

## Preliminary Studies Regarding the Final Danish Repository for Low- and Medium-Level Radioactive Waste

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In 2003 the Danish Parliament gave its consent for the Government to start the preparation of the so called 'basis for decision' for a final Danish repository for low- and medium level radioactive waste. The 'basis for decision' was completed in 2008 and describes the principles regarding safety and environmental issues to be followed during the establishment of the final repository for the Danish Radioactive waste.

In the 'basis for decision' three parallel studies previous to the establishment of the final repository was outlined. These studies included: 1) a study of repository concepts in relation to geology and safety analyses 2) a study regarding safe transportation of the radioactive waste, and 3) a geological study describing areas in Denmark suited for placing a final repository.

The Danish Decommissioning (DD) is responsible for the studies 1) above. They include theoretical studies of three different conceptual repositories, each placed in four different typical Danish geological settings. Safety analyses will be carried out covering each combination, a draft plan for the final repository will be proposed, and the report will include estimates of costs for the repository. The final report will include considerations about waste conditioning, reversibility, and possible future expansion of the repository. The process is planned to be iterative in the sense that waste conditioning and concept/design of repository will be reviewed and reconsidered until one or, preferred, more safe combinations of conceptual repository, design and typical Danish geological settings has been achieved.

In October 2009 Danish Decommissioning contracted with COWI environmental and engineering consultants to carry out the technical part of the preliminary studies under the supervision of DD. COWI partners with STUDSVIK AB, ENVIROS environmental consultants, and Hasløv and Kjærsgaard architects and town planners.

The preliminary studies are planned to be carried out during a period of 18 months, lasting until April 2011.