



A.N.T. International Academy

ONLINE EDUCATION

Interim Dry Storage

COURSE DESCRIPTION

This course gives an overview of Interim storage of spent fuel and will provide engineers/managers with the necessary background information to understand more complicated information.

Interim storage of spent fuel will be required until sufficient capacity in permanent geologic repositories or until more advanced technology options become available. Spent fuel is first stored in pools (ponds) located within the nuclear power plant facilities. Given the limited capacity of these installations, additional storage capacity located at either centralised or reactor site facilities are required. In this seminar, the focus will be on the performance of commercial LWR fuel assembly components, with emphasis on Zircaloy-based alloy cladding, during long-term storage of the spent fuel in a dry, inert environment such as helium. Potential degradation mechanisms of cladding alloys will be examined under normal and offset conditions of storage. Changes in cladding mechanical properties will be reviewed in order to properly assess the impact of interim storage upon subsequent spent-fuel management activities, such as transportation.



The content is described more in the [Appendix](#).

COURSE MATERIAL

The course material was developed by A.N.T. International and consists of modified/edited earlier recorded A.N.T. International Seminar.

AUTHORS/LECTURERS

The authors/lecturers of the reports and lectures, World Class Experts in their fields, are as follows:

Albert Machiels and Peter Rudling.

[Read more about the Experts](#)

COURSE DURATION

- Total time: approx. ¼ weeks for full time studies
- Lectures: 10 h

The listed time for the lectures is the actual running time. More time may be needed to digest the information provided in this course.

With this course you also get access to our **Interim Dry Storage Handbook**. This is a great complement to this course, but reading time is not included in the overall time listed for this course.

[Download product information](#)

CERTIFICATE

You will automatically receive an email with your certificate that you can print or share on social media. If you need a printed certificate, please don't hesitate to contact us and we can send it to you via regular mail. You reach us at support@antinternational.com.

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Appendix: Course outline and topics covered

1. Managed Storage: A Global Perspective
2. Interim Storage Options – Consequences for Transportation
3. Radiological Risks
4. Zirconium-based Alloy Technology
5. Oxidation and Hydriding
6. Potential Cladding Degradation Mechanisms During Dry Storage
7. Laboratory vs. Deployment Conditions
8. Transportation
9. Selected R&D Topics



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