

5 November 1999

14/815/98 KTM [Ministry of Trade and Industry]

Letter from Posiva Oy Ltd, 26 May 1999

**Statement of contact authority re:
Environmental Impact Assessment Report
on the final disposal facility for spent nuclear fuel**

Posiva Oy has delivered, to the Ministry of Trade and Industry (hereafter also KTM¹) in its capacity as contact authority in nuclear power plant projects, its Environmental Impact Assessment Report (EIA Report) as well as its General Summary. The purpose of the final disposal project relates to the placement of spent nuclear fuel generated in Finland's nuclear power plants in a permanent manner within the Finnish bedrock. The final disposal site alternatives are Eurajoki's Olkiluoto, Loviisa's Hästholmen, Kuhmo's Romuvaara and Äänekoski's Kivetty.

The Ministry of Trade and Industry provided the statement of the contact authority on the environmental impact assessment programme in regard to the final disposal project on 29 June 1998 (1/815/98 KTM). According to Posiva Oy, the EIA Report is based on the programme concerned and the statement provided by the contact authority in respect to the same.

The Ministry provided notification re: the pending circumstances during the period 21 June – 20 August 1999 for handling the assessment report, and requested statements from the authorities concerned as respective to the report and from the specified site municipality alternatives in addition to their neighbouring municipalities by 20 August 1999. In the same connection, the Ministry set forward the wish that other possible claims and views in regard to the project would also be turned over to the Ministry during the period mentioned. In addition, the Finnish Ministry of the Environment sent notification to the authorities of Sweden, Estonia and Russia in reference to the pending circumstances specific to the Environmental Impact Assessment Report handling process.

According to the act on environmental impact assessment procedure (EIA Act 468/1994), 12§, the contact authority must provide its statement on the environmental impact assessment report and its adequacy. Within the statement of the contact authority, a summary of other statements must also be presented. This type of statement summary—arranged on the basis of subject area—is in the accompanying annex, which makes up part of the contact authority's statement. Moreover, all statements received by the Ministry as well as views expressed on the matter to the Ministry have been collated in the form of original copies as background material to the statement of this contact authority, which may be obtained from the Ministry of Trade and Industry.

The statement presently provided by the Ministry as well as the above-mentioned composite of other statements is being delivered to the responsible party for the project.

¹ *Translator's note:* Finnish language abbreviation for Finland's Ministry of Trade and Industry

Since those responsible for the project have also enclosed, as intended for the Council of State, the EIA Report in the application for decision-in-principle designated in the legislation on nuclear energy, the Ministry is enclosing the statement as part of the preparatory material, to be brought to the attention of the Council of State.

Statement of contact authority

In the decree on environmental impact assessment (decree on EIA, 268/1999) 11 and 12§, the requirements stipulated for the content of the environmental impact assessment report have been presented. In this statement, the perspective of the Ministry of Trade and Industry on the content and adequacy of the EIA Report by Posiva Oy in regard to the final disposal facility for spent nuclear fuel, by reference to the requirements specified in the decree on EIA, has been set forth.

General

In the environmental impact assessment report, general information about the responsible party for the project, the project itself, the plans for implementation together with schedules plus the permits and resolutions required for implementation must, according to the decree on EIA, be delineated.

Posiva Oy, the company responsible for the project, is presented along with its assignment in the introduction to the final disposal facility-related EIA report. The position of the project in the programme for management of spent nuclear fuel and in the preparations for final disposal is also set forth. In both the introduction and the description of the base alternative, the schedule for implementation is put forward. The measures, including the permits and resolutions to be undertaken after the environmental impact assessment, are described in a separate section of the EIA Report.

The Ministry of Trade and Industry regards the general descriptions within the EIA Report as required by the above-mentioned decree to be clear and sufficient. In the annex to this statement, Chapters 1–3, general matters connected with the project, its implementation and its permit-related processes are presented.

Project alternatives and alternative methods of implementation

The decree on EIA requires that the alternatives respective to project implementation as well as their feasibility must be presented to a sufficient degree. The option of leaving the project non-implemented must also be examined unless this alternative is, for some particular reason, unneeded.

Non-implementation

In its EIA Report, Posiva Oy has put forward the obligations in effect in Finland according to legislation as these pertain to the management of spent nuclear fuel, in

addition to a comprehensive timetable for the planning and implementation of such maintenance. According to the Nuclear Energy Act, 6§, spent nuclear fuel must be disposed of in a permanent manner in Finland. In keeping with the Council of State's decision-in-principle made on its part in 1983, those responsible for waste management must, by the end of the year 2000, select and determine a site where final disposal facilities shall, in the event they are needed, be built. The task of Posiva Oy, appointed by the nuclear power companies for nuclear waste management, is to function in accordance with the above-mentioned requirements and schedule. On this basis, the company is of the view that non-implementation of the project—i.e., the so-called 'zero alternative'—is not feasible for those responsible for the project. According to the perspective of the responsible party for the project, the zero alternative would mean that the current interim storage of spent nuclear fuel in water pools is continued.

The intermediate storage arrangements in use in connection with the current Finnish nuclear power plants are briefly described in the EIA Report, just as are other potential interim storage methods—in addition to environmental effects of water-pool storage on the general level—which, according to the EIA report, would correspond to the environmental impact exerted by the zero option. It is stated in the report that the environmental impact of water-pool storage has been clarified in greater detail in, for instance, EIA reports formulated on behalf of power-boosting relative to the current nuclear power plants.

The Ministry of Trade and Industry noted in its statement given on the EIA programme that the responsible party for the project can limit its examination to those options in EIA procedure which are in agreement with current legislation and may be technically implemented on the basis of present knowledge. It was also noted, however, that the environmental impact resulting from non-implementation of the final disposal project should be examined as well, though there are no aspects whatsoever in the information which would give reason to change the goals of spent fuel management. The Ministry affirms, both by reference to technical specialists and on the basis of effective legislation, that there are no absolute time limits in respect to the continuation of interim storage. The environmental impact of the zero option—i.e., continuing interim storage—would largely correspond to that of the current interim storage already mentioned. In practice, however, the zero option means the transfer of final disposal to a later point in time than that set forward within the project plan, as there is no particular method on the horizon by which interim-stored, spent nuclear fuel could be transformed into non-hazardous form.

The Ministry considers that there is no need to obligate broader assessment of the zero option and its environmental impact in regard to the EIA Report as regards the final disposal facility.

Alternative methods of implementation

For the most part, the EIA Report describes what is termed a geological final disposal method, together with its environmental influence, as the base alternative proper to the project. Variations on the base alternative, i.e., other geological final disposal solutions, have been briefly presented in the EIA Report. The technical development stage of the

latter is stated to be less complete than that of the base alternative. According to Posiva, the environmental impact of variants to the base alternative may be assessed as the same as that of the base alternative.

In addition, reprocessing of the spent nuclear fuel is briefly characterized, as well as spent nuclear waste-related methods of maintenance based on nuclide partitioning and transmutation. However, these are stated to be unrealistic options due to the deficiencies connected, for the time being, with the technology in addition to the high costs, as well as the fact that not even in these instances can final disposal in the final analysis be completely avoided.

In the view of the Ministry, the description of the alternative final disposal implementation methods and related technologies, in addition to the evaluation of the stage of readiness respective to the methods, are appropriate within the EIA Report, nor does the Ministry have any observations to point out in regard to the premises by which the assessment of environmental impact has been concentrated on the base alternative. As affirmed previously in connection with the zero option, the party responsible for the project was obliged to examine only those alternatives which are technically feasible. The Ministry is of the view that the report fulfils the requirements in respect to the alternative solutions presented, and that the statement proposal provided in respect to the programme in which the responsible party for the project was requested to also take up the examination of technically incomplete final disposal solutions has been taken into account.

Alternative disposal sites and the quantities of nuclear fuel for disposal

Four alternative sites were handled in the EIA Report. The environmental impact assessment procedure has been implemented in its entirety in all disposal-related localities and reported on uniformly on the part of the various site alternatives.

The Ministry considered in its statement provided in regard to the EIA programme—in addition to the basic case, i.e., the spent nuclear fuel generated by the current nuclear power plants in Finland during 40 years of operation to the amount of approximately 2600 tons of uranium and beyond the disposal alternative—that there should be inspection of environmental impact assessment based on a scenario by which the amount of fuel for final disposal would correspond to the power plant units concerned at 60 years of operation. Moreover, the Ministry pointed out that the party responsible for the project could also, according to its own discretion, examine a case in which a greater amount of spent nuclear fuel originating in Finland than that produced by the present power plants would be placed in the final disposal facility. The responsible party for the project has, in fact, appraised all three of the above-mentioned alternatives in such manner that the maximum quantity of nuclear fuel planned for storage would correspond to 9000 tons of uranium. The extent of the project examined in the EIA Report must cover the magnitude approved in the decision-in-principle concerning the project. By this token, a positive decision-in-principle respective to the final disposal facility can be made only by an institution whose maximum quantity of nuclear fuel intended for disposal as planned is, at most, the same as the maximum quantity examined in the EIA Report as attached to the decision-in-principle application.

Retrieval potential

In regard to the safety of the final disposal of spent nuclear fuel, it is stated in the resolution of the Council of State that the facility for final disposal must be capable of being opened in the event that developing technologies make this appropriate. Also in accordance with the contact authority's statement provided on the EIA programme, the possibility of retrieving nuclear fuel should already be examined. In the EIA Report, the possibility of retrieval, as well as the related technology, have been dealt with in general terms, mainly from the perspective of the base alternative with confirmation of the potential of retrieval in regard to all final disposal stages. In respect to other geological methods for final disposal, retrieval potential has been briefly inspected and confirmed to be more difficult and subject to greater risk. A separate, more detailed background report has been formulated on the matter in regard to which there is reference made in the report and on which basis the bulk of such information has been included. The retrieval technology has been explained in the report as this applies to the base alternative. In the view of the Ministry, retrieval potential has been taken into sufficient consideration in the EIA Report.

Facility operations and sealing

In accordance with the decree, the pivotal technical and operational descriptions in respect to the project must be presented in the EIA Report, together with an evaluation of wastes and emissions respective to the various phases of the project, including the possible stage of decommissioning.

The operations and technical principles consonant with the base alternative chosen in keeping with the project have been characterized in the EIA Report as well as in respect to superterranean buildings, encapsulation-related operations on behalf of the fuel being stored plus emplacement of the canisters into the bedrock. Security measures and supervision as well as leakage and waste-water processing have been taken into consideration. The transport technology linked with the spent fuel, strongly linked with the operation of the facility along with the transport routes to the facility, have been generally outlined on the basis of the comprehensive description of the base alternative as well as in connection with the characterization of localized options for disposal sites. The sealing of the facility and possible procedures relative to post-closure have been briefly outlined. The ultimate emplacement of the nuclear fuel intended for final disposal, depending on quantity, would come to an end between the years 2040–2090. The Ministry regards the operations and technologies utilized in regard to the final disposal facility outlined above as adequate in presentation within the EIA Report.

Land use and natural resources required by the project

According to the decree on EIA, the relation of the project to plans and programmes affecting land use and environmental protection must be described to the required extent in the report, in addition to an examination from the perspective of the project of essential utilization schemes in respect to integral natural resources.

In the EIA Report, the impact of the project as this affects land use has been presented as well as the main elements of current planning as these relate to alternative final disposal sites and the schemes concerning the use of land in the immediate environs. Land use-related obstacles have not been evidenced as pertinent to final disposal facility construction. The location of new thoroughfares planned to enter the general area of the facility are indicated on the surface maps. Nature preservation perspectives—for instance, the Natura 2000 areas—are taken into consideration in the EIA Report. The utilization of natural resources, inasmuch as this is linked with the resources and measures required by implementing the project in question, has been examined in respect to the copper used in the final disposal canisters as well as the bentonite clay needed to close the storage area within the rock.

The inspection of the use of land and natural resources fulfils, in the understanding of the Ministry, the obligations set for the EIA Report. During the later planning stages of the project, it will also be necessary to check the possible modification requirements of the plans in respect to the chosen site area for final disposal.

The definition of areas of impact and the arrangement of public involvement in the assessment of environmental impacts

In assessing environmental impact, definition of the area being examined as well as the arrangement of participation connected with the assessment procedure must, according to the decree on EIA, be described in the EIA Report.

The geographical areas of impact examined for environmental impact are noted in the EIA Report, either in words or by means of pictorial maps. As concerns social impacts, the areas under study are limited in the main to the target municipality respective to the planned final disposal site, and partly to neighbouring municipalities as well. In relation to factors associated with the technical safety of final disposal, such as the effects of radiation as well as groundwater currents and related surface elevation, the definition of area of impact is expressed as the geographical distance from the final disposal site as well as the distance from radiation-related accidents, either from the actual site of final disposal or the facility. The directions of distribution and magnitude of dispersion relative to radiation emissions resulting from possible transport accidents have been delineated and the areas of impact respective to emissions confirmed as a certain distance from the transport routes.

The arrangement of participation amongst the various interests taking part in the environmental impact assessment procedure is conveyed in an appropriate manner in the EIA Report. This description covers information distributed to municipal residents, the municipalities, specialists and officials as well as the interactive measures between the above-mentioned interests and the party responsible for the project.

The definitions specific to areas of impact in terms of environmental impact and the arrangement of participation in respect to evaluation procedure have been appropriately set forth in the EIA Report. The possibilities for interaction in the assessment procedure

have been, in the view of the Ministry, diverse, and the information and general communications abundant.

Environmental impact

The decree on EIA stipulates that the environmental impact arising from the project and its alternatives should be presented in the EIA Report, as well as the methods, materials, base assumptions and factors of uncertainty utilized in the studies. Additionally, an estimate of potential environmental accidents and their consequences must be set forth.

Effects on nature, landscape and buildings

In the environmental impact assessment report, the influence exerted on nature and the landscape by the final disposal facility-related base alternative has been dealt with. The impact of both the construction of the facility and the operational period on surface water and groundwater, the air, bedrock and soil, among other aspects, has been examined. Treatment of wastes has also been given attention. The possible effects derived from the project on the use of natural resources have been pointed out in the EIA Report in respect to berry and mushroom picking, fishing and the hunting of small game.

The evaluation methods and base assumptions are included in regard to their required components in the EIA Report. More exact initial data and possible factors of uncertainty are described in more detail in the background report belonging to the EIA Report. Unfavourable initial assumptions from the point of view of the environmental impact of the project have also been utilized in the calculations and modelling.

The definition in the EIA legislation pertaining to environmental impact to be examined includes project impact on buildings and the cultural heritage as well. In the EIA report, the effects in question are dealt with on the part of the construction of the final disposal facility, in terms of the vibrations caused. The effective vibration distance and related supervision of the buildings located within the effective distance are examined in the report. The zones susceptible to vibration are delineated on the surface maps, by reference to which the location of the buildings in the area can also be seen.

According to the view of the Ministry, the influence on nature and the built-up environs has been adequately handled in the report.

Physiological effects on health

Physiological effects on health are divided, within the treatment of environmental impact, into radiation-related and other repercussions on health. Aside from radiation-based health impact, effects primarily associated with the construction and operation of the facility have been noted; among other things, effects caused by impurities, noise and vibration. Potential effects on human health from chemical toxicity resulting from the substances for final disposal have also been scrutinized. The main attention in the report, however, has been specifically given to the consideration of the impact of

radiation. The methods and background assumptions utilized in the research and studies are for the most part described in the report; though in respect to many aspects the more exact background data and detailed investigation findings together with the respective reliability evaluations are included in the background reports proper to the EIA Report, which are listed in the latter.

Potential long-term final disposal-related health risks incurred by radiation—in other words, the long-term safety aspects of the final disposal facility—are investigated in the EIA Report, particularly on the basis of the groundwater chemistry and models of groundwater flows specific to the final disposal site.

The Ministry affirms that both long and short-term radiation safety represents a pivotal question in the evaluation of final disposal facility-related impact on environment and health, and concentration on the effects of radiation in particular in the EIA Report is well-founded. The Ministry is of the view that in regard to both the short and the long term, the assessment of radiation-based effects, in similar manner to other influence on health posed by final disposal, is handled in its most essential aspects and with adequate detail in the assessment report, with the appropriate attention given to the various stages of final disposal.

Social impacts

The presentation in the EIA Report of the effects of the final disposal facility on human living conditions covers socio-economic, cultural and psychological impact. Such impacts are grouped into objectively evaluated various social impacts, conversely, in regard to the effects on the living conditions and general well-being of the locality residents living in such surroundings as experienced—i.e., subjectively assessed—by such inhabitants. Time-wise, the social effects in the report are assessed in most cases over a period of several decades.

In the understanding of the Ministry, the handling of social impacts fulfils, in respect to general magnitude and the amount of detail, the requirements presented in the decree on EIA. The factors of uncertainty specific to the assessment findings have been brought forward and given justification. The methods of evaluation and interaction are also regarded by the Ministry as having been sufficiently outlined in the EIA Report or in its background and annex materials.

Accidents

The handling of potential accidents in the EIA Report focuses expressly on those related to radiation, either in the facility's superterranean sections or the storage areas within the rock, as well as nuclear fuel transport-related accidents which could result in radiation emissions. This being the case, the evaluation required by the decree on EIA in regard to possible accidents and their influence on the environs and, conversely, an appraisal of the effects on health engendered by radiation, are correlated in the environmental impact assessment on the final disposal facility for spent nuclear fuel.

The operation of the encapsulation plant or consequences of radiation-related accidents occurring during transport have been looked into by means of calculations of human radiation dosage incurred and assessed by reference to the impact on health potentially resulting from radiation, both from direct exposure to radiation and from that received via the food chain.

The examination of accidents taking place in the final disposal area includes the estimation of the likelihood and impact of potential earthquakes as well as intentional or accidental human penetration into the final disposal area. The radiation dosage respective to leakage-related accidents deriving from the fuel canisters in final disposal have been assessed in the EIA Report for a million-year period, after which the contents of the canisters should correspond at most, according to the report, to the activity levels of uranium normally found in nature.

On the part of the social effects of accidents, the examination in the EIA Report is concentrated on psychosocial health impact.

The risks and influence of accidents are, in the Ministry's point of view, adequately taken into account in the EIA Report.

Prevention of environmental impact

In accordance with the decree on EIA, there is sufficient action proposed in the EIA Report by reference to which detrimental environmental impact can be prevented and minimized.

The Nuclear Energy Act and statutory order on nuclear energy and law on radiation affecting all nuclear facilities and, in particular, the resolution of the Council of State concerning the final disposal facility particular to the safety of final disposal, all examine the impact posed to the environment by nuclear power facilities primarily from the perspective of preventing radiation and related risks from endangering human health. In the resolution of the Council of State, it is also noted that the operation of the final disposal facility must not inflict damage to the environment or to property. Additionally, not only is potential direct radiation detriment taken up therein but also the possible radiation and control of that caused indirectly via rock and groundwater over an extended period of time. As such, the legislation requires that environmental impact, its control and prevention and the assurance of facility safety is taken into account in the design of the final disposal facility and its implementation, in full and at all stages.

The preventative measures against detrimental environmental impact presented in the EIA Report are particularly intended to prevent harm caused by radiation over both the short and long term. Prevention and limitation-based procedures and safety design criteria relative to short-term disturbances and potential radiation emissions—i.e., those emerging from the operation of the facility—have been set forth in the EIA Report. The control of radiation-related detriment potentially incurred over the long term by resort to the so-called 'multibarrier' principle is also outlined. In respect to potential radiation-

related accidents in terms of both final disposal and nuclear fuel transport, the rescue operations and measures for the distribution of responsibility as planned have been presented as well.

According to the EIA Report, aside from preventing environmental impact as incurred by radiation on nature, human beings and the community, the facility as well as its required peripheral operations together with transportation and new road areas as needed, plans for its location, construction and operation are to be arranged so that detriment to the environment is as minimal as possible. From the point of view of environmental impact control, attention has been focused on, among other things, restraints on blasting vibrations, noise and dust resulting from the construction of the facility, not to mention the treatment of waste water and other wastes.

The Ministry considers that control of environmental impact potentially incurred by the final disposal facility for spent nuclear fuel has been examined in the EIA Report with a sufficient degree of comprehensiveness and detail.

Follow-up of environmental impacts

According to the decree on EIA, the follow-up programme respective to environmental impacts should be adequately characterized in the EIA Report.

The proposal for an environmental impact follow-up programme is, in the EIA Report, general in character and includes, in listed form, the aspects which the follow-up programme being implemented should comprise during the active period of final disposal. The programme proposal comprehends, among other matters, measurements respective to radiation dosage rate and the concentration of radioactive materials, groundwater surface level and monitoring of the distribution of vegetation as well as the follow-up of socio-economic impact, locality image and populace-related radiation fears right through to the sealing phase of the final disposal facility. Vibration, noise and dust-related effects are also given attention in the planning of follow-up. The responsible party for the project affirms in the report that the anticipated effects of radiation on human beings are so minor that no special monitoring of the health of the population is seen as necessary, nor would possible radiation-based detriment be discernible by reference to the normal incidence of illness. Subsequent to the sealing of the final disposal facility, follow-up shall focus primarily on how the properties of the rock return to the condition existing prior to construction.

According to the resolution made by the Council of State concerning the safety of the final disposal facility for spent nuclear fuel, final disposal should be planned in such manner that monitoring of the disposal site is not necessary for the assurance of long-term safety. The Nuclear Energy Act and decree on their part require that supervision and monitoring of the safety of the final disposal facility should be arranged during the period of construction and operation, also from the perspective of environmental impact. The Ministry of Trade and Industry affirmed in its EIA programme statement that the view of the body responsible for the project in regard to the need for supervision should be presented in the EIA Report. The EIA Report proposal for the

follow-up programme relative to the environmental impact of the final disposal facility is, in the point of view of the Ministry, adequate at this stage of the project. Moreover, the Ministry states that detailed composition of the follow-up program for environmental impact shall become topical at the latest during the formulation stage for the project-related construction licence application. Notification in regard to the follow-up programme and the results of follow-up should also be planned at that time.

Summary

In summary, the Ministry of Trade and Industry declares that the environmental impact assessment report on the final disposal facility for spent nuclear fuel is, taking into consideration the present phase of the project, sufficiently comprehensive and detailed. According to the view of the Ministry, the report fulfils the requirements set by the EIA-related legislation and decree as well as the goals of the project-related environmental impact assessment programme.

In the event that the Council of State provides a positive decision-in-principle in regard to the final disposal facility and the Parliament ratifies the same, the project shall advance to, among other matters, more exact locality-based investigations and, prior to implementation, the handling of the construction permit and subsequent operational licence applications. According to the original plan, construction could be initiated in the year 2010 at the earliest.

According to the decree on nuclear energy, 32§, the construction licence application on behalf of the final disposal facility must be annexed with not only several clarifications assuring safety but also a formal explanation of nuclear power plant-related environmental effects in addition to the bases of planning which the applicant intends to follow in order to avoid environmental damage and limit strain on the environment. The Ministry affirms that in practice this means the enclosure of a clarification corresponding to the EIA Report on behalf of the disposal site in question, supplemented by its present conditions and its level of knowledge.

Minister of Trade and Industry

Erkki Tuomioja

Senior Advisor

Anne Väättäinen

ANNEX

Final disposal project for spent nuclear fuel and general summary of the statements given on its environmental impact assessment report.

FOR THE ATTENTION OF:

Fortum Power and Heat Oy, Teollisuuden Voima Oy

Ministry of the Environment (translation also), Ministry of Transport and Communications, Ministry of Defence, Ministry of the Interior, Ministry of Social Affairs and Health.

Geological Survey of Finland, Finnish Environmental Institute, Radiation and Nuclear Safety Authority, Technical Research Centre of Finland, Finnish National Road Administration, Advisory Committee on Nuclear Energy

Provincial State Office of Southern Finland, Provincial State Office of Eastern Finland, Provincial State Office of Western Finland, Provincial State Office of Oulu, Provincial State Office of Åland

Kainuu Regional Environment Centre, Central Finland Regional Environment Centre, Southwest Finland Regional Environment Centre, West Finland Regional Environment Centre, Uusimaa Regional Environment Centre

Regional Council of East Uusimaa, Regional Council of Kainuu, Regional Council of Central Finland, Regional Council of Satakunta

Water Court of East Finland, Water Court of West Finland, Water Court of North Finland

Kainuu Employment and Economic Development Centre, Central Finland Employment and Economic Development Centre, Satakunta Employment and Economic Development Centre, Uusimaa Employment and Economic Development Centre

Finnish Energy Industries Federation FINERGY, Confederation of Finnish Industry and Employers, Entrepreneurs of Finland, Central Union of Agricultural Producers and Forest Owners (MTK), Central Organisation of Finnish Trade Unions (SAK), AKAVA, Finnish Trade Union (STTK), Central Union of Swedish Speaking Agricultural Producers

Municipality of Eurajoki, Municipality of Eura, Municipality of Kiukainen, Municipality of Lappi, Municipality of Luvia, Municipality of Nakkila, City of Rauma

City of Kuhmo, Municipality of Hyrynsalmi, City of Lieksa, City of Nurmes, Municipality of Ristijärvi, Municipality of Sotkamo, Municipality of Suomussalmi, Municipality of Valtimo

City of Loviisa (translation also), Municipality of Lapinjärvi (translation also), Municipality of Liljendal (translation also), Municipality of Pernaja (translation also), Municipality of Pyhtää (translation also), Municipality of Ruotsinpyhtää (translation also)

City of Äänekoski, Municipality of Kannonkoski, Municipality of Konnevesi, Municipality of Laukaa, City of Saarijärvi, Municipality of Sumiainen, City of Suolahti, Municipality of Uurainen, Municipality of Vesanto, City of Viitasaari

Finnish Association for Nature Conservation, Finnish Association for Nature Conservation / Satakunta Chapter, Kivetty-liike (Citizens' movement against nuclear waste), Romuvaara-liikkeen tuki (Citizens' movement against nuclear waste)

Private individuals who have delivered their opinions on the Environmental Impact Assessment Report to the Ministry