



June
2016

DOPAS Newsletter 6

DOPAS 2016 Seminar edition

International Topical Seminar on Plugging and Sealing

25th - 27th May 2016

Radisson Blu Marina Palace, Turku, Finland

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, the DOPAS project.



DOPAS 2016 seminar Photo ©Posiva

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DOPAS



DOPAS 2016 seminar succeeded

Over 100 participants from 50 different organisations around the world participated to the DOPAS 2016 seminar, which was arranged in Turku, Finland. The seminar was the first topical seminar for plugging and sealing for underground applications in the radioactive waste management area. Seminar participants represented all areas working with nuclear waste disposal like waste management

organisations, technical and scientific support organisations, universities, safety authorities, entrepreneurs and consultancies in countries where disposal of spent nuclear fuel and high-level and intermediate-level long-lived waste is designed and construction of disposal facilities will be implemented soon and in countries, where the decades long planning period for site selection and concept development has been initiated.



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Issued 20.6.2016

Seminar programme

Over 30 oral presentations and 30 posters were presented in DOPAS 2016 seminar. The poster sessions were held during lunch and coffee breaks, which provided opportunities to discuss and exchange information on plugging and sealing. During the poster session, DOPAS Experiment videos could be watched and different examples of materials needed for implementing the full scale experiments could be handled. The scientific programme of DOPAS 2016 seminar was divided to the 6 Sessions.

Session 1 gave an introduction to the role of full scale demonstrations and their role in the development of disposal concepts.

Session 2 integrated the outcomes from the DOPAS project including development of the design basis for plugs and seals, lessons learnt from construction of plug and seal demonstrators and performance assessment of plugs and seals.

Session 3 presented plugs and seals experiences from past or for other purposes like borehole sealing, and underground hazardous waste disposal facilities. The idea was to see the role of plugs and seals in a broader context and also get an understanding of how plugs and seals are treated in safety cases.

Session 4 was concentrated more detailed on the plug and seal designs, materials used in plugs and implementation of demonstrators. The audience also heard case examples on how the plug locations were chosen, how to design concrete, bentonite and other materials to be used in plugs, how to emplace and install plugs and seals, using different DOPAS related or other experiments as case studies.



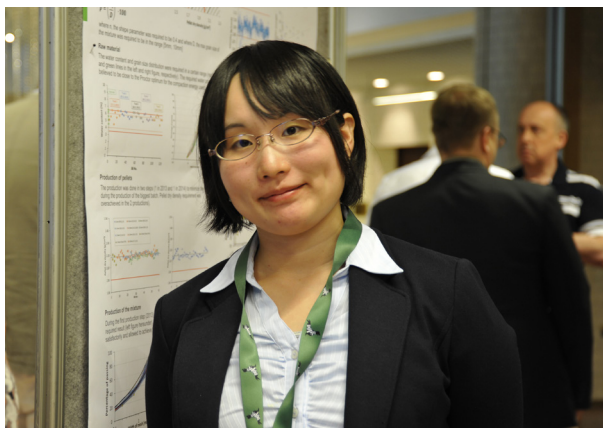
Session 5 highlighted the role of plugs in safety and performance assessments, even the long term safety related issues were handled in almost all DOPAS 2016 presentations. Monitoring of plugs and seals and case studies related to the DOPAS Project was given in this session.

Session 6 had aspects on training and dissemination and regulatory supervision of plugs and seals. In addition the lessons learnt were discussed during a panel where DOPAS Experiment leaders were roasted by questions, which the audience had submitted to the message wall, earlier during the seminar.



DOPAS 2016 participants answered

A few of the DOPAS 2016 participants were asked a couple of questions at the end of the seminar related to how they may use the information received in the seminar, in the future.



Machiko Oono, Japan Nuclear Fuel Limited, Japan

Q1: I think main highlight was to obtain differences of the materials of each plug.

Q2: My colleagues and me are going to discuss our plug



Patrick Senn, Nagra, Switzerland

Q1: The seminar provided a great opportunity to get in touch with professionals who were deeply involved in the four year long DOPAS project. The concise and well-structured overview of advanced plug technology, design approaches and remaining challenges was a must.

Q2: Every organisation is facing site-specific challenges. However, all of us share the common objective of carrying out safe isolation of radioactive waste from the environment. In this sense, exchanges on approaches for design requirements of safe plugs is boosting our daily work.

Q1: What do you think is the main highlight of the seminar?

Q2: How can you use the information received here at your daily work?



Erik Thurner, SKB International, Sweden

Q1: It has been very interesting to hear about the research from the DOPAS project. I was involved when the DOPAS project was put together and then I haven't been following it so close so it was interesting to hear from the other countries and organisations which have been part of this, to get the picture of the research.

Q2: I can use it in that way to get the feeling of what other organisations are planning to do, and from our case from working for SKB International, if there's a possibility for us to contribute and to support other organisations in what we have done in SKB side.

Q1: Sharing all these activities, especially in the framework of what has been done with granitic rock. Especially for Germany, we are just beginning the siting process. We can learn a lot of things from our European partners concerning the construction of seals for all kind of rocks.

Q2: I will take the information with me and distribute it to my colleagues - all of them have their own field of expertise and many of these fields are covered by the DOPAS project presentations.

Oliver Czaikowski, GRS, Germany





DOPAS 2016 Olkiluoto Site Visit

A site visit to the Olkiluoto Island was arranged as part of DOPAS 2016 seminar during the third seminar day and visitors did hear about the different functions at Olkiluoto Island and status of Posiva. One of the DOPAS Experiments, a wedge plug for deposition tunnel, POPLU was presented more detailed and how the rock suitability classification was done for that experiment. The visitors from 16 different countries were able to see the ONKALO construction site, OL3 construction site and LILW-repository during the field tour.



DOPAS 2016 Materials available

- DOPAS 2016 seminar presentations available, see more at DOPAS web site
- http://www.posiva.fi/en/dopas/dopas_2016_seminar/dopas_2016_presentations
- DOPAS videos related to the Experiments are available via DOPAS web site
- http://www.posiva.fi/en/dopas/dopas_2016_seminar/dopas_experiment_videos
- FSS emplacement and construction
- EPSP installation of different components
- DOMPLU wire sawing animation with clips from real implementation
- POPLU phases for plug design, production and installation
- DOPAS 2016 proceedings will be published in August 2016.

