



Contribution ID: 139

Type: **Panelist (Panel Session)**

Implementation of Safety, Security and Safeguards in the Finnish Encapsulation plant and Geological repository project from the operator's perspective

Finland has progressed in planning of the geological disposal of spent nuclear fuel into the construction phase of the geological repository. The outline schedule for the project was set already in 1980's and the site selection process culminated in 2001, when the Finnish Parliament ratified the decision to site the geological repository at Olkiluoto, in western Finland. Licensing of the facilities advanced significantly in 2015 when the Finnish Government granted the construction license for Posiva, the company responsible for the overall implementation of the project.

The Finnish solution for the final disposal is based on a facility complex consisting of an above ground encapsulation plant and an underground disposal facility. The two facilities will be connected by a vertical shaft transferring the encapsulated fuel into the repository. Implementation of safeguards started together with the excavations at the site. Safeguards measures in the early phase consist of careful documentation of the excavated spaces and seismic monitoring of the activities at the site. These measures ensure that the underground premises are excavated as declared and that any other works compromising the integrity of the geological containment are excluded. These same techniques are utilized for the safety and security purposes to monitor and protect the facility. The development of the safeguards measures for the new type of facilities have benefited of the interactive communication between the international and national regulators and the operator. Integration of the safeguards instrumentation into the facility structures are foreseeable in around 2023 when the commissioning tests are planned to commence. The start of the operation is scheduled for 2024 providing Posiva receives the operation license as planned.

Which "Key Question" does your Abstract address?

NEW2.3

Which alternative "Key Question" does your Abstract address? (if any)

NEW2.1

Topics

NEW2

Primary author: Ms LAHTI, Mari (Posiva Oy)

Co-author: Ms MUSTONEN, Sanna (Posiva Oy)

Presenter: Ms LAHTI, Mari (Posiva Oy)

Session Classification: [NEW] Safeguards for New and Existing Facilities

Track Classification: Preparing for safeguards new facilities, processes and campaigns (NEW)