

Results of Investigation around Lower Parts of Unit 1 Vent Pipes at Fukushima Daiichi NPS (Second Day)

**November 14, 2013
Tokyo Electric Power Company**

< Brief background explanation >

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In the Unit 1 Reactor Building, we have conducted a verification test on a long cable handling technology that has been developed in a **FY2012 technology platform establishment project subsidized by the Agency for Natural Resources and Energy for containing a power nuclear reactor accident (swimming investigation robot technology development toward advancement of the remote technology platform)** with the support of “Underwater Swimming Robot WG (Project Manager: Prof. Ura from Kyusyu Institute of Technology)”. This report provides investigation results obtained in the test.

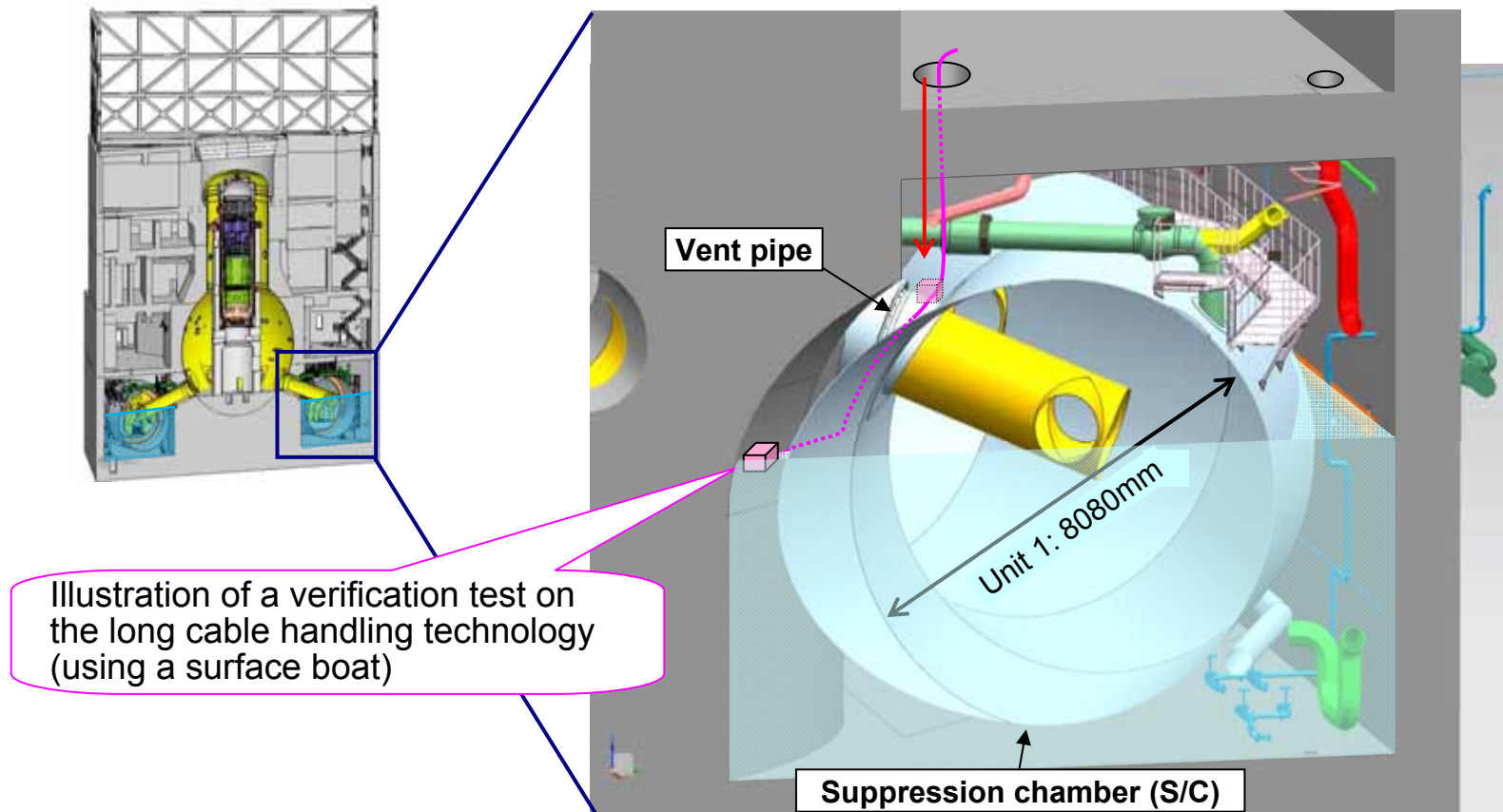
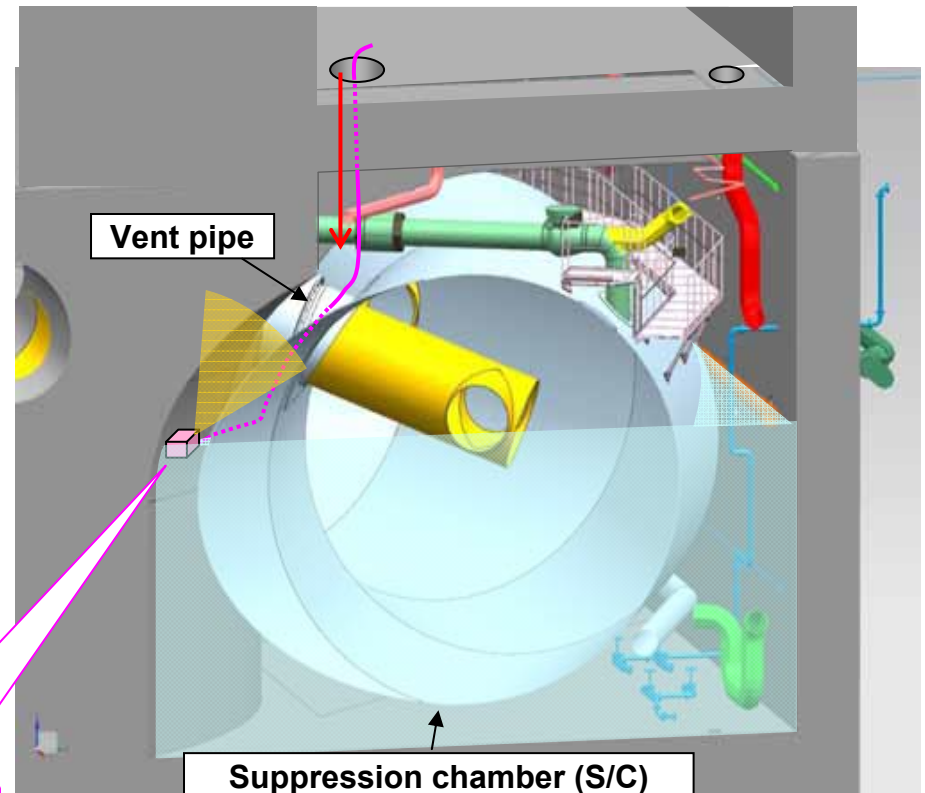
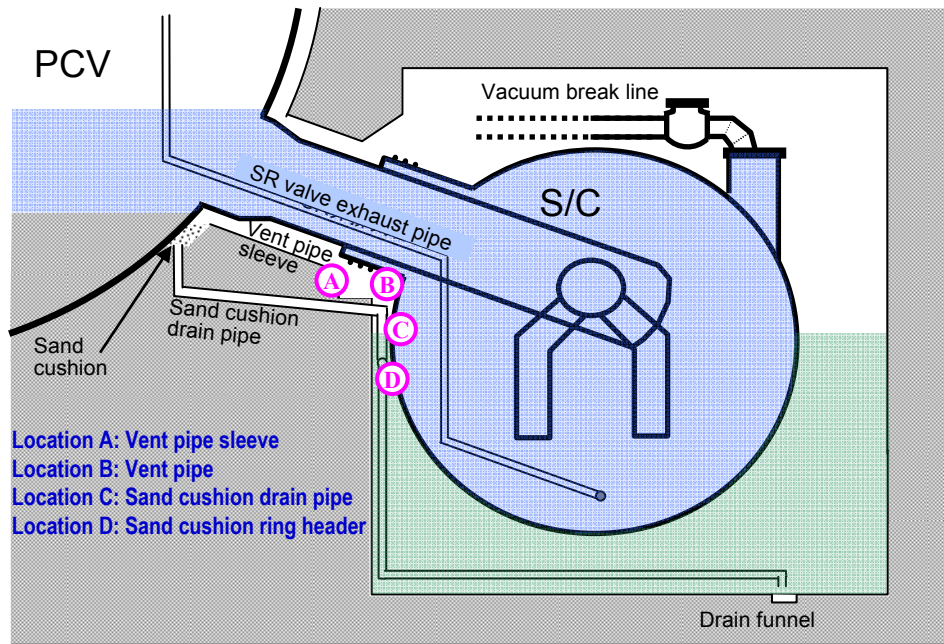


Illustration of a verification test on the long cable handling technology (using a surface boat)

1. Outline

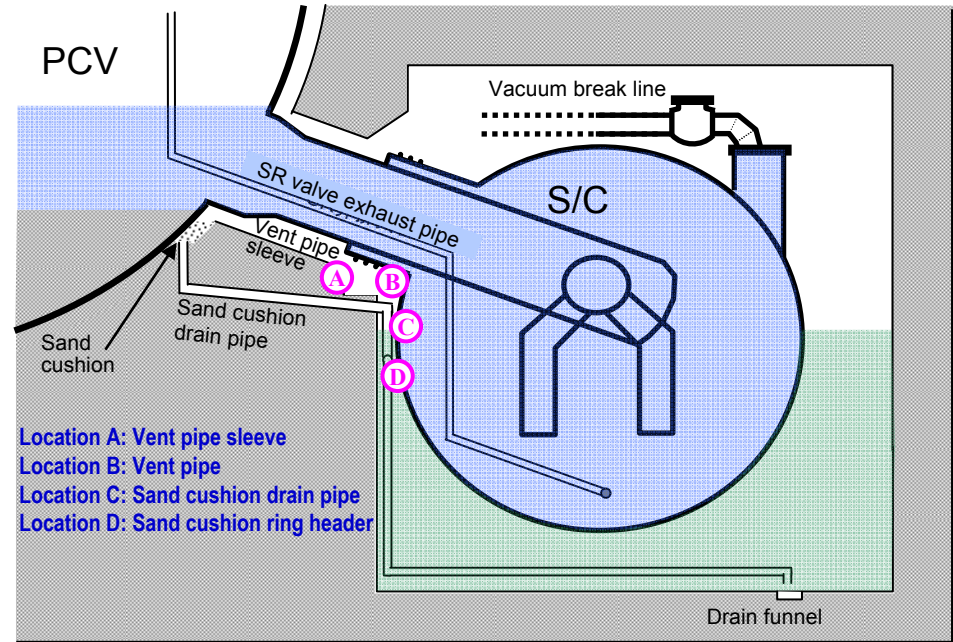
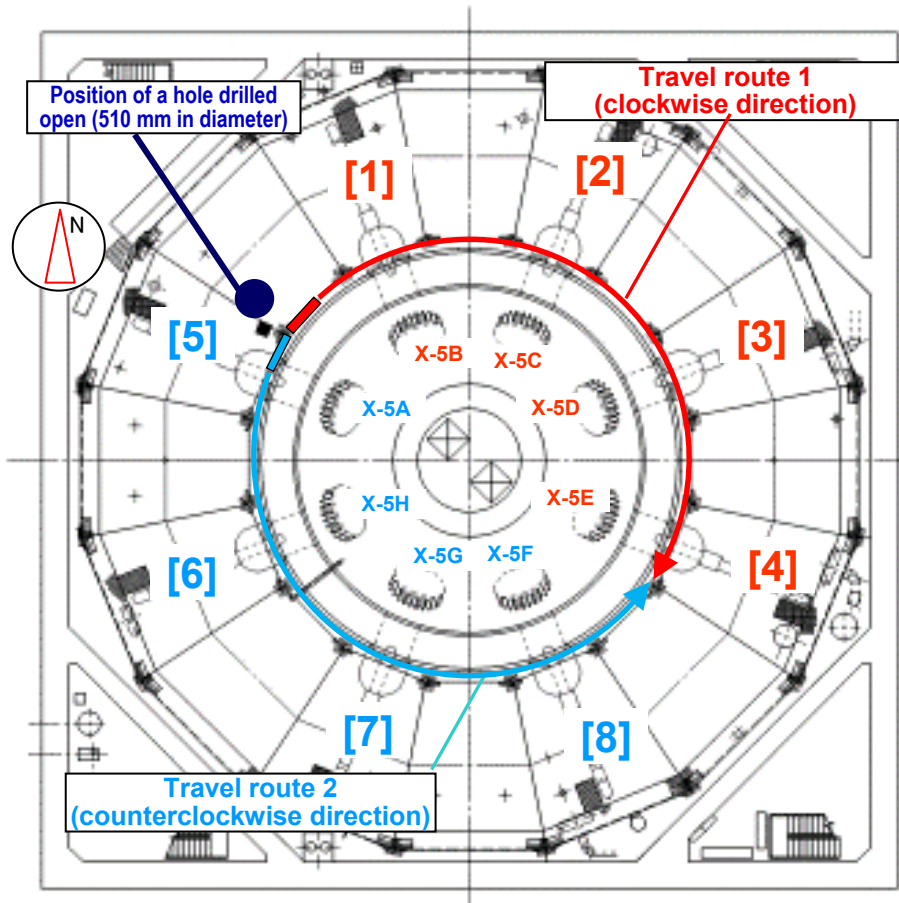
- Leakage from the vent pipes and the sand cushion drain pipes, and the external conditions of these pipes were checked using images captured by cameras mounted on a surface boat. At the same time, dose measurement was conducted around the lower parts of the vent pipes.



Surface boat: Travel test at factory

2. Investigated locations

- Investigation date: November 14, 2013
- Investigated locations: Locations [5] to [8] along the travel route 2

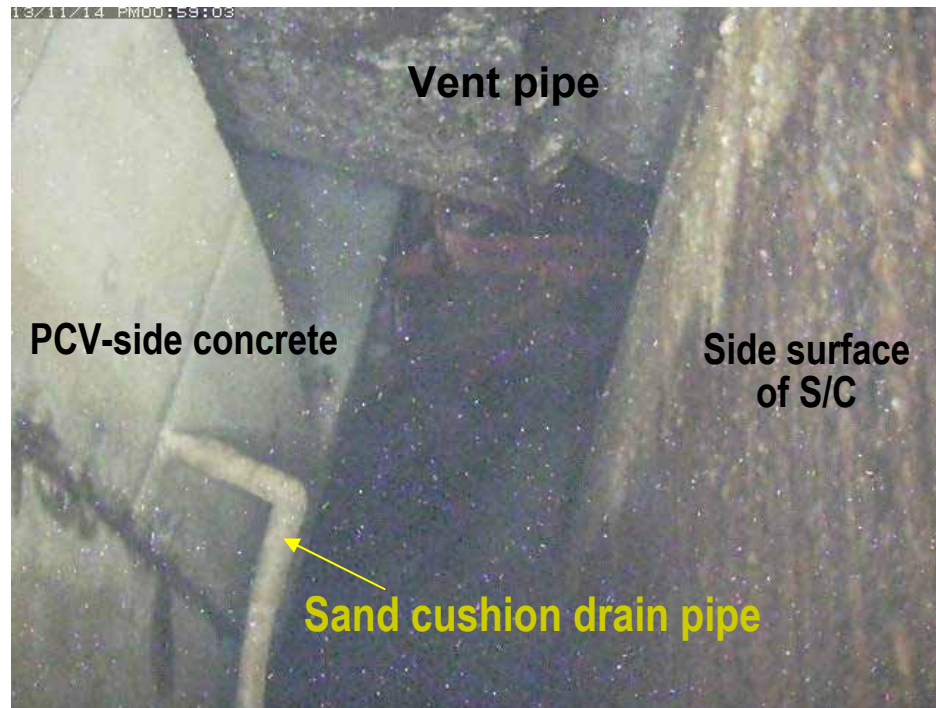


Surface boat travel routes

3. Investigation results

Investigation results on the lower parts of the vent pipes and the sand cushion drain pipes:
As a result of the investigations of the locations [5] to [8], neither leakage nor damage to the sand cushion drain pipes were found.

(Representative example)
Condition of the vent pipe at [5]



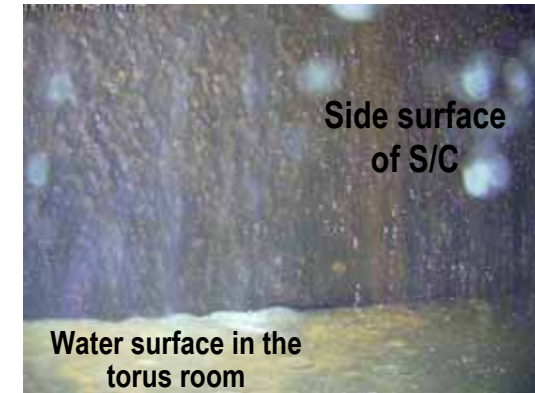
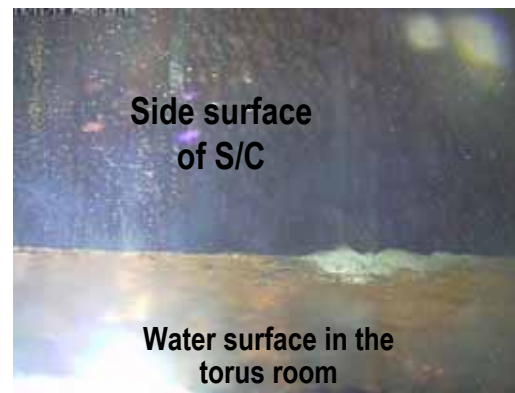
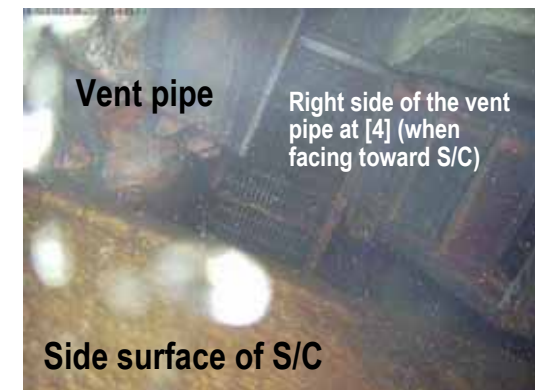
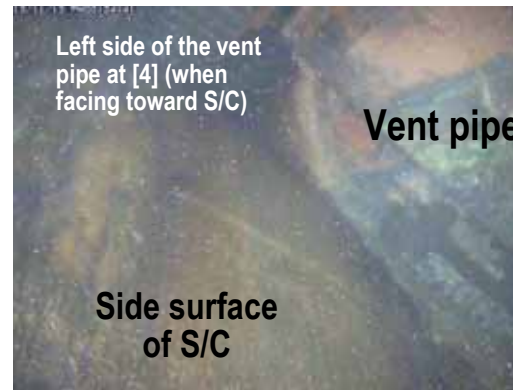
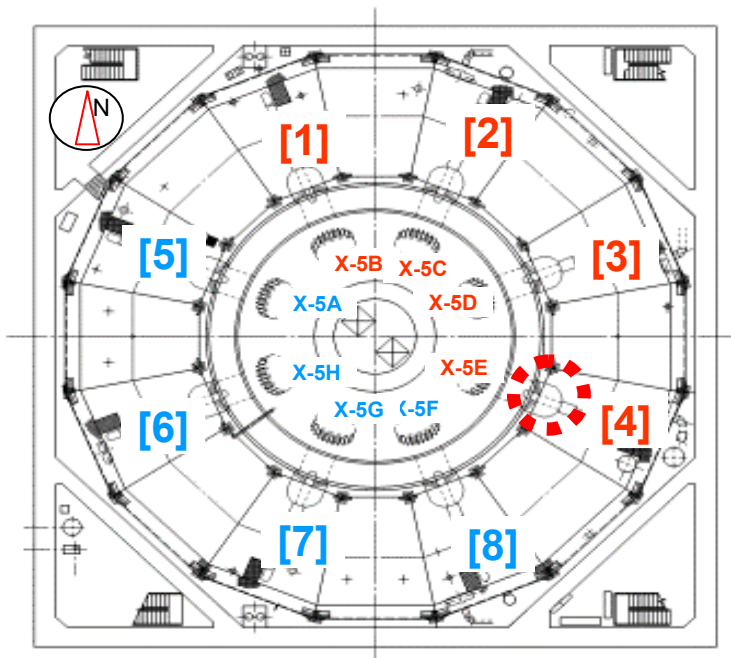
[Dose measurement results]

- Approximately 0.9 to 2.0 Sv/h along the travel route.

4-1. Summary of the investigation results for the first and second days

[Investigation results on the lower parts of the vent pipes]

Leakage from the upper part (of the S/C facing side) of the vent pipe at the location [4] was found.

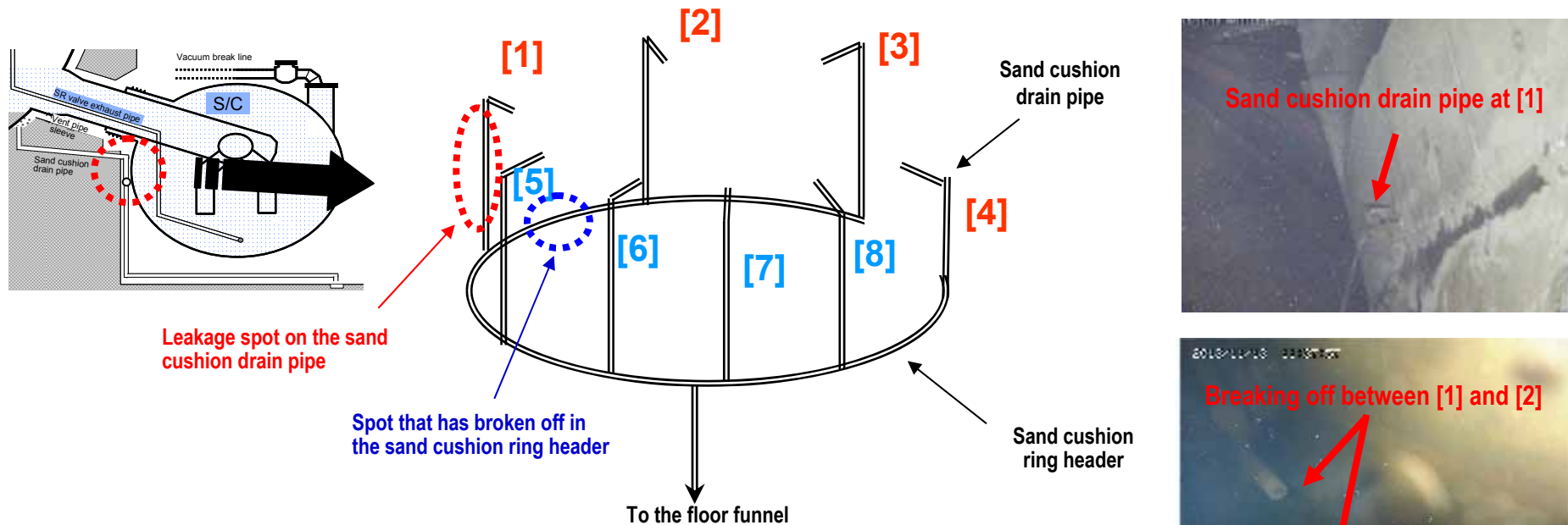


4-2. Summary of the investigation results for the first and second days

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[Investigation results on the sand cushion drain pipes]

- Damage and leakage were found on the sand cushion drain pipe at [1].
- The sand cushion ring header was found to have been damaged between [1] and [2].



* The sand cushion ring header has a shape of the letter “C”. (The ring is discontinuous and has its ends at the locations [3] and [4].)

- Information obtained in this investigation will be utilized in future consideration of investigation methods, fuel debris removal methods, etc.