

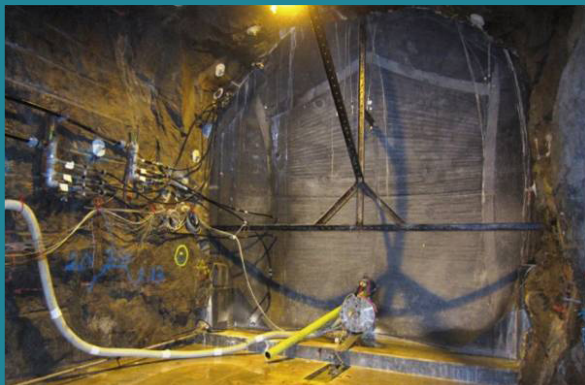


# DOPAS

## Training Workshop 2015

14 - 18 September 2015

Czech Republic, Prague and Josef URC



5-Day Training Workshop  
on the Role of Full-scale Experiments on Plugs and Seals  
in Demonstrating Safety and Performance  
of Geological Disposal

**Registration Deadline 10 August 2015**

More info:  
[www.posiva.fi/en/dopas](http://www.posiva.fi/en/dopas)



DOPAS





## Learning Outcomes

The 5-Day DOPAS Training Workshop is targeted to full-scale experiments on plugs and seals in geological disposal of radioactive wastes. The workshop learning activities are designed to enable the workshop participants to acquire a set of learning outcomes based on the experiences of the DOPAS project and demonstration programmes of nuclear waste management organisations.

The expected learning outcomes for the participants are:

- To understand the process/es of designing a full-scale experiment from a set of requirements related to the performance of the safety function/s of a plug or a seal as a repository component in geological disposal.
- To be able to contrast the differences of such processes resulting from the different boundary conditions e.g. from the host rock environments (clay, crystalline rock, and salt), the experimental settings (above ground, underground experimental facilities vs. real repository conditions) and other site and disposal concept specific features.
- To comprehend the linking of different experiment project's related subprojects and tasks and their inputs and outputs as a part of the experiment implementation.
- To acquire hands-on experiences in experimenting with materials' testing and monitoring techniques needed in an experiment, and
- To know how the individual experiments and their outputs contribute to the overall demonstration and demonstration programmes for safety of the waste management programmes at the different stages of repository development.

This training workshop is a part of the Euratom FP7 DOPAS project. It is designed and implemented in collaboration by Posiva Oy, Czech Technical University (CTU), Andra, SKB, SURAO, RWM, Nagra, GRS, and UJV (REZ). The learning units of this training workshop are also based on the experiences gained from the DOPAS project experiments FSS in France, EPSP in the Czech Republic, DOMPLU in Sweden, POPLU in Finland, and ELSA planning in Germany.

# Registration to the DOPAS Training Workshop

The last registration/application date to the DOPAS training workshop is **August 10, 2015**. Please send your applications including the information below by August 10, 2015 to the following e-mail address: [dopas@posiva.fi](mailto:dopas@posiva.fi). The registration form is also available on the DOPAS website: [www.posiva.fi/en/dopas](http://www.posiva.fi/en/dopas).

### Registration information required:

Full name: \_\_\_\_\_

Organisation: \_\_\_\_\_

Street address: \_\_\_\_\_

Postal code/Town/Country: \_\_\_\_\_

E-mail: \_\_\_\_\_

Telephone (incl. country code): \_\_\_\_\_

Other information: \_\_\_\_\_

Your role: professional or student

As a professional or student, describe the relation of the training workshop to your work or studies:

\_\_\_\_\_

Dietary restrictions: \_\_\_\_\_

Free field for comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Schedule, Related Learning Units and Locations

The DOPAS Training Workshop starts on Monday 14 September 2015 at 9 hrs a.m. at the Czech Technical University (CTU) in Prague and continues until 4 p.m. on Friday 18 September 2015. The workshop comprises also practical exercises at the Regional Underground Research Centre Josef (Josef URC) of CTU, 60km south of Prague. The length of the individual days varies due to the logistics and other activities. In general, with the exception of the first and last day, the training days extend from around 7:45 am to around 9 p.m. in the evening.

### DAY 1

14.9.2015 at CTU in Prague

- Orientation to the DOPAS Training Workshop.
- Learning Unit 1: From requirements to the design basis of plugs and seals including the understanding of requirements management systems and their applications to plugs and seals and developing a basis and scoping an experiment from a project management perspective.

### DAY 2

15.9.2015 at Josef URC

- Orientation to the Josef URC and Josef Underground Laboratory
- Learning Unit 2: Preparation of a full-scale plug or sealing experiment in different environmental settings including the development of a coherent demonstrator programme for plugs and seals and the role of instrumentation and monitoring in such an experiment with a hands-on exercise in Josef Underground Laboratory (also in Learning Unit 3).

### DAY 3

16.9.2015 at UJV Research Centre in REZ close to Prague and at SURAO in Prague

- Learning Unit 2 continues with what is expected to follow in a demonstrator programme resulting from the implementation of such experiments.
- Learning Unit 3: Designing a sealing component for an experiment or demonstrator and the role of safety assessment and performance assessment of closure as a design input. This unit is about how to move from the initial design in an iterative manner to the final experiment design and construction, and how to assess the outcomes. It also addresses the behaviour of plug component materials and provides practical materials' related testing exercises in a laboratory setting.
- Introducing SURAO's programme on siting and deep geological repository, and information activities to the general public.

### DAY 4

17.9.2015 at Josef URC

- Learning Unit 3 continues with an introduction to safety assessment and the role of safety case taking into consideration the differences in the time perspectives. The afternoon of DAY 4 includes the handling and interpretation process of data acquired from the Josef Underground Laboratory hands-on monitoring exercise.
- Learning Unit 4: Construction feasibility of a plugging experiment includes the practical and technical concerns related to the construction work and work methods in setting up an in-situ or full-scale experiment. Experiment and work related risks are identified and discussed as a part of this learning unit. This learning unit continues on DAY 5.

### DAY 5

18.9.2015 at CTU, Prague

- Learning Unit 4 continues with the summary perspectives on lessons learned from the experiments until today, and how to apply and use the DOPAS experiences in a waste management programme not yet in the demonstration stage or without a site. Further a case summary is provided in how these activities are implemented in the preparation of a full-scale experiment to be implemented following the four existing DOPAS experiments.
- Student groups provide their preliminary or final exercises reports and preliminary assessment and feedback from the training workshop is collected. Closing of the workshop.

*Please note that changes to the order of the content and individual programme details may apply.*



# DOPAS

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### Practicalities on Course Fees and Accommodation

The DOPAS Training Workshop participation is free of charge to the selected participants including local transportation (Monday-Friday) from designated hotels to the training locations, daily lunches, and coffees during the workshop.

The participants are responsible for their own travel to and from and for accommodation expenses in the Czech Republic. Block booking for accommodation is made in Prague and information about it will be sent to the registered participants after the registration is received.

For conditional accommodation support of full-time university students, please make sure that you mention in your application that you are a full-time university student and give the name of your university and professor. This support is discretionary and will not be guaranteed to any participant.

The total number of participants is limited to 12 students. Priority is given to participants coming from other than the DOPAS project consortium organisations. The detailed selection criteria in case of oversubscription to the workshop will be posted on the DOPAS website at <http://www.posiva.fi/en/dopas>

### Special Requirements for the Participants

The training workshop participants need to fulfil the following requirements:

- Each individual needs to be able to move unassisted and carry out hands-on exercises underground.
- Each individual needs to have insurance coverage against injuries and illness for the duration of their stay at the workshop. Please check the sufficiency of your insurance coverage prior participation. Proof of sufficient insurance coverage may be requested by the organisers.
- To inform the organisers at the time of registration of any dietary restrictions that may apply.

### For More Information

For more information about the DOPAS training workshop and its details visit [www.posiva.fi/en/dopas](http://www.posiva.fi/en/dopas) or contact Mrs Marjatta Palmu at [Posiva Oy marjatta.palmu\(at\)posiva.fi](mailto:Posiva Oy marjatta.palmu(at)posiva.fi).

*The research leading to these results has received funding from the European Union's European Atomic Energy Community's (Euratom) Seventh Framework Programme FP7/2007-2013, under Grant Agreement No. 323273 for the DOPAS project.*



## REMEMBER ALSO

### DOPAS 2016 Seminar

International Topical Seminar On Plugging And Sealing  
25 - 27 May 2016, Turku, Finland



[www.posiva.fi/en/dopas](http://www.posiva.fi/en/dopas)