Posiva’s Trailblazing Mission to Plan and Construct a DGR Soon to Reach the Initial Target, Industrial Operation

The Future of Spent Fuel Management
October 11, 2021
• Mission: safe and cost efficient final disposal of spent nuclear fuel of its owners
• Owners: Teollisuuden Voima Plc and Fortum Plc
• 90 employees
  • in addition, 100 external person years and 150 construction workers
• Turnover EUR 113 million (2020)
• Subsidiary Posiva Solutions (est. 2016) sells expertise on the final disposal of SNF
The safe final disposal will be started the first in the world in ONKALO®.
We have a solution for the final disposal of spent fuel

We have a significant role in climate protection as a part of the lifecycle of sustainable nuclear energy

Important stakeholders:
- Government
- Safety Authority
- Municipality at the site
- Nuclear operators

The role of implementer:
- Safe disposal concept
- Capability to perform
Construction work of ONKALO® continues

- Access tunnel and vehicle access, approx. 6.5 km complete
- Technical rooms – 437 m
- Personnel shaft equipped
- Canister shaft reinforced
- Inlet and exhaust air shafts
- Canister receiving station and storage
- Access to the repository
- Vehicle access tunnels approx. 1,500 m
- Central tunnels approx. 600 m
- Deposition tunnels (5 x 350 m)
- Deposition holes of the 1st deposition tunnel
The Trial Run of Final Disposal in a nutshell

The trial run is the final phase of Posiva’s preparing for the operation of the DGR. It will be commenced on 2023.

The idea of TRFD is to demonstrate operational capabilities; fuel transport, encapsulation, final disposal, retrieval test from final disposal level to transfer cask with dummy-fuel elements in TRFD test tunnel with length of ~70m and place for 4 disposal holes.

The trial run provides a demonstration to multiple stakeholders that Posiva can manage the entire final disposal process and is able to start the industrial operation of ONKALO®.
Disposal facility in 2120

- Disposal facility capacity 6,500 tU (approx. 3,250 canisters)
- Construction time and service life approx. 100 years
- Repository volume approximately 1.5 million m$^3$
- Length of tunnels approximately 50 km
- Statement of the Radiation and Nuclear Safety Authority (STUK) regarding the construction licence of Posiva: The disposal facility will remain safe without external actions once it has been closed off
Posiva’s solution for the final disposal of spent nuclear fuel enables the sustainable production of nuclear electricity.

Posiva’s ONKALO® is a game changer.

You know that Posiva’s personnel and network are making history with the work that they do.