



Letter

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Answers to questions presented by Saxon State Ministry of Environment and Agriculture to Environmental Impact Assessment of Extending the Service Life of the Olkiluoto 1 and Olkiluoto 2 Plant Units and Upgrading Their Thermal Power

We will complement our previous answers as follows:

- 1. Concrete information on corresponding preventive or retrofitting measures for OL 1 and OL 2 is of interest. Have corresponding precautions also been taken for OL 1 and OL 2, or are they planned?**

Appropriate precautionary measures have been implemented for all facilities.

The air intakes of the emergency diesel generators for OL1 and OL2 are designed to protect the charge air filter from excessive water, dust, and snow. The intake air grille has also an electric heating element that prevents ice from accumulating on the surfaces of the grille's air intake opening. If the charge air intake from the outside is blocked, air intake will be switched to indoor mode, which means that the charge air is drawn from inside the diesel engine hall.

Many precautions against frazil ice have been implemented for OL1 and OL2. These include e.g. pumping of warmer water from the water outlet to the water inlets of OL1 and OL2. These measures are implemented every year when the inlet water temperature drops below a predefined threshold.

Similar to OL3, oil booms are readily available and can be installed to protect the seawater inlets of OL1 and OL2.

- 2. Are the aging management and long-term operation programs implemented for OL 1 and OL 2 compliant with the requirements formulated in SSG-48 and the WENRA SRL? What is the basis for this assessment? What deviations, if any, exist?**

The complete renewal of the Nuclear Energy legislation is ongoing. Also, in parallel the work to renew STUK's nuclear safety regulations and guides, is underway. The Renewal of the Nuclear Energy Legislation and Nuclear Safety Regulations takes also into account the recent WENRA SRL and IAEA's guidance. Implementation of the new Safety Regulation is scheduled by 2026 at latest and legislation soon after that by the end of 2028.

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TVO's next periodic safety review is scheduled to take place 2028. By that the renewed safety regulation is implemented so the review is done against the new requirements, taking also into account the recent WENRA SRL and IAEA SSG-48 requirements on long term operation.

3. **How is the scope of consideration of the technical facilities for aging management of OL1 and OL2 defined?**

Aging management for OL1 and OL2 considers SSCs relevant for plant safety as well as for plant operation. Safety Classification is one of the key elements used in the definition of the scope for aging management. Safety Classification considers mainly the safety relevance of the SSC and includes SSC fulfilling safety functions. Selection process for aging management is complemented with information coming from both deterministic and probabilistic safety assessment as well as from operating experience. Especially risk-based information coming from the probabilistic analyses (PRA) is valuable as PRA includes analyses of internal hazards, covering e.g flooding, high energy line breaks, missiles and failures of lifting equipment, as well as of external hazards, covering e.g. seismic events. The use of PRA information ensures that essential SSCs are included in the scope of aging management, even those that would not be covered based solely on their Safety Class. In TVO's view, the scope of the aging management program for OL1 and OL2 meets the requirements set out in paragraph 5.16 of the IAEA SSG-48 and is also more generally aligned with the aging management and long-term operation programme approach set out in the IAEA SSG-48.