



Interaction with interest groups is an important part of the EIA procedure. Meeting in Helsinki, 2008.

Participation of the general public, which is an essential part of the EIA procedure, aims to ensure that various stakeholders' views of the project's impacts are also taken into account at a sufficiently early stage.



2 EIA procedure, communications and participation

2.1 Need and objectives of EIA procedure

The objective of the EIA procedure is to improve the environmental impact assessment and to align its consideration in planning and decision-making. Another objective is to increase the availability of information to Finnish citizens and their possibilities of participation in the planning of the projects. The EIA procedure does not involve any project-related decision and it does not solve any licensing issues.

The Directive on Environmental Impact Assessment (EIA, 85/337/EEC) issued by the Council of the European Community (EC) has been enforced in Finland through the Act on Environmental Impact Assessment (EIA Act, 468/1994) and EIA Ordinance (713/2006). They have also enforced the Convention on Environmental Impact Assessment in a Transboundary

Context approved by the United Nations Economic Commission for Europe (UNECE).

According to point 7 b) of the project list in § 6 of chapter 2 of the EIA Decree, nuclear power plants are projects subject to the assessment procedure. The Ministry of Employment and the Economy acts as the EIA coordinating authority for projects associated with nuclear facilities according to the Nuclear Energy Act.

The environmental impact assessment report (EIA review) referred to in the EIA Act must be enclosed with the decision-in-principle application for the Government's permit to build a new nuclear power plant.

2.2 Key stages of the EIA procedure

The environmental impact assessment procedure is di-

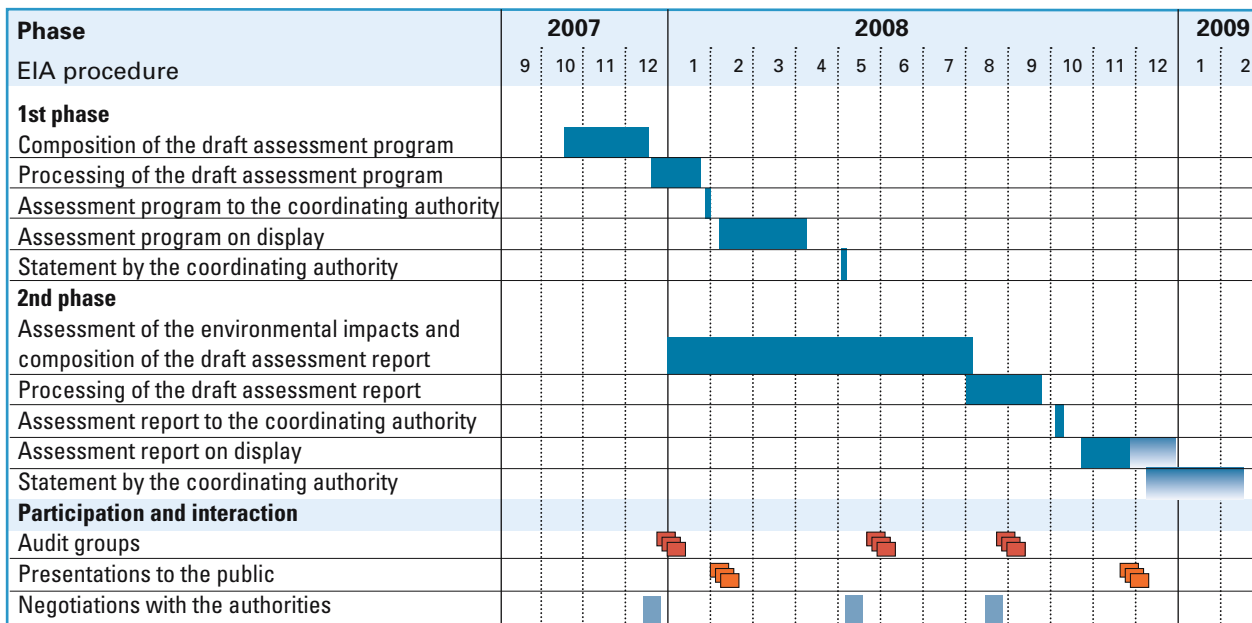


Figure 2-1. Key stages and timetable of the EIA procedure.

vided into two stages. The first phase involved making an environmental impact assessment program (EIA program). The EIA program presented the options of implementing the project as well as a plan for carrying out the environmental impact assessment procedure and the required surveys.

Fennovoima submitted the EIA program on 30 January 2008 to the Ministry of Employment and the Economy, which is the coordinating authority. The Ministry of Employment and the Economy requested statements on the EIA program from different authorities and other stakeholders. In addition, citizens had the possibility to voice their opinions of the EIA program and its extensiveness. The EIA program was displayed between 5 February and 7 April 2008 for statements and opinions. The Ministry of Employment and the Economy compiled all statements and opinions and issued its own statement on the EIA program on 7 May 2008.

In the second phase of the environmental impact assessment procedure, the EIA report – this document – was compiled on the basis of the EIA program and the statements and opinions issued. The key stages of the EIA procedure are illustrated in the enclosed figure (Figure 2-1).

The EIA review presents information about the project and a uniform summary of the project’s environmental impact created as a result of the assessment procedure. In addition, it presents:

- options to be assessed
- current status of the environment
- environmental impacts of the presented options and their significance
- comparison of the alternatives assessed
- prevention and reduction methods for hazardous impacts

- proposal for the monitoring program of environmental impacts
- methods on how interaction and participation have been arranged during the EIA procedure
- the extent to which the statement of the Ministry of Employment and the Economy on the assessment program has been taken into account in the assessment.

Citizens and various stakeholders have the possibility to voice their opinions of the EIA review as well during the display time determined by the Ministry of Employment and the Economy.

2.3 Communications and participation

2.3.1 Audit group work

Regional audit groups were established to monitor the EIA procedure, one for each alternative site location. Representatives of stakeholders associated with the project were summoned as members of the audit groups as extensively as possible. The audit groups also suggested communities to be involved as members of the audit group. The audit groups were supplemented based on this.

The purpose of the audit groups has been to advance communications between the project leader, the authorities and other interest groups. The following communities were appointed to the audit groups (situation as per June 2008). The communities that did not take part in the meetings are italicized.

Pyhäjoki

- The Municipality of Alavieska
- Hanhikivi.net
- Jokilaakso Rescue Department
- The Town of Kalajoki

- *The Western Finland Environmental Permit Authority*
- The Municipality of Merijärvi
- MTK-Pyhäjoki
- The Town of Oulainen
- Oulu Trade Center, Raahe Trade Center Department
- The State Provincial Office of Oulu
- *The Parhalahti Joint Society*
- *The Parhalahti Town Committee*
- The Parhalahti Farmers' Society
- Perämeren kalatalousyhteisöjen liitto (Union of fishing organizations in the Gulf of Bothnia)
- Partners in the Piehinki Fishing Corporation
- The Piehinki village association
- *Pohjoisen perämeren ammattikalastajat (Professional fishermen in the northern Gulf of Bothnia)*
- The Council of Oulu Region
- The TE Centre for Northern Ostrobothnia
- The North Ostrobothnia Regional Environment Centre
- Posiva
- Pro Hanhikivi
- The Municipality of Pyhäjoki
- *The Pyhäjoki Parish*
- Entrepreneurs in Pyhäjoki
- The Pyhäjoki Region Nature Conservation Society
- The Raahe District bird watchers Surnia ry
- The Town of Raahe
- The Raahe District Joint Municipal Authority of Healthcare
- The District of Raahe
- The Municipality of Siikajoki
- *The Safety Technology Authority*
- *The Ministry of Employment and the Economy*
- The Municipality of Vihanti

Ruotsinpyhtää

- The Municipality of Elimäki
- The State Provincial Office of Southern Finland
- Etelä-Suomen Merikalastajain Liitto
- Itä-Uudenmaan ja Porvoonjoen vesien- ja ilmansuojeluyhdistys
- Regional Council of Itä-Uusimaa
- Itä-Uudenmaan luonnon- ja ympäristönsuojeluyhdistys
- The Eastern Uusimaa Rescue Department
- The Town of Kotka
- The Municipality of Lapinjärvi
- *The Municipality of Liljendal*
- Loviisa fishing area
- The Town of Loviisa
- The Loviisa Healthcare District
- The Western Finland Environmental Permit Authority
- Nylands Fiskarförbund
- The Municipality of Pernaja
- Pernå Fiskargille
- *Posiva*
- Pyhtää fishing area
- The Municipality of Pyhtää
- Pyhtään Luonto
- The Municipality of Ruotsinpyhtää
- Skärgårdens Vänner i Strömfors

- Strömfors Fiskargillet
- Strömfors fishing area - Pernå fishing area - Ruotsinpyhtää fishing area
- The Safety Technology Authority
- *The Ministry of Employment and the Economy*
- *The Uusimaa Regional Council*
- The TE Centre for Uusimaa
- The Uusimaa Regional Environment Centre
- *Östra Nylands Fågel och naturskyddsförening*
- Loviisan Seudun Eränkävijät

Simo

- Hepolan pientaloyhdistys
- The Municipality of Ii
- The Town of Kemi
- Kemin lintuharrastajat Xenus
- Kemin Seudun Luonnonsuojeluyhdistys
- The Municipality of Keminmaa
- Central Gulf of Bothnia fishing area
- Kuivaniemen Luonto
- *The Lapland Chamber of Commerce*
- The Regional Council of Lapland
- The Lapland Ornithological Society
- Lapin luonnonsuojelupiiri (Lapland nature conservation society)
- *The State Provincial Office of Lapland*
- Lapland Rescue Department
- The TE Centre for Lapland
- The Lapland Regional Environment Centre
- The Länsi-Pohja Healthcare District
- *The Western Finland Environmental Permit Authority*
- Maksniemen Erämiehet
- *The Maksniemi village association*
- *The Maksniemi cooperative of water supply and sewerage*
- Partners in joint Maksniemi water areas
- Gulf of Bothnia fishing area
- Perämeren kalatalousyhteisöjen liitto (Union of fishing organizations in the Gulf of Bothnia)
- Pohjoisen perämeren ammattikalastajat (Professional fishermen in the northern Gulf of Bothnia)
- *Posiva*
- *The Municipality of Ranua*
- The Municipality of Simo
- Simon mökkiläisyhdistys (Simo cottage society)
- Simonkylä Joint Society
- The Simoniemi village association
- The Municipality of Tervola
- *The Town of Tornio*
- *The Safety Technology Authority*
- *The Ministry of Employment and the Economy*

Each audit group met three times during the EIA procedure.

The audit groups met for the first time during the EIA program stage. The meetings were held in Pyhäjoki on 8 January 2008, in Simo on 9 January 2008 and in Ruotsinpyhtää on 10 January. In the meetings, the project, EIA procedure and the project's EIA program draft were presented to the audit group members. The audit groups

commented on the EIA program draft both in the meeting and afterwards during the time reserved for comments.

The comments received from the audit groups paid attention to, e.g. the project's impacts on waters, fish, land use and value of properties, as well as the means of livelihood and opportunities for leisure activities. Matters of particular interest also included the safety of the nuclear power plant, taking different kinds of risks and accident situations into consideration and the disposal of spent nuclear fuel.

All comments and specifications received in the meetings and afterwards were comprehensively taken into account when drawing up the EIA program, as far as they were related to the EIA program. Comments, information and sources of information not related to the EIA program were taken into account in the implementation of the EIA procedure and in the EIA report and related surveys.

The location descriptions in the EIA program were specified further with the help of the local knowledge of the audit groups. Important information was received on, e.g. the nature conservation and bird areas and cultural historical environments in the immediate surroundings of the site locations. The audit groups also provided important further information for surveys carried out in the assessment and planning them.

The audit groups met for the second time in the EIA report composition phase. The meetings were held in Ruotsinpyhtää on 21 May 2008, in Simo on 26 May 2008 and in Pyhäjoki on 27 May 2008. The statement on the EIA program by the coordinating authority – the Ministry of Employment and the Economy – and taking it into account in the composition of the EIA report and the implementation of the EIA procedure were discussed in the meetings. In addition, the contents of the surveys made for the EIA, their current status and some results available at the time were presented to the audit group members.

In the audit group meetings, the issues that inspired questions included the cooling water dispersion model and assessment of water impacts, nature surveys and their implementation and the assessment of impacts on recreational use. Of location-specific questions, particular attention was paid to impacts on fishing and fish stocks and the conservation areas in the surroundings of the site locations.

The audit groups met for the third time at the end of August 2008.

2.3.2 Public meetings

Fennovoima and the Ministry of Employment and the Economy organized public meeting at each alternative locality at the EIA program stage. The meetings were arranged as follows:

- In Ruotsinpyhtää on 11 February 2008. About 130 people were present.
- In Simo on 12 February 2008. About 120 people were present.

- In Pyhäjoki on 13 February 2008. About 170 people were present.

Project-related plans and the associated EIA procedure were presented to the public in the meetings. The public had the possibility to voice their opinions of the environmental impact assessment work and its sufficiency and discuss with Fennovoima, the ministry and the experts who had been involved in composing the EIA program.

In Ruotsinpyhtää, the public's comments brought out the question of the routing of required power lines. In addition, comments paid attention to the practical implementation of the environmental impact assessment and the monitoring of the impacts. The impacts of thermal load in the cooling waters gave rise to debate, as did stakeholders' possibilities to participate.

In the meeting in Simo, issues concerning the safety of the nuclear power plant and the emissions from the operation of the plant were discussed. The comments also pointed out the effects of sudden changes in sea level on the safety of the nuclear power plant, among others. Attention was also paid to nuclear waste and uranium mines.

Radiation and its health effects were discussed in the Pyhäjoki public meeting. In addition, e.g. the radioactivity of the Baltic Sea was discussed. The debate also concerned the citizens' possibilities to have a say and taking the surrounding areas' inhabitants into account in project planning and the EIA procedure.

The key questions of the public meetings were also repeated in the statements and opinions issued on the EIA program. Taking them into consideration in the composition of the EIA report and the related surveys are discussed in Chapter 2.6.

The issues that were raised in the public meetings were also inspected as a part of the project's social impact assessment.

Second public meetings on the project and its EIA procedure will be organized in November 2008 in Pyhäjoki, Ruotsinpyhtää and Simo. The results of the environmental impact assessment and the EIA report will be presented in the meetings.

2.3.3 Other communications and participation

Fennovoima has opened offices to each EIA locality. The offices were opened in January–February 2008, and they are open two days a week. The office hours and activities of the offices have been advertised in regional newspapers. Inhabitants and others interested in the project have been able to receive information on nuclear power and the Fennovoima project from the offices. During the EIA procedure, the offices in different locations have been visited by a total of 1,000 people. The local offices have also been contacted by telephone. The most common discussion and question topics have included the project's financial impact on the municipality and region, the selection criteria

for the locations, Fennovoima's ownership and background organizations, the impact on nature and the living environment, technical and safety issues, waste issues, alternative forms of energy production, energy savings and the project's impact on tourism and the region's image.

Fennovoima organized a separate public meeting on the project at each EIA locality in fall 2007, already before the beginning of the EIA procedure. The project has been presented also during the EIA procedure in various meetings to stakeholders, companies and other communities interested in the project. Stakeholders have requested presentations of the project particularly through the offices' contact managers. In Simo, Fennovoima's technical experts have taken part in open college seminars and lecture series.

In May 2008, Fennovoima organized regional invitation seminars at each EIA locality to regional decision-makers, officials, industry and commerce and the media. The meetings addressed the current status of the Fennovoima project. During spring 2008, the project has been presented to councils, boards and technical committees of various municipalities.

Fennovoima distributed the Fennovoima-utiset newsletter to the region of each locality in March 2008. The newsletter was distributed as an enclosure between local newspapers as follows: Meri-Lapin Helmi on 12 March 2008, Pyhäjoen Kuulumiset on 12 March 2008, Loviisan Sanomat on 14 March 2008 and Östra Nyland on 15 March 2008. The newsletter discussed the EIA procedure, Fennovoima and nuclear power and safety in general. The newsletters varied by region so that the newsletter published for each locality contained views of the project by representatives of said region. The local pages also contained an introduction to the regional office and the Fennovoima contact manager of the area.

Fennovoima also publishes its own stakeholder magazine, Sisu. The first issue was published in February 2008. The magazine is published four times a year and distributed to stakeholders.

Representatives of the Radiation and Nuclear Safety Authority have also made speeches in various meetings on nuclear power at the EIA localities.

As a part of the social impact assessment included in the environmental impact assessment, a questionnaire was distributed among regular and recreational residents of the surroundings of the site locations. In connection with the resident survey, a brochure on the project and its EIA program was sent. The resident survey investigated the attitudes of the residents of the surrounding areas towards the project and their views of the project's environmental impacts. Chapter 8 discusses the sampling of the resident survey and the results of the survey by locality. In addition, stakeholder interviews were performed in each EIA area to survey the views of the residents and actors of the surrounding areas. The interviews were carried out by way

of group interviews beginning with a brief summary of the project. The information received from the stakeholder interviews is discussed in more detail by locality in Chapter 8.

Local knowledge was utilized where possible also in connection with the composition of other surveys carried out as part of the assessment. The observations of local bird watchers were utilized in surveying the avifauna of the site locations and their surroundings. The bird watchers' observations provided the experts who composed the report with long-term information in the support of their assessment work. The experts who assessed the present situation of the fish stock and impacts on it were in contact with local fishermen to obtain additional information in support of their work.

2.4 Display of the assessment program

The environmental impact assessment procedure commenced on 30 January 2008, when Fennovoima submitted the assessment program conforming to the EIA Act to the Ministry of Employment and the Economy. Notice of the initiation of the assessment procedure was published on 5 – 7 January in the Helsingin Sanomat and Hufvudstadsbladet newspapers and in the following regional newspapers: *Pyhäjoki region*; Kalajokilaakso, Keskipohtanmaa, Pyhäjokiseutu, Raahelainen Raahen Seutu and Vieskalainen; *Ruotsinpyhtää region*; Borgåbladet, Uusimaa, Kymen Sanomat, Loviisan Sanomat, Östra Nyland – Kotka Nyheter and Etelä-Suomen Sanomat; *Simo region*; Kaleva, Lounais-Lappi, Meri-Lapin Helmi and Pohjolan Sanomat.

The assessment program was on display to the public between 5 February and 7 April 2008 in the following municipal or environmental offices: Pyhäjoki, Ruotsinpyhtää, Simo, Raahe, Alavieska, Vihanti, Merijärvi, Siikajoki, Oulainen, Kalajoki, Pyhtää, Lapinjärvi, Pernaja, Elimäki, Loviisa, Anjalankoski, Keminmaa, Tervola, Ranua, Ii and Kemi. In addition, the assessment program was displayed on the web sites of the Ministry of Employment and the Economy and Fennovoima.

The Ministry organized a public meeting at each EIA locality in cooperation with Fennovoima (Chapter 2.3.2).

2.5 The coordinating authority's statement on the EIA program

The ministry of Employment and the Economy issued its statement on the EIA program on 7 May 2008 (Appendix 1). In its statement, the Ministry of Employment and the Economy finds that Fennovoima's environmental impact assessment program meets the requirements of EIA legislation with regard to content, and it has been processed in accordance with the requirements of EIA legislation. The matters pointed out by the coordinating authority and taking them into account in the EIA report and any reference to an appropriate section of the EIA report is presented in the following table (Table 2-1).

Table 2-1. Taking the coordinating authority's statement on the assessment program into consideration in the EIA/EIA report

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
<p>1) In addition, the statements and opinions have also presented other questions, comments and views that the party responsible for the project should address. In the assessment report, the party responsible for the project must appropriately and sufficiently address the questions presented.</p> <p>The party responsible for the project must submit an account of measures with which the party responsible for the project will supplement the assessment within three weeks of the date of the statement to the Ministry.</p> <p>The shortcomings or erroneous information clearly pointed out in the EIA program by the statements and opinions must be corrected. The Ministry proposes that the party responsible for the project attach a table to the EIA report, specifying the issues pointed out by the coordinating authority, the response to them by the party responsible for the project and any reference to the appropriate section of the EIA report.</p>	<p>Chapter 2, the section on statements and opinions, includes a table addressing the issues raised in the statements and opinions issued and responding to them in the EIA report. Shortcomings and any erroneous information pointed out in the EIA program have been corrected in the relevant sections of the EIA report.</p> <p>This is the required table.</p>
<p>2) In addition, the questions presented in international assessment must be replied to in the international assessment summary to be composed from the report.</p> <p>Material to be translated into the respective languages of other countries must be sufficient and contain the information specified in Appendix II of the Espoo Convention. A separate section on transboundary impacts shall be attached to the assessment report.</p> <p>The material must present how the comments of the countries participating in the EIA procedure in compliance with the Espoo Convention have been taken into consideration.</p>	<p>The questions presented in international assessment and the related responses and issued comments and taking them into consideration are discussed in Chapter 2.</p> <p>The transboundary impacts are presented as a separate sub-chapter in Chapter 8 of the EIA report as well as the EIA report summary, which will be used in international hearing. The summary presents the information specified in Appendix II of the Espoo Convention.</p>
<p>3) In the environmental impact assessment, the different project implementation options should be compared as extensively as possible and the comparison must be presented in the EIA report. Different options refer to, for instance, different site location options, amount of thermal power (number of plant units), different cooling water intake and discharge options and/or utilization of cooling water.</p>	<p>The impacts are presented separately by site location, water impacts with different thermal powers as well as in the case of different intake and discharge options.</p> <p>The differences or lack of differences between the options are inspected also with respect to other impact types, as the option set-up as such requires it.</p>
<p>4) The planned sites of the power plant units must be clearly defined as a part of the presentation and assessment of other land use.</p> <p>In addition, the exclusion area must be clearly defined.</p> <p>The project's impacts on cultural historic environments and antiquities at each site location must be assessed.</p> <p>According to the statement of the National Board of Antiquities, the audit groups must be supplemented with experts in cultural historic environments.</p>	<p>The alternative locations and municipal boundaries of the power plant units are presented in map images in Chapter 1 of the EIA report.</p> <p>The exclusion zones are presented in Chapter 8 in the section on civic defense.</p> <p>The impacts on cultural historic environment and antiquities are presented in Chapter 8 in the section on impacts on landscape.</p> <p>Invitations to the meetings of the audit groups will be sent to the National Board of Antiquities and provincial museums.</p>
<p>Project description and options</p>	
<p>5) The Ministry considers that the assessment report must include an overview of nuclear power plants currently in the market that are suitable for the inspected project.</p>	<p>Chapter 3 of the EIA report presents brief descriptions of the plant options planned for the inspected project.</p>

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
6) Similarly, the bases of the nuclear power plant's safety design with regard to limiting the emissions of radioactive substances and environmental impacts must be presented, as must an estimate of the opportunities for fulfilling the current safety requirements.	The requested matters are presented in Chapter 6 on nuclear safety.
7) The Ministry considers that it might be beneficial for communications concerning the project if the assessment report briefly presented the general outline of the cost structure of the project and its options.	The project's cost structure is presented in Chapter 7.10.
8) The Ministry recommends that the assessment report briefly present the energy-saving measures and measures to improve energy efficiency by the applicant's shareholders.	Fennovoima will conduct a survey of its shareholders' electric energy saving and efficiency plans.
Impacts and assessing them	
9) In inspecting the environmental impacts of warming, the available base materials should be utilized as extensively as possible. The uncertainties of computational results should be presented in an illustrative manner.	The environmental impacts of the thermal load caused by the cooling waters are inspected by locality in Chapter 8. Both national and international research data on the environmental impacts of thermal load are used as the basis of the assessment. The methods of cooling water modeling and the related uncertainties are presented in Chapter 7.
10) Also, the cooling water intake and discharge options must be presented clearly and any remote intake and discharge options should be inspected..	The possible intake and discharge options that have been estimated to be suitable for closer inspection based on preliminary expert survey have been chosen for inspection by locality. The locations of the intake and discharge options are presented on a map.
11) The cooling water calculations must be presented conservatively and so that they take into account the combined effect of the thermal load of existing and planned power plants in the area in full.	Conservative estimates of the amount of cooling water, warming and total thermal load have been used in cooling water modeling. The methods are described in Chapter 7. In Ruotsinpyhtää, the combined thermal load of the existing Loviisa 1 and 2 nuclear power plant units and the possible new Loviisa 3 nuclear power plant unit has also been assessed with the thermal load caused by both main options of the project. The impacts are assessed by locality in Chapter 8 in the section assessing the combined effects of the Fennovoima project with other projects.
12) The Ministry also recommends that it be separately assessed for each site location option the case of a single power plant unit, concerning a power plant unit with a maximum electrical power of 1,800 MW and maximum thermal power of 4,900 MW, and on the other hand the case of two power plant units in which nuclear power plant units with a maximum electrical power of 1,250 MW would produce thermal power of 6,800 MW.	This will be done. It has also been stated in the EIA program.
13) In its EIA report, Fennovoima shall inspect the environmental impacts of the required power transmission connections in the areas of the different site locations.	The environmental impacts of power transmission connections are described by locality in Chapter 8 in the section concerning the impacts of associated projects. Nature surveys will be conducted for the line routes from the site area all the way to the preliminary master plan boundary. The actual EIA procedure for the power transmission connections will be the responsibility of Fingrid Oy, the national grid company.

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
14) The EIA report must describe various accident situations that cause radioactive emissions and describe with illustrative examples the extent of the areas of impact and the impacts of the emissions on humans and nature.	Various nuclear power plant accidents are described in Chapter 8 in the section on irregular and accident situations. The same chapter describes the area of impact of a severe accident and assesses the impacts of the resulting emissions on humans and nature.
15) Also, a description of the follow-up measures in case of a possible severe accident must be included in the EIA report.	The follow-up measures in case of a severe accident are described in Chapter 8 in the section on irregular and accident situations.
16) The assessment must also discuss the environmental impacts of radioactive substances on the countries in the Baltic Sea region and Norway.	Chapter 8, the section on irregular and accident situations discusses the environmental impacts of radioactive substances at different distances from the location sites in case of a severe accident.
17) In addition, the corresponding more detailed inspections on Sweden must be made for all site locations on the coast of the Gulf of Bothnia	Chapter 8, the section on irregular and accident situation describes how the impacts of a severe accident reach Sweden.
18) Also, possible phenomena caused by climate change and preparing for them must be inspected as irregular situations (sea level fluctuations, other abnormal weather phenomena). The impacts of land-uplift must also be taken into account.	Changes to sea level possibly caused by climate change are inspected based on a survey made by the Finnish Institute Of Marine Research on a locality-specific basis in Chapter 8 under General description of waters and hydrologic data. The same chapter also describes the impacts of land-uplift on sea level. Land-uplift and possible sudden changes caused by climate change, such as storms and exceptional temperatures, and preparations for them in connection with the design of the plant are described in Chapter 6 on nuclear safety.
19) Impacts on water quality and biological factors must be assessed with sufficient thoroughness. The status of water habitats in the areas of impact must be surveyed on all levels of the ecosystem. The surveys must go into the species as well as its abundance and distribution, as well as the quality of habitats. After these basic surveys, the impact of heat load and waste waters on the different factors of the water ecosystem and the entire system must be assessed.	The impacts on waters and fish stock are discussed on a locality-specific basis in Chapter 8. New biological field studies ("basic surveys") of the water ecosystem will not, however, be made, as they cannot produce significant added value in terms of the assessment of impacts.
20) The project's impacts on the ecological values of Natura 2000 areas must be inspected in sufficient detail, on a natural habitat and species-specific basis in order to be able to appropriately assess if the project alone or together with other projects significantly reduces those ecological values of Natura 2000 areas because of which the areas have been selected in the Natura 2000 network.	Impacts on ecological values are discussed on a locality-specific basis in Chapter 8. The EIA will not, however, generate a Natura assessment but will assess the need for making a Natura estimate, based on which decisions on conducting the actual Natura assessment will be made.
21) The socioeconomic assessments connected with the EIA procedure must assess the project's impacts on employment in detail both during the construction and during the operation of the plant, taking the special characteristics of all localities and areas into consideration. The methods used must be described and their selection justified.	The project's impacts on employment are described on a locality-specific basis in the sections on the impacts on people and society based on the survey of the regional economic impacts to be made. The methods are described and justified in Chapter 7.

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
22) The Ministry considers it justified that the party responsible for the project inspects on a general level the environmental impacts of the fuel procurement chain and also the company's possibilities of influencing this chain.	Environmental impacts are described in Chapter 8. The company's possibilities of influencing the fuel procurement chain are discussed in Chapter 3.
23) Pro Hanhikivi ry's statement sections on the possibilities of energy saving, nuclear waste management (see appendix 1) and pack ice and the actual Hanhikivi erratic must be taken into consideration in the EIA report.	Fennovoima shareholders' possibilities of energy saving are discussed in Chapter 1 in the section on the options to be assessed in the EIA. Spent fuel intermediate storage solutions and transportation and their impacts are described in Chapter 3 under Waste management and in Chapter 8 in the section on the impacts of waste management. The possible spent fuel disposal solutions are described in Chapter 3. The area's ice conditions are described on a locality-specific basis in Chapter 8. The possibility of pack ice and potential risks caused by it are taken into account in the design of the nuclear power plant (Chapter 6 on nuclear safety). The Hanhikivi issue is discussed in Chapter 8 in the section assessing the impacts on landscape and cultural historic environments.
24) Furthermore, the assessments of the Pyhäjoki area must take into account the impacts on conservation areas that are important in terms of avifauna and bird-watching in the area, as is suggested in several statements and opinions.	The project's impacts on recreational opportunities in the areas, such as bird-watching, are discussed on a locality-specific basis in the chapter on impacts on people and the society. The project's impacts on avifauna are discussed in Chapter 8 in the assessment of impacts on vegetation and animals.
25) In the assessment of the environmental impacts of cooling waters, Fennovoima must inspect the case where there are three nuclear power plants on the island of Hästholmen (Fortum Power and Heat Oy) and also the power plant units conforming to the Fennovoima project in the Loviisa/Hästholmen area.	In Ruotsinpyhtää, the thermal load caused by the existing Loviisa 1 and 2 nuclear power plant units and the possible new Loviisa 3 nuclear power plant unit together with the thermal load caused by the project is assessed. The impacts are inspected in Chapter 8.
26) With regard to contingency plans and rescue services, the possible combined impacts of two power plant areas must also be taken into consideration in different kinds of irregular and accident situations.	Contingency plans and rescue are described in Chapter 8 in the section on irregular and accident situations. With regard to Ruotsinpyhtää, the chapter also takes the nearby location of the nuclear power plant in Loviisa into account separately.
27) The EIA report must inspect the relationship between the nuclear power plant and the airport.	The relationship between the nuclear power plant and the Kemi-Tornio airport functions are discussed in Chapter 8 in the section on impacts on people and society. Taking external threats into account in the design of the nuclear power plant is discussed in Chapter 6 on nuclear safety.
28) In their statement, the partners in joint Maksniemi water areas have commented on, e.g. water currents, and they must be assessed in the EIA report.	Impacts on water currents are taken into account and assessed when assessing the impacts on waters.
29) The Ministry proposes that it should be considered if utilizing the cooling waters of the nuclear power plant to keep the Ajos deep-water harbor open by cooling water of the nuclear power plant could be assessed as stated by the Town of Kemi in its statement.	Possibilities of utilizing the thermal load of the cooling water are inspected in Chapter 10 on the prevention and alleviation of adverse impacts.

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
Nuclear waste management	
30) The report must inspect nuclear fuel and nuclear waste management as a whole.	The requested issues are discussed in Chapter 3 in the sections on nuclear fuel procurement and waste management.
31) The environmental impacts of the disposal site of low- and medium-level power plant waste must be inspected on a site location-specific basis. The inspection should also itemize the processing of plant decommissioning waste. The structure of the disposal plant must be made clear, i.e. using appropriate illustrations. The permit plan of the plant must also be described in the EIA report.	The environmental impacts of the disposal of low- and medium-level power plant waste is inspected in Chapter 8, in which text concerning any differences between the localities will be added. The processing of decommissioning waste is inspected in Chapter 8 in the section on the decommissioning of the power plant. The structure of the disposal solution is inspected in Chapter 3 in the section on waste management. The plant's permit plan is described in Chapter 4 on permits.
32) The management of spent nuclear fuel must be described generally, at the same level as fuel procurement has been described.	Described in Chapter 3.
33) The management of spent fuel at the site location must be described on a site location-specific basis, and e.g., the description of spent fuel intermediate storage must include visualization.	The storage solutions of spent fuel are described in Chapter 3 in the section on waste management and their impacts on a site location-specific basis in Chapter 8, in the section on the impacts of waste treatment. The text also describes any differences between the localities.
34) The description of spent fuel management must also include any transportation of spent fuel away from all the alternative site locations using the means of transportation considered appropriate by Fennovoima.	The transportation of spent nuclear fuel in connection with the project is described in connection with the sections on waste management in Chapters 3 and 8.
35) The environmental impact assessment of the disposal of spent nuclear fuel from the Fennovoima project must be performed once Fennovoima's plans for arranging nuclear waste management are specified.	The environmental impact assessment of the disposal of spent nuclear fuel will be performed at a later stage in an EIA process of its own.
Plan for arranging the assessment process and associated participation	
36) The Ministry requests that it be further considered how the influence of participation is presented in the assessment report.	Participation has influenced the implementation of the EIA process through audit group work, opinions issued on the EIA program and information received from the assessment of social impacts. This is separately discussed in Chapter 2. In addition, there has also been an abundance of other interaction between the authors of the EIA report and citizens and civic organizations, and the information received from that has been utilized in relevant chapters of the EIA report and surveys associated with them.
37) The sampling methods of resident surveys and methods of group discussions must be described and their use must be justified in the EIA report.	The resident survey sampling methods and methods of group interviews are described and justified in Chapter 7 in the sections on impacts on people and society.

Requirement in the statement by the Ministry of Employment and the Economy	Addressed in the EIA/EIA report
<p>38) The Ministry of the Environment thinks that it would nevertheless be justified to submit the possible application for a decision-in-principle only after the coordinating authority has issued its statement on the EIA report after circulation for comment.</p> <p>The Ministry of Employment and the Economy does not consider it a good arrangement for the EIA report and application for a decision-in-principle for the same project seeking a statement at the same time. The Ministry does hope that the coordinating authority could at least circulate the EIA report for comments before the application for a decision-in-principle is submitted to the Government.</p>	<p>In its consideration on the submission of the application for a decision-in-principle, Fennovoima will take the requirements of the EIA Act and the Nuclear Energy Act, as well as the recommendations of the Ministry of Employment and the Economy, into account.</p>

2.6 Statements and opinions received on the assessment program

In addition to a notification published in newspapers, the Ministry of Employment and the Economy requested in writing statements on the EIA program from various ministries, authorities, specialist organizations and representatives of town and municipalities, as well as associations and organizations.

The requested parties submitted 69 statements to the Ministry of Employment and the Economy. The submitted statements considered the program primarily appropriate and extensive. The questions, comments and views presented in the statements have been taken into account in the drafting of the EIA report and associated surveys.

153 opinions on the EIA program were submitted to the Ministry of Employment and the Economy, of which 35 were from Finnish organizations and associations, four from foreign organizations and associations and 113 from private individuals (several opinions had more than one signatory or sender) from various countries. Five lists of names were submitted to the Ministry of Employment and the Economy from the alternative site locations, objecting the project as a whole. Various opinions sug-

gested that the environmental impact assessment should be supplemented by taking into consideration the entire lifecycle of the project, including the environmental impacts of the processing of uranium, decommissioning of the plant units, nuclear waste management and transportation. The opinions have also discussed the social significance of the project and the need for assessing alternative energy production methods. Several opinions object to nuclear power in general or specifically the location of a nuclear power plant in the areas included in the assessment. In most cases, the basis of objection is the reluctance of landowners to sell their land for the purposes of the project or the project's possible impacts on the nature of the surrounding areas, conservation areas, landscape, real estate or residents of the surrounding areas. The central aspects that were presented in the statements and opinions and taking them into account in the EIA report and associated surveys are discussed in the enclosed table (Table 2-2). The table does not include issues that have already been presented in the requirements of the statement of the Ministry of Employment and the Economy and have therefore already been discussed earlier in this chapter (Table 2-1).

Table 2-2. The central and frequently repeated comments presented in the statements and opinions on the EIA program and taking them into account in the EIA work.

Matter presented in statements and opinions	How the matter has been taken into account in the assessment
Project	
The quality and environmental goals of Fennovoima Ltd.'s organization and operation system must be described.	The requested quality and environmental goals are described in Chapter 1.
The EIA must take into account the entire lifecycle of the project.	Chapter 8 of the EIA report discusses the entire lifecycle of the nuclear power plant from construction to decommissioning and final disposal of power plant waste. In addition, the circulation of nuclear fuel is described from uranium mines to the disposal of spent fuel.
The project's relationship with the EU energy and climate strategy and goals concerning renewable energy sources must be assessed.	The relationship of the project to, e.g. the EU's energy strategy, EU's climate and energy package and Finland's energy and climate strategy is described in Chapter 5.

Matter presented in statements and opinions	How the matter has been taken into account in the assessment
<p>The options of nuclear waste management must be inspected on the basis of current information.</p>	<p>The options of nuclear waste management are inspected in Chapter 3 in the section on waste management.</p>
<p>The quality and environmental goals of fuel procurement must be described.</p> <p>The project's relationship with the uranium mine projects underway in Finland must be described.</p> <p>Different phases of the fuel production chain must be inspected on a general level. The environmental impacts of uranium mine activities must be described. The transportation of fuel and their safety must be discussed.</p> <p>It should be assessed if MOX fuel can be used in the reactors to be assessed.</p>	<p>The quality and environmental goals set for fuel procurement are discussed in a separate section in Chapter 3.</p> <p>The uranium to be used as nuclear fuel will be procured from the international market, and there is no connection with the mining projects underway in Finland. The procurement of nuclear fuel is discussed in a separate section in Chapter 3.</p> <p>Chapter 8 discussed the different phases of the fuel production chain, including mining, transport and storage, and their environmental impacts.</p> <p>Technically, the use of MOX fuel is possible (Chapter 3, section on fuel procurement).</p>
<p>The contents of the application for a decision-in-principle and construction license must be described.</p> <p>An overall view of the project's permit procedure should be presented.</p> <p>The license procedures required by the Nature Conservation Act should be described.</p> <p>The regional plan, master plan and detailed plan required by the project should be mentioned.</p>	<p>The content of the applications is described in Chapter 4.</p> <p>Chapter 4 describes the key license procedures required by the project and presents a diagram of them.</p> <p>Said license procedures are described in Chapter 4.</p> <p>Land use plans required by the nuclear power plant are discussed in general in Chapter 4 and on a locality-specific basis in Chapter 8.</p>
<p>It should be described how the nuclear power plant prepares for the risk of terrorism and oil transport vessel accidents.</p>	<p>The design of the of the nuclear power plant prepares for external threats, such as different kinds of intentional malicious damage and possible oil accidents in the sea area near the nuclear power plant (Chapter 6 on nuclear safety).</p>
<p>The required power line, road, route and port projects should be assessed.</p>	<p>The required associated projects are described in Chapter 3 and their impacts are assessed on a locality-specific basis in Chapter 8. Traffic and power line routes will be subject to corresponding nature assessments as the project area. With regard to power line routes, the assessment extends to the preliminary master plan boundary. From that point onwards, the reviews are the responsibility of Fingrid Oyj, the national grid company.</p>
<p>EIA procedure, communications and participation</p>	
<p>Selection of audit group participants, their selectiveness and the composition of the groups should be presented.</p>	<p>Members of the audit groups are listed in Chapter 2. The same chapter also discusses the formation of the audit groups.</p>
<p>Environmental impacts</p>	
<p>The impacts should be presented illustratively, making use of maps.</p>	<p>Maps and figures are utilized in all chapters of the report where appropriate and possible.</p>
<p>The timetable of the project's EIA procedure is too tight to compose sufficient surveys. Nature surveys should be made for a sufficiently large area and long time span.</p>	<p>The timetable is a normal EIA timetable, and all the surveys can be made within it in the extent required by the EIA procedure.</p>

Matter presented in statements and opinions	How the matter has been taken into account in the assessment
<p>The impacts of water engineering work must be assessed. The assessment must take into account foreign substances possibly present in the sediment. The amount of dredging masses and where they will be placed must be described.</p>	<p>The assessment of the impacts of water engineering work is a part of the assessment of construction-time impacts (Chapter 8). In the assessment of impacts, the foreign substances possibly present in the sediment will be taken into account. The amount of dredging masses and disposal is described in Chapter 3.</p>
<p>The traffic, noise and dust impacts during construction should be assessed.</p>	<p>Construction-time environmental impacts are described on a locality-specific basis in Chapter 8.</p>
<p>Possibilities of purifying and reducing air emissions should be assessed. Information on how the “best available technique” will be implemented to reduce radioactive emissions into the air and how this will be realized must be provided.</p>	<p>In assessing emissions into the air, also their purification and limitation using the best available technique will be assessed. Application of the best available technique in the project is discussed in Chapter 3.</p>
<p>The methods of purifying radioactive liquids must be described. Information on how the “best available technique” will be implemented to reduce radioactive emissions into water and how this will be realized must be provided. The possible radioactivity of waste water and its impacts should be surveyed. The tritium emissions must also be taken into account. Possible impacts on the rise of the concentrations of radioactivity in fish must be assessed.</p>	<p>Methods of purifying radioactive waste water are described in Chapter 3. The application of the best available technique in the project is discussed in Chapter 3. The amounts of radioactive substances, including tritium, carried into the sea with cooling water discharged from the nuclear power plant are discussed in Chapter 3 and impacts in Chapter 8. Normal operation of the nuclear power plant has no impacts on the concentrations of radioactivity in fish. Possible impacts caused by an accident situation are discussed in the section on irregular and accident situations (Chapter 8).</p>
<p>The water dispersion calculations should be performed extensively, taking seasons and weather conditions into account. The principles and assumptions of the dispersion model should be described.</p>	<p>Modeling of cooling waters has been performed taking these issues into account. The methods used are described in Chapter 7.</p>
<p>The impacts of warm cooling water on eutrophication and furthermore the impacts of eutrophication on fish stocks should be assessed.</p>	<p>The impacts on waters, fish population and the fishing industry are assessed by locality in the sections on the impacts on waters and the fish industry (Chapter 8).</p>
<p>The impacts on the reproduction of fish and spawning areas should be assessed. Particular attention should be paid to migratory fish, such as salmon and trout. The increase of fish diseases should be assessed. The numbers of fish sucked into the cooling water intake should be assessed. The project’s impacts on ice conditions should be assessed. Impairment of the possibility to engage in ice fishing should be assessed.</p>	<p>Impacts on migration will be taken into particular consideration. Fish diseases are discussed in the section on the impacts on the fishing industry (Chapter 8). The numbers and species of fish driven into the cooling water intake are inspected in Chapter 8 based on existing data. The impact of the thermal load of the cooling water on ice conditions is inspected by way of modeling by locality and the impacts of weakening of ice on moving on ice are described in Chapter 8.</p>
<p>The risk of an increase in new species should be taken into account.</p>	<p>New species are discussed in the section on impacts on waters by locality (Chapter 8).</p>
<p>The capacities, emissions, water conductions and impacts of raw water supply and handling systems and different kinds of waste water treatment plants should be presented.</p>	<p>The operation and emissions of service water supply and operation systems and waste water treatment plants are described in Chapter 3 to the extent that they are a part of the project. The impacts are described in Chapter 8.</p>

Matter presented in statements and opinions	How the matter has been taken into account in the assessment
The description of the current status of the natural environment of different localities should be supplemented compared to the EIA program.	As a part of the environmental impact assessment, the current status of the environment of each location and their surroundings has been surveyed on the basis of various sources and also by way of field studies, and the results are utilized in this report both in the descriptions of the current status of the environment and the assessment of impacts in Chapter 8.
Local knowledge should be utilized in assessing the impacts on nature. Nesting and migratory avifauna should also be surveyed.	In different surveys associated with the EIA, contact has been maintained with local parties in as many-sided a manner as possible. In connection with the assessment of impacts on the nature, contact has been made both with local authorities and, e.g. local fishermen and birdwatchers. The nesting and migratory avifauna of the locations and their surroundings have been assessed as a part of the nature surveys.
The current situation of land use planning and pending land use projects should be described by locality. It should be assessed how the project will advance national area use goals. The impacts of the project on community structure should be described.	Kunakin paikkakunnan kaavoitus tilanne ja ydinvoimalaitoksen Each location's land use situation and needs for changing land use planning in connection with the construction of the nuclear power plant are described in the sections on the impacts on land use, landscape and built environment (Chapter 8). Taking the project into account in land use planning is discussed on a general level in Chapter 4. The project's relationship with national area use goals is described in Chapter 8 on the impacts on land use. The project's impacts on community structure are described in Chapter 8. They are also being examined and described in ongoing land use plan procedures.
The impacts of the nuclear power plant on the surroundings' lighting conditions should be assessed.	Impacts on lighting are assessed by locality as part of the project's impacts on landscape (Chapter 8).
Impacts on traffic volumes and traffic safety during the construction and operation of the nuclear power plant should be assessed.	Chapter 8 discusses the impacts on traffic volumes and traffic safety during the construction and operation of the nuclear power plant by locality.
The noise impact of the project should be assessed and particular attention should be paid to holiday homes.	The project's noise impact is assessed by locality in Chapter 8. The assessment takes into account the lower guidelines of holiday home areas.
The nearest sensitive sites of each locality should be described at a sufficient distance. The impacts on functions in the exclusion area, such as schools and beaches, should be assessed. The location of permanent housing and holiday homes in the area of the exclusion area should be assessed.	The sensitive sites in the vicinity are described on a map by locality in the sections on impacts on people and society (Chapter 8). The location sites have been selected so that there are as few population centers in the exclusion area as possible. The project's impacts on any functions in the exclusion area are assessed by locality in Chapter 8. The number of permanent residents at different distances from the nuclear power plant is presented by locality in the sections on impacts on people and society (Chapter 8). The location of holiday homes in the vicinity of the power plant area is also described.
The negative sentiments and fears towards the project within the population of the surrounding areas should be assessed.	A resident survey and group interviews have been conducted at each location area. These have explored, for instance, project-related fears. They are discussed by locality in the sections on impacts on people and society (Chapter 8).

Matter presented in statements and opinions	How the matter has been taken into account in the assessment
The project's impacts on recreational opportunities in the nearby areas, such as picking mushrooms and berries, fishing, skiing on ice and ice fishing should be assessed.	The project's impacts on the living conditions, comfort and recreation of the residents of the nearby areas are discussed by locality in a separate section in Chapter 8. Also, the project's impacts on the fishing industry are discussed by locality in the sections on impacts on waters and the fishing industry.
The health effects of radioactive emissions should be assessed. The assessment should take the results of the recent German study on cases of leukemia in children into account.	The health effects of radioactive emissions are described in Chapter 8, which also takes the mentioned German study into account. The health effects of a serious nuclear accident are discussed in the chapter on irregular and accident situations.
The project's impacts on the economy of the locations' municipality and neighboring municipalities should be assessed. The project's impacts on the value of properties in the nearby area should be assessed. The domestic content during the construction of the project should be assessed.	The project's impacts on municipal economy and trade and industry have been investigated. They are described by locality in the sections on impacts on people and society (Chapter 8). The project's impacts on the real estate market are assessed by locality in Chapter 8. Domestic content is assessed in Chapter 8.
The disposal of spent fuel and its impacts should be described.	The different options for the disposal of spent fuel are described in Chapter 3 and their impacts in Chapter 8.
Possible uses of the power plant area after the decommissioning of the nuclear power plant should be described.	The possible uses of the power plant area after the decommissioning of the nuclear power plant are described in the chapter on the decommissioning of the nuclear power plant (Chapter 8).
A summary of the survey of irregular and accident situations should be presented. Also other accidents and nuclear accidents should be assessed. An INES level 7 event and its impacts should be assessed.	The section on irregular and accident situations (Chapter 8) presents a summary of the results of the investigations. In addition to nuclear accidents, the chapter also describes other types of accident situations that might happen at the plant. The most serious nuclear accident that is possible in modern plants is of INES level 6. Its impacts have been assessed.
The hazardous chemicals used at the nuclear power plant and how they are stored should be described.	The paragraph on chemical accidents in the chapter on irregular and accident situations describes the chemicals used at the plant and their management.
The project's impacts on rescue arrangements and civic defense should be described. The possibilities of arranging evacuation should be assessed in different localities.	Rescue and impacts associated with civic defense and preparations are described in the section on irregular and accident situations.

The content of the statements and opinions issued on the EIA program were also utilized in the assessment of the project's social impacts (Chapter 8).

2.7 Display of the assessment report

The Ministry of Employment and the Economy will notify of the public display of the assessment report after the report has been submitted to it. According to the EIA Decree, opinions and statements concerning the assessment report must be submitted to the coordinating authority within the time specified by the coordinating authority, which is at least 30 and at most 60 days.

2.8 International hearing

The environmental impact assessment across bound-

aries has been agreed upon in the Convention on Environmental Impact Assessment in a Transboundary Context. Finland ratified this Convention of the United Nations Economic Commission for Europe (67/1997) in 1995. The Convention entered into force in 1997.

Parties to the Convention have the right to take part in an environmental impact assessment procedure carried out in Finland if the country in question is affected by the hazardous environmental impacts of the project to be assessed. Correspondingly, Finland has the right to take part in an environmental impact assessment procedure of a project located in another country if the project's impact may affect Finland.

This assessment in a transboundary context is applied to Fennovoima's nuclear power plant project. In

Finland, the Ministry of the Environment is responsible for the practical arrangements of the international hearing, and it will submit the received statements and opinions to the Ministry of Employment and the Economy, which is the coordinating authority. The Ministry of the Environment notified the following foreign authorities of the project: Swedish Environmental Protection Agency (Sweden), Ministry of Environment (Denmark), Ministry of Environment (Norway), Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany), Ministry of Environment (Poland), Ministry of Environment (Lithuania), Ministry of Environment (Latvia), Ministry of Environment (Estonia), Ministry of Natural Resources (Russia) and Federal Ministry of Agriculture, Forestry, Environment and Water Management (Austria). The EIA program translated into Swedish or English and the international hearing document translated into the languages of said countries, describing the project, its options and the contents and schedule of the commencing environmental impact assessment, were enclosed with the notification.

Sweden, Lithuania, Norway, Poland, Germany (state

of Mecklenburg-Vorpommern), Estonia and Austria notified of taking part in the EIA procedure and issued their statements on the EIA program.

Several international statements discussed the same issues as other statements and opinions issued on the EIA program. Particular attention was paid to the impacts of accidents and irregular situations, impacts on waters and fish population, questions related to the disposal and intermediate storage of spent nuclear fuel and the need for taking the entire lifecycle of the project into account in the assessment. In addition to these questions, the statements paid particular attention to impacts across boundaries. Central topics of the questions and comments of the international statements are discussed in the enclosed table (Table 2-3) to the extent that they differ from the comments and questions presented in other statements and opinions. In addition to the issues presented in the table, the statements presented certain comments and questions pertaining to the Finnish energy policy, for instance, that are beyond the sphere of the EIA procedure. In its statement, Lithuania presented no comment whatsoever on the EIA program.

Table 2-3. Central and frequently repeated issues of the statements issued on the EIA program in the international hearing and taking them into account in the environmental impact assessment to the extent that they differ from the comments presented in other statements and opinions.

Matter presented in statements	How the matter has been taken into account in the assessment
Justification of the need to increase energy production.	The purpose of the project is to respond to Fennovoima shareholders' increasing need for electricity. The reasons for this are presented in Chapter 1 of the EIA report.
Irregular and accident situations	
Minimizing the risks and impacts of irregular and accident situations.	The risks and possible impacts of irregular and accident situations will be minimized in the design of the nuclear power plant (Chapter 6 on nuclear safety).
<p>The reason for using an accident of the Nuclear Event Scale (INES) level 6 in the accident modeling.</p> <p>Assessment of radiation impacts across boundaries (by water and air).</p>	<p>In a modern plant, an INES level 6 accident is the worst possible. The methods of the assessment of the impacts of accident situations, including accident modeling, are justified in Chapter 7.</p> <p>The impacts of a nuclear power plant accident are assessed in proportion to distance from the nuclear power plant. These results of assessment can also be applied to assessing the impacts extending across boundaries. The transboundary radiation impacts during the normal operation of the nuclear power plant are discussed in Chapter 8, which discusses the impacts extending across boundaries in a separate section.</p>

Matter presented in statements	How the matter has been taken into account in the assessment
Communications to other countries and their population in case of a radiation accident.	The radiation authorities of Nordic and other European countries are engaged in close cooperation. In case of a possible radiation accident, the countries in the possible area of impact will be informed without delay. The authorities of each country are responsible for communications to the population in their own area.
Assessment of impacts on waters and fish population across borders.	The impacts on waters and fish population are assessed by locality in Chapter 8. In addition, impacts extending to the area of other countries, in particular, are discussed in a separate section in Chapter 8.
Discussion of the risks of the normal operation of the plant and taking the results of the recent German study on leukemia cases in children into account.	Health risks from radiation during the normal operation of the nuclear power plant are discussed in Chapter 8, which also takes into account the German studies mentioned in the statement. Different irregular and accident situations during the operation of the plant are discussed in a separate section in Chapter 8.
Safety issues of low- and medium-level waste storage; in particular, radiation barriers.	The storage of low- and medium-level waste is described in Chapter 3.

After the EIA report has been completed, the authorities of the countries participating in the EIA will be sent the EIA report translated into Swedish or English and a summary of the EIA report translated into the language of said country.

2.9 End of the assessment process

The EIA procedure will be ended when the Ministry of Employment and the Economy issues its statement on the EIA report. After the EIA procedure, the license authorities and Fennovoima will use the assessment report and the statement of the Ministry of Employment and the Economy as the basic material in their decision-making processes.

2.10 Interaction between design and EIA

One of the goals of the EIA procedure is to support the project design process by producing information concerning the project's environmental impacts. The purpose is to produce information as early as possible into the design phase, so as to take environmental impacts into account throughout the design process from the beginning. Participation of citizens, which is an essential part of the EIA procedure, aims to ensure that various stakeholders' views of the project's impacts are also tak-

en into account in a sufficiently early stage.

During the EIA procedure, Fennovoima has initiated the technical preliminary planning of the project, and its results have enabled assessing the project's impacts in this EIA report and the associated surveys. As the environmental impact assessment advanced, preliminary planning has been advanced in close cooperation with the environmental specialists performing the assessment. Experts have had a significant role in, e.g. deciding the location of the cooling water intake and exhaust locations and designing their structure. Participation in association with the EIA procedure has supported the planning process by specifying the initial data and by directing towards taking location-specific special features into account.

The EIA report and the stakeholder interaction that materialized during the EIA procedure, as well as the collected data, are important for the more detailed further planning of the project. Thanks to the extensive participation of the stakeholders, the initial data concerning the site locations and their environment have been specified and confirmed. With stakeholder interaction, the project planners have achieved contacts for obtaining locality-specific additional information.