# Progress of Landside Impermeable Wall freezing: Phase 2 of the first stage



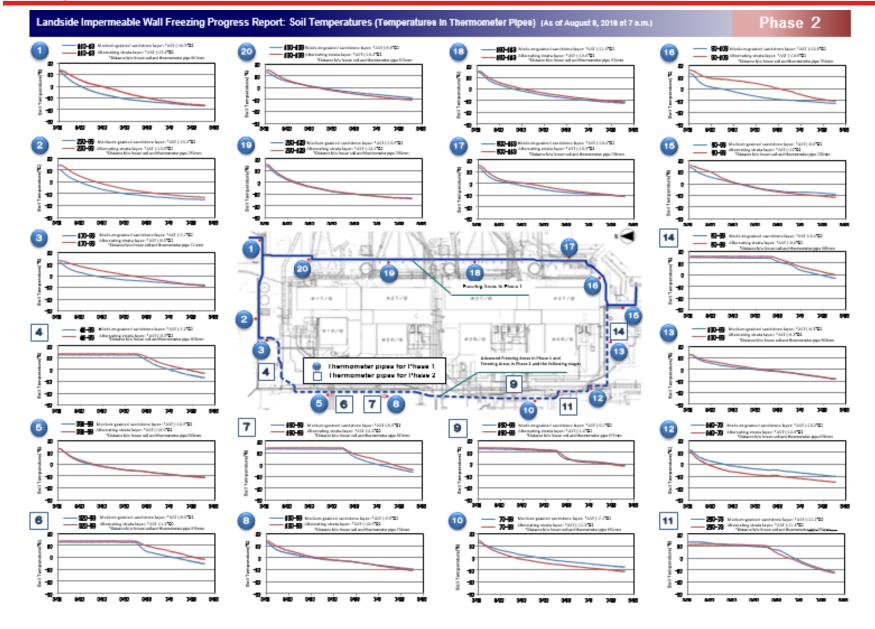
- OThe purpose of the Landside Impermeable Wall construction lies not in freezing soil to form an underground wall but in keeping groundwater from flowing into the reactor/turbine buildings and preventing new contaminated water from being generated.
- OBy closing less than 95 percent of the mountain side of the Landside Impermeable Wall in Phase 2 of the first stage, it is expected that the amount of groundwater flowing into the areas around the reactor/turbine buildings will be reduced. This will help keep groundwater from being contaminated during the first stage.
- OThroughout the first stage, how freezing of the Landside Impermeable Wall has progressed will be checked by monitoring the difference in groundwater levels inside and outside of the wall and the amount of groundwater pumped up by the subdrain and groundwater drain systems and the well point system.

Note

### Changes in soil temperatures over time

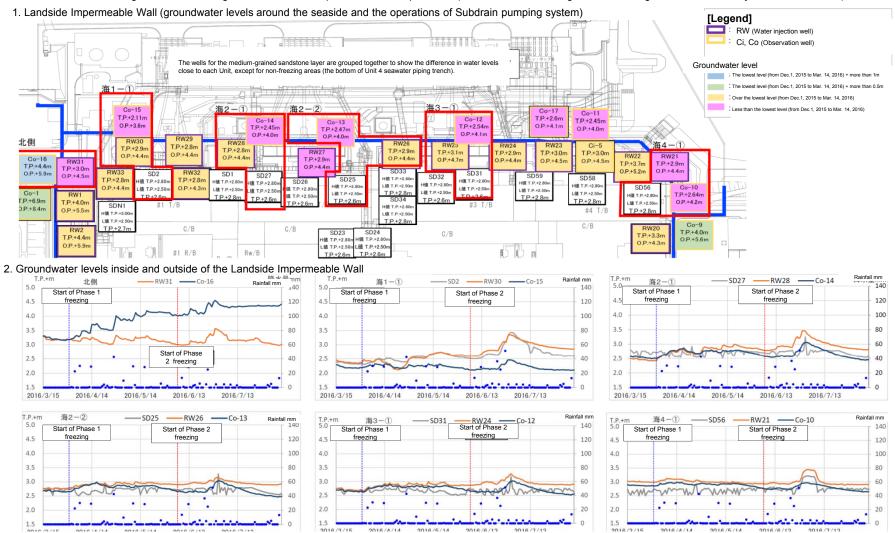
 Average Soil Temperature (AST) of medium-grained sandstone layer (blue line): average value of thermometer temperatures measured at 1m intervals except for the areas between ground surface and Ground Level 2m and the areas around the first muddy layer boarder.
Average Soil Temperature (AST) of alternating strata layer (red line): Average value of thermometer temperatures measured at 1m intervals except for the areas around the upper and lower parts of the alternating laver boarder.





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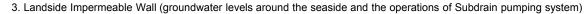


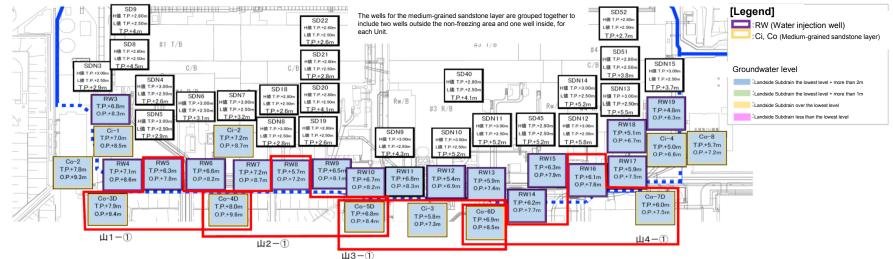
Monitoring items at initial stage of the Landside Impermeable Wall operations (Phase 2 of the first stage: the medium-grained sandstone layer 1 on the seaside)

#### **Groundwater levels and hydraulic heads** (in the medium-grained sandstone layer 2 on the landside)

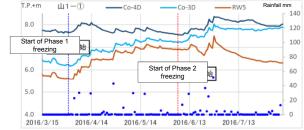


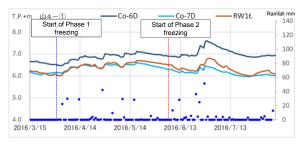
Monitoring items at initial stage of the Landside Impermeable Wall operations (Phase 2 of the first stage: the medium-grained sandstone layer 2 on the landside)

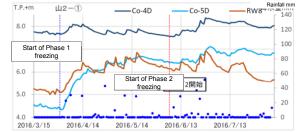


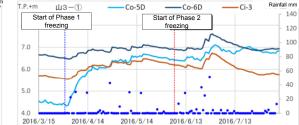


4. Groundwater levels inside and outside of the Landside Impermeable Wall



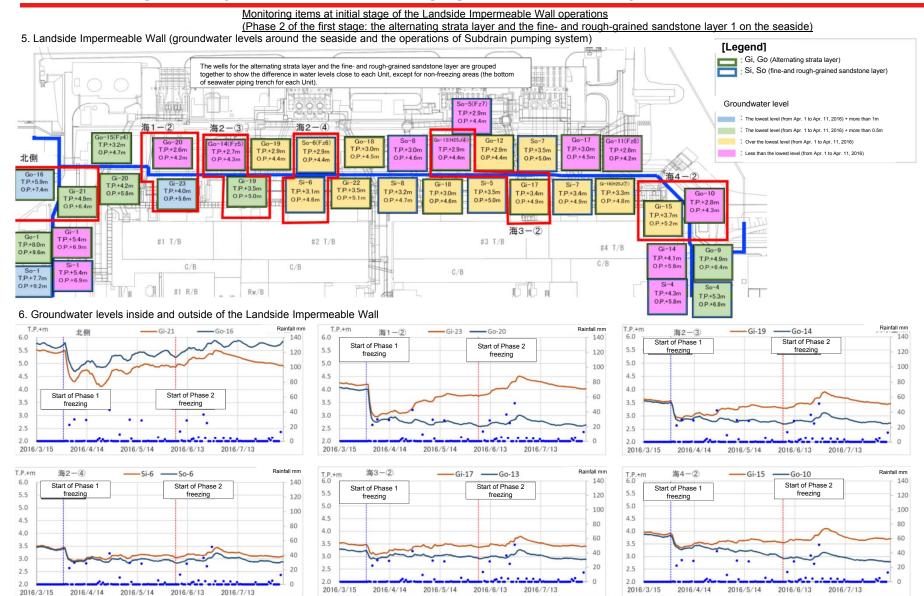






## **Groundwater levels and hydraulic heads**

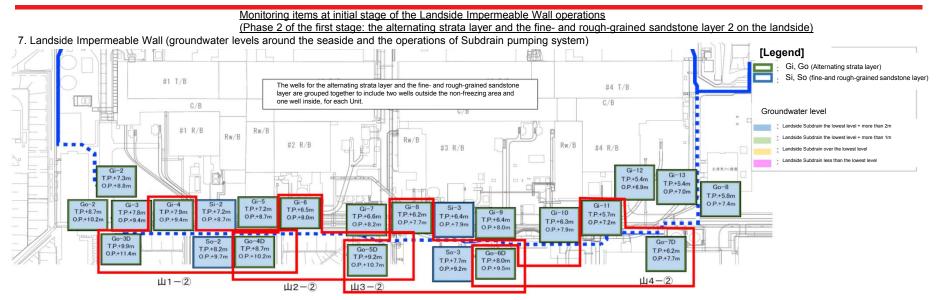
(in the alternating strata layer and the fine- and rough-grained sandstone layer 1 on the seaside)



## **Groundwater levels and hydraulic heads**

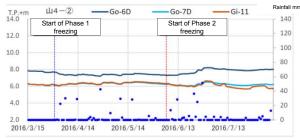
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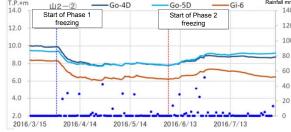
(in the alternating strata layer and the fine- and rough-grained sandstone layer 2 on the landside)



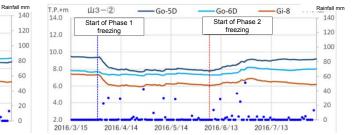
#### 8. Groundwater levels inside and outside of the Landside Impermeable Wall



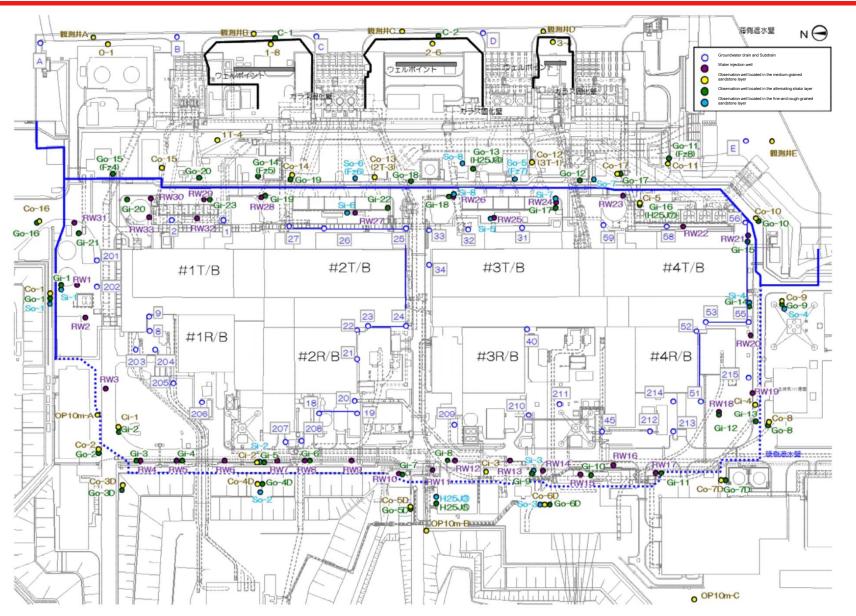




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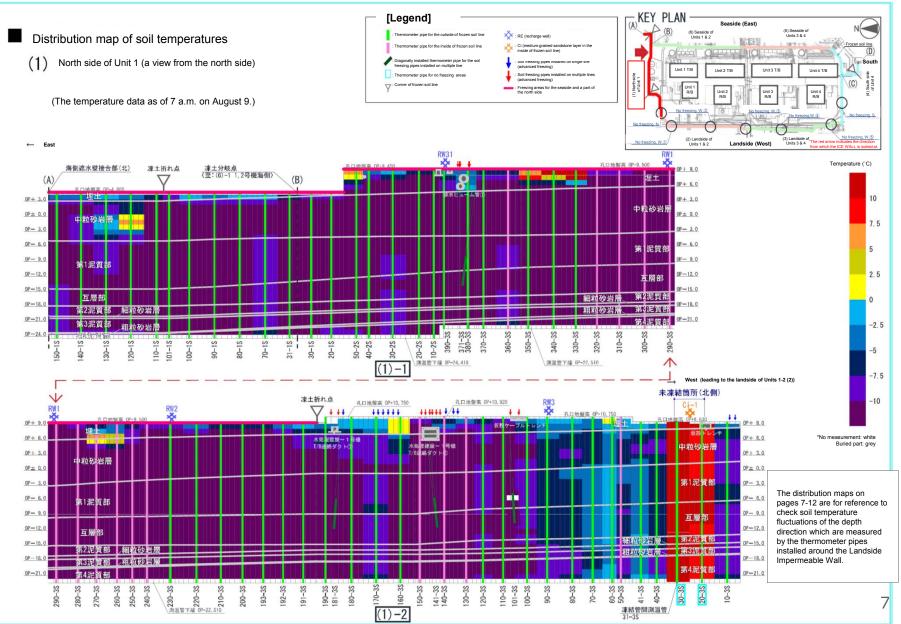


#### [Reference] Location map of groundwater level observation wells (as of June 2016)

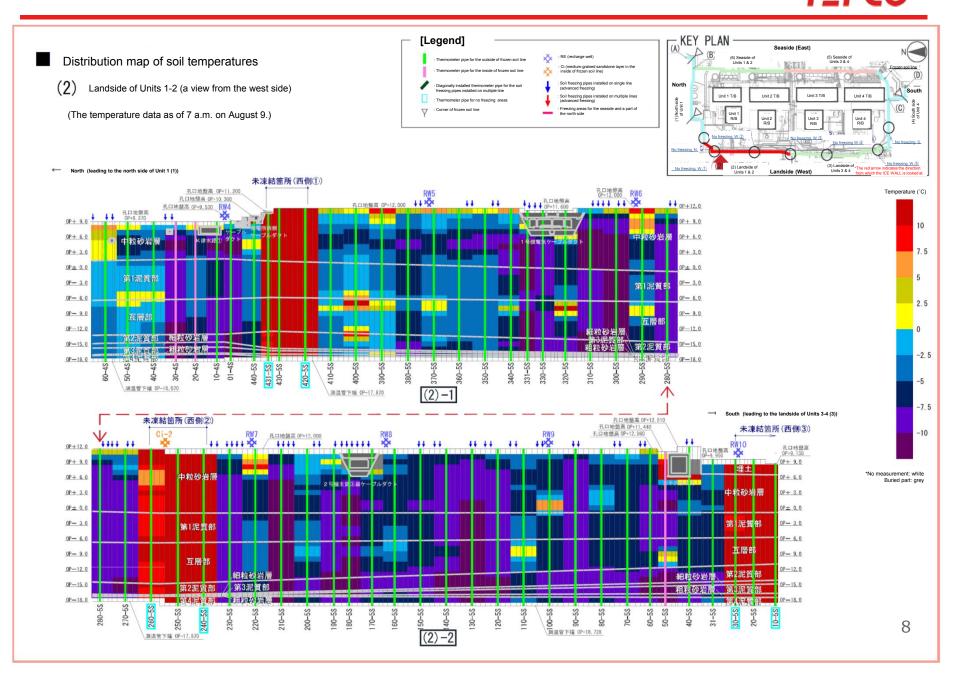


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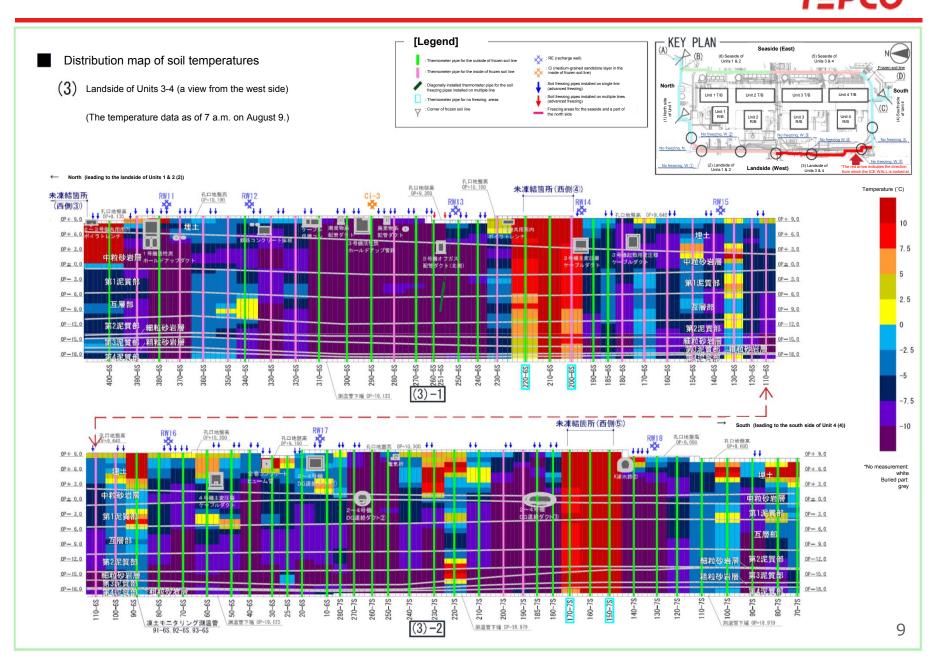
## [Reference] Distribution map of soil temperatures (north side of Unit 1)



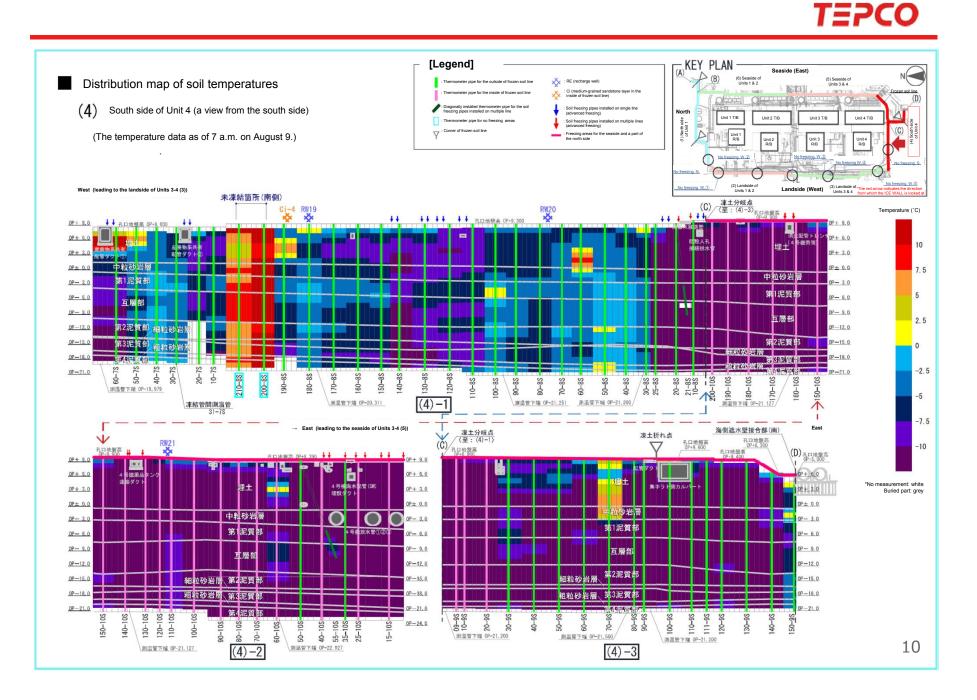
## [Reference] Distribution map of soil temperatures (west side of Units 1-2) TEPCO



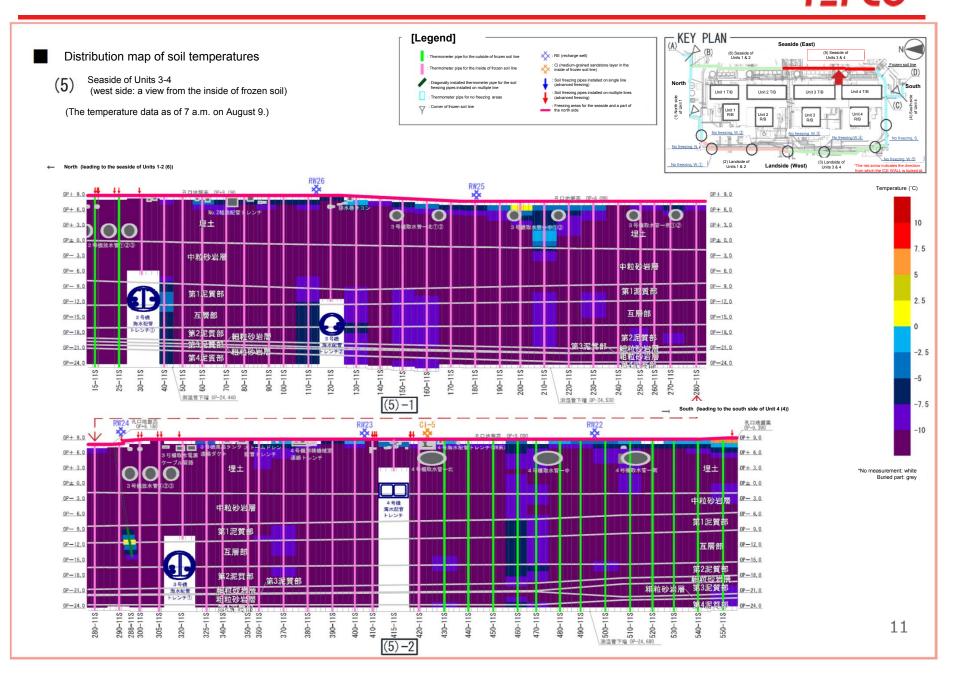
## [Reference] Distribution map of soil temperatures (west side of Units 3-4) TEPCO



## [Reference] Distribution map of soil temperatures (south side of Unit 4)



## [Reference] Distribution map of soil temperatures (east side of Units 3-4) TEPCO



#### [Reference] Distribution map of soil temperature (east side of Units 1-2) TEPCO

