

# Technical Meeting on the Behaviour of Spent Fuel and Cladding During Storage and the Performance of Spent Fuel Storage Systems

SKY 31 Convention 300, Olympic-ro, Songpa-gu, Seoul 05551, Republic of Korea

23 - 27 June 2025

Ref. No.: EVT2406873

### **Information Sheet**

#### Introduction

The duration of spent fuel storage (either wet or dry) prior to disposition has been steadily increasing over decades: in the 1980s up to 50 years were foreseen, whereas today 100+ years are discussed. Some countries are envisaging and preparing for periods of up to 300 years. In many countries, research programmes are underway to develop the scientific basis for an elongation of currently licensed storage durations. These extended timeframes often exceed the originally licensed durations and require addition research and development. The IAEA is supporting its Member States by facilitating collaboration and eliciting information exchange to provide maximum value from all these national efforts. Dissemination of high quality research information and critical peer reviewing, by leading experts in the field, of the results obtained aim at enhancing Member States' capabilities for their decision making in the back end of the fuel cycle.

Two of the many important IAEA activities in this field are the Coordinated Research Projects (CRPs) "Performance Assessment of Storage Systems for Extended Durations (PASSED)" and "Spent Fuel Research and Assessment (SFERA). While PASSED is focused on the storage systems SFERA's main focus is the spent fuel itself. In order to facilitate knowledge exchange of the two CRP communities a joint meeting was planned when designing the CRPs, this meeting is open also to experts not participating in the CRPs but working in the field of spent fuel management.

## **Objectives**

The purpose of the event is to share technical information, operational experiences and lessons learned on the behavior of spent fuel during storage and all available storage systems for spent fuels from power reactors. Current requirements and technologies as well as ongoing new developments for in-service inspection of spent fuel and storage systems are expected to be covered as well.

Utilizations of the presented status of knowledge on spent fuel and storage systems to identify areas where additional research is needed and to draft the project design for follow up CRPs accordingly.

# **Target Audience**

The event is intended for participants from research organizations, nuclear power plants and research reactors, nuclear fuel cycle facilities, waste management organizations, regulatory bodies, universities, and other organizations with expertise in the topic of management of spent fuels or storage facilities. Participants should be actively involved in the subject of the event ether through participation in one of the mentioned IAEA CRPs or having considerable experience in the relevant activities and are able to share their insights.

## **Expected Outputs**

The expected outputs from the Technical Meeting are the sharing of information, experience and lessons learned, and a draft of the design for possible follow up projects for both of the CRPs including their objectives.

## **Topics** (Note: optional field)

Presentations containing information of the following items are welcomed:

- Providing an overview of spent fuel storage systems used in different counties;
- Identifying degradation mechanisms affecting spent fuels in dry or wet storage;
- Providing information about recent research about spent fuel cladding material;
- Sharing operational experiences, including challenges and lessons learned from Member States;
- To presenting how regulatory regimes are currently applied and how they might need to be adapted for the long-term management of spent fuels;
- Capturing current inspection technologies and their results for storage facilities and systems inservice inspections;

- Providing information about spent fuel behavior under the conditions of retrieval, repacking or transport;
- Sharing progress of the development of repair or mitigation technologies.

# Working Language(s)

**English** 

## **Participation and Registration**

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by (Designation Deadline), following the registration procedure in InTouch+:

- 1. Access the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>):
  - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
  - Persons without an existing NUCLEUS account can register here.
- 2. Once signed in, prospective participants can use the InTouch+ platform to:
  - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
  - Search for the relevant event under the 'My Eligible Events' tab;
  - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
  - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
  - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
  - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by 30 April 2025.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the Data Processing Notice concerning IAEA InTouch+ platform.

## **Papers and Presentations**

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed in above Topics Section.

Participants not participating in SFERA or PASSED who wish to give presentations are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format, should extend to no more than 2 pages (including figures and tables). It should be sent electronically to Mr Christoph Gastl, the Scientific Secretary of the event (see contact details in below Visas Section), not later than **30 April 2024.** Authors will be notified of the acceptance of their proposed presentations by as soon as possible.

In addition to the registration already submitted through the InTouch+ platform, participants have to submit the abstract, together with the Form for Submission of a Paper (Form B), to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA not later than **30 April 2025**.

## **Expenditures and Grants**

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by **20 April 2025.** 

# Venue

The event will be held at the SKY 31 Convention located 300, Olympic-ro, Songpa-gu, Seoul 05551, Republic of Korea. Participants must make their own travel and accommodation arrangements.

## Visas

Participants who require a visa to enter Republic of Korea should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Republic of Korea.

Additional Information (Note: this section is optional)

#### **IAEA Contacts**

Scientific Secretary: Mr Christoph Gastl

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**Administrative Secretary** 

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.

**Event Web Page** Please visit the following IAEA web page regularly for new information regarding this event:

https://www.iaea.org/events/evt2406873

#### **Enclosures**:

• Form for Submission of a Paper (Form B)