

# Consultation in accordance with the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)

## Interim storage, encapsulation and final disposal of spent nuclear fuel

### 1 Background

Swedish Nuclear Fuel and Waste Management Co. (SKB) has been assigned the task of managing and disposing of the waste from the Swedish nuclear power plants. For final management and disposal of the spent nuclear fuel, SKB is planning to build a plant sector where the spent nuclear fuel will be encapsulated in copper, as well as a final repository at a depth of about 500 metres in the bedrock.

If an activity is likely to have a significant environmental impact on another country, the Swedish Environmental Protection Agency shall, according to the Convention on Environmental Impact Assessment in a Transboundary Context, known as the Espoo (EIA) Convention, “inform the competent authority in that country about the planned activity or measure and give the country concerned and the citizens who are affected the opportunity to take part in a consultation procedure concerning the application and the environmental impact assessment” (Environmental Code Chap. 6 Sec. 6).

This document provides a chronological compilation of the consultations carried out by Sweden according to the Espoo Convention regarding interim storage, encapsulation and final disposal of spent nuclear fuel as well as some milestones in SKB’s work. The focus is on the consultation carried out during 2016.

### 2 2005 - Enquiry regarding participation in consultation

In December 2005 (Doc. No. 121-6695-05, dated 13.12.2005) the Swedish Environmental Protection Agency submitted a notification and an enquiry as to whether the following countries were interested in taking part in consultations regarding Sweden's plans for encapsulation and final disposal of spent nuclear fuel: Denmark, Estonia, Finland, Latvia, Lithuania, Poland, Russia and Germany. Background material was enclosed, “Encapsulation plant and final repository for spent nuclear fuel”, where activities, environmental impact etc. of the proposed facilities were described.

Finland, Lithuania, Russia, Poland and Germany replied that they wanted to take part in the consultation. The other countries (Denmark, Estonia and Latvia) did not want to take part, but wished to be kept informed.

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### **3 2008 - Consultations**

In February 2008 (Doc. No. 121-6695-05, dated 11.02.2008) the Swedish Environmental Protection Agency sent the following documentation for consultation to the countries that had declared an interest in participating in the consultation:

- Proposed table of contents for the coming EIS document for the final disposal system.
- Updated version of the document “Encapsulation plant and final repository for spent nuclear fuel”
- SR-Can safety assessment
- Extract from the SR-Can safety assessment

The same documentation was sent to the countries that wanted to be informed about the project but did not want to participate in the consultations.

The consultation documentation focused on possible transboundary environmental impacts in conjunction with building, operation and the post-closure period of a final repository for spent nuclear fuel. The documentation included the SR-Can (as in canister) safety assessment, which provides an initial evaluation of the post-closure safety of a final repository for spent nuclear fuel in Forsmark and Laxemar.

The consultation was concluded in June 2008. The documentation from the consultation has been distributed to the countries by the Swedish Environmental Protection Agency.

### **4 2009 - Site selection**

Site investigations in two municipalities (Östhammar and Oskarshamn) started in 2002 and resulted in 2009 in the selection of the Forsmark site in Östhammar municipality for the final repository and Simpevarp in Oskarshamn municipality for the encapsulation of spent nuclear fuel.

### **5 2011 - Applications**

SKB submitted an application in 2011 for permits in accordance with the Swedish Environmental Code for a plant sector for encapsulation adjacent to the existing central interim storage facility for spent nuclear fuel (Clab) in Simpevarp and for the final repository in Forsmark. SKB simultaneously applied for permits in accordance with the Nuclear Activities Act to build and run the final repository and a plant sector for encapsulation. The applications were submitted to the Land and Environment Court in Nacka (Stockholm) and to the Swedish Radiation Safety Authority (SSM). Parts of the submitted material are common to both applications, e.g. the Environmental Impact Statement (EIS).

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## 6 2016 - Consultations

### 6.1 Background information for the consultation

After discussions with the Swedish Environmental Protection Agency (which in turn consulted the Swedish Radiation Safety Authority, SSM), SKB translated parts of the documentation submitted to the Land and Environment Court into English. Translation of the non-technical summary of the environmental impact statement (EIS) into the languages of the countries that requested to participate in the consultations was also carried out.

The Swedish Environmental Protection Agency sent the background material for consultation to the countries that had declared interest in participating in the consultation and for information to the countries who wished to remain informed on the matter. The background material was submitted February 5, 2016, with a request for a response by 15 April 2016, see Appendix A.

The following documents constitute the background material for consultation:

- I EIS (Environmental Impact Statement. March 2011)
- II EIS for the KBS-3 system - Non-technical summary. Updated October 2015
- III SR-Site, assessment of long-term safety (volume 1, 2 and 3)
- IV The barriers in the KBS-3 repository for spent nuclear fuel in Forsmark
- V Additional EIS regarding changes in Clink and increased interim storage in Clab
- VI Adjustments and corrections in the EIS
- VII Compilation of petitions (Petitions in Case No. M 1333-11)

The corresponding documents were also enclosed in Swedish. The non-technical summary was also enclosed in Finnish, German, Polish, Lithuanian and Russian.

The original environmental impact statement (EIS) for interim storage, encapsulation and final disposal of spent nuclear fuel is a part of SKB's applications for permissibility and permits under the Environmental Code and the Nuclear Activities Act. The EIS included a non-technical summary, which was updated in autumn 2015. (Documents I and II).

A key document in the applications is SR-Site, which is an assessment of post-closure safety for the final repository for spent nuclear fuel. (Document III).

The application under the Environmental Code has been supplemented several times. In September 2014 it was supplemented with an easily-accessible summary regarding the barriers, based on the reports that form the basis for the Swedish Radiation Safety Authority's (SSM) examination of the application under the Nuclear Activities Act. (Document IV).

The supplement in March 2015 included an additional petition to extend the interim storage in Clab from the current 8,000 tonnes of spent nuclear fuel to 11,000 tonnes. The supplement included a so-called additional EIS which describes the consequences of extended interim storage in Clab and the changes in Clink (Clab extended with an encapsulation section). (Document V).

Finally, two additional documents were included in the background material: Adjustments and corrections in the EIS (Document VI) and SKB's petitions in the application under the Environmental Code (Document VII).

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## 6.2 Invitation to consultation meeting

The Swedish Environmental Protection Agency invited all parties to a consultation meeting in Stockholm on March 21, 2016 with the option to visit the site for the planned spent fuel repository and SKB's existing facility in Forsmark on 22 March. The invitation can be found in Appendix B. The visit to Forsmark was not part of the consultation meeting.

## 6.3 Consultation meeting

A consultation meeting was held in Stockholm, Sweden, on March 21, 2016. A total of 19 delegates from six countries participated. The notes from the meeting, including appendices, can be found in Appendix C.

## 6.4 Received statements and SKB's response

Statements were received from authorities, organizations and individuals in Denmark, Finland, Latvia, Lithuania, Poland, Czech Republic and Germany.

The statements received can be found in their original language in Appendix E and translated into English by SKB in Appendix F. Several almost identical statements were received from individuals in Germany. The main differences between these statements are described in Appendix G.

SKB's replies to and comments on statements received can be found in Appendix D.

## Appendices

- A. Swedish Environmental Protection Agency's covering letter (consultation)
- B. Swedish Environmental Protection Agency's covering letter (invitation to consultation meeting)
- C. Notes from the consultation meeting March 21, 2016
- D. Espoo – summary of statements received
- E. Statements received – original language
- F. Statements received – translated into English by SKB
- G. Compilation of differences in statements – overview