IFNEC-BEST joint webinar

Strategies and Considerations for the Back-End of the Fuel Cycle

Panel Discussion

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Focus on recommandation 5.5

All countries need to invest in knowledge management
The Belgian case

- Type of profile for Belgium
  - Small program (7 PWRs located on two sites)
  - Phasing out enforced by law in the 2022 – 2025 time span

- Belgium equally considers the open-cycle and the mono-recycle fuel cycle since 1993 (but no recycling performed since 1993).

- The Strategic Environmental Assessment regarding the geological disposal of SNF, HLW and medium-level waste on the Belgian territory proposal was submitted to a public consultation in early 2020. This proposal has not yet been translated into a policy.
The Belgian case

In 2018, the government decided to support the construction of the MYRRHA research infrastructure.

MYRRHA (Multi-purpose hYbrid Research Reactor for High-tech Applications) is the world’s first large scale Accelerator Driven System (ADS). MYRRHA will serve as the world’s first major prototype reactor that will produce significant insight into the transmutation of minor actinides.

Why?
Belgium’s rationale:

- Phasing out 2025
- Disposal of SNF 2110*
- Waste Minimisation
- MYRRHA
- New generations of workers

3-4 generations of work ahead

Knowledge

* Current estimation
Belgium’s rationale

“Belgium considers it a priority to maintain its knowledge and expertise in the nuclear field, and in particular in the responsible management of radioactive waste and spent fuel, in order to guarantee, in a gradual manner, a high level of safety in their long term management and to avoid leaving undue burdens to future generations.”

ENERGY-CLIMATE NATIONAL PLAN, BELGIUM, 2019
“Without investing in knowledge management, countries risk eliminating options in the future due to deteriorating R&D infrastructure or the loss of technology through attrition in the technical ranks”