



C/2023/1510

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COMMISSION OPINION

of 14 December 2023

relating to the plan for the disposal of radioactive waste arising from the Olkiluoto Disposal Facility Complex (Spent Nuclear Fuel Encapsulation Plant and Deep Geological Repository) located in Finland, in accordance with Article 37 of the Euratom Treaty

(Only the Finnish and Swedish texts are authentic)

(C/2023/1510)

The assessment below is carried out under the provisions of the Euratom Treaty, without prejudice to any additional assessments to be carried out under the Treaty on the Functioning of the European Union and the obligations stemming from it and from secondary legislation ⁽¹⁾.

On 3 April 2023, the European Commission received from the Finnish government, in accordance with Article 37 of the Euratom Treaty, a submission of General Data relating to the plan for the disposal of radioactive waste ⁽²⁾ arising from the Olkiluoto Disposal Facility Complex that comprises a Spent Nuclear Fuel Encapsulation Plant and a Deep Geological Repository.

On the basis of this data and additional information requested by the Commission on 15 May 2023 and on 4 July 2023, and provided by Finnish Government representatives on 13 June 2023, and the complementary information provided by the Finnish government representatives at the meeting of the Group of Experts laid down in Article 31 of the Euratom Treaty, on 4-5 July 2023, and further information provided on 16 July 2023, the Commission has drawn up the following opinion:

1. The General Data provided information on the Spent Nuclear Fuel Encapsulation Plant and the Deep Geological Repository. A possible future geological disposal facility for low and intermediate level waste, for which space has been reserved at the site, was not covered in the General Data, and is, therefore, not addressed in this Opinion.
2. The distances between the Olkiluoto Disposal Facility Complex and the nearest point of other Member States are 200 km for Sweden and 250 km for Estonia.
3. Radioactive waste ⁽³⁾ will be emplaced in the Deep Geological Repository without intention of retrieval.
4. During the operational period of the facilities and during the closure period of the Deep Geological Repository:
 - a) Under normal operating conditions, the discharges of liquid and gaseous effluents, which are expected from the Spent Nuclear Fuel Encapsulation Plant are not liable to cause an exposure of the population in another Member State that is significant from the point of view of health, in respect of the dose limits laid down in the Basic Safety Standards Directive (Council Directive 2013/59/Euratom) ⁽⁴⁾. The operation of the Deep Geological Repository is not expected to generate either gaseous or liquid radioactive wastes.

⁽¹⁾ For instance, under the Treaty on the Functioning of the European Union, environmental aspects should be further assessed. Indicatively, the Commission would like to draw attention to the provisions of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU; to Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, as well as to Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora and to Directive 2000/60/EC establishing a framework for Community action in the field of water policy.

⁽²⁾ The disposal of radioactive waste in the meaning of point 1 of Commission Recommendation 2010/635/Euratom of 11 October 2010 on the application of Article 37 of the Euratom Treaty (OJ L 279, 23.10.2010, p. 36).

⁽³⁾ In Finland, the definition of radioactive waste includes spent nuclear fuel.

⁽⁴⁾ Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (OJ L 13, 17.1.2014, p. 1).

- b) The small amounts of liquid and solid waste from the Spent Nuclear Fuel Encapsulation Plant will be transferred to Olkiluoto Nuclear Power Plant (NPP) for radiological assessment. After assessment, the waste will be either processed and disposed of alongside other (low and intermediate level) waste from Olkiluoto NPP, or released from regulatory control in compliance with the provisions of the Basic Safety Standards Directive.
- c) In the event of unplanned releases of radioactive effluents which may follow an accident of the type and magnitude considered in the General Data, these releases are not liable to result in radioactive contamination of the water, soil or airspace of another Member State which is significant from the point of view of health, in compliance with the provisions of the Basic Safety Standards Directive.

5. After closure of the Deep Geological Repository:

The results of the safety case and the long-term safety assessment provided in the General Data indicate that no radioactive releases are expected after closure.

In conclusion, the Commission is of the opinion that the implementation of the plan, in its current form, for the disposal of radioactive waste in whatever form arising from the Olkiluoto Disposal Facility Complex, located on the Olkiluoto Island in Finland, in normal operation, during the closure period, as well as in the event of accidents of the type and magnitude considered in the General Data, is not liable to result in radioactive contamination, significant from the point of view of health, of the water, soil or airspace of another Member State. The Commission notes the intention of the Finnish authorities to perform safety reviews for both facilities at 15-year intervals during the operational period.

The Commission recommends that after each safety review, the competent Finnish authorities update the General Data, taking into account the outcome of the review, and submit it to the Commission. The same should apply in the event of any modifications to the plan independent of the safety reviews.

The Commission notes the results of the safety case and the long-term safety assessment performed for the post-closure period, as described in the General Data, and recommends that prior to approving the closure of the Deep Geological Repository, the Finnish authorities update the General Data and submit it to the Commission.

Done at Brussels, 14 December 2023.

For the Commission
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Member of the Commission