

The Site Selected

The Local Decision-Making Regarding the Siting of the Spent Nuclear Fuel Repository in Olkiluoto

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1. Introduction

In May 1999 Posiva, company responsible for the final disposal of spent nuclear fuel in Finland, suggested that the Finnish Government considers only Olkiluoto in Eurajoki in its application of a decision in principle to be a final disposal site. In January 2000 the municipal council of Eurajoki made a positive statement on the decision in principle. The Government made the decision in principle on the 21st of December 2000, and the Parliament ratified the decision on the 18th of May 2001. The paper is focused on the decision making of Eurajoki municipality regarding the siting of the spent nuclear fuel repository. The paper shows how the interaction between the representatives of the candidate municipality and the nuclear energy industry was the crucial factor in the decision-making. Eurajoki serves as an example, in where the parties reached an agreement of the compensations for the final disposal repository. The negotiations between the Eurajoki municipality and the nuclear energy industry in reaching a positive decision are analysed from the beginning of the 1980's. The main emphasis is however on the years 1996-99, when the nuclear energy industry negotiated with the municipality on the compensation for the final disposal repository.

2. Twenty years of arm-twisting in Eurajoki

The question of nuclear waste was already under discussion in the early part of Teollisuuden Voima's nuclear power station project, when the municipal council of Eurajoki approved the plan required by the licence to build a nuclear power station in December 1973. The prerequisite of the approval was, that the spent nuclear fuel should not be buried in Eurajoki's bedrock. This view was based on the information given by the nuclear power company. Local citizens took the promise seriously, and consequently the general view that the nuclear waste would not remain in Eurajoki stayed with the municipality over the years.

The question of nuclear waste came up in 1977, when Teollisuuden Voima (TVO) proposed extending the plan of the power station area to include the area of Kaalo in Olkiluoto. People who opposed the idea of leaving the nuclear waste in Eurajoki, insisted that the construction plan should include defined limitations about

the storage of radioactive waste, as it had not been registered anywhere. In January 1980 the local government of Eurajoki proposed by 4-3 votes (one abstained) to give consent to the council for the extension of the construction plan. The council approved the proposal (14 no's and 13 abstained) with the addendum, that the plan must not be submitted to the approval of the County government, until TVO has given an undertaking, that no final disposal of high active nuclear waste will take place in the area. TVO gave a written undertaking on 21.3.1980. The company underlined in its written undertaking, that the final disposal does not only depend on the company, and that it is not responsible for other decisions. Later on the opponents of final disposal recorded an objective in Eurajoki communal report, that the municipality should act so that the waste did not remain in Eurajoki.

TVO negotiated between the years 1973-1980 with foreign companies on several occasions about a reprocessing agreement of spent nuclear fuel. When the TVO negotiations about the reprocessing agreement concluded in the early part of 1980, it was clear, that spent nuclear fuel will stay at home for the time being, and that the company needed more storage space in Olkiluoto. TVO began the construction of separate water tank storage in Olkiluoto in 1984. The storage was taken into use in October 1987.

TVO chose Olkiluoto in Eurajoki as one of the five sites for preliminary characterisation in 1987. As the site selection process of final disposal of nuclear fuel was approaching its next elimination stage, councillors Juha Jaakkola (Centre), Paavo Majaneva (Left) and Antti Puosi (Centre) proposed in December 1992, that the sentence in the communal report for 1993-97 *"the council endeavours to act so, that no final disposal of high-active nuclear fuel will take place in Eurajoki municipality"* should be changed as follows: *"the council must act so, that no final disposal of high-active nuclear fuel will take place in Eurajoki municipality"* (underlining by MK). The sharpened statement of the opponents' opinion was accepted, but it did not however have the desired effect on TVO, as the company selected Olkiluoto as one of its investigation sites. One must also notice, that even if the majority of Eurajoki's local council opposed final disposal in Eurajoki, the council had given a supportive statement to the application of decision in principle for the construction of the fifth nuclear reactor in November 1991. The votes were split 17-10.

As the siting process progressed, the supporters of the project raised a discussion in Eurajoki, which aimed at the removal of the above statement from the communal report. In December 1993 the Council of Eurajoki did however accept, with the Chairman Juha Jaakkola's casting vote 13-13 (one abstained), this sentence for the communal report *"The council must act so, that no final disposal of high-active nuclear fuel will take place in Eurajoki municipality"*. Nevertheless, the arguments continued of the municipality's strategic line. Eurajoki municipal council accepted on 12.12.1994 the proposal by Keijo Kuusisto (Cons.), that the sentence expressing a negative attitude to the final disposal should be removed from the communal report. Markku Palonen (Soc.Dem.) spoke for the proposal stating that leaving the sentence that forbids the waste in the communal report, will weaken the interaction between the nuclear company and the local authorities. According to Palonen, the elimination of the sentence made the company take a positive attitude to

the change in property tax law, which will increase the local revenue. Councillor Majaneva proposed, seconded by Maritta Ristilä (Cent.) and Jaakkola, that the sentence be added to the communal report. The sentence including opposition to final disposal was eliminated from Eurajoki's communal report with 15-10 votes in December 1994. Political balance of power in the municipal council was for the first time in favour of the final disposal project.

Where did the sudden - in the middle of the council's period - change come from? According to the newspapers, the Eurajoki councillors were pressurised with the plan project to change their minds. TVO was simultaneously applying for a plan change for the island of Kuusisenmaa, which was only some hundred metres from the Olkiluoto island, but is situated on the side of the town Rauma. The councillors of Eurajoki were let to understand, that the site of the final disposal plant could be planned on the Rauma side. This would have also meant, that the property revenues (approx. 1,17 million €) from the repository would have found their way into the coffers of the neighbouring municipality. TVO's head of information forbade the use of pressure. The company however dangled the carrot of the financial benefits of the final disposal project in front of the municipalities' noses. In addition to the pressure exercised with the revenue income, the nuclear energy legislation had also changed during the year, as Parliament forbade the export and import of nuclear waste.¹ Although the municipal council of Eurajoki had opposed the leaving of nuclear waste in the municipality, the opinion of some councillors had obviously changed in the sense, that they now only opposed final disposal of spent nuclear fuel in Eurajoki if it had originated abroad.

3. Liaison Groups as Arenas for Corporatism

A liaison group, which concentrated on bedrock research, was established between the municipality of Eurajoki and TVO (since 1996 Posiva) towards the end of the 1980's. The liaison group between Eurajoki and Posiva also acted as a follow-up and steering group of the Environmental Impact Assessment process during 1997-1999. The institutionalisation between Eurajoki municipality and TVO can be seen in the cooperation agreement signed in August 1995. With the agreement the parties attempt to establish a permanent and stable format. At the signing of the agreement, the municipal manager, Juhani Niinimäki stated "*that the objective of the municipality was above all to maintain the financial stability regarding the revenue income*".

According to the chairman of the Eurajoki local council, Juha Jaakkola (Cent.) preparations for the shaping of the municipality's opinion regarding the decision in principle application begun around 1996. In the liaison group of Eurajoki municipality and TVO, Posiva's Managing Director, Ryhänen told in February 1996, that it would be more advantageous both to the power company and Posiva, the earlier the decision on the disposal site can be made. The local authorities replied, that Eurajoki wanted to be one of the alternatives in the selection. The reply was unofficial and cautious, because the opinions of the councillors were clearly divided.

¹ After this change in the law the co-operation of power companies in HLNW management was crystallised in establishment of Posiva in 1995.

The matter was taken up again in the liaison group in March 1997, when the liaison group discussed *"further development of the prerequisites for the cooperation between the municipality and TVO"*. The concrete project was the final disposal plan. Posiva told in April 1997, that in the Environmental Impact Assessment process the municipalities' visions are also taken into account. One of the effects from Posiva's active quest for visions was that the formulation of the municipality strategy was initiated in Eurajoki. The formulation of a strategy was influenced not only by discussing the selection of the final disposal site, but also by the weakened financial situation of Eurajoki municipality and the desire to safeguard the revenue income.² The opening of the dialogue by the nuclear energy industry about the future image of the municipality did bring results. The preparations lead to the discussion of the project for the old people's home, which would replace the Vuojoki Mansion old people's home.³ The municipal manager Niinimäki proposed the idea in the liaison group in August 1997. On the same occasion reference was made to the project of the municipality's multipurpose hall which was under construction. In October 1997 Eurajoki's local council decided, that the Major and the Planning Secretary make a proposal for the programme and timetable of a strategy project. The task set down by the municipal council was to create long-term visions of the future of Eurajoki municipality. The deadline for the completion of the vision was set at the end of April 1998.

For the drafting of the municipality's strategy an extended working group between Eurajoki municipality and the business life was established, which met for the first time in January 1998. In the extended liaison group councillors Altti Lucander (Cons.) and Markku Palonen (Soc.Dem.) as well as the municipal manager Niinimäki concentrated on deliberating on the possibilities and threats presented by Olkiluoto to Eurajoki's municipality strategy. The threat they saw resulting from Olkiluoto was the fact, that nuclear waste would remain over ground in Eurajoki, or that it would be transported to another locality, and the municipality would miss the tax revenue in both cases. The competition between municipalities and the fear of income loss featured prominently in the preparation for the strategy.⁴

Lucander, Palonen and Niinimäki saw another threat in the Government's action. If the Government made the decision on the disposal of nuclear waste,

² During 1984-1990 TVO had paid local presumptive tax altogether up to 110 million marks, which was about a third of Eurajoki's annual revenue income. The practice of the presumptive tax on business income was abolished from 1991 onwards, which caused Eurajoki municipality a loss of over 14 million marks in revenue income in 1991 and 1992. The municipality was however compensated by the state for the loss of income. The presumptive tax was replaced by a property tax based on the value of the property. The setting of the property tax was not straight forward as such, among other things owing to the annual age reduction of the nuclear power station buildings.

³ The County officer of the Metal Workers Union, Markku Palonen (Soc.Dem.) predicted already in January 1996, that the Vuojoki manor house would become a joint head office of the power companies, and that *"Eurajoki could build for the aging persons a care and old people's home"*.

⁴ The selection of Loviisa as a new candidate site sharpened the competition between the municipalities in 1997. NPP of Imatran Voima is situated in Loviisa.

Eurajoki would not have a leg to stand on when negotiating with the nuclear energy industry. Should Eurajoki block the final disposal with its right to veto, the three of them think it would be possible, that the Government could decide on the disposal of the waste. This would mean that the waste would stay in the municipality, but possibly without any compensation. The possibility of this threatening picture to materialise could only have arisen, if no other municipality had accepted the final disposal project either. One aspect of the final disposal is the possibility, that the municipality could negotiate an additional financial benefit, which would be paid as compensation until the property revenue would take effect (according to the timetable in 2020). As an example of the compensation for the early years of "low income" a reference was made to the old people's home project.

The progress of the final disposal project was also seen as helpful for the establishment of the third nuclear power station unit in Olkiluoto. The property taxes of the new nuclear power station unit, whose annual amount was expected to amount to 15-20 million marks, was seen by Lucander, Niinimäki and Palonen for its part to safeguard the municipality's permanent independency, when again the termination of nuclear energy production in Olkiluoto would put paid the tax revenue and endanger the municipality's independence. Lucander, Niinimäki and Palonen did not in these threatening images take up the possible environmental or imago risks caused by the final disposal repository. On the contrary, it was feared that the refusal to invest milliards would weaken the image of the municipality on a national level. There were other fears of the discontinuation of electricity production in Olkiluoto. So much so, that it was feared that Eurajoki could lose its *"relative advantage"*, as plants replacing nuclear energy do not have corresponding political opposition, and they can therefore be built elsewhere. In other words, they wanted to retain Eurajoki as an oasis of nuclear energy industry. In the catastrophe scenario the municipality's financial status will lose its existing strength, if no further construction work takes place in Olkiluoto, and the activity dies down slowly. The future of Eurajoki was thus very strongly attached to nuclear energy industry in Olkiluoto.

At the same time in January 1998 as the extended working group was preparing the municipality strategy, the Vuojoki working party consisting of the representatives of Eurajoki municipality, Teollisuuden Voima and Posiva began its work. The initial task of the working party was to draft the above mentioned old people's home project and the utilization of the Vuojoki Mansion. Later on the working party was assigned further tasks of preparation. The establishment of the Vuojoki working party followed the existing political culture, which was typified by the harmonisation of the interests of the nuclear energy industry and the municipality through negotiations.

As a result from the work of the extended liaison group of Eurajoki municipality was the presentation of the strategy plan delivered to the local council in September 1998. In December 1998 Eurajoki local council approved at 20-7 votes as part of the municipality's strategy the Olkiluoto vision, which contained a positive attitude to additional nuclear energy as well as to the final disposal repository.

4. Compensation Agreements as a result of Corporatism

Because of the financial situation of Eurajoki municipality, to safeguard its property tax revenue it proposed to the Ministry of Finance in 1998, that the property tax be raised on the part of nuclear power station buildings from 1.8 per cent to 2.5 per cent.⁵ The municipality's suggestion for tax increase did not go down very well with TVO. It recommended that the municipality promote projects that would widen the tax basis. The property tax did however go up at the Government's decision from the beginning of 1999 to 2.2 per cent, which raised the industry's tax expenses by 140 M marks (approx. 23,5 M €). TVO did not rest, but appealed to the County Court about the property taxes for 1993 and 1994. The appeal gave an additional boost to the compensation negotiations, as the appeal shook even more Eurajoki's local economy. At the beginning of March 1999 in the liaison group between TVO and the municipality a proposal was made for alternative compensation choices, for example Eurajoki's ice-hall project, development fund for business projects in the municipality, the formatting agreement of the Olkiluoto areas, various loans as well as the sale or leasing the municipality's waters. The local authority proposed, that the preparation of taxation matters be handed over in its entirety to the Vuojoki working party. Before that the appeal had already been discussed in the municipality's and the company's unofficial working party.⁶ Also the other economic agreement negotiations relating to the final disposal project were handed over to the Vuojoki working party for preparation. The Vuojoki working party became thus a more central preparation organ for decision making, where the nuclear energy industry could have a direct effect on the decision making relating to its own interests within the local democracy.

The representatives of nuclear energy industry criticised Eurajoki's proposal for taxation change in the Vuojoki working party. Posiva's managing director Ryhänen told, that Fortum does not seem to have any sympathy for the project, which would mean a rise in the property tax level in spite of planned agreements. TVO's representative Ami Rastas for his part stressed, that *"the final disposal must be absolutely safe, and there must be no connection whatsoever between money and the prospect of safety."* TVO also refused to cancel the appeal for the 1993 property tax, but offered the local authority loan arrangements and participation in the ice-hall project as a life buoy.

The report by the Vuojoki working party of the possibilities for the use of the Vuojoki Mansion was ready on 15.4.1999. The working party also drafted the propositions for the land rental and loan agreement between Eurajoki municipality

⁵ A change in the law as well as the use of Vuojoki Mansion was discussed during the visit to Eurajoki in May 1998 by the Minister of Education, Heinonen (Cons.). The Minister told, that the Government had discussed the idea, that the municipality of final disposal could be granted considerable property tax revenues before the repository was activated. In that way also the Government was considering offering "a carrot" to the future final disposal municipality. At the end of March 1999 Eurajoki municipality presented the Government with a written proposal for the final disposal project. The local council had drafted for the Government a wish list with three points.

⁶ The minutes do not show, who belonged to this unofficial working party, and how often and what matters were discussed.

and Posiva. In this way it used the preparation power, which it had been granted in the liaison group between the municipality, TVO and Posiva. For the fine tuning of the agreements a separate small working party was established. The report was discussed at the Council meeting on 26.4. The report stated, that as the old people's home projects of Eurajoki municipality will need development and expansion in the near future, the municipality has been investigating, whether the Vuojoki Mansion could be replaced with a new, modern old people's home, and at the same time find an alternative use for Vuojoki. It was in Posiva's interest to consider Eurajoki as a final disposal site for spent nuclear fuel, in which case the Vuojoki Mansion could be developed as an office space for the company in addition to its general use. The local government suggested to the council the approval of the agreement with the condition, that Posiva should only consider Eurajoki as the final disposal site of spent nuclear fuel. As a part of the agreement parcel was also TVO's funding for the ice-hall project.

Eurajoki local council approved the Vuojoki Agreement at 20-7 votes on May 3rd 1999.⁷ In accordance with the agreement Eurajoki municipality leases to Posiva the Vuojoenlinna estate, which it owns and whose empire mansion has been an old people's home, and furthermore Posiva will lend the municipality 41 M marks (approx. 6,9 M €) for the construction of a new old people's home. The municipality for its part is obliged to pay the instalments and interest of the loan with the rental income it will receive from the company. The agreement entails that the mansion will be renovated for its new use. The chairman of the local government and the deputy chairman of the Vuojoki working party Matti Valtonen (Soc.Dem.) explained the agreement newly approved by the Government by stating, that the municipality informed Posiva, that they really wanted the repository. Applying for the decision in principle also in Loviisa meant according to Valtonen a restart of the negotiations. Posiva's managing director Ryhänen said, that the company will still consider, how many municipalities would be included in the application. Posiva stressed positive interaction with the municipalities proposed for final disposal. According to the managing director Ryhänen *"this Eurajoki project is quite unique. It does not however indicate, that the final disposal repository will automatically be in Eurajoki. It does however prove, that the municipality is interested in the matter, and the project had already appeared in the municipality's strategy as an interesting project."*

Posiva delivered the decision in principle application for the final disposal repository of spent nuclear fuel to the Government on 26.5.1999. The company applied the decision in principle for the final disposal repository only for Olkiluoto in Eurajoki. According to Posiva's managing director Ryhänen Eurajoki's initiative and clear will to get the final disposal repository decided the matter. Other grounds for the selection were the facts, that Olkiluoto already had the most of the spent fuel, when the repository is in Olkiluoto, the minimum amount of transport is needed,

⁷ Even if Eurajoki municipality was promised compensation for the final disposal, the municipality was still experiencing economic difficulties. The municipality carried out negotiations with TVO about compensating the refunding of the property taxation in the Vuojoki working party.

connections exist both by land and sea, Olkiluoto already has important equipment for nuclear station operation, and furthermore Olkiluoto offers better facilities than Loviisa for the expansion of the operation, should the amount of waste accelerate.

The local government stated at its meeting on 19.1.2000, that the starting point to the municipality's statement is, that only spent nuclear fuel of Finland's nuclear power stations can be disposed in Olkiluoto in accordance with the Nuclear Energy Act. The municipal council of Eurajoki discussed the statement of the application for decision in principle on 24.1.2000. Councillor Paavo Majaneva (Left) reminded of it, that during Olkiluoto's construction stage the impression was given, that the nuclear waste would be transported abroad. Majaneva made a counter-proposal, according to which the final disposal of the nuclear waste should be postponed. Raimo Järvi (Left) seconded the proposal. The Council however gave a positive statement at 20-7 votes.⁸ The supporters of the project defended the decision with the moral responsibility of the municipality benefiting from the nuclear power stations, and that the safety is confirmed by an authority, STUK. The Council accepted the application, which made it possible to perform the final disposal of spent nuclear fuel from existing power stations and possibly two new power stations to be built in Olkiluoto.

5. Conclusions

The loss of income was an important reason, why some of the councillors of Eurajoki were interested in having the final disposal repository in Olkiluoto. The industry's problem on the other hand was to safeguard the final disposal site. From the TVO's angle Olkiluoto was a potential final disposal site, for example for its limited need for transport and for the existing infrastructure. The company used the financial benefits of the project as its trump card. The attitude of Eurajoki municipality to the final disposal of spent nuclear fuel was turned positive with the Olkiluoto vision in December 1998, when still five years earlier the municipal council was prepared to act and prevent the final disposal. The future image presented by the municipality matched now TVO's interests. First the supporters of the project succeeded in removing the sentence opposing the final disposal from the communal report, and after that they began working towards a positive strategy for the municipality. As already at the beginning of the 1990's, so also towards the end of the 1990's the supporters did not only have in their minds the final disposal repository in Eurajoki, but also the possibility of having a new nuclear power station unit in Olkiluoto, and steering its tax revenue to the municipality.⁹ A sufficiently large and sufficiently long term compensation was put forward as a precondition for the approval of the final disposal. TVO and Posiva regarded it ideal, that one of the

⁸ An appeal on the Council's decision was made to the Court of Appeal and the Supreme Administrative Court. The appeal was dismissed on 18.11.2000.

At the same meeting the Council also approved of the deal, concerning the sale of Olkiluoto and Orjasaari water area to TVO by Eurajoki municipality, the loan agreement with TVO, and the agreement for the establishment of a Business Development Fund in Eurajoki. TVO undertook to provide the fund 300 000 marks per year for five years.

⁹ TVO informed on 16.10.2003, that the new 1600 MW nuclear power station unit will be built in Olkiluoto. Loviisa was an alternative location.

municipalities for suggested final disposal volunteered for it. Posiva discussed in public the environmental impacts of the repository, and at the same time its main owner TVO negotiated with the representatives of Eurajoki about political acceptability of the repository and compensations. Posiva implemented Environmental Impact Assessment process by stressing transparency and citizens' participation, where as negotiations over compensations between the parties took place behind the closed doors.

References and Acknowledgement

The paper is based on 1) Matti Kojo's unpublished licentiate's thesis "*Looking for acceptability. Fight over the site selection for the nuclear waste final disposal repository from the angle of political style.*" (<http://tutkielmat.uta.fi/pdf/lisuri00023.pdf> in Finnish) and 2) the CARL Country Report "*Finland*".

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