

Radioactive coolant leakage into containment areas closed to environment during annual outage at Olkiluoto 3

A leakage of some 100 cubic metres of reactor coolant* occurred at Olkiluoto 3 (OL3) in connection with the filling of the reactor pool. The coolant flowed into containment rooms closed to the environment and into the floor drain system of the containment. The incident did not pose any risk to the personnel, the environment, or nuclear safety.

The annual outage started at OL3 on 1 March 2025 and is planned to go on until early May. The maintenance activities carried out have progressed on schedule. However, on Friday 7 March, a significant operating event occurred during the maintenance work when radioactive coolant leaked at the reactor plant into part of the rooms of the containment. The leakage occurred as a result of a human error through a hatch of the reactor pool that had not been closed properly. The significance of the event to radiation safety was low, in the end, owing to the safety actions taken.

TVO has initiated an event investigation about the incident and will implement necessary actions to prevent the recurrence of the event.

The reactor coolant that leaked into the containment flowed from the rooms into the drains of the floor drain system which are designed to collect and drain any reactor coolant leakages. The radioactive wastewater will be handled in accordance with appropriate procedures utilising various systems. Cleaning work was commenced quickly in the containment rooms and personnel instructed about necessary changes in accessible areas.

At the moment, annual outage work continues at Olkiluoto 3 as planned. The event does not affect the planned duration of the annual outage at OL3.

*The reactor coolant is heated in the reactor pressure vessel of the nuclear power plant and then flows in the reactor coolant piping to the steam generator where a heat transfer to the secondary circuit occurs. The coolant is then pumped from the steam generators back to the pressure vessel.