Suspension of the Multi-nuclide Removal Equipment (ALPS) Due to Incorrect Operation

- Timeline
  April 3 (Wed)
  8:44 AM  Continuous operation was started under M101 mode.
  April 4 (Thu)
  5:23 AM  The multi-nuclide removal equipment was automatically suspended due to incorrect operation at the time of operation data collection.
  Around 6:30 AM  No problem was found with its operation as a result of site investigation.
  6:33 AM  Recovery work of the multi-nuclide removal equipment was started under M202 mode.

- The cause of incorrect operation
  The “Operation Switch” was selected by mistake when trying to select the “Common Facility Screen” which is used for operation data collection.
  ▪ The reaction scope of the touch pen used to operate the touch panel was too large due to its big tip.
  Then, upon screen transition, the “C Tank” switch in the sample tank selection menu used to select the destination of treated water was selected by mistake.
  ▪ Since there was a time lag from button selection to screen transition, the tank switching button was selected by mistake at the moment of screen transition.

- The countermeasures against incorrect operation
  (The countermeasures in the operation side)
  The operators have been thoroughly informed of the incident (the operator engaged in the trial operation has been already informed upon switching work shift on April 4).
  Operation will be conducted after a little pause in consideration of the time lag at the time of screen transition.
  (The countermeasures in the facility side)
  A mouse will be used instead of a touch pen to ensure correct operation.
  A warning sign will be posted near the control panel.
  Software modification will be implemented to allow for double action instead of single action for the switches related to equipment operation.
Multi-nuclide Removal Equipment Monitoring Panel in the Main Anti-Earthquake Building at Fukushima Daiichi NPS

The switch which was selected by mistake
Multi-nuclide Removal Equipment Monitoring Panel in the Main Anti-Earthquake Building at Fukushima Daiichi NPS

Common System

The switch which should have been selected

Common Facility Screen

Operation Switch

The switch which was selected by mistake
The switch which was selected by mistake
"C Tank" was selected by mistake

"M101 Treatment Process Error" alarm went off since the C Tank system was powered off

"A Tank" to which the treated water is transferred from the multi-nuclide removal equipment

Sample tank selection menu to select the destination of treated water

Multi- nuclide Removal Equipment Monitoring Panel in the Main Anti-Earthquake Building at Fukushima Daiichi NPS (Operation Switch Screen)