



Technical Meeting on Spent Fuel Characterization: Techniques, Experiences and Lessons Learned

**IAEA Headquarters
Vienna, Austria**

01 - 04 September 2026

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Information Sheet

Introduction

The management of spent nuclear fuel at the back end of the nuclear fuel cycle requires comprehensive technical assessments to ensure compliance with design and safety requirements for spent fuel, as well as for associated storage and transport systems. These assessments depend on the availability of reliable data describing key spent fuel characteristics. Such data are obtained using a range of techniques, broadly categorized as destructive examination (DE), non-destructive examination (NDE), and modelling and simulation approaches.

To promote international collaboration in the development, application, and validation of these techniques, the International Atomic Energy Agency initiated the Coordinated Research Project (CRP) T13018 on “Spent Fuel Characterization” in August 2020. The CRP was successfully completed in December 2024, generating technical outputs, shared experience, and practical lessons across participating Member States.

Building upon the work completed in the CRP, this Technical Meeting will provide a forum for Member States to share and discuss their current research and experience with spent fuel characterization. It is envisioned that a second CRP on Spent Fuel Characterization will be initiated in 2026. This Technical Meeting will therefore also provide an opportunity to raise Member States’ awareness of the new CRP, potential participants, and discuss the scopes of work planned by different CRP participants.

Objectives

The purpose of the event is to share technical information on spent fuel characterization techniques, experiences and lessons learned to help Member States understand the current state of spent fuel characterization and research trends in the area. An additional objective is to explore the opportunity to produce a draft IAEA Technical Document on the current state of spent fuel characterization and research trends in the area.

Target Audience

The event is intended for participants from research organizations, nuclear power plants, nuclear fuel cycle facilities, waste management organizations, regulatory bodies, universities, and other organizations with expertise in the topic of spent fuel characterization. Participants should be actively involved in the subject of the event, having considerable experience in the relevant area and are able to share their insights or research.

Expected Outputs

The expected outputs from the Technical Meeting are the sharing of technical information on spent fuel characterization techniques, results, experience, and lessons learned, and to provide an opportunity to raise Member States awareness of the new CRP on Spent Fuel Characterization (Phase-II), potential participants, and the scopes of work planned by different CRP participants.

Topics

Abstracts and presentations containing information on the following items are welcomed:

- Data needs for activities at the different stages of back-end operations, the source for such needs, and the sharing of experiences in different countries.
- Current information on characterization methods and techniques to satisfy spent fuel management requirements for storage, transportation, and disposal.
- Evolution and improvements in techniques and methods of physical and chemical experimental approaches over decades and comparison to modern techniques.
- Characterization of radionuclide inventory and physical, neutronic, chemical and thermomechanical behaviour of spent fuel following state-of-the-art modelling techniques.

- Approaches to spent nuclear fuel characterization data management, how to build databases, what information they should contain, how to store and preserve information for the future, and managing and interacting with databases.
- Characterization datasets and relevant data and their uncertainties, assessment of their use for validation, and identification of gaps and their impacts.
- Spent fuel characterization experience, including challenges and lessons learned from Member States.

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 (<https://intouchplus.iaea.org>) 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 **31 July 2026**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
 - 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 an abstract is being submitted and complete the relevant information;
 - 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 **31 July 2026**.

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

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.

Abstracts 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 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) and should not exceed 500 words. Additionally, for the selection process, this abstract must be submitted through the [IAEA INDICO page no 487](#) not later than **31 July 2026**. Authors will be notified of the acceptance of their proposed presentations as soon as possible.

Submission of the abstract should be confirmed, together with the submission of the main application via the InTouch+ platform, by **31 July 2026**.

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 **31 July 2026**.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

<https://www.iaea.org/events>.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

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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/evt2601634>

INDICO Webpage for Abstract submission:

<https://conferences.iaea.org/event/487/>