



Naturskyddsföreningen



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## **NGO and public engagement on RWM in Sweden**

Aarhus Convention & Nuclear (ACN), European Roundtable on information and public participation in the field of Radioactive Waste Management (RWM)  
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# What will I talk about?

- What is “Miljöorganisationernas kärnavfallsgranskning”, MKG, ≈ “Swedish NGO Office for Nuclear Waste Review”?
- The decision-making process for a Swedish repository for spent nuclear fuel
- Access to information
- Access to public participation
- Access to justice
- Access to resources
- Building, losing and rebuilding trust

# MKG

- The Swedish NGO Office for Nuclear Waste Review (MKG) is an environmental organisation that was created in 2004. MKG works specifically with radioactive waste management (RWM) issues for the Swedish environmental movement's two largest organisations, the Swedish Society for Nature Conservation (Naturskyddsföreningen), with more than 237 000 members, and the Swedish Friends of the Earth (Jordens Vänner) with more than 2 500 members.
- Historically between 2005 and 2017 MKG received funding from the Swedish nuclear waste fund to be able to participate in the legal proceedings (public consultation and license review) for the proposed Swedish repository for spent nuclear fuel. Since 2017 funding is instead provided through the government budget and is managed by the regulator SSM (Swedish Radiation Safety Authority). For 2020  $\approx$  EUR 220 000 was provided for MKG out of a total of  $\approx$  EUR 300 000.
- MKG is also involved in European RWM work in the organisations Nuclear Transparency Watch (NTW), European Environmental Bureau (EEB) and the SITEX\_Network. MKG is also engaged in EU research projects.

# The decision-making process for a Swedish repository for spent nuclear fuel (I)

- The most important RWM decision-making process in Sweden for the last 20 years has been regarding a repository for spent nuclear fuel.
- The Swedish nuclear waste company SKB has developed the KBS method for final disposal of spent nuclear fuel since the mid-1970s.
- Every three years since 1986, SKB has produced a legally required R&D programme (“FUD report”) on RWM that undergoes regulatory and governmental review.
- The legally obligated consultation process for the spent nuclear fuel repository was started by SKB in the early 2000s in order to develop an environmental impact statement for a license application.
- The consultation process was finalized in 2010. A license application with an environmental impact statement and a safety analysis was submitted in March 2011 by SKB to the Environmental Court according to the Environmental Act and to the regulator (SSM) according to the Nuclear Activities Act .

# The decision-making process for a Swedish repository for spent nuclear fuel (II)

- Between 2011 and 2016 the Environmental Court and SSM were in an evaluation process for the completeness of the licence application.
- In January 2016 the licence application was formally announced as complete and an evaluation on issues was started.
- In the autumn of 2017 the Environmental Court held the main meeting of the court that finalised the court's work on issues.
- In January 2018 the Environmental Court and SSM sent their opinions to the government according to the Environmental Act and the Nuclear Activities Act respectively.
- The regulator SSM was in favour of the government approving the licence application. The Environmental Court was against approval unless the long-term integrity of the copper canister used as part of the KBS method can be guaranteed.

# The decision-making process for a Swedish repository for spent nuclear fuel (III)

- The government is still evaluating the licence application and has asked for complementary information on the integrity of the copper canister from SKB.
- After a possible positive government decision on “permissibility”, the Environmental Court continues the licensing process according to the Environmental Act. After a deliberation and main meeting on the question of conditions it formally rules on a licence with conditions. The court can not say no after the government has said yes.
- After a possible positive government licence decision according to the Nuclear Activities Act, the regulator SSM continues with a step-wise decision-making process with decisions allowing construction and operation.
- After the government decisions the continued process is thus only an issue between SKB and SSM.

# Access to information

- According to the Swedish constitutional law since many centuries, the public has broad access to information from public bodies such as the government, the courts, local communities and governmental agencies such as SSM.
- In RWM, all responsibility for R&D for the spent nuclear fuel repository legally lies on the nuclear industry and the implementer SKB. As SKB is a private company, there is no right of access to information from the main actor responsible for Swedish RWM.
- Only when SKB interacts with for example the regulator SSM or the Environmental Court is information about the work of SKB made public.
- SKB can of course publish the information it wishes to provide, but has no interest in making available information or research results that are not in the company's interest.

# Access to public participation (I)

- There is a long tradition in Sweden to carry out public consultation on all matters of government business.
- This means that the legally required R&D Programme that SKB has delivered every three years since 1986 has been out for public consultation in each regulatory and governmental review.
- In a public consultation anyone can contribute, even private individuals. But most often the consultation process is directed towards government agencies, affected local communities, academia and NGOs.
- In environmental decision-making, the consultation process is formalised in the Environmental Act. Licencing review according to the Nuclear Activities Act is legally obliged to follow the same consultation process as in the Environmental Act.
- SKB has carried out an extended and comprehensive consultation process for the environmental impact statement between 2002 and 2010.



## Access to public participation (II)

- The government's scientific advisory board, the Swedish Council for Nuclear Waste, was directed by the government to convene meetings to openly discuss important issues raised in the consultation process by NGO's and local communities. This allowed an extra deliberation on important issues, i.e. on alternative sites and methods (deep boreholes), and on copper corrosion
- After SKB submitted the licence application in March 2011, the Environmental Court and SSM carried out extensive consultation processes during the licensing activities between 2011 and 2017.
- The SSM consultation process involved asking for comments on completeness and on issues. The internal SSM review is mostly closed to access of information as it is regarded to be "work in progress".
- The consultation process of the court is more open, sending comments from different parties, including SSM, to the implementer SKB and allowing comments to be made on answers.

# Access to public participation (III)

- Once the Environmental Court decides that this back and forth process of commenting no longer provides new information, the court decides to finalise the deliberations in a main meeting of the court. In the case of the licensing of the spent fuel repository this took place over a period of five weeks during the autumn of 2017.
- The main meeting of the Environmental Court is very formal but anyone that wants to say something will get the possibility. On the issue of the long-term integrity of the copper canister the court added an extra day of deliberations allowing a discussion between SKB's experts and academic corrosion scientists.
- The government has also had an open consultation process in its review of the licence application.

# Access to justice

- Sweden has incorporated all three pillars of the Aarhus convention into the environmental legislation.
- This means that the one task of the Environmental Court during its deliberations, is to assure that the consultation process for the environmental impact statement has taken place properly and that issues that have been raised have been taken into due account.
- Local communities involved in a decision for a radioactive waste repository has a veto right until a government decision is taken. The government can overrule the veto under certain conditions.
- It is possible for locally affected individuals and as well as environmental NGOs to appeal all Environmental Court rulings – but not an opinion to the government. The right to appeal also follows on other administrative decisions that have a bearing on environmental issues, i.e. by SSM.
- Government decisions can also be appealed, by any concerned actor, to the Supreme Administrative Court. Such an appeal does not deal with issues, but is to guarantee that the government's decisions are formally legally correct.

# Access to resources (I)

- Sweden has an advanced financing system for RWM where fees are paid by the nuclear operators into a nuclear waste fund.
- The government has full control over how the money in the fund is spent. SKB, SSM and the Swedish Council for Nuclear Waste are funded from the fund.
- Since the time that Östhammar and Oskarshamn communities were chosen as possible siting communities, they also have access to resources from the fund to inform and to take part in the decision-making process. Each community can use up to  $\approx$  EUR 500 000 per year.
- This is not compensation money. The nuclear industry has set up a separate compensation system not using funding from the nuclear waste fund.
- Between 2005 and 2017, environmental NGOs working on nuclear waste issues could receive funding from the nuclear waste fund according to set criteria. The main recipients of funding have been MKG and an organisation called Milkas, that is has its roots in the Swedish anti-nuclear movement.
- The resources for the communities and NGOs were for long administered by SSM, but more recently the RWM funding system with the nuclear waste fund is administered by the Swedish National Debt Office.

## Access to resources (II)

- After 2017, funding from environmental NGOs to work with nuclear waste issues comes out of the state budget and is administered by SSM. The present sum available is  $\approx$  EUR 300.000 per year.
- There is a proposal to return the funding to NGO's to the nuclear waste fund.
- Östhammar community uses its funding from the nuclear waste fund to fund a local NGO in the community (Oss).

# Building, losing and rebuilding trust (I)

- I will end this presentation by giving a personal perspective on the issue of trust.
- My perception is that the Swedish governance system for decision-making in RWM has for a long time successfully increased the trust from most of the concerned parties. It was foreseen by many that there was a possibility that the final outcome of the licensing process for the spent fuel repository could be seen as acceptable to at least the most important actors.
- In this perspective the copper corrosion issues that resurfaced in 2007 has had a detrimental effect.
- The issue of the long-term integrity of the copper canister – so essential to the long term safety case – was dealt professionally and scientifically by SSM through much of the licencing process. A major problem was that access to information from SKB could only come voluntarily as it is a private company.
- A vital decision came in the spring of 2016 when SSM decided that the regulator should tell the Environmental Court the authority believed that the repository could become safe enough to be licenced.
- Since this time there has been a growing conflict in the decision-making system.
- It is now possible to get the perception that SKB and SSM now have a similar agenda and would both like to see the realisation of the spent fuel repository.

# Building, losing and rebuilding trust (II)

- There was a clear tension between the Environmental Court and SSM during the main meeting of the court in the autumn of 2017 on legal matters. Also it was clear that SSM during the meeting was only repeating the arguments of SKB.
- During the court proceedings it was also revealed in leaked documents to media that SSM has had internal conflicts on the safety of the repository, and had made calculations on copper canister integrity that could indicate that there was a risk that the authority's risk criteria could be exceeded.
- As late as in its opinion in September 2019 to the government on the complementary information SKB has provided on the copper canister, SSM was strongly supportive of governmental approval of the repository.
- In the autumn of 2019 there was an unexpected development. It was found that SKB in secret had retrieved two 20-year old experimental packages from the LOT experiment from the Äspö Hard Rock laboratory. There is a lot of copper in each package and it has been in a realistic repository environment. As there was already unexpectedly large copper corrosion in an experimental package retrieved after 5 years in 2006, the copper corrosion results from the new packages could provide important information on the use of copper as a canister material in the KBS method.

# Building, losing and rebuilding trust (III)

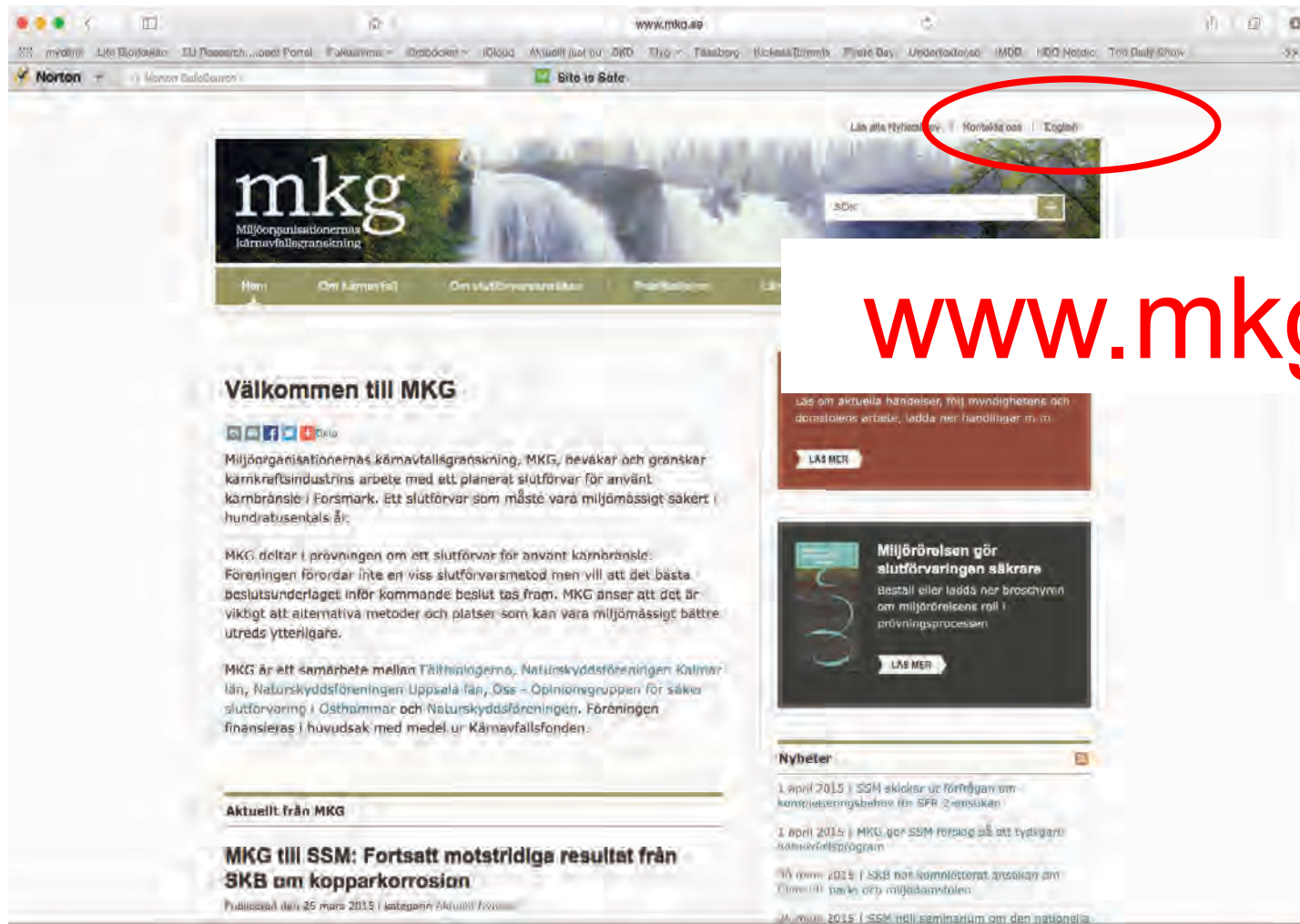
- After the retrieval was exposed and after some discussions with SSM, SKB agreed to provide the copper corrosion results from the packages. SSM is running a quality assurance project with the support of expert from Galson Sciences.
- The government has said it wants an opinion from SSM on the LOT results as part of its material to be used in taking a final decision on the spent fuel repository.
- When SKB published the copper corrosion results in the beginning of October 2020 it was clear that there was a lot of copper corrosion with pitting. SKB did not even give detailed pictures and analysis of the most corroded copper surfaces. It has also surfaced that SKB was directly involved in writing the report and therefore choosing what results to publish. The subcontractor doing the analysis would normally write a separate report with quality assured results, but this was not done in this case.
- The main controversies are now on how much corrosion has actually taken place and whether it could be explained by oxygen trapped in the experimental packages to start with.



# Building, losing and rebuilding trust (IV)

- What we have is a situation where SSM has a chance to prove the regulatory independence and integrity by doing all it can to make sure that the LOT results are interpreted correctly. This will stretch the limits of what SSM can force SKB to reveal using the available legislation.
- SSM has stated that the authority intends to provide an opinion on the LOT results to the government in February 2020.
- It remains to be seen whether this process can rebuild some of the trust in SSM that has steadily been lost by certain parties since the spring of 2016.

# For more information on the work of MKG



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