



Contribution ID: 123

Type: oral

## Germany's Accelerated Exit from Nuclear Energy - Challenges and Perspectives with regard to Safeguards

*Wednesday, 22 October 2014 16:40 (20 minutes)*

Germany's current situation of nuclear power supply and SF management derives from two decisions that are now embodied in the German legislation: (1) 13th Amendment of 06th August 2011 to the Atomic Energy Act. Germany's decision to phase out nuclear energy until end of 2022 led to an enforced shut-down of 8 from a total of 17 nuclear power plants. (2) Law on Site Selection from 23rd July 2013 for a repository to store heat generating radioactive waste. It determines no preference for a specific host rock type and a designation of the final repository site until 2031. The shift in German energy policy is a challenge for Safeguards (SG). The defueling of nuclear power plants generates an extra workload for the operators and the two inspectorates of IAEA and EURATOM due to the temporary increase of cask loadings per year. To tackle this challenge, an approach is the cask sealing by the operator in the absence of EURATOM and IAEA. An EOSS seal interface was developed to guide the operator through the sealing procedure and confirm its successful termination as a storable message. According to the law of site selection, the operation of the repository might start in 2055 and cease in 2095. Therefore an extension of the dry interim storage period that is currently limited to 40 years will become necessary. This timeline emphasizes the importance of dry interim storage for SF management and the need for long-term reliable unattended Safeguards measures in order to maintain continuity of knowledge. Remote transmission of SG data from the dry storage facilities in Germany to EURATOM and IAEA can be regarded as a reasonable step towards this goal. The experiences gained so far with these SG measures will be presented from the German operators' point of view.

### Country or International Organization

Germany

**Primary author:** JUSSOFIE, Astrid (GNS Gesellschaft für Nuklear-Service mbH)

**Co-authors:** VAN BEVERN, Katrin (VGB PowerTech e. V.); HAHN, Marcel (E.ON Kernkraft GmbH); TRAUTWEIN, Wolfgang (Federal Ministry for Economic Affairs and Energy)

**Presenter:** JUSSOFIE, Astrid (GNS Gesellschaft für Nuklear-Service mbH)

**Session Classification:** Technology Foresight and Emerging Technologies I