

# Extended consultations according to the Environmental Code



# **Compilation 2003**

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ISBN 91-974 708-4-8 EnaInfo/Edita Norstedts Tryckeri April 2004

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# A year of consultations

We at the Swedish Nuclear Fuel and Waste Management Company (Svensk Kärnbränslehantering AB, SKB) have been assigned the task of managing and disposing of the spent nuclear fuel from our Swedish nuclear power plants. The purpose is to protect human health and the environment, in both the short and long term.

In order to dispose of the spent nuclear fuel, we need to build an encapsulation plant and a final repository. Before we apply for a permit to build these facilities, we must, according to the Environmental Code, consult with various parties in our society concerning the siting, scope, design and environmental impact of the facilities. These consultations began during 2002 and 2003.

The consultations are being conducted both with our site investigation municipalities, Oskarshamn and Östhammar, and with local, regional and national actors. Conducting consultations is important and resource-demanding work, both for SKB and for those we consult with. The consultations provide an opportunity for all stakeholders to get explanations of complex concepts and to have their questions answered, while at the same time giving us valuable information for our planning and execution of the projects.

We already have quite a few years of experience of dialogue with those municipalities who have participated in the siting work for the facilities. Every time we meet people there is a mutual exchange of knowledge. With time I have become convinced that there are no "laymen" when it comes to this issue. Everyone has something to contribute, and everyone is an expert on his or her part of the issue. SKB are experts when it comes to such aspects as technology, safety and environmental impact, while every individual is an expert on their interests and needs for a good quality of life in their own municipality. We need all of this input in order to plan and execute the work in compliance with the requirement of the Environmental Code to establish an activity "with a minimum of damage or detriment to human health and the environment". The citizens are thus an important resource in this context.

The early consultations have been concluded. We are now in the early stages of the extended consultations, which will continue until the applications for the encapsulation plant and the deep repository are submitted. According to current plans, this will take place in 2006 and 2008.



With whom should SKB consult?

The consultations in 2003 have largely focused on discussing what the work of environmental impact assessment (EIA) will involve and how its scope can be defined. As background material for discussion, SKB has prepared a scoping report addressed to all parties in the extended consultation. The contents of the report have been discussed at meetings with the municipalities, the citizens and the government agencies that are likely to be affected. I have experienced the discussions as open, lively and very fruitful. It is clear that the concerned parties are interested in sharing their experience and local expertise.

I look forward to a continuation of this work next year in the same positive spirit.

Saida Laârouchi Engström Head of EIA and Public Information



# Background

Our Swedish nuclear power plants produce electricity, but also radioactive waste. The waste is Sweden's common responsibility. We must not leave this waste to future generations, but manage it ourselves. This is the task that has been assigned to SKB.

There is in Sweden today a system of facilities that manage the radioactive waste. The facilities that remain to be built for final disposal of the spent nuclear fuel are a plant for encapsulating the fuel and the final repository itself. A stepwise process has been under way since 1992 aimed at finding a site for the final repository. By means of general siting studies, SKB explored the general siting prospects in different parts of the country. These studies show that good prospects exist for finding suitable sites for a final repository at many places in the Swedish crystalline bedrock. However, geological conditions disqualify the Caledonide mountains in the north and parts of Skåne and Gotland in the south.

The feasibility studies conducted during the period 1993–2000 evaluated the siting prospects in a total of eight municipalities: Storuman, Malå, Östhammar, Nyköping, Oskarshamn, Tierp, Älvkarleby and Hults-fred. The purpose was to judge, on the basis of existing material, whether prospects existed for further siting studies for a final repository. The judgements were based on four factors: Safety, Technology, Land and Environment, and Society.

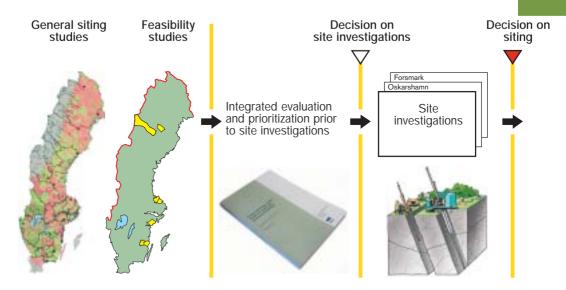
In 2000, SKB presented a site selection and a programme prior to the site investigation phase. Three areas were prioritized for site investigations: Forsmark in the municipality of Östhammar, an area in the northern part of the municipality of Tierp, and the Simpevarp area in the municipality of Oskarshamn. The municipality councils in Östhammar and Oskarshamn consented to further investigations, while Tierp said no. In 2002, SKB initiated site investigations for siting of a final repository on two sites: the Simpevarp area and the Forsmark area. The investigations are expected to take 5–6 years. After that, SKB will select a site for the final repository and apply for a permit under the Environmental Code and the Nuclear Activities Act to locate the facility on that site.

SKB's proposal is to site the encapsulation plant next to Clab in Oskarshamn. An alternative siting is adjacent to the nuclear installations in Forsmark. This alternative will only be considered if the final repository is also sited at Forsmark. A permit under the Environmental Code and the Nuclear Activities Act is also required for the encapsulation plant.

# **EIA/EIS and permit application**

According to current plans, SKB will submit a permit application for the encapsulation plant in 2006 and for the final repository in 2008. The supporting material for the applications includes an environmental impact statement, EIS, and a consultation report. The EIS is the result of a process called EIA (environmental impact assessment). The EIS will describe what consequences the planned activity is expected to have for man and the environment and how they can be prevented or mitigated. The form and content of the EIS are being developed in consultation.

The consultation process prior to application for permits for the final repository and the encapsulation plant was begun in 2002–2003 in both Oskarshamn and Forsmark. Early consultations have been completed and extended consultations have commenced.



The siting work for a final repository for spent nuclear fuel is being conducted through general siting studies, feasibility studies and site investigations.

# Consultation – What is it?

Consultation gives all interested parties an opportunity to influence the design of the encapsulation plant and the final repository in order to mitigate the intrusion and nuisance to human health and the environment. Consultation is also SKB's opportunity to benefit from the knowledge and viewpoints of the participants.

In SKB's opinion, the main purpose of consultations is to give different stakeholders an opportunity to influence:

- □ The design and layout of the facilities with a view towards human health and the environment as well as the natural and cultural values in the area.
- □ What studies and investigations need to be conducted in order to obtain a comprehensive EIS.
- □ The scope and content of the EIS.

Consultation also gives SKB an opportunity to benefit from the knowledge and viewpoints of the participants. The consultations should be regarded as a forum for a mutual exchange of knowledge and ideas. The ambition is that the consultations should result in a carefully conceived and solidly underpinned environmental impact statement.

EIA is a way of planning ahead, and everyone can have a say. Saida Laârouchi Engström

### Consultations regulated by Environmental Code

The consultation procedure, for applications under both the Environmental Code and the Nuclear Activities Act, is regulated by Chapter 6 of the Environmental Code. In the case of an activity that requires a permit pursuant to the Environmental Code, early consultation shall be held with the County Administrative Board and with citizens likely to be affected. Early consultations have been conducted for both the encapsulation plant and the final repository, in both Oskarshamn and Forsmark. Consultation reports have been prepared and submitted to the County Administrative Board in Kalmar County and Uppsala County. Since both the encapsulation plant and the final repository are nuclear installations, their decisions were a foregone conclusion. The facilities are likely to have a significant environmental impact, and a procedure involving



Consultation meeting in Oskarshamn.

assessment of the environmental impact must be conducted, known as extended consultations.

Extended consultations must be held with the County Administrative Board, other government agencies, the municipalities, the citizens and the organizations that are likely to be affected. The consultation shall relate to the location, scope, design and environmental impact of the activity or measure and the content and structure of the EIS.

If an activity is likely to have a significant environmental impact in another country, the Swedish Environmental Protection Agency shall, according to the "Espoo 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.

# Scope of EIA

As background material for the first stage of the extended consultations, preliminary versions of scoping reports have been prepared for Oskarshamn and Forsmark. The scoping reports, entitled "Scope, delimitations and studies for environmental impact assessments (ELAs) for encapsulation plant and final repository *for spent nuclear fuel*" (in Swedish only), cover both the encapsulation plant and the final repository on the respective site. They deal with what the EIA work will involve and how it can be delimited. The reports are aimed at all parties in the extended consultation. Viewpoints and proposals that emerge during the first stage of the extended consultations will be taken into account in the planning of the continued EIA process.

The intention is that final versions of the reports should be presented in 2004. They will stipulate what safety, health, societal and environmental aspects are to be dealt with in the EIS. They will also explain what lies beyond the scope of EIA and why. The final versions of the reports will serve as a point of departure for SKB's work with studies and the EIS, but both the structure and content of the EIS will be further defined and adjusted continuously in response to the results of the consultations as well as the design work and investigations and studies for planned facilities.

### Planned consultation meetings

The consultations planned by SKB during 2004 will largely deal with the scoping reports. During the first half of the year we will consult with the citizens in the municipality of Östhammar and with organizations and groups on both the local and national levels. The consultations on the preliminary version will end just before the summer. We will prepare the final versions of the reports during the autumn. They will be presented at two public meetings, one in Oskarshamn and one in Forsmark. At that time we will present the viewpoints that have emerged on the preliminary versions of the reports and how we have worked them into the final versions.

Up to now, SKB has chosen to hold separate meetings for different groups, for example the citizens and local organizations. The reason has

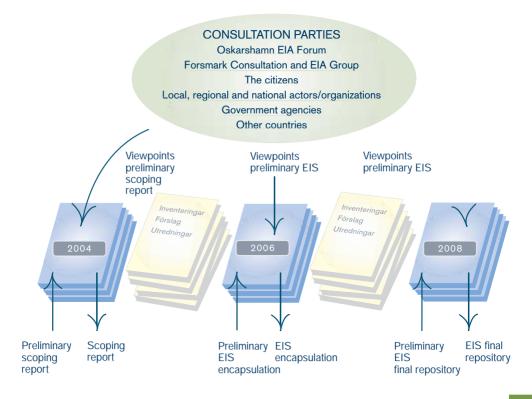
General planning of consultation activities 2004–2008 includes consultation meetings with:

- The citizens and organizations in Oskarshamn and Forsmark, once a year in each municipality.
- The municipality and the County Administrative Board, as well as the regulatory authorities SKI and SSI, around four times a year within the Oskarshamn EIA Forum and the Forsmark Consultation and EIA Group.
- Government agencies once in 2006 and once in 2008, prior to the submission of the respective permit applications.
- National organizations once in the spring of 2004. Subsequently they will receive regular information on results and planned consultations, up until a reconciliation meeting in 2008.

Other countries. These consultations take place through the Swedish Environmental Protection Agency. been to give each group or organization an opportunity to raise its particular issues and have them thoroughly examined. From now on we plan to hold one joint meeting per year in Oskarshamn and one in Forsmark. It is also possible to meet with individual groups to discuss specific questions. The consultations will continue until the applications are submitted, in other words up until 2006 for the encapsulation plant and 2008 for the final repository.

One or more themes will be selected for each consultation meeting, and information will be provided as needed on the latest SKB activities, study results and operations at the time of the meeting.

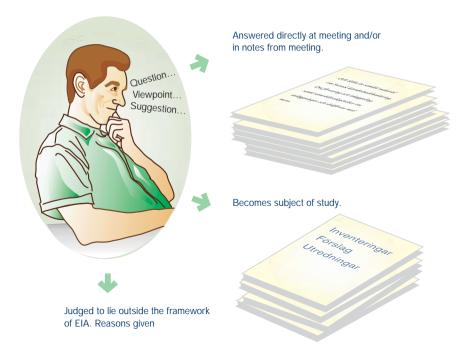
In addition to the formal consultations, extensive information activities are conducted aimed at municipalities, organizations and the citizens. These activities will continue to be pursued in parallel with the formal consultation meetings.



The years 2006 and 2008 will be special from a consultation point of view. At that time, before submitting the permit applications, we will present and reconcile SKB's principal conclusions regarding the consequences for the environment, human health and society.

# **Documentation of the consultations**

The final documentation of completed consultations consists of the consultation reports that are to be appended to the permit applications for the encapsulation plant and the final repository. This annual report has been prepared to provide an overview of the past year's consultation activities and general plans for the coming years.



The questions and viewpoints discussed during a consultation meeting and received within the appointed period after the meeting are presented in the notes of the meeting. Some questions may lead to supplementary studies and further discussion. Some questions are judged to lie beyond the scope of the EIA work and are dismissed from the consultations. Reasons are given for this.



Consultation meeting in Forsmark.

After meetings with the Oskarshamn EIA Forum and the Forsmark Consultation and EIA Group, minutes are written which the participants confirm and sign. After other consultation meetings, notes are written. Both minutes and notes (in Swedish) are available on SKB's website, *www.skb.se/mkb*.

# **Documentation of meetings**

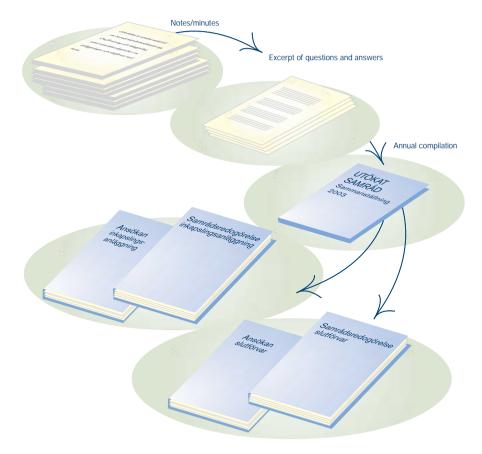
After consultation meetings with the citizens and organizations it is always possible to submit questions and viewpoints for another two weeks after each meeting.

Up until a permit application for the encapsulation plant has been submitted, the consultation meetings for the encapsulation plant and the final repository will be coordinated. The minutes or notes show which questions pertain to the encapsulation plant or to the final repository and which are common to both facilities.

# Annual compilation

The annual compilations contain excerpts from the minutes and notes of the year's meetings grouped in the following categories:

- Encapsulation plant.
- Final repository for spent nuclear fuel.
- Common issues.



From each meeting, notes or minutes and an excerpt of questions and answers will be written. The excerpts are compiled each year. The consultation reports comprise the final documentation of completed consultations.

The excerpts focus on the questions and viewpoints that have come up during the consultation meetings, and SKB's replies and comments. These questions and answers will be compiled in the consultation report, which is appended to the application. The consultation report for the encapsulation plant will contain questions and viewpoints from "encapsulation plant" and "common issues". The consultation report for the final repository will contain questions and viewpoints from "final repository" and "common issues". The consultation reports will explain how SKB has taken submitted viewpoints into account.

# Questions and viewpoints from early consultations

The questions and viewpoints that came up during the early consultations, plus SKB's replies, are presented in the consultation reports from the early consultations. Some of the questions could not be answered at the time of the early consultations but are of importance for an assessment of expected environmental impact. These questions have been included in the scoping reports and will be dealt with in the relevant EIS.

# **Completed consultations**

The consultation process has been going on for nearly two years. The early consultations have been concluded. The County Administrative Board issued its decision that the encapsulation plant and the final repository are likely to have a significant environmental impact, after which the extended consultations began.

The early consultations were conducted in separate meetings for the encapsulation plant and the final repository. In the extended consultations, common meetings are being held, up until a permit application is submitted for the encapsulation plant.

### Early consultations

Invitations to early consultations on the final repository in Oskarshamn were sent out to approximately 300 households in the Simpevarp area. Altogether, around 110 persons attended the meeting, of which about half belonged to the category "likely to be affected". Invitations to the meeting in Forsmark were sent out to approximately 300 households in the Forsmark area. Approximately 30 persons attended the meeting, of which some ten or so belonged to the category "likely to be affected".

The consultation process for the encapsulation plant started in 2003. Invitations to the meeting in Oskarshamn went to residents within a radius of approximately three kilometres from Simpevarp (Clab) and residents along the road between Simpevarp and Figeholm, approximately 125 households. Invitations in Forsmark went to the same group that was invited to early consultation for the final repository. Some ten or so persons belonging to the category "likely to be affected" attended both meetings.

The questions that arose during and following the meetings and SKB's replies are presented in the consultation reports from the early consultations.

Early consultation	Date	Place
Final repository	10 January 2002	Oskarshamn
Encapsulation plant	8 March 2003	Oskarshamn
Final repository	15 June 2002	Forsmark
Encapsulation plant	29 October 2003	Forsmark



Discussion at consultation meeting.

The consultation reports were sent to the concerned County Administrative Board, which decided that the facilities are likely to have a significant environmental impact, which means that extended consultation with environmental impact assessment shall be carried out.

The background material compiled prior to the early consultations is described in the sections "If you would like to read more" at the end of this report. The background material and the consultation reports, as well as the County Administrative Board's decision, are available at SKB or *www.skb.se/mkb*.

# **Extended consultations**

The extended consultations began in 2003. The extended consultations for the encapsulation plant and the final repository are being coordinated in both Oskarshamn and Forsmark. An important feature of the consultations is the meetings being held with the EIA Forum in Oskarshamn and the Consultation and EIA Group in Forsmark. These groups include representatives from SKB, SKI, SSI and the relevant County Administrative Board and municipality.

Extended consultation in 2003 also took place with the citizens in Oskarshamn Municipality and with national authorities and agencies. Invitations to the citizens in Oskarshamn Municipality took the form of ads in the local newspapers. About 50 persons attended the meeting altogether, of which twenty or so were members of the citizens in Oskarshamn Municipality.



Presentation of encapsulation technology.

More than twenty national authorities and government agencies were invited to the consultation meeting in December 2003. The "scoping reports" were enclosed with the invitation, along with a message urging the recipient to make written comments. Five of the invited authorities and agencies attended the meeting. Written viewpoints were received at the beginning of 2004 from ten or so bodies.

# Completed extended consultations in 2003

In 2003, six meetings on the final repository and the encapsulation plant were held in accordance with the provisions of the Environmental Code regarding extended consultations. Minutes or notes from all meetings are available at SKB or at *www.skb.se/mkb*.

Regarding the meeting with the citizens (12 November 2003) and the meeting with national authorities and agencies (17 December 2003), questions that emerged prior to, during and within the appointed period after the consultation meeting are included. The authorities had been asked in the invitation to offer written comments.

Date	Target group
25 May 2003	Oskarshamn EIA Forum
17 September 2003	Forsmark Consultation and EIA Group
30 September 2003	Oskarshamn EIA Forum
12 November 2003	Citizens in Oskarshamn Municipality
11 December 2003	Oskarshamn EIA Forum
17 December 2003	National authorities and government agencies

# Excerpts from minutes and notes of meetings



This section contains excerpts from minutes and notes from the meetings held within the extended consultations in 2003. In each excerpt, questions, viewpoints and topics have been grouped in the following categories:

- Encapsulation plant.
- Final repository for spent nuclear fuel.
- Common issues.

Excerpt from minutes	
Day	Monday 26 May 2003
Time	9:30-13:00
Place	Forum, Oskarshamn
Present County Administrative Board in Kalmar County	Ulf Färnhök, chairman, Sven Andersson
Oskarshamn Municipality	Kjell Andersson, Rigmor Eklind, Elisabeth Englund, Charlotte Lilliemark, Kaj Nilsson, Göte Pettersson, Lars Tyrberg, Peter Wretlund, Harald Åhagen
SKI	Josefin Päiviö, Magnus Westerlind
SSI	Björn Hedberg
SKB	Claes Thegerström, Saida Laârouchi Engström, Olle Olsson, Anders Nyström, Sofie Tunbrant, Peter Wikberg, Lars Birgersson, secretary
This meeting with the EIA Fo Oskarshamn Municipality.	rum was the kick-off for the extended consultations in

### 1 Encapsulation plant

No questions or viewpoints were expressed pertaining solely to the encapsulation plant.

# 2 Final repository for spent nuclear fuel

Meeting with Oskarshamn EIA Forum

### 2.1 News from site investigation in Oskarshamn

In SKB report TR-01-03, the Simpevarp Peninsula and an area west of there were given priority for site investigations. The area west of Simpevarp deemed to be geologically interesting was about 50 km<sup>2</sup> in size. The municipality's decision entailed allowing SKB to initiate site investigations within the area designated by SKB.

Within the framework of the initial site investigation, the western area has been limited to an area about 10 km<sup>2</sup> in size. The initial site investigations on the Simpevarp Peninsula indicate that the area is geologically interesting for a final repository. Since the peninsula is probably too small to accommodate the final repository, the area has been expanded and now also includes Ävrö, Hålö and surrounding water areas.

It is thus SKB's desire to be allowed to conduct site investigations for the purpose of exploring the possibilities of locating a final repository for spent nuclear fuel, including facilities on the ground surface and access tunnels, within the so-called P2 area and the adjacent marine area. Further investigations may also need to be conducted outside the P2 area in order to assess the prospects for establishing a repository within the area.

#### Discussion

The municipality noted that SKB's desire to be allowed to conduct site investigations within the P2 area requires a decision by the municipality council for the parts of the P2 area that lie outside the original candidate area. SKB needs to send a written request, which should be able to be considered by the municipality council in September.

The original candidate area was presented in the early consultations. The municipality pointed out that the P2 area also includes Ävrö, Hålö and a small land area on the mainland (west of Äspö), which lie outside the original candidate area. SKB informed the meeting that only one property owner had not had a chance to study the consultation material. SKB has contacted this property owner. The results from this contact have been appended to the consultation report for early consultations and communicated to the County Administrative Board.

#### 3 Common issues

#### 3.1 International solutions to the nuclear waste issue

On SKB Day on 3 April, national and EU politicians discussed international solutions to the nuclear waste issue. The safety group wonders what SKB's attitude towards this is? Might Sweden consider disposing of other countries' waste?

The group pointed out that the municipality's condition 2 states that the siting process only concerns "....spent nuclear fuel produced in the country.....".

Claes Thegerström, SKB, explained that SKB's planning is aimed solely at disposing of Swedish waste, nothing else. Moreover, current legislation prohibits the disposal of foreign waste in Sweden.

#### 3.2 Traffic on Laxemar – Kråkelundsvägen

The municipality observed that there is a great deal of traffic on Laxemar – Kråkelundsvägen – and that the intersection in particular is dangerous from a traffic safety point of view. The municipality also reminded SKB of a previous promise that internal traffic would wherever possible be diverted via the connection to OKG.

#### Decision

The municipality and SKB will jointly contact the National Road Administration to find out how safety can be improved.

#### 3.3 SKB's new timetable for the final repository programme

Claes Thegerström, SKB, informed the meeting of SKB's new timetable for the final repository project. SKB plans to submit a permit application for the encapsulation plant in mid-2006. The application will focus on the encapsulation plant, but describe the entire final repository system as far as possible. The permit application for the final repository will be submitted at the end of 2008. This application will include a complete description of the entire final repository system.

The timetable assumes that the encapsulation plant is sited at Clab and the final repository is sited at Simpevarp or Forsmark. Other sitings of the encapsulation plant and/or the final repository entail delays in the timetable.

#### Discussion

The municipality asked what will happen with SKB's R&D activities after the applications have been submitted. Both SKB and SKI said that the R&D activities will continue after the applications have been submitted and even after permits have been obtained.

# 3.4 Scoping report – Scope, delimitations and studies for environmental impact assessments

Saida L. Engström, SKB, informed the meeting of the work on the preparation of scoping reports for the final repository and the encapsulation plant. Working versions of the reports have been given to Oskarshamn Municipality, the County Administrative Board in Kalmar County, SKI and SSI. The purpose of this circulation for comment is to obtain general viewpoints on the content, structure, scope etc. of the reports so that SKB can start the extended consultation with background material of reasonable quality.

#### Discussion

The municipality noted that SKB is conducting site investigations, but that no complete site investigation programme has been presented for a decision to the municipality council (see also condition 10 in the municipality's decision regarding site investigation in Oskarshamn Municipality). The geoscientific programme has been presented. The municipality explained its view of how the work with scoping reports provides background material for a complete site investigation programme where environmental studies, socioeconomic studies and societal studies are included.

SKB mentioned that the programmes for environmental impact, societal studies etc. are being introduced in the scoping reports. Fuller descriptions will be available in a year or so when the reports have been discussed in the extended consultations. These versions of the scoping reports will present SKB's point of departure for future studies and should therefore provide a sufficient basis for a decision by the municipality council.

#### Decision

The scoping report and the site investigation programme were discussed at EIA Forum and in a smaller group after the ordinary meeting with EIA Forum. The discussions led to a decision that Saida L. Engström and two representatives from the municipality will go through what accounts the municipality expects from SKB and when. SKB is preparing a process description where the links between the scoping report and the site investigation programme are described. This will be presented at the next meeting with EIA Forum.

Meeting with Forsmark Consultation and EIA Group Excerpt from minutes	
Day	Wednesday 17 September 2003
Time	13:00–16:00
Place	Assembly Hall, County Administrative Board in Uppsala County
Present	
County Administrative Board in Uppsala County	Ulf Henricsson, chairman, Mats Lindman
Östhammar Municipality	Margareta Widén Berggren, Sten Huhta, Virpi Lindfors, Carl-Johan Nässén
SKI	Josefin Päiviö
SSI	Tomas Löfgren
SKB	Saida Laârouchi Engström, Kaj Ahlbom, Niklas Heneryd, Gerd Nirvin, Anders Nyström, Olle Olsson, Sofie Tunbrant, secretary

# 1 Encapsulation plant

No questions or viewpoints were expressed pertaining solely to the encapsulation plant.

### 2 Final repository for spent nuclear fuel

#### 2.1 Status report from SKB

Olle Olsson, SKB, presented SKB's new organization in general and the organization for the project "Deep repository – supporting material for application and construction." Claes Thegerström, President, is the purchaser of the project. Some central persons in the project group are:

Olle Olsson, Project Manager

Saida Laârouchi Engström, head of EIA, Consultation and Communications

Kaj Ahlbom, head of the investigations in Forsmark

Peter Wikberg, head of the investigations in Oskarshamn

Approximately 30 persons are working with the site investigations in Forsmark.

The next interim goals in the work are:

- Site description version 1.2, as a basis for design and the work with a safety assessment, November 2004.
- Preliminary facility description (Layout D1), March 2005.
- Preliminary safety evaluations, March 2005.

The timetable for the submission of a permit application for the encapsulation plant is based on its being built at Clab. The site to be assumed in the permit application for the deep repository has not been determined at this time.

Kaj Ahlbom presented results from the geological investigations in Forsmark. Areas with breccia (a coarse-grained rock composed of angular broken rock fragments) have been encountered at the fourth drilling site, indicating previous fracturing.

Niklas Heneryd spoke about ongoing and planned investigations of surface ecosystems in connection with the site investigations in Forsmark.

#### Discussion

The municipality wondered what studies are planned to investigate the breccia? SKB replied that it has not yet been determined, SGU will have to decide.

The County Administrative Board wondered how deep the inventory of lichens and red-listed species will go. SKB said that the County Forestry Board has conducted the key habitat inventory on behalf of SKB.

#### 3 Common issues

#### 3.1 Establishment of "Work forms for the Forsmark Consultation and EIA Group"

#### Discussion

The County Administrative Board offered the following suggestion for a change in the wording concerning who can be co-opted to the group: "When necessary the Forsmark Consultation Group can co-opt other parties".

The County Administrative Board further offered the following suggestion for an addition in footnote 2: "Consultations regarding alternative sitings, in the event of a comparison between different candidate areas, will be initiated at a later stage, when sufficient data are available from site investigations".

#### Decision

The group agreed to adopt the proposal for "Work forms" with the County Administrative Board's changes and additions.

Meeting with Oskarshamn EIA Forum Excerpt from minutes		
Day	Tuesday 30 September 2003	
Time	9:30–15:00	
Place	SKB's site investigation office, Simpevarp	
Present		
County Administrative Boarc in Kalmar County	Ulf Färnhök, chairman	
Oskarshamn Municipality	Rigmor Eklind, Charlotte Liliemark, Kaj Nilsson, Göte Pettersson, Lars Tyrberg, Peter Wretlund, Harald Åhagen	
SKI	Josefin Päiviö, Magnus Westerlind	
SSI	Carl-Magnus Larsson	
SKB	Claes Thegerström, Saida Laârouchi Engström, Anders Nyström, Katarina Odéhn, Olle Olsson, Peter Wikberg, Lars Birgersson, secretary	

# 1 Encapsulation plant

No questions or viewpoints were expressed pertaining solely to the encapsulation plant.

### 2 Final repository for spent nuclear fuel

### 2.1 News from site investigation in Oskarshamn

The municipality council in Oskarshamn decided on 8 September that SKB may expand its investigation area on Simpevarp to include parts of Ävrö and Hålö as well.

### Decision

Before the municipality council makes a decision on the other areas SKB wishes to incorporate in the interest area for a final repository, SKB's supporting material needs to be supplemented. Peter Wikberg, SKB, and Kaj Nilsson, Oskarshamn Municipality, agree on a timetable for this supplement.

### 3 Common issues

#### 3.1 Opinion polls

Saida L. Engström, SKB, informed the meeting that SKB conducts opinion polls regularly. The polls are conducted annually in the municipalities of Oskarshamn and Östhammar and every other year in the regions and in the nation. To enable trends to be detected in the responses, it is essential that many of the questions are the same year after year. It is also important not to include too many questions. SKB will therefore go out with ten questions from now on. Of these, seven are recurrent, two are municipality-specific and one varies depending on outside events.

The municipality wondered if it is possible to include questions with a bearing on the municipality's work. After a discussion, it was decided that in future polls, the two municipality-specific questions will be formulated in consultation with the municipality, if the municipality so wishes.

#### Decision

In future polls, SKB will formulate the two municipality-specific questions in consultation with the municipality.

#### 3.2 SKB's timetable for the final repository programme

Claes Thegerström, SKB, provided information on SKB's timetable for the final repository project. According to this timetable, a permit application for the encapsulation plant will be submitted in mid-2006. The application will focus on the encapsulation plant, but describe the entire final repository system as far as possible. The application will present alternative methods for disposal of spent nuclear fuel. The permit application for the final repository will be submitted at the end of 2008. This application will include a complete description of the entire final repository system.

A decision regarding the encapsulation plant is expected to be ready about nine months after the application for the final repository has been submitted, in other words in late 2009. The decision regarding the final repository is expected during 2010. The total review time for the system thereby amounts to about 4.5 years.

#### Discussion

SKB said that it is essential that SKB's planning will be cross-checked at an early stage with the regulatory authorities and the municipality so that they can be prepared when the applications arrive.

According to SKB's planning, the applications for both the encapsulation plant and the final repository will have been submitted when a decision on the first application – the encapsulation plant – is to be made. The municipality insisted that this procedure is important, since it means that the site for the final repository for spent nuclear fuel will have been designated when the decision on the encapsulation plant is to be made.

#### 3.3 Scoping report and planning of extended consultations

The municipality wondered if it is possible to include a description of how the municipality's work with the final repository issue is organized in the scoping report. SKB said that if so, the work of other bodies with the final repository issue should also be described, for example SKI, SSI and the County Administrative Board. The report has now deliberately been kept as concise as possible. Information on the work of the municipality, the regulatory authorities and the County Administrative Board with the final repository issue should therefore instead be reported separately, for example at meetings or in cover letters accompanying invitations.

#### 3.4 Studies regarding environment and health

A seminar is planned in early 2004 at Umeå University, Department of Public Health and Clinical Medicine, where researchers in fields that are of interest to SKB will present their work.

#### Decision

Representatives from the municipality's societal issues group will be given an opportunity to participate in the seminar at Umeå University.

Meeting with the citizens in Oskarshamn Excerpt from notes of meeting	
Day	Wednesday 12 November 2003
Time	19:00-21:00
Place	Figeholm Leisure and Conference, Hägnad, Figeholm
Present	About 50 persons altogether, 19 of whom were citizens likely to be affected
County Administrative Board in Kalmar County	Sven Andersson
Oskarshamn Municipality	Rigmor Eklind and Harald Åhagen
SKI	Anders Jörle and Josefin Päiviö
SKB	Saida Laârouchi Engström, Peter Wikberg, Anders Nyström, Erik Wijnbladh, and others
Representatives from Hultsfred Municipality and OKG AB	

The target group for the meeting was the citizens in Oskarshamn Municipality. People were invited to the meeting by means of ads in Oskarshamnstidningen and Nyheterna, run on 31 October, 8 November and 11 November, 2003, and in Annonsbladet (October).

Approximately 3 weeks before the meeting, all 1200 households in Misterhult parish, as well as landowners within the so-called "P2 area" residing outside Misterhult parish, received invitations to the meeting. Invitations were sent out together with the news-letter for October 2003 from Site Investigation Oskarshamn. The invitation urged people to send in questions in advance. A postage-free reply envelope addressed to SKB was enclosed for this purpose.

Approximately 2 weeks before the meeting, posters with an invitation to the meeting were set up in Fårbo, Figeholm, Misterhult, Klintemåla and the shop window SKB rents inside the Gallerian mall in Oskarshamn. The posters contained the same information as the ads.

The ads, the mailing and the posters said that the purpose of the meeting was to discuss the form and content of the environmental impact statements that will be prepared for the encapsulation plant and the final repository. They further said that background material for the meeting was available from Oskarshamn Municipality, SKB or on-line at www.skb.se.

### 1 Encapsulation plant

#### 1.1 How many canisters will be produced per day?

Production is estimated at one canister per working day. Deposition at the final repository is also estimated at one canister per day.

# 1.2 Why is a buffer store needed for encapsulated fuel, and where will it be located?

The buffer store will be built adjacent to the encapsulation plant and will consist of a building where transport casks containing canisters can be stored prior to transport

to the deep repository. The size of the buffer store will depend on where the deep repository is sited. If it is sited in Oskarshamn, the buffer store will have to hold 5-10 canisters.

# 1.3 Construction of the encapsulation plant is expected to start in 2009 and trial operation 8 years later. Does it take that long to build the plant?

No, we estimate the construction time at 4.5 years, followed by commissioning and inactive trial operation. Before active operation can begin we have to get a go-ahead from the authorities.

# 1.4 Where is the encapsulation plant planned to be built and how will it affect the landscape for nearby residents?

The plant will be built at the west wall of Clab. The planned height of the building will not exceed the height of the existing building. The nearby forest curtain can be preserved.

### 1.5 Is it possible to build the encapsulation plant under ground?

It is fully possible, but SKB does not see any environmental or safety advantages to an underground encapsulation plant. Nor are there any legal requirements necessitating such an alternative, which would furthermore probably cost more to build.

### 1.6 How thick will the copper shell be?

In the reference design of the canister, the copper thickness is 50 mm, but a solid copper thickness of about 15 mm is really enough to meet the requirement of long-term corrosion resistance.

The results of trial weldings and post-welding testing will be essential in the final choice of copper thickness. Technology development in this field may also influence the choice of copper thickness.

### 1.7 What method will be used to fabricate the canisters?

The method for canister fabrication has not been decided. What is essential is that the requirements made on the canister be met, not which method is used for fabrication. SKB is testing different methods to see which are most effective in meeting the quality requirement. The planning is that there should be several methods and suppliers that meet the requirements.

# 1.8 Is Finland ahead of Sweden as regards technology development for encapsulation?

Sweden and Finland are working with the same final repository concept. SKB and Posiva (SKB's counterpart in Finland) are cooperating in a number of areas, for example development of encapsulation technology.

# 2 Final repository for spent nuclear fuel

# 2.1 Sometimes SKB uses the term "deep repository" and sometimes "final repository". Which of these terms is correct?

The terms "final repository" and "deep repository" are both used for the facility for final disposal of spent nuclear fuel. The designation "final repository" is the only one

used in legal and regulatory texts. It emphasizes the purpose of achieving long-term safety. Final disposal must be safe even if there are no institutional controls or supervision in the future.

SKB also frequently uses the designation "deep repository" for the facility in which the nuclear fuel is to be disposed of. The use of this word emphasizes that disposal deep down in the bedrock is necessary to meet the requirements on long-term safety.

# 2.2 Is it possible to prove what will happen to the repository over such a long timespan, tens of thousands of years?

Predicting what will happen over such a long timespan is naturally associated with great uncertainties, but when we look at long-term safety we use the best available techniques to make as good predictions as possible.

# 2.3 Surface ecosystems. How has the boundary been set for the area being studied? Isn't there any impact outside the studied area?

The boundaries of the areas being studied have been chosen so that the impact of the deep repository will mainly occur within the studied areas.

2.4 Environmental scanning. We know what rules apply today in Sweden and in the EU, but how can we know what rules will apply in 50 years? It's strange that we have decided today that foreign waste cannot be stored in Sweden. This might be a good solution for Russia, for example. Nuclear waste is a global issue and it should be possible to dispose of the waste where conditions are optimal.

SKB's work is based on the rules that apply here and now. Today's legislation does not permit us to manage and dispose of other countries' waste. Since we have come further with the waste issue in Sweden, we have an obligation to share our knowledge with, for example, Russia and Latvia. But Sweden has no objections to other countries, for example Belgium and the Netherlands, agreeing to build a joint repository if they so wish.

# 2.5 Is it sensible to dispose of so much fuel that has only been utilized to a small extent? Can't it be reused safely?

There is no interest today, on the part of either the nuclear utilities or politicians, to reprocess the spent nuclear fuel.

There is no use for the reprocessed product, since Sweden has decided to phase out nuclear power. The world market price of uranium is also such that reprocessing is not profitable.

# 2.6 I think the site for a final repository is ill-chosen. It is far too vulnerable to terror attacks. And too close to nature reserves etc. I am also tired of SKB's pompous and superior attitude. This is a serious issue. We in Misterhult have already lost this game.

The site of the final repository has not yet been chosen. The choice must be made based on a large body of data when all investigations and studies are finished, and then such aspects as nature conservation and the possibility of terrorist attacks will be weighed in. So far we have not found that the areas at Simpevarp and Laxemar have any special disadvantages in terms of vulnerability to terrorist attacks, and we believe that an establishment can be compatible with nature conservation interests, but if new concrete aspects of these questions come up in consultations they should be discussed, studied and evaluated. The question of siting of the final repository is a serious issue and is being treated as such by SKB, which means for example that we make great efforts with regard to information and consultation. How this is perceived will of course vary, depending on interest and attitude. The important thing for SKB is to do what to make sure that everyone gets the information and opportunity for consultation that best suits them.

2.7 Locate the deep repository in Simpevarp. Continue down from Clab and keep within OKG's grounds. A few ventilation chimneys sticking up there won't matter – that land is already ruined. If you put the fuel in a store with horizontal canisters, there is surely enough room underneath the Simpevarp Peninsula. Save what isn't already ruined for posterity.

The fundamental prerequisite when it comes to siting of the deep repository is that the rock has the necessary properties for building a safe repository. SKB is currently investigating the Simpevarp Peninsula and Ävrö, as well as the Laxemar area. The main reason why SKB is investigating Simpevarp and Ävrö is that a siting of the whole facility within OKG's grounds would probably entail the least intrusion and disturbance to the environs. In order for this to be possible there must be large enough rock volumes of the necessary quality to accommodate the entire repository. The size of the repository is not appreciably affected by whether the canisters are emplaced horizontally or vertically. The investigations on Laxemar and Simpevarp will continue until SKB finds that enough data exist for prioritizing one of the areas for possible siting of the repository's underground parts.

Since the repository's surface and underground parts may be offset in relation to each other, there are good prospects for siting the surface parts, regardless of the location of the underground part, so that conflicts with valuable land areas are avoided or minimized.

If a siting of the repository's underground facility beneath the Simpevarp Peninsula or in the Laxemar area should be considered, it is of interest in both cases to thoroughly explore the possibilities of locating the repository's surface facility adjacent to existing facilities on the Simpevarp Peninsula.

### 3 Common issues

3.1 How should the boundary be drawn for the societal studies? Administrative boundaries, such as municipal boundaries, may be changed.

It is not "administrative boundaries" that will govern the studies.

SKB's societal programme includes studies with a regional, municipal and local perspective as well as applied research. The research will taken into account impact and consequences in both a short and long time perspective as well as in local, regional and national perspectives.

It can further be mentioned that societal issues in a regional perspective were discussed at a seminar arranged by Oskarshamn Municipality on 20 October 2003.

#### 3.2 How will intermunicipal questions be handled?

Such questions will be handled within the societal studies.

3.3 In a discussion within the Misterhult group, a wish was expressed for a clarification of SKB's view of what the population structure should be in the nearby area. What impact on the population situation does SKB want the siting of the encapsulation plant and final repository for spent nuclear fuel to have? The biggest employers today are OKG and SKB. We believe it would be valuable for the development of the district if SKB clarified its positive view towards having other industries in Misterhult parish.

SKB's establishments will contribute to a positive development of the district and the region over a long period of time. We want to apply a "nearness principle" whereby we strive to locate activities and procure services locally, within the constraints of our requirements regarding quality and cost-effectiveness. This is easier if the population structure develops favourably with regard to such factors as age distribution, skills, and a diversified economic sector.

#### 3.4 What does SKB plan to do about the coast road and when?

See the answer to the next question.

3.5 Has SKB decided what to do about the coast road, and if so when? In view of the heavy traffic there today and how it may increase in conjunction with an establishment, those who live along the road are certainly likely to be affected. Are there any plans for a new route? How will the heavy shipments take place? There were quite a few shipments of rock muck, cement, etc. to and from Clab II on the road. Can these overland shipments be avoided in the future?

During the site investigation phase up to 2010, traffic due to SKB's activities will not change appreciably from what it is today. During this time, we at SKB will study how shipments to and from a deep repository could take place. In these studies, the coast road naturally plays an important role, especially in cases where all shipments are to go by road. How this will be solved will be explained at the EIA consultations we will be holding during the site investigation phase. We will also study alternatives with large transport volumes by sea. Regardless of what these studies show, nothing will be actualized until the location of the deep repository has been decided and approved, in around 2010.

# 3.6 What effect have the cooling water discharges from the nuclear power plants had on the fish stocks?

Fish stocks are greater in the heated areas than in the unheated areas.

3.7 The environmental impact statements, EISs, for the encapsulation plant and the final repository will be very extensive. What should SKB do to make them comprehensible to non-experts? Will the EISs be translated to other languages?

The EISs that are being prepared will be based on a large number of studies and calculations that are often difficult to understand for non-experts. SKB is aware that the EISs must be formulated in an easily comprehensible fashion and will therefore work hard to achieve this. The documents should be able to be read and understood by interested laymen.

The EISs will be written in Swedish and will not be translated to other languages. Some information will be translated in keeping with the requirements of the Espoo convention.

Meeting with Oskarshamn EIA Forum, open meeting Excerpt from minutes	
Day	Tuesday 11 December 2003
Time	9:30–16:00
Place	Hägnad, Figeholm
Present	
County Administrative Board in Kalmar County	Ulf Färnhök, chairman, Sven Andersson
Oskarshamn Municipality	Kjell Anderson, Leif A Carlsson, Elisabeth Englund, Rigmor Eklind, Kaj Nilsson, Lena Nordenskjöld, Göte Pettersson, Lars Tyrberg, Peter Wretlund, Harald Åhagen
SKI	Josefin Päiviö, Magnus Westerlind
SSI	Björn Hedberg
SKB	Claes Thegerström (part of meeting), Claes-Göran Andersson, Saida Laârouchi Engström, Anders Nyström, Katarina Odéhn, Olle Olsson, Jenny Rees, Johnny Rönnfjord, Kristina Vikström, Peter Wikberg, Lars Birgersson, secretary
Public	Lena Andersson, Torsten Carlsson, Gunnar Karlström, Katarina Lindell, Mikael Nilsson and 6 representa- tives from a Japanese delegation

Prior to the meeting, Oskarshamn Municipality had posed seven questions to SKB, the County Administrative Board and SSI. The questions were divided into "EIA questions" and "other questions".

### **EIA questions**

- 1 The siting work for canister fabrication.
- 2 SR-Can The report is desired in Swedish.
- 3 The extended consultation form. How does SKB intend to provide public insight into the extended consultations?

### Other questions to EIA Forum

- Meetings of EIA Forum. All meetings open?
- Consultation reports from previous meeting of EIA Forum. When will they be presented?
- Question to County Administrative Board. The municipality's communication requesting a speed limit on Kråkelundsvägen's connection to the coast road. How far has the processing of the communication come?
- Question to SSI. Presentation of the results of the work with the general guidelines, feedback from the focus groups etc. is desired.

#### 1 Encapsulation plant

#### 1.1 The siting work for canister fabrication.

#### The municipality's question to SKB

#### Question:

SKB's scoping report, entitled "Scope, delimitations and studies for environmental impact assessments (EIAs) for encapsulation plant and final repository for spent nuclear fuel" (in Swedish only), version 0, notes that "The siting work for canister fabrication has not yet begun. According to our current plan, it will be initiated roughly when construction of the encapsulation plant starts. A canister factory for assembly of canisters may be built. One possibility is to locate it at an existing metalworking plant".

#### The municipality's view in the matter and of the need for a study

Since the question of siting an encapsulation plant first arose in 1992, Oskarshamn Municipality has held that if the municipality takes responsibility for an encapsulation plant or a final repository, then services and goods for these facilities should be produced in the municipality wherever possible.

Various cases and levels of the socioeconomic effects of an encapsulation plant and/or a final repository must be able to be evaluated and discussed in the event of an application. In order for this to be possible as regards canister fabrication, SKB needs to study alternative fabrication methods now so that the question of how and where canister fabrication is to take place can be considered by the municipality when SKB submits a permit application for the encapsulation plant.

#### SKB's reply:

The canister will consist of a number of components, e.g. copper tube, lid and cast insert. It is likely that these components will be procured from several different suppliers, on the Swedish or international market.

SKB needs to have very good control over the canister components that enter the encapsulation plant, which may mean that we want to have an assembly plant and final adjustment of the canister components under our own auspices or possibly in cooperation with the Finns. An initial study and layout for this "canister factory" exists and will be updated for the application. We will examine the prospects for siting such a factory in one of the municipalities/regions in question and present the results in the supporting material for the application for the encapsulation plant.

At the present time it is not possible to state whether SKB will have already made up its mind about the canister factory at the time of its application for the encapsulation plant. According to our current planning, the siting work will be carried out in parallel with the detailed planning and construction of the encapsulation plant, i.e. after the application for the encapsulation plant has been submitted.

#### **Discussion**:

Oskarshamn Municipality asked how the canister factory will enter into SKB's work, for example in the consultations. SKB replied that all societal aspects associated with the canister factory will be dealt with in SKB's societal programme. The municipality's question was occasioned by the formulations in the scoping report. The formulations will be clarified in the final version of the scoping report.

# 1.2 How does SKB view the possibility of locating canister fabrication in the Misterhult district?

SKB will examine the prospects for siting such a factory in one of the municipalities/regions in question and present the results in the supporting material for the application for the encapsulation plant.

### 2 Final repository for spent nuclear fuel

# 2.1 How will the positive consequences of a deep repository establishment be assured?

SKB said that it is important to discuss at an early stage how the added value of the establishment of a nuclear installation can be maximized. The discussions can be conducted in several forums, for example in the Misterhult group or LKO, or be arranged by SKB and deal with added values in both the municipality and the Misterhult area.

### 3 Common issues

3.1 SR-Can – The report is desired in Swedish.

#### The municipality's question to SKB

#### Question:

One of the municipality's conditions for its decision of 11 March 2002 to allow SKB to conduct a site investigation was the following (condition 3): "Both the regulatory authorities and SKB must conduct a more in-depth dialogue with the citizens so that their questions will guide regulations and safety assessments. These areas must not be reserved for the authorities' and SKB's experts".

It has now been 20 months since this condition was stipulated. We would like to ask SKB what the company has done so far, and intends to do in the future, to comply with this condition.

SKB has now presented a planning report (SKB TR-03-08) for the next safety assessment, SR-CAN, which will be included in the application for the encapsulation plant in 2006. SKB plans to publish an interim report in the autumn of 2004. The planning report is only available in English. With reference to condition 3, the safety group finds that it needs to be translated to Swedish.

#### The municipality's view on the matter and of the need for a study:

A safety assessment is a technically and scientifically complex activity. At the same time, it rests on fundamental premises and assumptions that cannot be reserved for experts. A perusal of SKB's report reveals many points that are of interest for the further work of the safety group, for example the link to safety assessment – site investigation, SKB's choice of scenarios, the function of the buffer in fracture-poor rock, and the integrity of the copper canister.

One of the safety group's goals is to subject various questions to thorough scrutiny and analysis by decision-makers and the citizens. Previous experience shows that this is possible despite (thanks to?) the fact that the safety group consists of laymen in the field. Central reports such SKB TR-03-08 must, however, be available in Swedish if these ambitions are to be realized.

#### SKB's reply:

The reports and documents which SKB wishes to cite in the applications for the encapsulation plant and the final repository must be written in Swedish. At the same time, a large number of the reports produced by SKB, particularly the technical and scientific ones, are written in English. The main reason for this is that the authorities want reports and studies to be written in English to permit a broad international review.

Accordingly, SKB will continue to produce reports in both Swedish and English. Some reports will be available in both languages.

As far as upcoming applications are concerned, SKB's policy is:

 All central documents, for example the safety assessment SR-Can, will be available in Swedish.

- Important supporting documents written in English will have an extensive summary in Swedish.
- Other reports and documents written in English will be provided with at least a summary in Swedish.

The report mentioned by the municipality in its question (TR-03-08) will be translated to Swedish.

#### **Discussion:**

The subsequent discussion primarily dealt with how the scenarios to be analyzed in the safety assessment should be defined. According to the municipality's condition 3, SKB must conduct a more in-depth dialogue with the citizens about the safety assessment, which must therefore not be reserved for the experts. The municipality stated that this is important for the choice of scenarios, which rests on premises and assumptions of not only a technical-scientific but also an ethical and value-related nature. It is important that the citizens the municipality and other parties get answers to their questions regarding the consequences if various events or combinations of events should occur.

SKB pointed out that the scenarios on which the assessment of long-term safety is based must be systematically constructed and scientifically based. Extensive international work, in which SKB is participating, is being conducted to analyze relevant scenarios in a systematic fashion.

In order to ensure that the division of roles in the decision-making process is clear, it is essential that SKB take sole full responsibility for the safety assessment, including the choice of scenarios. The questions posed by the citizens, municipalities and other parties will be answered by SKB, either directly through the results of the safety assessment or in another appropriate fashion. As before, SKB is prepared to explain to the citizens how the safety assessment is used in the evaluation of long-term safety and how the assessment is carried out in detail.

# 3.2 The extended consultation form. How does SKB intend to provide public insight into the extended consultations?

#### The municipality's question to SKB

#### Question:

SKB has now initiated extended consultations for a final repository system (encapsulation plant, transportation system and final repository) in Oskarshamn. Consultation meetings are being held with the citizens, the municipality's working groups, local organizations (e.g. environmental organizations), national organizations, SKI and SSI, the National Board of Housing, Building and Planning and the Swedish Environmental Protection Agency, other countries and of course also EIA Forum. Viewpoints from numerous different perspectives are likely to emerge from the consultations, giving rise to a rich documentation at SKB, which will be appended to the applications to show how consultations have been held and how the viewpoints have been taken into account.

This process is difficult to understand for others than SKB, but at the same time it would undoubtedly be fruitful for other parties to have insight into each other's consultations. What does SKB intend to do to increase transparency in extended consultations?

#### The municipality's view in the matter and of the need for a study:

Different parties in SKB's consultation process vary in terms of their knowledge, interests and values, all of which need to be taken into account prior to applications. We assume that it is SKB's ambition that this will be done via the consultations that

have now begun. We believe that rich and creative consultation requires communication and exchange between different consultation groups. In our view, this is achieved by means of an open invitation to the main actors to participate in all consultations, new meeting forms, and increased feedback through good documentation, but also through oral reports on what emerges in the different consultations.

We believe that more cross-fertilization between the consultations strengthens SKB's EIA. For the parties, increased insight into each other's consultations would increase their insight into various questions, and for the municipality it would improve our chances of getting the information we need to make an informed decision, which is the purpose of the LKO work.

#### SKB's reply:

SKB's goal with the consultations is that everyone who wants to get involved is given an opportunity to do so. The ambition is that the consultations should result in a carefully conceived and solidly underpinned environmental impact statement.

To achieve this, SKB wants to obtain viewpoints from the citizens local and national organizations, municipalities and national authorities. We see all of these as principal actors in the consultation process. We also realize that these actors have different backgrounds and different interests in different questions. We have therefore chosen to hold separate meetings for the different actors so that they will have an opportunity to have "their" questions thoroughly penetrated.

We will have a number of consultation meetings for the citizens in the municipalities of Oskarshamn and Östhammar. These meetings will of course be open to everyone. Furthermore, the municipality, SKI, SSI and the County Administrative Board will from now on receive a special invitation to all consultation meetings that concern the work in Oskarshamn, no matter whom the meeting is primarily intended for.

In order to provide public insight into the consultation process, we will provide information at all consultation meetings on completed and planned consultation meetings and on the main viewpoints that have emerged. Furthermore, notes from all consultation meetings will be available from SKB and on-line. SKB plans to compile and present all of the past year's EIA consultations once a year in a special report.

#### **Discussion and decision:**

The viewpoint was expressed at the meeting that it is difficult for others besides SKB to have an overview of what is discussed at various consultation meetings. It was decided that the municipality, SKI, SSI and the County Administrative Board will from now on receive a special invitation to all consultation meetings that concern the work in Oskarshamn, no matter whom the meeting is primarily intended for.

#### 3.3 Meetings of EIA Forum. Will all be open?

EIA Forum's common viewpoint is that it is important that at least some meetings be open to the citizens to provide greater public insight into the work done there. Suggestions for topics for coming meetings, including suggestions as to which meetings should be open to the citizens will be made by a working group.

# 3.4 Consultation reports from previous meeting of EIA Forum. When will they be presented?

Extended consultation was initiated in 2003 and comprised three meetings with EIA Forum. The questions brought up at these meetings will be compiled. From now on, the minutes will be accompanied by such a compilation.

3.5 The municipality's communication requesting a speed limit on Kråkelundsvägen's connection to the coast road. How far has the processing of the communication come?

Ulf Färnhök, County Administrative Board in Kalmar County, informed the meeting that the County Administrative Board had decided on 2 December to limit the speed to 50 km/h.

## 3.6 Presentation of the results from SSI's work with the general guidelines, feedback from the focus groups etc. is desired.

SSI recently produced the report "Focusing on SSI's risk and radiation protection criteria", which is based on discussions in focus groups in the municipalities of Östhammar and Oskarshamn. The report contains the questions and viewpoints that emerged in the focus group discussions in the municipalities that are participating in the site investigations. The report will serve as a basis for the authorities' work to produce general guidelines associated with the regulations (SSI FS 1998:1). An expert group within the authority will answer and comment on the questions. The expert group's report is due to be published in early 2004. The work on the general guidelines has been delayed due to limitations in human and financial resources. A draft of the general guidelines will be presented in the spring of 2004 for further discussions with the concerned municipalities, SKB, SKI and others. The general guidelines will hopefully be ready by the summer of 2004.

#### 3.7 Shipments on the coast road

The Misterhult group has worked to define those issues that are most important to elucidate in the EIA and for the local programme. Important EIA issues include, for example, traffic and safety issues, noise, disturbances and handling of rock muck in conjunction with the construction of the final repository, as well as the facility's layout and placement in the area. In the work with local environmental issues, the municipality desires an integrated account of shipments on the coast road. The point of departure of this account can be previously conducted studies.

# 3.8 How is transparency created in the consultation process? Is it possible to have an independent/impartial party serve as chairman and write and confirm the minutes?

The County Administrative Board informed the meeting that the County Administrative Board chairs EIA Forum and SKB writes the minutes. The minutes are confirmed by the County Administrative Board, Oskarshamn Municipality, SKI, SSI and SKB.

SKB explained that as far as other consultation meetings are concerned, the Environmental Code is very clear. It is the operator of an activity (in this case SKB) who is responsible for convening consultations and preparing a consultation report. Notes from all meetings will be available on SKB's website.

# 3.9 According to local newspapers, the citizens only has 2 weeks to submit comments on the proposals for studies presented by SKB in its scoping report. Is this correct?

SKB pointed out that it is not correct. It is of course possible to submit questions and viewpoints to SKB at any time. Those questions that have emerged prior to, during and up to two weeks after the consultation meeting will, however, be mentioned in the notes from the meeting. Questions submitted later will be brought up at the next meeting. The two weeks mentioned in the newspaper is the time SKB wishes to keep the consultation meeting open to include subsequently submitted viewpoints in the notes from the meeting.

# 3.10 It is good that this meeting with EIA Forum is open to the citizens. Will open meetings continue to be held? Is it possible to submit written questions prior to the meetings?

Oskarshamn Municipality said that it is important that at least some meetings be open to the citizens in order to provide greater public insight into the work being done within EIA Forum. Suggestions for topics for coming meetings, including suggestions as to which meetings should be open to the citizens, will be made by a working group.

Written questions can be given to Kaj Nilsson, Oskarshamn Municipality, who will forward them to EIA Forum.

## 3.11 How does Oskarshamn Municipality's intensive involvement influence SKB's work?

SKB takes a positive view of Oskarshamn Municipality's active involvement with the nuclear waste issue and their questions and viewpoints.

## Meeting with national authorities and government agencies Excerpt from notes of meeting

Day	Wednesday 17 December 2003
Time	9:00-12:00
Place	SKB, Brahegatan 47, floor 8
Present	
Swedish Environmental	Inger Brinkman
Protection Agency	Stina Lundberg
National Board of Housing,	
Building and Planning	Bengt Larsén
Legal, Financial and Administrative	
Services Agency	Torgny Norberg
SSI	Tomas Löfgren
SGU	Lena Maxe, part of meeting
SKB	Saida Laârouchi Engström, Lars Birgersson, Roland Johansson, Sofie Tunbrant
This is a compilation of questions and viewpoints, some of which were brou	

This is a compilation of questions and viewpoints, some of which were brought up at the meeting itself, some submitted in writing within six weeks of the meeting.

### 1. Encapsulation plant

No questions or viewpoints were expressed pertaining solely to the encapsulation plant.

### 2. Final repository for spent nuclear fuel

#### 2.1 How big is the investigation area with regard to groundwater changes?

The candidate areas for site investigations are much larger (5 to 10 times) than is required for a deep repository. The investigation areas for groundwater changes are in turn much larger than the candidate areas. The large investigation areas make it possible to compare the natural annual variations within the candidate area with the natural annual variations outside the candidate area.

### 3. Common issues

# 3.1 According to the Environmental Code and the preparatory works to the Code, the alternative report should be so detailed that the alternative could be chosen. How will alternative methods be presented?

The applications will pertain to final disposal according to the KBS-3 method on one of the sites where site investigations are being conducted. The second site will comprise an alternative in accordance with the requirements of the Environmental Code and will be described as far as possible to permit a comparison. The alternative methods that have been studied and the premises for their application will be described within the framework of the documentation for the alternative report which is appended to the application. The Government has on several occasions, for example in conjunction with the Government decision regarding SKB report TR-01-03 in November 2001, decreed that the applications for a permit to build a final repository for spent nuclear fuel and nuclear waste should contain material showing that site investigations have been conducted on at least two sites and the reasons for the selection of these sites.

# 3.2 Have the County Administrative Boards stipulated any conditions for the alternative report in their decisions regarding significant environmental impact?

The County Administrative Boards in both Kalmar and Uppsala counties have commented on the alternative report in their decisions regarding the significant environmental impact of the deep repository. The County Administrative Boards comment as follows:

Beyond a presentation and assessment of realistic alternative methods for final disposal of the spent nuclear fuel as waste within the framework of the environmental impact statement, the County Administrative Board has not found reason to require a report of "describing similar ways of achieving the same purpose" according to Chap. 6, Sec. 7, paragraph two of the Environmental Code, when alternative designs are presented in the environmental impact statement.

The reason given by the County Administrative Boards for this judgement is that the possibility of utilizing the spent nuclear fuel as a resource for the production of electric power is not realistic, given Swedish policy and legislation bearing on nuclear activities. Such use would require reprocessing and possibly also new nuclear installations.

3.3 SSI repeats previously expressed viewpoints regarding alternative reporting (see SSI's statement of opinion on RD&D-01). SSI stresses that alternative reporting is needed to verify the main alternative and that the term "alternative" does not refer to variations within KBS-3, but rather a completely different concept where the weight in safety is distributed differently than for KBS-3. In SSI's judgement, a safety evaluation of the Very Deep Holes alternative could correspond to the alternative in alternative reporting.

SKB has noted SSI's wish for a safety evaluation regarding the alternative Very Deep Holes. SKB intends to discuss with SSI what should in this case be done in addition to the evaluations of Very Deep Holes that were presented in 2000 in the report SKB R-00-28, "Very Deep Holes. Scope and content of RD&D programme required for comparison with the KBS-3 method" (in Swedish only).

3.4 SSI fears that the "broad discussions" concerning alternative strategies and methods which SKB intends to conduct in the consultations will lead to discussions of alternatives which SKB has already given a general account of and which the Government and the regulatory authorities have deemed unrealistic at this time. In SSI's opinion, SKB should consider, in addition to the municipality-specific discussions being conducted by the company, a joint multiparty consultation on the issue of alternatives, perhaps in the form of several seminars over time. A natural endpoint for such a consultation could be a presentation of the preliminary conclusions SKB and other parties have drawn from the safety evaluation for Very Deep Holes.

If there is interest, SKB is naturally prepared to arrange seminars on specific topics, for example the alternatives issue.

The alternative issue will be discussed on several occasions during the first half of 2004. On 21 April, the municipalities of Oskarshamn and Östhammar will arrange a seminar with a focus on the alternative issue. SKB will consult with national and local conservation and environmental organizations regarding the scoping report in April/May. The meetings will take place on 4 May (national), and on 22 April (Oskarshamn) and 13 May (Östhammar). The alternative issue is one of the issues that will be discussed at these meetings.

3.5 The National Board of Housing, Building and Planning says that it is important that method selection will be so well developed in the application for a permit for the encapsulation plant that it can serve as a basis for judging the final repository.

SKB agrees that the application for the encapsulation plant should contain whatever is needed to judge method selection itself, but not the final repository. This is judged after a special application for the selected site.

3.6 SSI's view is that it is not possible to make a final judgement and state an opinion on the application for the encapsulation plant until the application for the final repository, and the EIS in support of it, have been submitted.

SKB concurs. According to SKB's timetable, the application for the encapsulation plant will be submitted in mid-2006. The application for the final repository will be submitted at the end of 2008. A decision regarding the encapsulation plant is expected to be ready approximately 6-12 months after the application for the final repository has been submitted. During this time, all background material for a decision, for both the encapsulation plant and the final repository, will be available. The decision regarding the final repository is expected to be made in 2010.

3.7 SSI also repeats that, in accordance with what has previously been said during the SI consultations, the timetable proposed by SKB for review of the encapsulation plant is too tight and probably not feasible.

SKB judges that the timetable for review of the application for the encapsulation plant should be sufficient, since it entails that the review can proceed for more than 3 years before SKB expects a decision.

3.8 SSI points out that the Environmental Code's provisions regarding what is to be included in an EIS and in an application entail overlapping requirements on reporting to a great extent. SSI is of the opinion that SKB should strive to obtain as much of the supporting material for an application as possible in the EIA consultations.

It is SKB's intention that as much as possible of the EIS, which is to be appended to the application, should be prepared in the consultations.

## 3.9 The encapsulation plant is not a separate issue. How do the applications go together?

The system analysis that is to be included in the supporting material for the application for the encapsulation plant covers the entire repository system, i.e. encapsulation plant, final repository and transportation between them. The decision regarding the encapsulation plant is not expected to be made until the application for the final repository has been submitted and concerned parties have read the contents.

#### 3.10 How does the citizens outside the municipalities in question obtain information on the project and have an opportunity to participate?

Since the feasibility study, SKB has been hosting study visits for the citizens at existing facilities in both Oskarshamn and Forsmark. Information and meeting activities are conducted locally in each municipality, both for the general public and for groups. For residents outside the municipalities of Oskarshamn and Östhammar there is information on SKB's website, and questions and viewpoints can be submitted by e-mail.

#### 3.11 What happens if both municipalities say no?

It depends on why they say no. If it has to do with unanswered questions, they will be dealt with. Otherwise the siting process will start over.

#### 3.12 How do occupational health and safety questions enter in?

Questions related to occupational health and safety are not dealt with in the permit applications pursuant to the Nuclear Activities Act or the Environmental Code, but rather in applications for operating licences and building permits.

# 3.13 How are SKB's interests taken into account in the municipalities' planning work?

After consultation with the National Board of Housing, Building and Planning and concerned County Administrative Boards, SKI shall furnish information to the County Administrative Boards on areas deemed by SKI to be of national interest for final disposal of spent nuclear fuel and nuclear waste. SKB has submitted proposals to SKI regarding which areas in Oskarshamn and Östhammar should be decreed to be of national interest. SKI will arrive at a proposal for decision that will be circulated for comment during the spring of 2004.

# 3.14 The detailed development plan should be anchored in overall community planning at an early stage.

Each municipality will probably produce proposals for a detailed development plan, but will wait with their decision until after a Government decision on the permit application. The permit application for the encapsulation plant will be so detailed that it can also be used for the application for a building permit.

3.15 The National Board of Housing, Building and Planning notes that, in the scoping report, SKB mainly emphasizes that permits are required under the Environmental Code and the Nuclear Activities Act and that less is said about building permits, building notifications and compliance with the Act on Technical Requirements for Construction Works (BVL). The Board points out that parts of the facility may also need to be regulated by detailed development plans and that an EIA/EIS pursuant to the Planning and Building Act may need to be prepared (Chap. 5 Sec. 18 of the Planning and Building Act). Supporting material for the detailed development plan's EIA should in this case be coordinated as far as possible with EIA under the Environmental Code, says the National Board of Housing, Building and Planning.

SKB is aware of the requirements regarding the planned facilities and concurs with the National Board of Housing, Building and Planning. However, the scoping reports are concerned with EIA under the Environmental Code.

3.16 The National Board of Housing, Building and Planning observes that SKI will during 2004 present proposals and boundaries for areas of national interest (pursuant to Chap. 3 Sec. 8 of the Environmental Code) for a final repository for nuclear waste. SKI's decision will then be incorporated in the municipal comprehensive plans, according to the Board. The Board is of the opinion that SKB should produce supporting material for the work of SKI and concerned municipalities, if additional material is needed.

SKB has offered viewpoints to SKI on the boundaries of areas of national interest for final disposal of spent nuclear fuel and nuclear waste, see SKB report P-03-01. If SKI requests additional material, SKB will compile it.

## 3.17 What will the balance be between short- and long-term environmental consequences in the EIS?

Environmental effects and consequences will be clearly reported for the construction phase, the operating phase and the post-closure phase. The anticipated effects are mainly of a non-nuclear nature, even though they relate to nuclear installations. It is important that this will be made clear in the documentation.

#### 3.18 Where does the boundary go for what is to be included in EIA?

The geographic boundary for what a study of effects should encompass is dependent on the activity being studied. An example is handling of rock muck. If the rock muck is sold, how far geographically should impact, effects and consequences be accounted for? To the municipal boundary, to the national boundary, or to....?

The geographic boundary is also related to the type of impact. For example, noise has a local impact, while pollution of air and water may have an impact in a larger area.

According to proposals from several reviewing bodies to the environmental code committee, the boundary should be drawn where the boundary goes for what is possible to influence within a project. Exactly where the EIA boundary should be drawn for the different activities will be discussed in the consultations.

3.19 SSI believes it is important that SKB should state as early as possible what issues they believe lie outside the EIA consultation. For such issues, SKB should consider alternative forms of municipal participation.

This is SKB's intention.

- 3.20 SSI believes it should be clarified that version 1 of SKB's scoping report does not set a definite boundary for what is to be studied within the framework of the EIA process.
- SKB concurs and will clarify the formulations in version 1.
- 3.21 The National Board of Housing, Building and Planning does not wish in its statement of opinion to exclude the possibility that other issues may be brought up in the continued work of consultations and environmental impact assessment.

SKB concurs. The final versions of the scoping reports will serve as a point of departure for SKB's work with studies and the EIS, but both the structure and content of the EIS will be defined and adjusted continuously in response to the results of the consultations as well as the design work and investigations and studies for planned facilities.

3.22 According to SSI, the safety assessment should include the following: the prediction and calculation methods that have been used, the assumptions that have been made, and the supporting data and information sources that have been used. Any shortcomings and uncertainties in methods and data shall also be reported.

SKB concurs.

3.23 SKB says that other facilities – for example new roads – may be built as a consequence of the establishment of the final repository and the encapsulation plant. In the view of the National Board of Housing, Building and Planning, additional facilities that it is known now will be needed to enable the activity to be conducted shall be indicated and impact-assessed from the start so that the overall impact of the facility can be assessed.

SKB concurs as far as the supporting material for the EIAs for the encapsulation plant and the final repository are concerned.

- 3.24 The National Board of Housing, Building and Planning also writes that regarding land use in the long term and security against intrusion etc., it is important that this will be studied and that the land use be regulated in a way that also contributes to ensuring the desired security.
- SKB concurs.
- 3.25 SKI writes that the contents of the appendices to the EIS are described in Chapter 4 of the scoping report. Based on the descriptions of the studies given in Chapter 4, it is difficult to identify how important questions and aspects that have emerged will be dealt with in the EIS. Clarifying the link between the EIS appendices and the actual body of the EIS will make it easier to trace how important questions and aspects presented in the appendices and in Chapter 4 of the scoping reports are dealt with in the EIS.

The link between the EIS appendices and the body of the EIS will be clarified in version 1.

3.26 SKI is of the opinion that it may be of help if SKB identifies the principal target groups for the EIS's background reports, which are presented on pp. 21–22 (in the scoping report) in each report. The recipients can then form an opinion of how extensive their future participation can be expected to be.

SKB would like all consultation parties to feel that they have an opportunity to offer viewpoints on all EIS background reports. However, we will indicate principal target groups for the various EIS background reports in version 1.

3.27 SGU writes that reasons exist to divide the EIS into one part that deals with the effects on the environment during the construction and operating periods, post-closure and site remediation, and another part that deals with the possible long-term effects. The reasons are the big differences in experience, effects and time scale between the different activities: In the case of the first group of activities, a great deal of previous experience exists, and the effects are relatively easy to predict and relatively limited in time. SGU also believe that SKB must stipulate uncertainties in the calculations relating to the long-term performance of the final repository.

The EIS documents will give an account of both short- and long-term effects on the environment, although in different chapters. Separate background documents will be produced.

- 3.28 SGU notes that the description of present-day conditions and background values may become outdated, since the process leading to a permit decision is a long one. SKB must therefore be constantly prepared to supplement data, for example regarding well inventories.
- SKB will provide whatever supplementary information the reviewers desire.
- 3.29 SGU mentions SKB's report R-03-01, which deals with the groundwater's regional flow patterns and above all the fact that the hydrogeological modelling should continue to be done in a larger regional perspective, in both Oskarshamn and Forsmark. Groundwater lowering due to leakage to rock caverns, as well as other groundwater withdrawals, should be included.

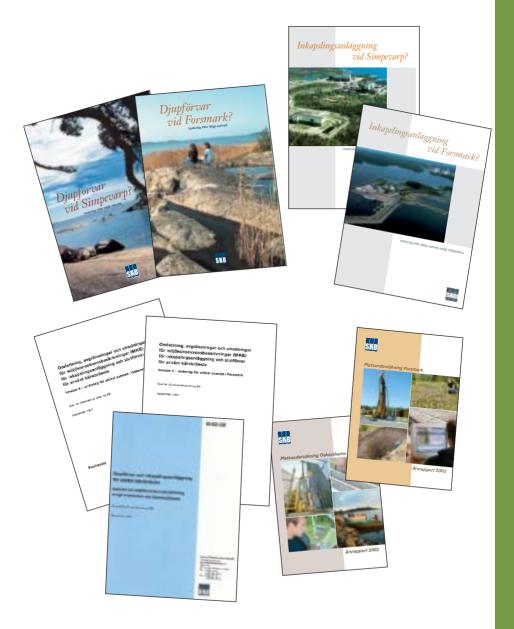
SKB concurs.

3.30 What language should the background reports be written in? Many studies are in English – do they have to be translated to Swedish?

It is practice for all documents submitted to the Environmental Court to be in Swedish. The question of what language background reports are to be written in must be decided from case to case, depending on who will review them and who requests the reports. SKB will see to it that important results from the studies are conveyed to decision-makers and the citizens in the municipalities, regardless of what language the background reports are written in.

# If you would like to read more

Some brochures and reports from SKB with a bearing on the ongoing consultations and site investigations are shown below. All are available at **www.skb.se** or can be obtained on request.



## Background material for early consultation

In preparation for the early consultations for the encapsulation plant and the final repository, brochures were produced describing the locations, extent and nature of the planned activities and its anticipated environmental impacts.

These brochures are entitled: *Encapsulation plant at Simpevarp?*, *Encapsulation plant at Forsmark?*, *Deep repository at Simpevarp?* and *Deep repository at Forsmark?* (all in Swedish only).

## Background material for extended consultation

SKB has produced preliminary versions of the scoping reports entitled *Scope, delimitations and studies for environmental impact assessments (ELAs) for encapsulation plant and final repository for spent nuclear fuel* (in Swedish only) – for Oskarshamn and Forsmark. The reports contain SKB's proposals for what the EIA work should include and how its scope can be defined.

### Annual reports for Oskarshamn and Forsmark

Site investigations are being conducted in Oskarshamn and Forsmark. Each site has its own annual report describing the past year's activities (available in English).

### Other reports

The report Deep repository and encapsulation plant for spent nuclear fuel – consultation and environmental impact assessment under the Environmental Code and the Nuclear Activities Act (in Swedish only) describes how the consultations can be conducted and who participates. SKB Report R-02-39.

The terms "final repository" and "deep repository" are both used for the facility for final disposal of spent nuclear fuel. However, the designation "final repository" is the only one used in legal and regulatory texts.

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