

Workshop on Case Studies of Subsurface Radionuclide Migration

Held: 5th - 7th May, 2004 - Meiringen, Switzerland: Workshop on Case Studies of Subsurface Radionuclide Migration.
(Full details: PDF file 904 kb)

Objectives

Understanding the physical and chemical controls on radionuclide mobility in rocks, soils and groundwaters is central to evaluating and remediating contaminated nuclear and other industrial sites. It is also important in developing and assessing the future performance of radioactive waste disposal facilities. This workshop focuses on what can be learned from real case studies of contaminated sites and is intended as a forum to bring together those working in this field to share their findings.

Key case studies will be recent work on Chernobyl in the Ukraine and sites in Russia, where the final results of work carried out in the SCOPES 2000 joint Russian - Ukrainian - Swiss National Science Foundation research project will be reported.

The workshop will provide an opportunity to link Eastern and Western European research activities. An associated visit to the Nagra underground rock laboratory at Grimsel will provide an opportunity to see in situ experimental work on radionuclide movement in fractured rocks.

Workshop Programme

Wednesday, 5th May, 2004

9:00 - 9:15

Welcome and Introduction Prof. Neil Chapman, ITC

9:15 - 9:30

Introduction to the NSF / SCOPES project on "Theoretical Assessment

and Experimental Validation of Models for Radionuclide

Transport in Groundwater to Study Environmental Impacts

of NPPs and Radioactive Waste Storage Facilities"

Dr. Eduard Hoehn, EAWAG

9:30 - 10:20

Radiohydrogeological Conditions in the Region of the Chernobyl NPP "Shelter" Site

Dr. Alexander Bohuslavsky, UAS, Kyiv

Coffee Break

10:50 - 11:40

Study of Adsorption-Desorption Processes with Application to Radioactive Waste Disposal Sites

Dr. Vyacheslav Rumynin, RAS, St. Petersburg

11:40 - 12:40

Studying Construction Possibilities of an Ukrainian Underground Repository for Radioactive Wastes in the Chernobyl Exclusion Zone

Prof. Viacheslav Shestopalov, UAS, Kyiv

Lunch

14:40 - 15:30

An experimental platform in Chernobyl (EPIC) for modelling validation for radionuclides transfer in soils and plants

Dr. Christophe Ardois, IRSN, Fontenay-aux-Roses

15:30 - 16:20

Safety assessment as a decision support tool for contaminated soil management

Dr. Vladan Stefula, DECOM, Slovakia

Coffee break

16:50 - 17:40

Assessing risks and making decisions on the management of radioactively contaminated land on large nuclear sites

Dr. James Penfold, Quintessa Ltd., Henley-on-Thames

Adjourn, Dinner at Workshop Hotel

Thursday, 6th May, 2004

9:00 - 9:50

The WISMUT environmental remediation project - managing large scale radiological and chemical contamination

Dr. Alex Jakubick, Wismut GmbH, Chemnitz

9:50 - 10:40

U and Ra contamination in groundwater at a former mining and processing site in South Hungary and retardation of contaminants using permeable reacting CaO and Fe based barriers

Dr. Mihály Csövényi, MECSEK ORE Environment Rt., Pécs

Coffee break

11:10 - 12:00

Mathematical modelling of Europium and Strontium migration processes in a porous medium based on column experiments

Dr. Piotr Maloszewski, GSF-Inst. for Groundwater Ecology, Neuherberg

Lunch

14:20 - 15:10

Modelling radionuclide and heavy metal mobility in uranium mill tailings in Kyrgystan

Dr. Dirk Mallants, Belgian Nuclear Research Centre SCK-CEN, Mol

15:10 - 16:00

Subsurface Radionuclide Contamination in Switzerland,

Dr. Heinz Surbeck, Univ. Neuchâtel

Coffee break

16:30 - 17:20

Probabilistic safety assessment of the long term safety for a nuclear waste repository

Dr. Georg Resele, Colenco Power Engineering AG, Baden

17:20 - 18:00

Final Remarks and Discussions

Prof. Neil Chapman, ITC

Adjourn, Workshop Dinner

Friday, 7th May, 2004

8:45 - 12:30

Visit of Grimsel Test Site (including crystal cave)

Dr. Wolfgang Kickmaier, Nagra

12:30 - 14:30

Picnic Lunch at the GTS

Adjourn, Individual Returns