- The robots are remotely operated at the Main Anti-earthquake Building.
- Quince 2 on stand by for support in the case of cable disconnection.



FRIGO-MA



Packbot



Quince 2