

24.06.2025

Annual outages completed in Olkiluoto for the year 2025

The annual outages have been concluded in Olkiluoto for this year. They ended today, Tuesday 24 June, at 10:06 PM, when the Olkiluoto 2 (OL2) plant unit was connected to the national grid.

The annual outage at OL2 started on 25 May and took 30 days and 4 hours. The most significant work activities carried out at OL2 included, for example, leak tightness tests in the containment and on isolation valves, the replacement of electrical feedthrough modules in the containment as well as measurements related to the replacement of the steam separator and tests associated with the annual maintenance of the new fuel transfer machine.

This year, OL2 was the last one of the annual outages which started on 1 May. At the Olkiluoto 3 (OL3) plant unit the outage was completed already on 29 April and the refuelling outage at the Olkiluoto 1 plant unit ended on 22 May.

The annual outages went well this spring in Olkiluoto and were concluded, with the exception of OL2, on or ahead of schedule. The annual outage of OL3, which was estimated to take 63 days, was carried out in under 60 days. The annual outage at OL1 took 11 days ending about 12 hours ahead of the original schedule. At OL2, the service outage exceeded the original schedule by about nine days due to some technical problems.

In addition to TVO's own personnel, about 1500 employees of subcontractors took part in the annual outage works at all the Olkiluoto plant units.

- The annual outages at the three plant units spanned from March till mid-summer, testing the coping of a large number of people – thank you to everyone involved for this. The annual outages are designed to guarantee as safe and uneventful operating cycles as possible, which makes their implementation to a high standard extremely important for the next cycles. An interesting point is that for the first time, OL3 now underwent a service outage ahead of a longer operating cycle of 18 months, says **Marjo Mustonen** who is the Senior Vice President in charge of electricity production.

Areas in need of improvement also identified during annual outage at OL2

During the annual outage, a shortcoming was detected in work related to the safety-critical make-up water supply system. Only one subsystem was in operation when work was carried out on the control rod drive mechanism, but requirements specify



that there should be two. This did not cause any risk to the safety of the plant unit. TVO has submitted a preliminary operating event report addressing this matter to the Radiation and Nuclear Safety Authority of Finland (STUK). TVO's preliminary rating of the degree of severity of the event is level 1* on the international INES scale. STUK will approve the final INES rating during the review process of the special report.

During the annual outage of OL2, an incident related to radiation protection occurred on 1 June in connection with the handling of a control rod. Due to malfunctioning equipment, the control rod was lifted too close to water surface. Because of this, the employees working in the reactor hall were exposed to a higher than normal radiation dose. However, the radiation doses were extremely low and did not cause any danger to the workers. After the investigation of the incident and corrective actions, the annual outage could be continued as planned.

Also, the schedule of the maintenance activities at OL2 had to be extended due to some technical challenges connected with the new fuel transfer machine and the failure of the equipment used in reactor inspections. As a result of this event, there was a possibility that some foreign material had ended up in the reactor that had to be located and retrieved, which took time.

** The events occurring at a nuclear power plant are classified on the international INES scale according to their degree of severity. The INES scale has seven categories of severity. Category 4–7 events are classified as accidents, category 1–3 events as incidents or anomalies with a negative effect on safety, and category 0 events as deviations with no significance for safety.*