

# Trial Run of Final Disposal

A unique opportunity to participate to the Trial Run  
and gain learnings for your own programme

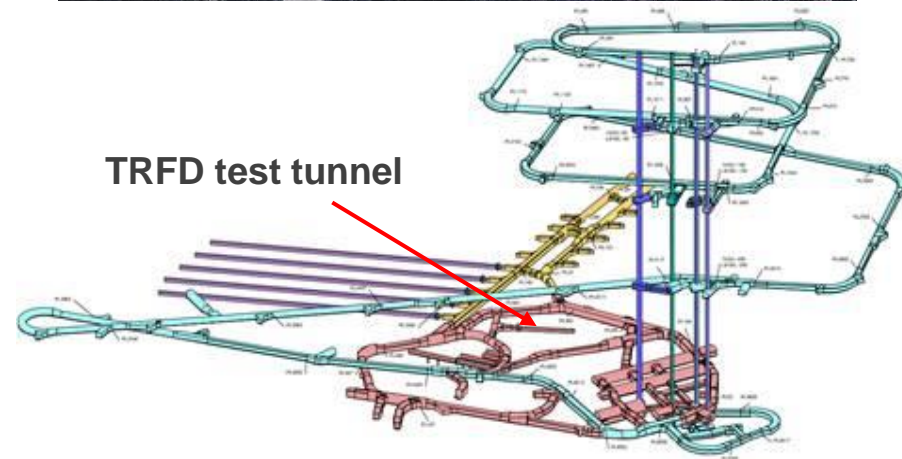
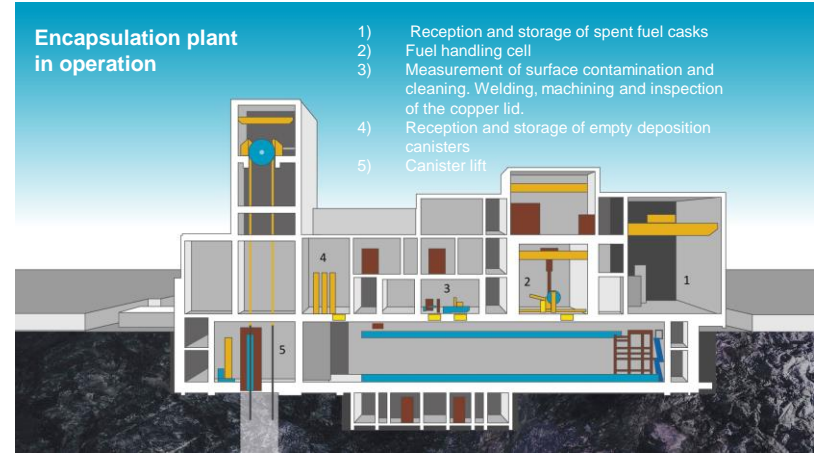



# The Trial Run of Final Disposal in a nutshell

Encapsulation and final disposal test is carried out with the facilities, machinery, organisation and procedures, which will be used in the operation phase:

- fuel transports
- encapsulation
- final disposal
- retrieval of a damaged canister

Comprises four canisters and about 70 m of deposition tunnel as well as the plug for the tunnel.





Unique opportunity to see *the future* of your DGR project and *learn how to get there* in the best way!

## Trial Run of Final Disposal

- gives to each participant a clearer picture of the targets of his/her area of responsibility
- helps him/her to achieve these targets in an optimal way: safest, most cost-efficient and fastest.

# Turning our experience into your benefit

The participant **sees**:

- how the different parts of the final disposal system work together
- how this result has been achieved by developing, organising and iteratively putting together different parts of the final disposal system

The participant **learns** what went well and what should have been done differently by

- seeing things happen in reality and hearing presentations
- having discussions with our experts, who openly explain the process and how the targets were achieved and what they learned and recommend

Regardless of the differences of planned disposal systems in different countries every WMO **can directly apply** the experiences into their project and

- avoid mistakes and difficulties we have experienced
- of course apply the great ideas and learnings we have discovered!

# Learning from Posiva's experience

The participant gains valuable information of Posiva's experience in

- encapsulation process,
- hoisting, transporting and storing canister and other components underground,
- installation of canisters, buffers, backfill and end plug with approved and licensed machinery,
- mitigation of the situation caused by a damaged canister.

# Encapsulation process

*Experiencing the 1<sup>st</sup> full scale encapsulation process in the entire world run by personnel and procedures to be used in the operation phase*

Seeing the real process, discussing with designers and sharing their concrete learnings gives invaluable information for all process planners and programme owners.

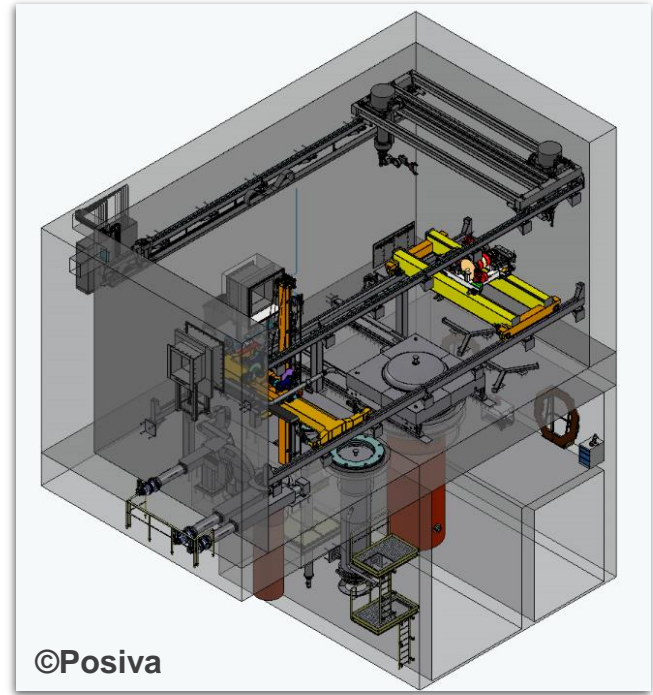


Encapsulation process

# Hoisting, transporting and storing canister and other components underground

Canister logistics, thoroughly considered and designed systems for optimised logistics chain will be tested and demonstrated.

This gives each participant invaluable benchmark for comparison as well as good ideas of pros and cons for designing their own systems.



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Fuel handling cell

# Installation of canisters, buffers, backfill and end plug with approved and licensed machinery

Installation of canisters buffers, backfill and end plug will be done for the first time in the world using machinery and procedures, which have been approved for real final disposal operations by nuclear safety authority.

Discussions with designers of the machinery gives valuable insight for designing corresponding machinery.



**Canister installation machine**

# Mitigation of the situation caused by a damaged canister

This unique phase in the TRFD gives a concrete experience of

- hoisting a damaged canister up to the encapsulation plant,
- opening the canister,
- controlling contamination and handling the opening waste,
- removing the fuel and
- returning it back to safe state for repacking.

This is an excellent benchmark for designing similar tests in other organisations.



# Posiva

Solutions

Protecting the biosphere