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# **Coolant functioning test for the impermeable wall on the landside**

**April 28, 2015**

**Tokyo Electric Power Company**

## Agenda for today

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- **Today at 1:20 PM, an approval statement was issued for the implementation plan “Coolant functioning test for impermeable wall on the landside (along the mountain line)”.**
- **Having the approval granted, the coolant functioning test will begin upon the review of procedures by the site inspector for maintenance and the on-site check on observation holes for water levels.**
- **The test will begin at noon of April 30.**

## Purpose for implementing a trial for freezing

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Check the transition of subsurface temperatures to be measured with sight tube, and temperatures on the sending side of a brine (on a header pipe unit) as well as on the returning side of the brine (on a coolant pipe unit).

- (1) Operational status of a whole system of the brine circulation system.  
(transferring length through brine and installation layout of transferring pipe)
- (2) Impact on ground water flow (installation location, slope behind, and surrounding structure)
- (3) Impact on characteristic environment (spot in which multiple lines are located, and spots where freezing points on trial are closely located.)

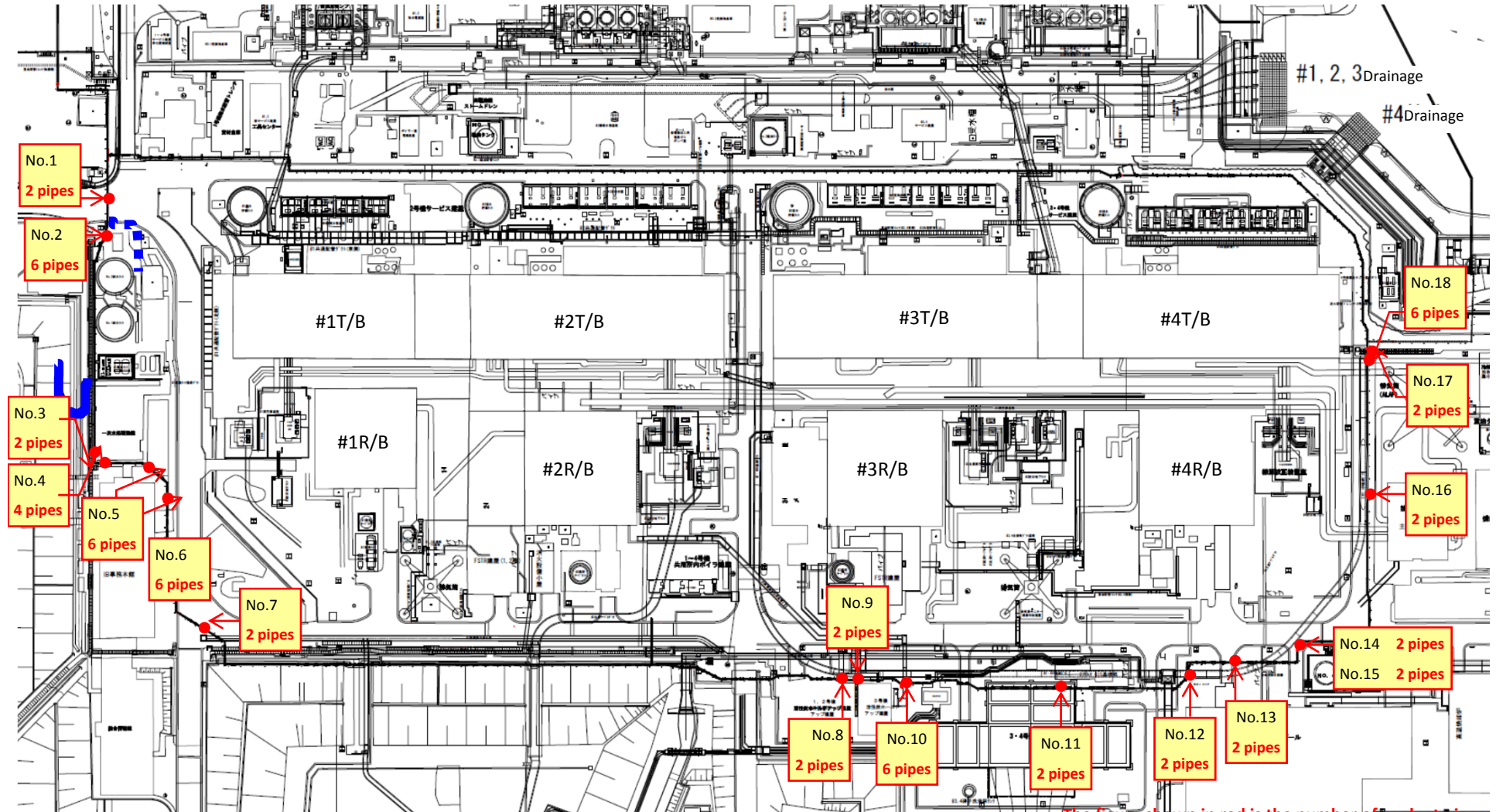
By checking the temperature transition at spots where seem to be strongly affected such as subsurface temperatures in the freezing process under the conditions mentioned above, it becomes possible to dig up points to pay attention to and study measures.

# Testing spots of impermeable wall on the land side using frozen soil methods

18 testing spots are as shown in the figure below.

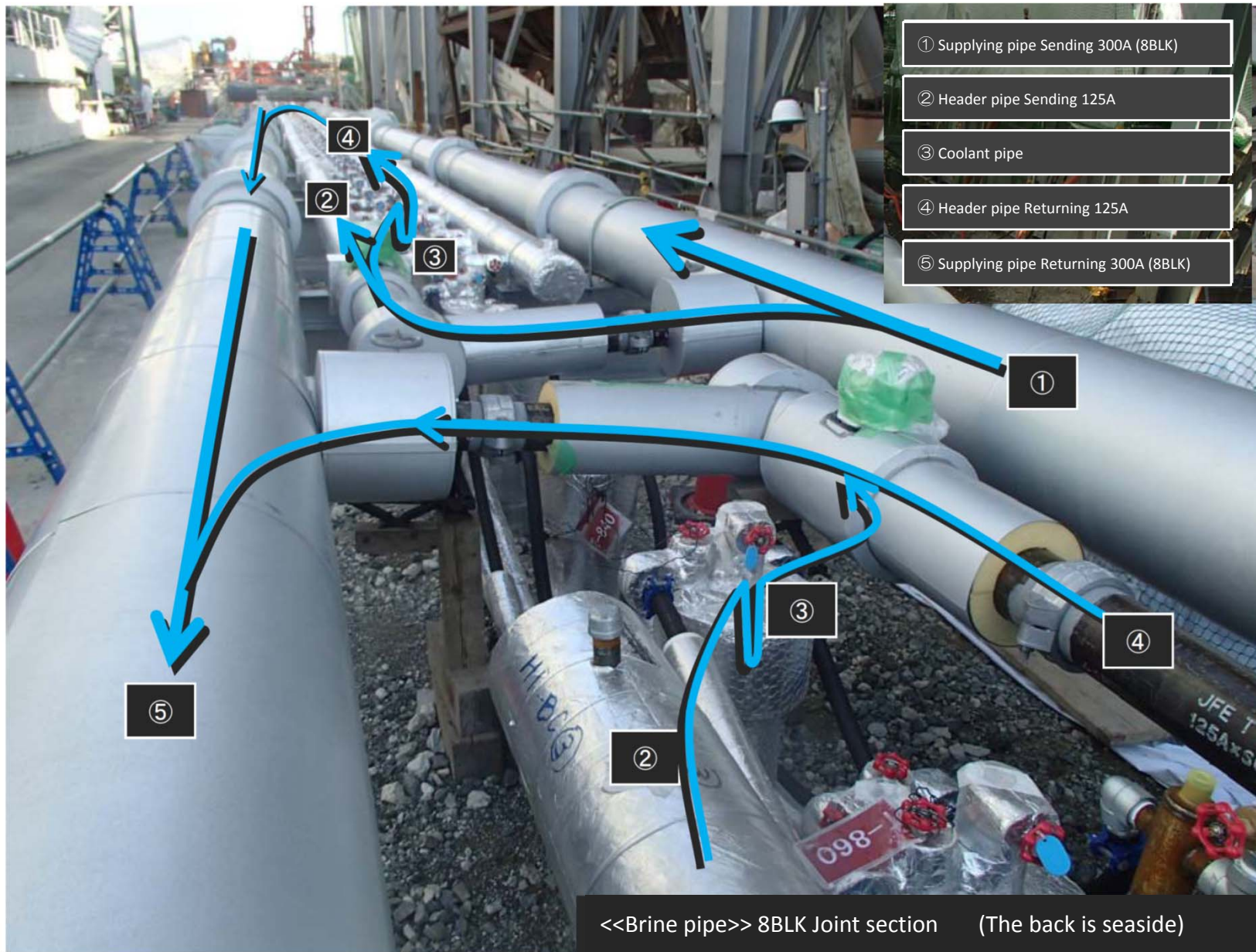


- Coolant functioning testing spot
- 3 sides on the mountain side in freezing area
- Freezing area on the sea side



The figure shown in red is the number of coolant pipes.  
The total of 58 pipes.

# Circulation through brine pipes (image)



## Future plan

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- **Subsurface temperatures measured around coolant pipes will start to be published from the third week of May. (on a weekly basis)**
- **• In case that any of the following conditions has occurred to cease the test during freezing, the situation will be informed accordingly.**

### **<Plant facilities problems>**

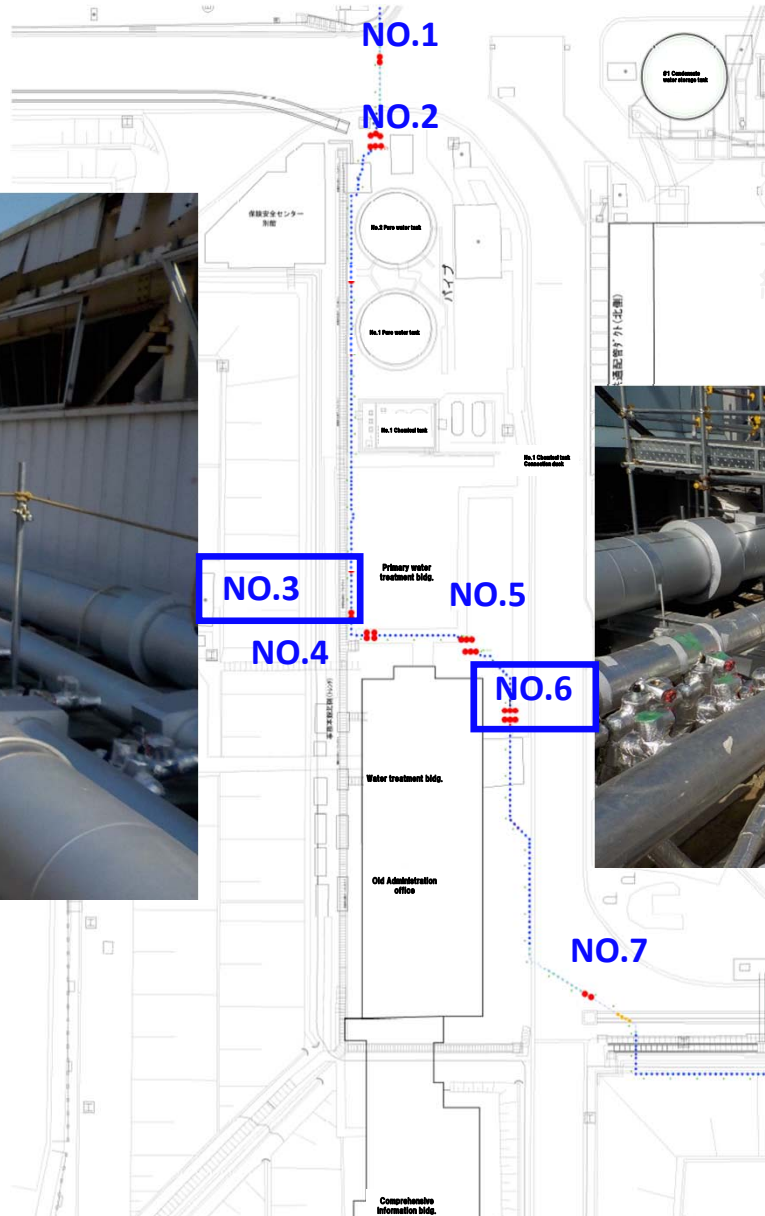
- **Low at the brine (refrigerating medium) tank levels,**
- **Operational suspension of all of the brine supplying pumps,**
- **And others such as troubles that are judged to need a complete operational suspension of the facilities.**

### **<Occurrence of fire and man-made disasters>**

# (Reference) No. 1 to 7 Details



● Coolant functioning testing spot



# (Reference) No. 8 to 11 Details

- Coolant functioning testing spot

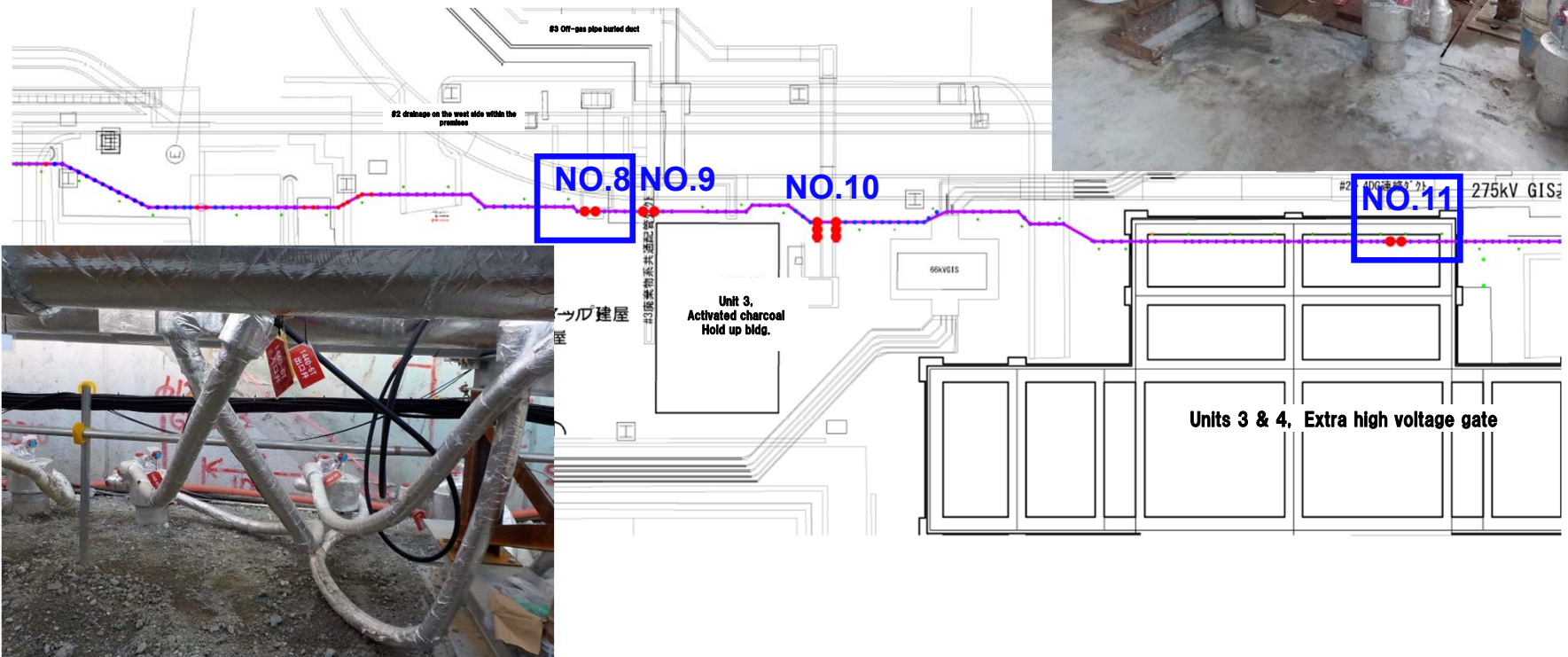


 Image attached



# (Reference) No. 11 to 15 Details



● Coolant functioning testing spot



Operational support  
Shared facilities

Image attached

# (Reference) No. 16 to 18 Details

