

## *ARTEMIS Good Practices*

### Safety case and safety assessment

(Topic 5)

#### FRANCE

Mission Date: 14 to 24 January 2018

#### ***Good Practice***

Developing preliminary safety cases or evaluations for facilities not only for the planned scenarios but also for scenarios resulting from a change in the national strategy fosters sound planning and decision making.

#### ***Observation***

In the process of developing the National Plan France developed various detailed future scenarios regarding the available predisposal and disposal management options for various waste streams and developed resulting inventories. Though the full safety case for the Cigéo was carried out for the most likely scenario the operator had to demonstrate that he would be able to adjust his project for the other scenarios. By taking this approach France is minimizing the chance that a change in strategy would not lead to waste streams without an envisaged endpoint.

#### ***Basis***

SSR 5 Requirement 2 states that “Responsibilities of the regulatory body The regulatory body shall establish regulatory requirements for the development of different types of disposal facility for radioactive waste and shall set out the procedures for meeting the requirements for the various stages of the licensing process. It shall also set conditions for the development, operation and closure of each individual disposal facility and shall carry out such activities as are necessary to ensure that the conditions are met.”

#### ***IAEA Comments/Highlights***

No comments or highlights on this good practice.

***Good Practice***

Implementing an exemplary safety improvement programme of an existing disposal facility based on a comprehensive comparison of different options in terms of long term safety assessment and evaluation of radiological risks to workers and the public.

***Observation***

As part of the safety improvement program, PURAM has developed and carried out a demonstration program for upgrading the safety of RWTDF. The scope of the safety improvement program has been determined based on a systematic evaluation of feasible options. In the demonstration program, radioactive waste was retrieved from four vaults. It was then characterized, sorted, treated, and re-disposed after removal. Radioactive waste including DSRS not in compliance with WAC were stored pending geological disposal. The demonstration program confirmed the feasibility of retrieval and a significant improvement in long-term safety of the facility. The large scale safety improvement program will be implemented based on the experience of the demonstration program and the updated safety assessment.

***Basis***

SSR-5, Requirement 26 states that: “The safety of existing disposal facilities shall be assessed periodically until termination of the licence. During this period, the safety shall also be assessed when a safety significant modification is planned or in the event of changes with regard to the conditions of the authorization [...]” and “Disposal facilities that were not constructed to present safety standards may not meet all the safety requirements established in this Safety Requirements publication. In assessing the safety of such facilities, there may be indications that safety criteria will not be met. In such circumstances, reasonably practicable measures have to be taken to upgrade the safety of the disposal facility. Possible options may include the removal of some or all of the waste from the facility, making engineering improvements, or putting in place or enhancing institutional controls.”

***IAEA Comments/Highlights***

No comments or highlights on this good practice.

