Dismantling of PWR, BWR and VVER reactor pressure vessels and internals

Fact Sheet

Project information

Grant agreement ID: FI4D950001
Start date 1 January 1996
End date 30 April 2000

Funded under: EAEC-NFS 2

Coordinated by: Centre d'Etude de l'Energie Nucléaire-Studiecentrum voor Kernenergie CEN/SCK Belgium

Objective

This project deals with the demonstration of actual Reactor Pressure Vessel Dismantling and the possible use of the results for the dismantling of Russian type VVER power plants.

The project involves the actual dismantling, by cutting, segmentation and evacuation of a PWR pressure vessel (the BR3 reactor in Belgium) as well as a BWR pressure vessel (the KRB-A reactor in Germany).

Two reactor types widely spread amongst the different member states of the E.U. Moreover the application of the developed techniques and procedures for VVER reactor (with special attention to the Greifswald power plant), present in Germany and in Finland, will also be analysed in detail, in view of reducing the costs, the collective dose and the generated waste volume. Based on the previous RTD programme of the E.U., the selection of the techniques and procedures and their applications on full scale installations will allow to produce relevant data on cost, dose and waste (to be included in the EC data bases) as well as to demonstrate the feasibility of such an operation with the present existing technology.

A comparison of the approach for BWR and PWR reactor will be issued and the relevance for VVER reactors dismantling will be thoroughly analysed and published.

For both BR3 and KRB-A reactors, the project will involve the different steps needed for an actual dismantling i.e. the preparation and application of the techniques, the licensing procedure, the ALARA approach and optimization, the cold testing of the techniques, the actual performance and the waste management. The work will be carried out also with the Greifswald plant decommissioning project for the selection of the techniques and procedures, the radiological inventory and ALARA approach and the cold testing of the techniques on full scale pieces.
This project will allow the different member states to have access to actual data important for strategic decisions about future decommissioning. The accumulation of data on VVER reactors will bring an important basis for industry in the member states in order to act on the East European Market.

**Programme(s)**

**EAEC-NFS 2 - Specific research and training programme in the field of nuclear safety and safeguards, 1994-1998**

**Topic(s)**

**0304 - Decommissioning and nuclear installations**

**Funding Scheme**

CSC - Cost-sharing contracts

**Coordinator**

[Centre d'Etude de l'Energie Nucléaire- Studiecentrum voor Kernenergie CEN/SCK](#)

Address

200, Boeretang 200
2400 Mol
Belgium

**Participants (2)**

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
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<tr>
<td>Energiewerke Nord GmbH</td>
<td>Germany</td>
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<tr>
<th>Company</th>
<th>Country</th>
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<tbody>
<tr>
<td>Kernkraftwerk RWE - Bayernwerk GmbH</td>
<td>Germany</td>
</tr>
</tbody>
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Address

1, Dr.-August-Weckesser-Strasse
89355 Gundremmingen