

Assessment of the Effects of Long Term Storage on Spent Nuclear Fuel

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Objective

Assess any changes in the condition of CANDU fuel stored wet or dry for long periods of time

Federal Stakeholders

- Canadian Nuclear Safety Commission
- Atomic Energy of Canada Limited
- Natural Resources Canada

Spent Fuel in Canada

Canada has:

- Currently 2.9 million spent fuel bundles (57 000 t HM)
- Projected 3.5-5.4 million spent fuel bundles (70 000 – 108 000 t HM) (current fleet)

Previous Work

Wet Storage Experiment

Scope of Project

- PIE of the wet storage fuel (30-56 years)
- Plan PIE of the dry storage fuel (40-43 years)
- Model fuel in storage
- Develop collaborations

Progress to Date

- Year 1 of 3 year project
- IAEA Conference on Spent Fuel Management
- Wet Storage Gas Puncture PIE Plan
- Wet Storage History and Recommended PIE Report
- Fuel Storage Modelling Feasibility Study