**Integration Group for the Safety Case (IGSC) Symposium 2024***MOVING TOWARDS THE CONSTRUCTION OF A SAFE DGR – GETTING REAL*

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| **Abstract Title:**  **„Interaction between safety analysis and technical requirements“** | |
| **Abstract (300-500 words):**  BGE is the German federal company responsible for the disposal of radioactive waste. In this function, the BGE also has the task of safely decommissioning the repository for low- and intermediate-level radioactive waste in Morsleben (ERAM). The Morsleben repository is a 125 years old former potash and rock salt mine with an excavated cavity volume of approx. 9 million m³. This results in numerous challenges and uncertainties that must be taken into account in the safety assessment. In such a licensing procedure, which already lasts several tens of years and involves different areas of law, the systematic consideration and evaluation of the further development of knowledge on technical and regulatory requirements plays an important role. Based on these moving targets, an optimized safety concept was defined for the ERAM, which ensures the containment of the waste by defining areas with a containment effect and the associated representation of all safety functions of the barriers as well as the interaction of the repository components. This provides the essential prerequisites for the assessment of licensability. In addition to lessons learned from the past and other projects, the safety assessment of the ERAM focuses on the feasibility of the measures and the real properties of the components. For this purpose, structures are built in situ on a real scale whereby the implementation of the measures is accompanied by a verifiable quality assurance program. This ensures the reproducibility of the properties achieved. Based on a systematic FEP analysis these properties can be predicted for the assessment period taking all known uncertainties into account. Thus enabling a robust long-term safety analysis. It can be shown that, with what is optimally feasible, all technical and licensing requirements are met and that even such an old facility can be decommissioned safely. | |