



Advanced training course

Geomicrobiology in radioactive waste disposal

October 8 -11, 2018



MIND Advanced training course "Geomicrobiology in radioactive waste disposal"

This advanced training course was developed with the scientific knowledge gathered during the MIND project. **MIND (Microbiology In Nuclear waste Disposal)** is a unique multidisciplinary project which brings together a broad range of leading research institutions and stakeholders in the field of radioactive waste disposal to address the Euratom FP7 2014-2015 Work Programme topic NFRP 6 – 2014: Supporting the implementation of the first-of-the-kind geological repositories.

The objective of this advanced training course is to provide **state-of-the-art knowledge and insight into the geomicrobiology phenomena related to the geological disposal of radioactive waste**. The focus will be on performance assessment of the geological disposal environment and the engineered barrier systems for high-level and long-lived intermediate level waste using the knowledge of geomicriobiology processes.

Several **case studies** from different European Member States will be highlighted. Lectures on **advanced analyzing techniques** will complemented by **technical visits** to the SCK•CEN research laboratories in microbiology and the underground laboratory for waste disposal research.

Geological disposal of radioactive waste represents a challenge where social and technical aspects blend with regard to the design, implementation and post-construction management of the installation. For this reason, a dedicated **panel discussion** will be focusing on the impact of the **inclusion of microbiology on expert conceptualisation and public perception of geological disposal**.

Target audience

The course is mainly targeted towards **professionals active in the nuclear and/or waste management area**, either entering the domain or being interested in refreshing the basics and getting acquainted with latest developments in the field.

The target audience also includes young investigators (e.g. Master or PhD students) in fields connected to geomicrobiology and disposal of radioactive waste.

Lecturers & language

Lectures are given in English by experts with international recognition in the domain.

Topics

Day 1	Introduction to the MIND project
	Geomicrobiology in radioactive waste disposal
	Microbiological interactions with organic components in low- and intermediate level long-
	lived waste
Day 2	Bentonite, cement and metals in high-level waste
	Microbial activity in the engineered barrier
Day 3	Modelling tools & bioinformatics
	Impact assessment
	Remaining issues in geomicrobiology and how to deal with them
Day 4	Visit to the underground laboratory HADES
	Panel discussion: The impact of the inclusion of microbiology on expert conceptualization and
	public perception of geological disposal of radioactive waste
	Case studies of in situ experiments: outcomes and lessons learned

Registration

Participation to this advanced training course is free of charge, but registration is mandatory. Registration should be completed online via <u>http://academy.sckcen.be/en/Customised trainings/Calendar</u> Deadline for registration is **September 9, 2018**.

Mobility grants are available via the ENEN+ project. Deadline for application is May 31, 2018. Details can be found on <u>https://plus.enen.eu/call-for-mobility-grants/</u>.

Venue

The training session takes place from **Monday 8 to Thursday 11 October, 2018** at the Belgian Nuclear Research Centre (SCK•CEN), Boeretang 200, 2400 Mol, Belgium. Driving directions are available online via <u>http://www.sckcen.be/en/About/Contact</u>

Contact

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