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

November 26, 2012
Tokyo Electric Power Company
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.
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.