



Technical Meeting on the Decommissioning of Heavy Water Reactors

IAEA Headquarters, Vienna, Austria
and virtual participation via Microsoft Teams

9-13 December 2024

Ref. No.: EVT2304178

Information sheet

Introduction

Numerous nuclear heavy water reactors (HWRs) are in operation around the world. The HWRs are presented as power reactors or research reactors. Most industrial power HWRs are presented by ‘pressurized heavy-water moderated and cooled reactors’ (PHWRs). In addition, there are ‘heavy-water moderated, gas cooled reactors’ (HWGCRs) and ‘heavy-water moderated, boiling light-water cooled reactors’ (HWLWRs). A number of such HWRs have already been permanently shut down, under decommissioning or decommissioned, joining many other reactors that will require decommissioning in the near future.

The IAEA Technical Report Series No 407 “Heavy Water Reactors: Status and Projected Development” (2002) describes the characteristics of HWRs, provides an insight into the technology for use by specialists in countries considering nuclear programmes, as well as providing a reference for engineers and scientists working in the field, and focusing on the important topics of economics, safety and fuel sustainability. The IAEA TECDOC-2015 on “Best Practices in the Refurbishment of Pressurized Heavy Water Reactors” (2022) summarizes various aspects of the refurbishment projects based on the materials and discussions presented at the Technical Meeting on Best Practices in the Refurbishment of Pressurized Heavy Water Reactors, organised in Toronto, Canada on 2-6 December 2019 and focused on sharing lessons learned and experience from the completed and ongoing refurbishment projects.

While these publications do not cover the decommissioning aspects, they provide the fundamental background and characteristics of HWRs. Continual HWRs' decommissioning planning and implementation activities taking place around the world also enrich the decommissioning experience and lessons learned in managing the final stage of HWRs. These include heavy water and tritium management, physical and radiological characterization, dismantling and decontamination techniques, management of materials from decommissioning and other important technical aspects. The IAEA Technical Meeting planned for December 09-13, 2024 aims to cover the technical topics mentioned above such as organisational, safety and financial aspects of decommissioning of HWRs.

Objectives

The objective of this event is to facilitate the exchange of knowledge, expertise, and lessons learned about technical and organisational aspects of planning and conducting decommissioning of HWRs including associated challenges. Issues addressed to heavy water and tritium management as well as project management and costing considerations are to be covered as part of preparation for decommissioning.

The technical decommissioning activities to be presented and discussed might range from characterization, decontamination, dismantling, demolition etc. to apply or adapt existing decommissioning strategy(ies) and new technologies for decommissioning.

Target Audience

Professionals from operating organizations, regulatory bodies, other national authorities, policy makers, and technical support organizations that are or will be involved in the planning, implementation of decommissioning of heavy water reactors presented by power reactors and research reactors.

Working Language

The working language of the meeting will be English with no interpretation provided. All communications, abstracts and papers must be submitted in this language.

Expected Outputs

The meeting will facilitate the sharing of national and international experiences, lessons learned, as well, as remaining challenges. Information will be summarised to aid future discussions addressed to decommissioning of different types of HWRs e.g. by the Technical Working Group on Decommissioning and Environmental remediation and Technical Working Group on Heavy Water Reactors.

The expected outcomes of this meeting will be collection of lessons learned and good practices on decommissioning of HWRs and drafting of the meeting report to consider follow-up activities on the topic.

Structure

The meeting will be structured as set of lectures to present national and international projects on preparation and conducting of decommissioning of HWRs, including Q&A sessions such as panel discussion about “New Technologies for Decommissioning of HWRs”. An overview of ongoing IAEA activity on preparation to decommissioning of HWRs will be presented, as well.

Topics

The main topics to be discussed on the Technical Meeting are as follows:

- experience and lessons learned from preparation of HWRs for decommissioning:
 - definition of strategies for decommissioning / dismantling,
 - technical, organisational, financial and safety aspects of HWRs decommissioning;
- feedback from implementation of HWRs decommissioning projects:
 - dismantling, decontamination, demolishing techniques used,
 - management of materials and waste,
 - project management, knowledge management and record keeping,
 - good practices, challenges to be considered in decommissioning of HWRs;
- potential feedback to design, construction and operation of HWRs from decommissioning activities;
- potential application of HWRs decommissioning lessons learned to other type of reactors.

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 **11 October 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 **11 October 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 one page (including figures and tables) and should not exceed 400 words. It should be sent electronically to Ms Tetiana Kilochytska, the Scientific Secretary of the event (see contact details below), not later than **11 October 2024**. Authors will be notified of the acceptance of their proposed presentations by **28 October 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 **11 October 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.

The application for financial support should be made, together with the submission of the application, by **11 October 2024**.

Venue

The event will be held at the Vienna International Centre (VIC), Building M, Room M4, 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 in advance. 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.