

## MKG's member organizations

MKG is a non-governmental organization with five member organizations. MKG's work is financed out of the Nuclear Waste Fund. MKG's headquarter is located in Göteborg and has a consultative expert council. The Board of MKG is, as follows:

- Chairperson: Anna Sundahl, Nature and Youth Sweden
- Vice-chairperson: Kenneth Gunnarsson, Oss, an environmental NGO working for safe final disposal of radioactive waste in Östhammar community
- Catharina Lihnell Järnheter, the local chapter of SSNC in Kalmar county administrative province
- Linda Birkedal, Swedish Society for Nature Conservation, SSNC
- Jenny Lundström, the local chapter of SSNC in Uppsala county inistrative province



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Miljöorganisationernas  
kärnavfallsgranskning

Swedish NGO Office  
for Nuclear Waste Review

Swedish NGO Office for  
Nuclear Waste Review  
Box 7005  
SE-402 31 Göteborg

Visiting address: Norra  
Allégatan 5  
Tel: +46 (0)31-711 00 92  
Fax: +46 (0)31-711 46 20

Director: Johan Swahn  
E-mail: [info@mkg.se](mailto:info@mkg.se)  
Website: [www.mkg.se](http://www.mkg.se)  
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# Rock solid?

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## Final disposal for nuclear waste

Nuclear waste disposal is one of the major environmental issues of our time. High-level nuclear waste in the form of spent nuclear fuel from nuclear reactors is extremely hazardous and needs to be isolated from living organisms and their environment for hundreds of thousands of years.

The Swedish nuclear power industry's nuclear waste company, SKB, wants to construct a repository for final disposal of the nuclear waste at 500 meters depth in bedrock where the groundwater is mobile and continuously in contact with the biosphere. To prevent a radioactive leakage the company wants to use a method called KBS. Artificial barriers made of copper and clay are in this method supposed to stop the radioactivity for reaching the surface.

The industry is eager to complete a final repository as soon as possible and have focused their attention on two sites on the Baltic Sea coast, adjacent to the nuclear power plants at Forsmark and Oskarshamn. In 2009 the industry decided to apply for permission to build a repository for spent nuclear fuel at the Forsmark nuclear power plant. The application was submitted in March 2011.



## About MKG

The Swedish NGO Office for Nuclear Waste Review, (Miljöorganisationernas kärnavfallsgranskning, MKG) aims to promote the best implementation for the management of radioactive waste from nuclear activities in Sweden with respect to minimal adverse effects on public health and on the environment.

MKG does not advocate any particular method or site, but works to make sure the environmental court, the regulator and the Government will have the best possible basis on which to make their decisions about where and how the Swedish nuclear waste shall be disposed.

It is vital that alternative methods and sites that might be better options with respect to long-term environmental and health consequences are fully evaluated. MKG considers that a method depending on artificial barriers for safety in hundred of thousands of years, like the KBS-method, should not be used. Recent discoveries, that there are big problems with the barriers of copper and clay, confirm this view. MKG also considers that the site for the repository should not be chosen before the method is decided upon, as the safety of the method is depending on the site.

## MKG's work areas

MKG is an established actor in the national work being done on nuclear waste management in Sweden. The focus of MKG's work includes:

- initiatives to make nuclear waste management a prominent issue for the Swedish people and decision-makers alike.
- critical examination of the Swedish nuclear industry's nuclear waste project as it relates to public health and the environment. MKG also works to identify new issues relating to nuclear waste that have implications for health or the environment.
- taking part in and influencing the consultation process and license review for a final repository for spent nuclear fuel. MKG advances various alternative options for nuclear waste management with a focus on long-term environmental safety and the welfare of future generations.

## Important issues

MKG is at present primarily addressing the following issues:

- Does the nuclear industry's current program for nuclear waste management satisfy the requirements and objectives set out in modern Swedish environmental legislation and Sweden's international environmental obligations?
- Is the method for final storage of nuclear waste proposed by the nuclear industry the best method from the point of view of long-term environmental security? Will the copper corrode faster than the models assumed? Can the clay barrier withstand an ice age? MKG wants the industry to further explore the alternative of disposal in very deep boreholes, which may prove to be environmentally safer in the long term.
- Is a coastal site for a final repository a good choice from an environmental point of view? Assuming that the nuclear industry's current method is chosen, despite weaknesses, MKG wants the industry to consider locating the repository at an inland site having a downward groundwater drainage pattern. Such a site may prove environmentally safety in the long term.

