



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Technical Meeting on Advancements and Innovations in High Temperature Technologies for the Processing of Radioactive Waste

IAEA Headquarters, Vienna, Austria

12–16 August 2024

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Information Sheet

Introduction

The International Atomic Energy Agency (IAEA) promotes the safe and peaceful uses of nuclear energy including the management of radioactive waste according to nationally and internationally agreed principles and standards with safe disposal as endpoint for all waste types. nuclear energy including the management of radioactive waste according to nationally and internationally agreed principles and standards with safe disposal as endpoint for all waste types.

A wide variety of low- and intermediate-level (LILW) streams require conditioning in order to meet the Waste Acceptance Criteria (WAC) for disposal. In this regard, processing of waste streams into stable waste forms for storage/disposal is a critical aspect of the management of nuclear waste arises. Although technologies are available for processing the majority of waste streams, there remain some waste streams for which either a suitable technology does not exist or cannot be accessed (for a number of reasons – cost, lack of technical capability, small volume, unknown characteristics). Considering the high overall costs for developing new individual treatment/conditioning processes to immobilize this waste into suitable waste forms for geological disposal, the benefits offered by thermal treatment technologies under development may be able to assist in processing these waste types. Modular or shared/international thermal facilities would facilitate processing small volume of waste as encountered in many Members States.

The IAEA recognizes that thermal technologies have an important role and as such the Waste Technology Section (WTS) at the IAEA has initiated the International Predisposal Network (IPN) platform to share waste management information (including thermal processing technologies) from publications

(predisposal handbooks), Co-ordinated Research Programs (CRP), Case studies, fellowship training and Wiki articles among its members. This event will explore innovative solutions to enhance the efficiency, safety, and sustainability of radioactive waste processing using high temperature technologies.

Objectives

The purpose of the event is to foster knowledge exchange and collaboration among experts in the field of high temperature radioactive waste processing technologies. It focuses on highlighting advancements in processing technologies, including emerging developments and best practices. The meeting seeks to facilitate discussions, share experiences, and explore innovative solutions to enhance the efficiency, safety, and sustainability of radioactive waste processing. Through the exchange of expertise and lessons learned, the meeting aims to contribute to the continuous improvement of radioactive waste management practices on an international scale.

Target Audience

The event is targeted at representatives of MS with a programme or project regarding the high temperature processing of radioactive waste. In order to maximize the exchange of information, individuals attending should be from nuclear facilities NPPs, or from non-governmental or international organizations that represent such programmes regionally or worldwide.

Working Language(s)

English.

Expected Outputs

The meeting will facilitate the sharing of national and international experiences, lessons learned as well as innovative solutions under research. Information will be summarised to aid future discussions regarding the management of waste.

Structure

The meeting will be structured as set of lectures to present national and international projects, activities and initiatives addressed to development of the high temperature techniques to process radioactive waste,

including Q&A sessions such as panel discussion about “Processing of Hazardous waste using high temperature technologies to optimize disposal solutions”.

Topics

The main topic to be discussed during the meeting will be addressed to the established and emerging high temperature technologies for processing of waste. The meeting will also feature Member State representative reporting on the available industrial practices and approaches to enhancing technical capabilities regarding high temperature treatment of solid radioactive waste. The following topical areas will be considered:

- Incineration.
- Metal melting.
- Plasma.
- Pyrolysis and stream reforming.
- Vitrification.
- Geomelting.
- HIP.
- Densification (sintering of hot compaction).
- New developments.

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 **12 June 2024**, 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 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 **12 June 2024**.

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.

Papers and Presentations

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

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 3 pages (including figures and tables) and should not exceed 3000 words. It should be sent electronically to Willie Meyer, the Scientific Secretary of the event (see contact details below), not later than **12 June 2024**. Authors will be notified of the acceptance of their proposed presentations by **28 June 2024**.

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 **12 June 2024**.

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 arrangements.

The application for financial support should be made, together with the submission of the application, by **12 June 2024**.

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:

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.

IAEA Contacts

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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:

www.iaea.org/events/EVT2304220

Enclosure: Form for Submission of a Paper (Form B)

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Signature of main author: