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Participation of Local Citizens Groups in the Swedish Nuclear Waste Process

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Olov Holmstrand
The Waste Network
Torphagebacken 11
S-443 38 LERUM
SWEDEN

Contents

1. Introduction

This paper describes the nuclear waste issue from the viewpoint of the environmental movement in general in Sweden and especially from the viewpoint of the Waste Network. Explaining attitudes and actions in this issue demands an introductory description of the environmental movement´s general opinions on nuclear power in connection with nuclear waste. This is particularly important concerning opinions on the actions on waste management by the nuclear industry´s company SKB (Swedish Nuclear Fuel and Waste Management Company).

2. Nuclear Power and Nuclear Waste

Nuclear power is a spin-off product of the efforts to develop nuclear weapons. Originally, the waste was the desired product of nuclear technology, because the plutonium in the spent fuel was a much sought after bomb raw material. This caused the waste not to be regarded as a problem, rather as a strategic resource.

Long after the civil marketing of nuclear technology had started in the USA, ("Atoms for Peace"), the Swedish nuclear program had a clear military connection and the waste problem was suppressed (documented by the Swedish technical journal Ny Teknik in the middle of the 1980´s). Thus, still at the end of the 1960´s responsible politicians believed that "the amount of waste will become negligible and the produced waste is needed for medical purposes". Based on this understanding of reality the constructing of about 25 reactors was planned in Sweden as late as 1972-73. The "hopeful" attitude on the waste problem is reflected by SKB in the Research and Development Program 1995 (FUD 95). In this program SKB states that research on waste management was initiated in Sweden with the founding of PRAV (a state committee) in 1975. But at that point of time a prototype reactor, Ågesta, had been in operation 1964-1974 and the first commercial reactor had been operating since 1972. Thus, considerable amounts of waste had been produced without any serious efforts to handle it.

The management of nuclear waste in Sweden is characterised by the early fixing to final disposal in canisters at a depth of about 500 meters in the bedrock. For more than 25 years the efforts of the nuclear industry and the SKB have concentrated on finding a suitable site for this depository. No clear and coherent process for choosing method and site have been presented.

According to the precautionary principle no waste should have been produced as long as the management had not been solved. However, the waste that already exists is not possible to neglect. Thus, a vast majority of the people in Sweden still are prepared to take part in a reasonable process to manage and store this waste in the best possible way at a tenably chosen site. This is particularly valid for the environmental organisations engaged in the issue. However, it is important to stress that in the view of the environmental organisations the present management is totally unacceptable.

3. The Environmental Movement and the Waste Issue

Through the years local citizens´ groups of various kinds have engaged against test drillings and other activities. Naturally, the resistance partly has been based on NIMBY (Not in My Back Yard), but as the level of knowledge has raised, the viewpoints have developed in a more principle and well-informed direction. Mainly during the period of test drillings in the early 1980´s the nuclear industry´s attitude to the local groups was very antipathy. Ordinary people engaged in the groups were even pointed out as political extremists.

The Waste Network co-ordinates groups of volunteers at places that have been of interest for nuclear waste management. The Waste Network was created in 1981 as a consequence of the test drillings that were planned or done at a number of sites. The aim of the network is foremost to promote exchange of knowledge and experience between local groups and to co-ordinate common actions as scrutinizing reports and initiating dialogues with politicians and government agencies. Together, the Waste Network groups represent a unique and extensive civic experience in Sweden of citizens involved in the waste issue. On the other hand, the Waste Network has never had any resources except voluntary work.

A common experience among the Waste Network groups is that the acting of companies and authorities responsible for the nuclear waste management, have caused deep distrust. One reason for this is the very uneven economical conditions. The SKB have large sums of money for “information“ (propaganda in the eyes of the local groups), and the local groups have nothing except engagement. It would be more reasonable to take local objections and standpoints seriously into account by providing sufficient economic means so that also critical standpoints could be worked out and brought into the process of decision-making in the society, locally as well as nationally. An Environmental Impact Assessment (EIA), worthy the name, can only be worked out if groups expected to take part are given reasonable conditions to participate actively in all stages of the process. This has become even more important with the new environmental legislation in Sweden from 1999.

In 1997 a formal association was formed within The Waste Network in order to facilitate management of economic means. In 1998 the Waste Network Association applied for funding to participate in the EIA process. However, the application was rejected on formal grounds by the SKI (Swedish Nuclear Power Inspectorate) and the Ministry of the Environment. The conclusion of this is that the rules have to be changed if the intentions of the environmental legislation should be fulfilled, otherwise this is a provocative kind of sham democracy.

4. The Waste Network´s Opinions on the Handling

4.1 Choice of Method

The choice of method is fundamental as a part of the EIA process and must provide the basis for the siting. The latter part of the process has no meaning as long as no credible choice of method has been done. Criticism in this respect has long been given by different instances. One example is the Dialog Project ?1?.

It is obvious that no serious selection process based on presentation of alternative methods in accordance with an EIA process has been done. The chosen KBS method is directly based on the proposed idea of rock storage presented by the AKA commission ?2? in the beginning of the 1970´s. Ever since that the SKB has never seriously confronted the KBS method with other alternatives. The presentations of anything like shooting the waste into space and transmutation have had levels of ambition far from the efforts to prove the excellence of the KBS method. Thus the work of the SKB has only concentrated on defending the KBS method.

It is remarkable that the functional conditions on the method have varied without influencing the design of the method. Instead, the motivations for choosing the KBS method successively have been adjusted to the changed functional conditions. Examples of this kind of adjustments are the opinions on retrieving the waste and the opinions on the bedrock.

Originally, the intention was a final storage for waste from reprocessing. The method should prevent environmental impact and make it reasonably difficult to dig up this waste, which was considered both dangerous and worthless. No supervision should bee needed, but maybe some kind of sign at the ground surface. When spent fuel should be stored directly the original considerations no longer were valid, among other things regarding safeguards. Now, this has caused SKB to claim that the method allows digging up and maybe also long time supervision, which completely contradicts the original ambitions to relieve future generations from responsibility for what our generations have produced.

The original demand on the bedrock was that it should not be fissured. The Aka report ?2? states this in somewhat various ways: “without moving groundwater“, “impermeable rocks“, “rocks with little groundwater“, “rocks with few fissures and little groundwater“. When test drillings showed that unfissured bedrock of that kind does not exist in Sweden the demand was changed to “reasonably fissured“. Now, the attitude is even more irresponsible. Somewhat simplified the SKB states that all normal Swedish crystalline rocks are acceptable because the method is “oversafe“. This devaluation of the importance of the bedrock coincides with the fact that SKB now is regarding the acceptance of the public to be the most important siting criterion. Accordingly, the SKB may choose municipalities for pilot studies without disturbing geological considerations.

To summarise it remains for SKB to identify and choose method in a credible way. In this it is fundamental to start defining the functional conditions, which should be valid for a final storage in Sweden. Unconditionally, the choice of method must be done before the siting is seriously started. The basis for the choice of method must

be a number of reasonably realistic and well worked out methods similarily described. Due to pedagogic reasons the choice may well be done with a sieving process.

4.2 Siting

So far the SKB´s managing of the siting above all has been characterised by the absence of an openly presented process, the total lack of ability to understand the normal reactions of ordinary people and the lack of ability to consider criticism. This has caused confrontations with ordinary citizens and severe internal conflicts in the municipalities concerned. In spite of these experiences of what has passed, obviously the SKB still believes that it should be possible to find a municipality ready to welcome the waste.

Presently the SKB describes a three step siting process; general surveys, pilot studies in municipalities, and site investigations. This is the first time the SKB presents any reasonably coherent and logically understandable process at all. General surveys is a suitable start of a siting process, but it is remarkable that the SKB is not even taking its own method seriously. Thus, the pilot studies have started long before the general surveys were presented. Instead, the pilot study municipalities have been chosen based on two in this connection irrelevant criteria, political acceptance and presence of some nuclear facility. This lack of logic and intelligibly has consistently characterised the siting activities.

It is obvious that so far the siting activities has not fulfilled reasonable and by the public supported demands on a logic and understandable process. Consequently the SKB has repeatedly not succeeded to establish and complete pilot studies and site investigations. Pilot studies has been denied in among others the following municipalities: Varberg, Tranemo, Arjeplog, Överkalix and Gällivare. In Storuman and Malå further site investigations have been stopped by referendums. It is very unclear if the SKB may fulfil its own objective to complete 5-10 pilot studies. On the contrary, the result so far is that considerable areas in practice have been excluded from further considerations as a consequence of this deficient process.

SKB should have adopted the conclusion of the Dialog Project ?1?: “The choice of site for a final repository for spent nuclear fuel should be performed in a systematical way and according to a method presented in advance“. The opinion of the Waste Network is that SKB´s present siting activities must cease. A new siting process may start, when the method has been chosen in an acceptable way.

4.3 Mistakes

Most of the time when the nuclear waste issue has been investigated in Sweden the SKB has been the dominating actor also concerning the information to the public. SKB has a very low level of credibility among the groups in the Waste Network. This depends on the SKB representing the nuclear industry with its obvious interest to go on operating the nuclear power plants. It also depends on the clumsy and very provocative behaviour at several occasions by the SKB and its predecessors. This is documented in “Kynnet som försätter berg“ ?3? and “Nuclear Waste in Sweden ?4?.

It is easy to conclude that the nuclear industry wants the waste issue to look solved only to get acceptance for further operating the nuclear reactors. The legislative connection between waste management and reactor operating gives a firm basis for such suspections. This may be solved in different ways. One way pointed out by the Dialog Project ?1? is an independent body responsible for the accomplishment of the EIA process.

The SKB has to a large extent published their investigations as internal reports without a scientific referee system. This makes it difficult to estimate the quality and validity of the results. In addition the presented investigation results have grown so extensive that a thorough examination is far beyond the normal capacity of any examining body in Sweden. This is a severe obstacle for quality examination in connection with the SKB´s presentation every third year of a research plan. However, the impression is that the SKB has chosen to present such results from the background investigations which support already established standpoints and consequently have chosen not to present critical results.

The SKB and other actors directly involved in the nuclear waste management have had obvious difficulties to admit any mistakes. Mistakes are natural in a matter that is so difficult and complicated. Thus, it should also be natural to admit and explain mistakes. This should show others involved that those in responsibility are playing openly and are prepared to draw positive conclusions of what has passed. SKB and others in responsibility have shown very little attitude of this kind, which is explained by the following three examples:

1. Several Swedish reactors were permitted to start after the government decision in 1979 in accordance with the "Stipulation Act, stating that the nuclear waste issue was completely solved. Later this act was abolished and replaced by a less demanding legislation. However, already when the original permit still was valid the efforts continued to solve the waste issue (in spite of the government decision that it was completely solved). To the best of knowledge any responsible instance has never clearly admitted that the government decision in 1979 was based on false conditions.

2. In connection with several attempts to make test drillings in the beginning of the 1980´s the SKB and its predecessor PRAV acted very brusquely to the local people and tried in many ways to describe the protests against the drillings as results of extremistic and revolutionary propaganda. The people who were pointed out in this way took serious offence, as they were ordinary locals trying to protect their home areas. Several times PRAV and the SKB also tried to start drillings secretly by avoiding to give information. Now, when the SKB very apparently emphasises the importance of choosing a site where the waste is welcome, it should be logical to disclaim the earlier methods. Typical examples of drilling episodes are described in "Kynnet som försätter berg" ?3? concerning the sites Kynnefjäll and Voxnadalen (PRAV), and Klipperås and Almunge (SKB).

3. The earlier unlimited legislative municipal veto to a number of environmentally harmful activities was abolished mainly with reference to the difficulties of handling nuclear waste. The SKB now asserts that it is possible to find municipalities ready for voluntary acceptance of a repository. Why then abolish the veto?

4.4 The National Co-ordinator

In 1996 a National Co-ordinator in the field of nuclear waste was appointed by the government. Initially, the groups within the Waste Network understood this as the government´s way of emphasising the importance of a dialog between all parties involved according to the needs identified in the Dialog Project ?1?. However, the Co-ordinator started by excluding all environmental organisations from the Forum of Consultations that he founded and then asked only one organisation (the Swedish Society for Nature Conservation, SNF) to take part on special conditions. However, the SNF refused this. Later some separate meetings with environmental organisations have been arranged. The purpose of these meetings have been unclear.

The exclusion of the environmental organisations depended on the circumstance that these demanded as a condition for participation that process, choice of method and siting should be questioned without limitations. Such conditions seem to be both reasonable and obvious in a Forum for Consultations on the nuclear waste issue. However, the Co-ordinator thought that the consulting should only concern the KBS method and the siting process already decided by the SKB.

The general opinion within the Waste Network is that the National Co-ordinator has failed totally and caused more damage than benefit by preventing a reasonable MKB process. He has been compliant to the interests of the nuclear industry and some municipal representatives and as a consequence prevented an unprejudiced examination of the management of nuclear waste. It would be somewhat of a catastrophe if he was allowed to continue his work.

4.5 The EIA Process

At performing the process (in the form of an Environmental Impact Assessment) which should produce the choice of method and site for the waste depository it is extremely important that the instance responsible for the EIA has a high credibility. According to the present Swedish legislation the operator (in this case the SKB) is responsible for the EIA. Several facts point out that the SKB is lacking enough credibility, which as already mentioned has brought about a proposal for another arrangement of the responsibility given by the Dialog Project ?1?. A reference may also be made to the Tunnel Commission, which has been investigating the handling of the tunnel project through the Hallandsås. The Tunnel Commission ?5? proposes that the dominating position of the operator should be balanced by a separate EIA authority according to the Dutch model. A similar proposal has recently been sent to the government by the Royal Academy of Sciences.

5. The Waste Network´s Opinions on the Managing

The Waste Network´s conclusions and views on the nuclear waste issue are summarised in the following points:

? The management of the nuclear waste is not solved. In order to minimise the amount of waste, the further operating of nuclear reactors should be questioned.

? The choice of method should be made before the siting. The deadlock to the KBS method must come to an end. The choice of method must be based on clearly expressed functional conditions formulated in advance.

? The siting must be based on considerations to environment and security, not political acceptance. The pilot studies in municipalities must cease and should be replaced by a clear and understandable sieving process at a national scale.

? An independent authority must control and supervise the EIA process instead of the nuclear industry. A well performed EIA process is the necessary condition to give the choice of method and site enough legitimacy and acceptance.

? Environmental organisations being the representatives of the public must be given reasonable conditions and resources to take part in the EIA process to handle the question.

6. References

This reference list is not complete. In the text several references are given to background information, which is not accounted for in this list.

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