



**Letter**

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## **Answers to questions presented by Ministry of Climate of Estonia to Environmental Impact Assessment of Extending the Service Life of the Olkiluoto 1 and Olkiluoto 2 Plant Units and Uprating Their Thermal Power**

### **1. In the event of a worst-case accident, how long will the radiation reach Estonia and other neighbouring countries?**

The time depends on the weather conditions. If the wind speed is 5 m/s, the release can be expected to travel 100 km in about 5.5 hours. In that case, it would take about 16.5 hours, assuming wind blowing directly to Estonia (a distance of approximately 300 km).

### **2. The Executive Summary and the Joint Strategic Report do not explain whether, to what extent and what would be the impact on the environment of neighbouring countries, taking into account the proximity of the three reactors (Olkiluoto 1, Olkiluoto 2 and Olkiluoto 3), the domino effect of the accident situation has been taken into account.**

Olkiluoto NPP units share the same site, but they share very little, if any, safety-relevant systems, components or structures. The consequences of a severe accident on one unit on the other units have been studied, especially with focus on the habitability of main control rooms and possibilities to perform necessary actions on the yard. Based on this, the probability for such a domino effect is considered very small. Also, external hazards have only a small contribution to the core damage frequencies of the Olkiluoto units.

**On the basis of this information, Estonia may consider whether, in the event of an accident, it is necessary to implement the Estonian Radiological Emergency Plan, to undertake rescue operations at the level of the emergency services due to the consequences of a radiological accident, or to provide resources to Finland in the form of a request for assistance.**

The single unit accident scenario is the basis of the calculations presented in the EIA. If needed, as a conservative approach, severe accident dose and fallout results may be scaled by a suitable factor.

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