



Contribution ID: 149

Type: **Poster**

## Funding Strategies for Spent Fuel Liabilities

*Thursday, 27 June 2019 16:05 (2 minutes)*

The paper analyzes different strategies for funding the disposal of Spent Nuclear Fuel (SNF). The approach is based on the idea that back-end liabilities should be funded entirely from the cash flow generated during the operation of the nuclear power plant (NPP); future generations should not be burdened with paying the costs of managing spent fuel that was used to benefit earlier generations. The framework underlying this paper is a simple one, assuming a 'fixed-price' world with no inflation or cost escalation over the period of NPP operation and Spent Nuclear Fuel (SNF) disposal implementation. Two key concepts used in the model are (i) the target value for the fund at the end of the NPP operation and (ii) contribution schedule - a profile of deposits into fund over the NPP operational stage. Failing to estimate these parameters correctly would lead to the mismatch of fund against liability. An important way to reduce this risk is constant recalibration, i.e. regular revisiting of expected target value of the fund and the amount accumulated over the previous periods. One of the possible strategies respecting the inter-generational equity is a contribution schedule based on constant and ongoing contributions during a station's operating life (such a contribution schedule may be derived using a Sinking Fund Factor). The paper provides illustrative examples of one-off and ongoing contributions as well as reviewing the evolution of the fund over the duration of the NPP operation and waste management programme implementation phases. Finally, the conceptual overview of the funding strategy in a fixed-price world is introduced.

**Do you wish to enter the YGE SFM19 Challenge?**

### Country or International Organization

Russian Federation

**Primary authors:** SUBBOTNITSKIY, Denis (International Atomic Energy Agency); WARREN, Paul (IAEA); Mr DARDOUR, Saied (IAEA)

**Presenter:** SUBBOTNITSKIY, Denis (International Atomic Energy Agency)

**Session Classification:** Track 7 Poster Session

**Track Classification:** Track 7: Challenges in an integrated approach for the back-end system (including storage, transport, recycling and disposal)