

SPECIAL PROJECTS

FaSa: International Project on Use of Safety Assessment in the Planning and Implementation of Decommissioning of Facilities using Radioactive Material

URL: <http://www-ns.iaea.org/tech-areas/waste-safety/fasa/default.asp?s=3>

There is an increasing number of decommissioning activities worldwide at facilities that use radioactive material. In most cases, this is because these facilities are either reaching the end of their lifetime, have already been shut down as planned or have been shut down prior to their expected lifetime (either as a result of accidents, political, social or other reasons). These facilities are large in number and cover a wide range of types including small research laboratories, research reactors, reprocessing facilities, fuel fabrication facilities, nuclear power plants and mining and mineral processing facilities.

Safety of all facilities using radioactive material needs to be ensured through their lifetime and, therefore, evaluation and demonstration of safety

is essential in the planning and implementation (e.g. instructions and procedures) of decommissioning in accordance with the national legislation and internationally agreed recommendations.

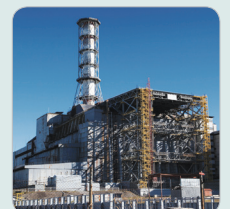
In order to assist operators, regulators and other experts involved in the planning, performance, control and termination of decommissioning activities and on the basis of the revised Action Plan on Decommissioning of Nuclear Facilities (2007) and the recommendation made by the Evaluation and Demonstration of Safety for Decommissioning of Nuclear Facilities (DeSa) project, an international project was prepared and launched in November 2008.

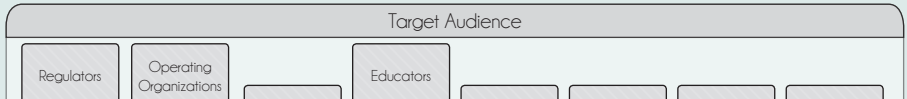


Fuel fabrication facility 1971-1992



NPP-WWER 70 MW 1966-1990





FASA: INTERNATIONAL PROJECT ON USE OF SAFETY ASSESSMENT IN THE PLANNING AND IMPLEMENTATION OF DECOMMISSIONING OF FACILITIES USING RADIOACTIVE MATERIAL

Waste Management

This project, FaSa, aims to build on the DeSa project outcomes, to review international experience and to develop agreed recommendations on:

- The use and application of safety assessment in the development and review of decommissioning plans and safety related documents;
- The implementation of the safety assessment results in the conduct of decommissioning activities;
- The application of the graded approach in the application of safety assessment;
- The update of safety assessment, the operator/regulator review of safety assessments and the implementations of its results;
- The demonstration of the application of these recommendations on selected real facilities planned for, or undergoing, decommissioning.

The FaSa project is aimed at illustrating the dynamic nature of decommissioning safety assessments and the need for their periodic review and updating, in order to take into account the changing facility status and hazards, the complexity of decommissioning activities at key phases and/or the stage of decommissioning. It addresses initial safety assessments at early 'optioneering' stages once the decommissioning plan is agreed, at key stages of decommissioning after shutdown, including unanticipated circumstances during decommissioning, through to safety assessment on the completion of decommissioning, which could be for the purposes of site release for unrestricted or for restricted use.

The FaSa project is expected to provide recommendations on the use of the safety assessment methodology and recommendations that were developed in the DeSa project.

The project is expected to result in:

- Recommendations on the role of the decommissioning safety assessment in the lifecycle of existing facilities and the development of decommissioning plans;
- Recommendations on the implementation of decommissioning safety assessment results during individual phases of the decommissioning of a facility;
- Documentations on the test cases performed to demonstrate the application of decommissioning safety assessment methodology and the implementation of decommissioning safety assessment results during the different periods of the life cycle of a real facility and during different phases of the decommissioning project;
- Recommendations on the independent review by operators and by the regulatory body on the implementation of decommissioning safety assessment results, including inspections and periodic safety reviews, as well as on the interactions between operators and regulatory

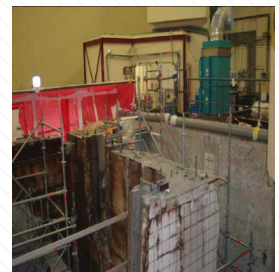
body regarding the implementation of decommissioning safety results;

- Improvement of capabilities of the Member States in this field and enhancement of the exchange of information between Member States on lessons learned with respect to the development, review and update of decommissioning safety assessment during all periods of the life cycle of a facility using radioactive material;
- Recommendations, where applicable, for enhancement of the DeSa methodology;
- A useful input to the revision of the Safety Guides on decommissioning of nuclear power plants, research reactors, fuel cycle facilities and medical and research facilities planned to be completed in 2011.

Assistance is provided, through the FaSa project, to experts involved in the adequate development, review and implementation of safety assessments and their results and decommissioning plans in practice in accordance with good practice in Member States and international safety standards.

The project was planned for three years and commenced on 17 November 2008, at an opening meeting at the IAEA headquarters in Vienna, Austria. The detailed project scope, objectives and activities, including the work plan, were discussed and agreed upon at this meeting.

Annual joint meetings of all FaSa project working groups have been organized to facilitate the coordination of the project activities, recommendations and development of the inputs to the Safety Report. In addition, individual working group meetings are being conducted in order to facilitate the work of each group according to the agreed FaSa plan. The Coordinating Working Group meets annually, usually in conjunction with other project meetings.



For further Information:

Contact: decom.issues@iaea.org

See: <http://www-ns.iaea.org/tech-areas/waste-safety/fasa/default.asp?s=3>

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Related Technical Areas