



Energētikas un vides aģentūra

Energy and Environment Agency

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SYKE/2023/1899

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Regarding the transboundary environmental impact assessment of the possibility of extending the service life of the Olkiluoto 1 and Olkiluoto 2 plant units and uprating their thermal power at the Olkiluoto nuclear power plant in Finland

The Energy and Environment Agency¹ (hereinafter – the Agency) confirms that on 11 December 2024² received information and the environment impact assessment (hereinafter – EIA) report regarding *The possibility of extending the service life of the Olkiluoto 1 and Olkiluoto 2 plant units and uprating their thermal power at the Olkiluoto nuclear power plant in Finland* (hereinafter – the Project) in accordance with Article 4 and 5 of the Convention on Environmental Impact Assessment in a Transboundary Context (hereinafter – the Espoo Convention).

We inform that the term for the process of public participation of the EIA report of the Project in Latvia was determined from 12 December 2024 until 7 February 2025. Information regarding the EIA report of the Project and public participation options was published on the Agency's webpage³ and sent to the various stakeholders considering the national procedure of the EIA in the transboundary context. Please be informed that we have received response from the Ministry of Foreign Affairs of the Republic of Latvia, the Ministry of Interior of the Republic of Latvia, the Ministry of Health of the Republic of Latvia, the State Centre for Defence Logistics and Procurement, the Nature Conservation Agency, the State Environmental Service. The Agency has not received comments from the public.

The Ministry of Foreign Affairs of the Republic of Latvia, the Ministry of Interior of the Republic of Latvia and the State Centre for Defence Logistics and Procurement informed that

¹ The Environment State Bureau, in accordance with Cabinet of Ministers order No. 1191 of 17 December 2024 on the reorganization of the Environment State Bureau and State Construction Control Bureau”, reorganized as the Energy and Environment Agency by 01.02.2025.

² Registration No 5-05/3416/2024.

³ <https://www.eva.gov.lv/lv/parrobezu-ietekmes-uz-vidi-novertejumu-projekti/somijas-atomelektrostacijas-olkiluoto-kodolreaktoru-olkiluoto-1-un-olkiluoto-2-ekspluatacijas-un-maksimalas-termiskas-jaudas-palielinasana>

authorities reviewed documentation and have no comments regarding the EIA report of the Project.

The Ministry of Health of the Republic of Latvia concluded that considering the distance of the Olkiluoto nuclear power plant from the territory of Latvia, the Project will not have a direct impact on the territory of the Republic of Latvia in terms of human health. The Ministry of Health had no comments on the EIA report in the context of transboundary impacts.

The Nature Conservation Agency provided the following opinion and comments on the EIA report of the Project:

- The EIA report is prepared in good quality, the Project's most significant impact on the environment is sufficiently accurately analyzed.
- The EIA report determines the most important impacts on the environment and assesses the transboundary impact.
- The EIA report contains a description of possible methods of prevention of transboundary impacts, including detailed modeling methods and a hypothetical description of the serious consequences of a reactor accident, as well as the measures to be taken to reduce the harmful effects.

The Nature Conservation Agency indicated that the Project can only be implemented if strict supervision and monitoring of the Project is carried out. The Nature Conservation Agency would like to get acquainted with the results of the monitoring assessment of the Project, including adverse transboundary impacts, if any is found during the monitoring assessment.

The State Environmental Service provided the following comments:

1. The EIA report summary in Latvian language does not give clear opinion on which of the proposed alternatives is chosen. Please clarify.
2. The EIA report summary in Latvian language does not give clear understanding how alternatives about extending the service life of the Olkiluoto 1 and Olkiluoto 2 (with and without upgrading their thermal power) can be compared with alternative when service life is not extended. In the document it was mentioned that EIA for alternative when service life is not extended will be done only when it is decided not to extend service life.
3. The EIA report summary in Latvian language in the section 8.1.3. "Actions to mitigate detrimental impacts" does not provide information if any protective actions are needed in other countries in case of nuclear emergency. If needed, please clarify what kind of protective actions could be needed in other countries.
4. The EIA report (full version in English) section 6.18. "Incidents and accidents" and 6.19. "Transboundary impacts" gives overview about possible emergencies and their transboundary consequences. To assess long term effects the severe accident scenario was developed with release containing 100 terabecquerels (TBq) of the cesium-137 (Cs-137) nuclide as well as other radionuclides with the ratio that follows how they are expected to be released in proportion to Cs-137 in the case of an accident. In table No.67, page 291, there is information about fallout for nuclides causing the highest radiation doses through fallout at different distances from Olkiluoto 1 and Olkiluoto 2 during a severe reactor accident. If we compare fallout level in 500 km distance with the operational criteria in the Protective Actions in a Nuclear or Radiological Emergency, Nordic Guidelines, 2024, page 27, then operational criteria regarding I-131 levels in dairy products such as milk could be exceeded. Can you please confirm that our evaluation is correct.

Table 67. The fallouts for nuclides causing the highest radiation doses through fallout [kBq/m²] at different distances from the OL1 and OL2 plant units during a severe reactor accident.

Fallout [kBq/m ²]										
Distance (km)	Cs-134	Cs-137	I-131 (aerosol)	I-131 (organic)	I-131 (element)	I-132 (aerosol)	I-132 (organic)	I-132 (element)	Te-132	Sr-90
1	116.5	83.8	5,866	0.13	403	7,006	0.15	483	7,995	7.7
5	27.7	19.9	1,393	0.09	274	1,664	0.10	327	1,899	1.8
10	13.9	10.0	698	0.05	162	834	0.06	194	951	0.9
15	9.1	6.5	456	0.04	109	544	0.04	131	621	0.6
20	6.5	4.7	327	0.03	83	390	0.03	99	446	0.4
50	2.3	1.7	117	0.01	30	140	0.01	35	159	0.2
100	1.1	0.8	56	0.006	13	67	0.007	15	77	0.07
300	0.3	0.2	12.5	0.002	2.4	14.9	0.002	2.9	17.0	0.02
500	0.1	0.1	5.7	0.001	1.0	6.9	0.001	1.2	7.8	0.008
700	0.07	0.05	3.5	0.0008	0.5	4.2	0.001	0.6	4.7	0.005
1,000	0.04	0.03	2.1	0.0006	0.2	2.5	0.0007	0.3	2.9	0.003

Protective Actions in a Nuclear or Radiological Emergency, Nordic Guidelines, 2024:

Table 1. Operational criteria where the EU maximum permitted levels in food and drinking water may be exceeded [g].

Product	Nuclide	Operational criteria (kBq/m ³)
Drinking water (surface source)	Cs-137 or I-131	100 (0,5 m dilution) 1 000 (10 m dilution)
Dairy products such as milk	Cs-137 + Cs-134 + Cs-136 Sr-89 + Sr-90 I-131	10 10 5
Leafy vegetables (or similar products)	Cs-137 + Cs-134 + Cs-136 Sr-89 + Sr-90	1 1

- If the finding in point 4 is correct, then it is important to indicate what protective measures should be in place in other countries, including Latvia, and what monitoring activities should be implemented. This information should be included in the EIA summary.
- On page 254 of the EIA report, it is stated that according to the current plan, the final disposal of spent fuel at Posiva is going to begin in the 2020s. Considering that it is 2025, we ask that the information in the report would be clarified.
- On pages 255-256 of the EIA report, information is mentioned on the volumes of radioactive waste in relation to the planned activities - very low, low and intermediate level waste. Information is mentioned on the increase in the volume of waste. The section mentions that the VLJ waste disposal facility is intended for very low-level waste, but it does not mention any plans regarding low and intermediate level waste. Please supplement the EIA report.

At the same time, it is mentioned that it is planned to analyze the implementation of the separate near-surface final disposal project for low-level waste in Olkiluoto which according to the current schedules, will begin in the mid-2020s. Please supplement with current information, considering that it is 2025.

The Agency kindly asks to consider the above-mentioned opinions and comments in the final EIA report of the Project. Regarding further procedures we kindly ask you to send us the information mentioned in Article 6 of the Espoo Convention regarding the final decision of the

Project. In addition, we kindly ask you to inform us about the findings of ex-post evaluation of the Project.

Enclosure: 6 documents (file: Ministry of Foreign Affairs.pdf, Ministry of Health.pdf, Ministry of Interior .pdf, Nature Conservation Agency.pdf, State Centre for Defence Logistics and Procurement.pdf, State Environment Service.pdf).

Sincerely yours, Director

D.Avdejanova

THIS DOCUMENT IS SIGNED WITH SECURE ELECTRONIC SIGNATURE AND
CONTAINS TIME- STAMP

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