



Bentonites in radioactive waste disposal

22.10.2025 – 24.10.2025 @ Grimsel Test Site



Bentonites in radioactive waste disposal

A 3-day workshop will be offered at the Grimsel Test Site covering the various aspects related to engineered barrier systems (EBS) and specifically bentonite in EBS.

Participants will get an introduction to engineered barrier / bentonite requirements, properties and applications in radioactive waste topics, THM and THMC behaviour and performance in large scale in-situ experiments. International and national experts will give keynote speeches and share their experiences, and discussion forums will facilitate

the exchange of knowledge and current research issues. GTS lab visits will provide first-hand insights into ongoing experiments and support the discussion of related topics in the course.

The aim of the course is to provide both theoretical and practical knowledge and experience. The information conveyed should help participants to define, plan, tender and manage their own field (URL) and laboratory experiments at different scales and to interpret data and results e.g. with regard to their safety case.

Programme

General lecture hours from 09:00 am to 5:00 pm

Day 1 Wednesday, 22.10.2025

- Welcome and overview of course
- Introduction to Engineered Barriers & safety requirements; Clays and Bentonites in radioactive waste
- Clay Mineralogy
- Basic properties of Clays and Bentonites; the various bentonites worldwide
- Bentonites Experiment at GTS

Day 2 Thursday, 23.10.2025

- C-properties of Bentonites
- THM properties of Bentonites
- Monitoring of Bentonites properties in Experiments

Day 3 Friday, 24.10.2025

- Engineered Barriers & Experiments
- Mock-Up & Field Experiments - SKB focus
- Bentonite Experiments - design & construction: FEBEX, FE, HE-E, HotBENT
- Bentonites and RD&D topics
- Summary and closure of the course

Date:

Wednesday, 22 October 2025 until
Friday, 24 October 2025

Location:

Nagra's underground rock laboratory (Grimsel Test Site - GTS), near Guttannen, Switzerland –
www.grimsel.com

Costs:

CHF 2250.- (incl. transportation Meiringen – GTS, Coffee & Lunch at GTS, lecturers, courseware, 1 course dinner)
(excl. travel, accommodation, further dinners).

Accommodation:

We are happy to support you to organise appropriate accommodation or local transportation if desired.

A pre-booking at Hotel Rebstock in Meiringen ([Hotel Rebstock - Meiringen](#)) has been made. Price per person/night CHF 115.- incl. breakfast, single room.

Requirements:

Participants shall bring their own laptop. Clothing should be adequate for an Autumn mountainous regional environment. Temperature in the GTS research galleries is about 14°C.

Registration:

The expected number of participants is between 8 and 10. Please note that in the case of not reaching the minimum number of participants the course will not take place. **Deadline for registration is 31 July 2025.** For your registration go to [GTC Training Centre \(\[grimsel.com\]\(http://grimsel.com\)\)](#) and use the online registration form.

This Module - *Bentonites in radioactive waste disposal* – links to the preceding Module - *From RD&D requirements to in-situ URL experiments* – and can also be connected to the subsequent Module - *Numerical Modelling in radioactive waste disposal - with focus on experiments and performance assessment*.

Our other Training Course in 2025

Site selection of Deep Geological Repository and optimisation of a drilling campaign processes and lessons learned

13.10.2025 – 17.10.2025 (5 days) @ Nagra office in Wettingen

From RD&D requirements to in-situ URL experiments

20.10.2025 - 21.10.25 (2 days) @ Grimsel Test Site near Guttannen

Numerical Modelling in radioactive waste disposal - with focus on experiments and performance assessment

27.10.2025 – 29.10.2025 (3 days) @ Nagra office in Wettingen

For detailed information please check out our Grimsel-Webpage: [GTC Training Centre](#)