Joint ICTP-IAEA Workshop on Degradation Modelling of Disposed Radioactive Wasteforms

18 - 22 September 2023
An ICTP - IAEA Hybrid Meeting
Trieste, Italy

Further information:
http://indico.ictp.it/event/10209/
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This Workshop will introduce ageing management and different degradation modelling approaches for assessing the long-term durability of waste packages under storage or disposal conditions.

Description:

Member States that benefit from the ongoing peaceful uses of nuclear technology need to safely dispose radioactive waste over a defined lifetime. To identify the preferred approach, the decision - making process should be underpinned by assessing the long-term durability of waste packages under storage or disposal conditions. Underpinning the safety case are mathematical models that can predict the degradation of disposed waste packages considering the site-specific conditions, the type of waste form and waste package itself.

Computer codes underpinning the science of degradation modelling of waste forms and waste packages are developed and understood only by a few researchers in this field. Unfortunately the use of such codes in lacking worldwide due to the lack of suitably trained scientists and engineers, national resource and lack of knowledge on the subject matter. This training school is focused on teaching the approach of degradation (durability) modelling of waste packages (e.g., metals, cement, bitumen, glass) under storage or disposal conditions. There is a wide application for this modelling including the development of waste disposal concepts, radiological safety case and environmental impact assessment. This includes the containers used for waste package storage and disposal and their subsequent influence on waste package degradation and management.

The International School on the Degradation Modelling of Disposed Radioactive Waste forms will include the following topics:

- Principles of ageing management of waste packages
- Degradation of waste packages, waste form testing and durability determinations and technical support for the safety case
- Establishing a conceptual degradation (durability) model
- Hydrologic and geochemical information needed for modelling waste form degradation and assessing environmental impacts
- Model application and objectives
- Practical demonstration of modelling codes and modeling approaches
- Case study examples

Directors:

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Local Organiser:

N. SERIANI, ICTP, Italy

Speakers:

V. FREEDMAN, Sealaska, USA
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M. OJOVAN, Imperial College, UK
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How to apply:

Online application:
http://indico.ictp.it/event/10209/

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries.
There is no registration fee.

Deadlines:

Deadline for applicants requesting financial and/or visa support:
30 June 2023

For all other applicants:
31 August 2023

IAEA International Atomic Energy Agency
Atoms for Peace and Development

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