



Technical Meeting on the revision of the IAEA Nuclear Energy Series No. NP-T-5.1 "Specific Considerations and Milestones for a Research Reactor Project"

IAEA Headquarters, Vienna, Austria
and virtual participation via Cisco Webex

17-20 November 2025

Ref. No.: EVT2404928

Information Sheet

Introduction

Interest in developing research reactors among IAEA Member States has grown significantly in recent years. Many countries are now progressing with new reactor projects to support their nuclear science, technology, and energy programmes.

Research reactor projects require thorough planning, substantial investment, and strong commitments to nuclear safety, safeguards, security, and waste management. These factors —combined with diverse stakeholder interests and evolving reactor missions— make such projects uniquely complex, even compared to other nuclear energy initiatives.

The “Specific Considerations and Milestones for a Research Reactor Project” document (Milestones Document), published by the IAEA in 2012, provided comprehensive guidance for Member States embarking on research reactor programmes. However, since its publication, many new countries have begun developing research reactor projects, gaining practical experience, encountering new challenges and risks, and identifying best practices.

Considering these developments, the IAEA has undertaken a review and update of the Document to reflect current approaches, lessons learned, and the evolving needs of Member States.

Objectives

The meeting is intended to discuss and assess the need for updates to the IAEA's *"Specific Considerations and Milestones for a Research Reactor Project"* document to:

- reflect current best practices, new challenges, and lessons learned from Member States' experiences;
- identify emerging challenges and risks faced by countries developing research reactors, including technical, regulatory, and operational issues; and
- discuss the latest standards and practices in ensuring nuclear safety, security, and safeguards in research reactor development.

The meeting will gather inputs from Member States for the scope and development of a planned IAEA review of the document.

The meeting also aims to provide a forum at which participants can share and discuss experiences, challenges, and lessons learned in developing research reactor programmes.

Target Audience

The meeting is intended for individuals from IAEA Member States that are operating, building, or are considering building, a new research reactor. Participants should be representatives of existing or future operating organizations, governmental institutions, national safety and regulatory authorities, the research reactor users' community and other stakeholders.

Member States are strongly encouraged to identify suitable women participants.

Working Language

The working language of the meeting will be English. No interpretation will be provided.

Expected Outputs

The expected output for the meeting is:

1. A Forum for Knowledge Sharing:

- A platform where Member States shared valuable experiences, challenges, and lessons learned in developing nuclear infrastructure for research reactors
- A compilation of best practices, lessons learned, and actionable insights gathered from participants' experiences in reactor design, construction, and operation.

2. A report on the technical meeting based on the presentations provided by the participants and on subsequent discussions. The report will provide input for the review of the publication on *Specific Considerations and Milestones for a Research Reactor Project*. The report will display:

2.1 Assessment(s) and Recommendations for Document Update:

- A comprehensive evaluation of the *Specific Considerations and Milestones for a Research Reactor Project* document, with a consensus on the necessary updates to reflect the latest best practices, new challenges, and lessons learned from Member States' experiences.
- A set of recommendations on the key areas for revision, including new technical, regulatory, and operational aspects that need to be integrated into the document.

2.2 Inputs for IAEA Review of the Milestones Document:

- Contributions from Member States on the scope and content of the planned IAEA review of the *Specific Considerations and Milestones for a Research Reactor Project* publication.
- Specific suggestions for topics, sections, and case studies to be included in the revised publication, ensuring it reflects the current landscape of research reactor development.

These outputs will serve as the foundation for revising the Milestones Document and guide the IAEA's continued support to Member States in the development of research reactor programmes.

Structure

The meeting will consist of presentations, discussions, particularly on proposals for changes and/or additions to the text of the *Specific Considerations and Milestones for a Research Reactor Project* publication, and the drafting of the meeting report. Time will be allocated for the meeting participants to present the Member State experiences and needs.

The meeting will start at **9:30 on Monday, 17 November 2025**, and will be concluded by **17:00 on Thursday, 20 November 2025**.

Topics

The following topics will be addressed and discussed during the meeting:

- Knowledge Sharing
 - Member States Experiences, Challenges, and Lessons Learned on Research Reactor Infrastructure Development
 - Best Practices and Insights in Reactor Design, Construction, and Operation
 - Current Standards and Practices and Emerging Trends in Safety, Security, and Safeguards for Research Reactors
 - Aligning Practices with International Guidelines and Evolving Needs
- Review of the Milestones Document and Evaluating the Need for Updates
 - Overview of the Document and its Role in Research Reactor Programmes Development

- Identifying Gaps and Opportunities for Document Updates to Reflect New Challenges, Risks, Evolving Practices in Research Reactor Projects, as well as Technical, Regulatory, and Operational changes
- Contributions to the Development of the Revised Milestones Document
 - Scope and Content for the Planned Revision
 - Suggestions for Including New Topics and Case Studies

During the meeting, participants will be asked to give presentations on the proposals for changes and/or additions to the Milestones Document. Participants need to provide in advance a summary of their presentations to be included in the final report of the meeting.

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 **17 October 2025**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
 - Persons with an existing NUCLEUS account can sign into 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 **17 October 2025**.

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 in Section G 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 2 pages (including figures and tables) and should not exceed 2000 words. It should be sent electronically to Mr Andrey Sitnikov, Mr Eugenio Vargas and Mr Joseph Christensen, the Scientific Secretaries of the event (see contact details below).

Submission of a paper should be confirmed, together with the submission of the main application via the InTouch+ platform, by **17 October 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.

Venue

The event will be held at the Vienna International Centre (VIC), IAEA's Headquarters. 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/evt2404928>.

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.

Reference Documents

- [1] INTERNATIONAL ATOMIC ENERGY AGENCY, Specific Consideration and Milestones for a Research Reactor Project, IAEA Nuclear Energy Series No. NP-T-5.1, IAEA, Vienna (2012).
- [2] INTERNATIONAL ATOMIC ENERGY AGENCY, Technical Requirements in the Bidding Process for a New Research Reactor, IAEA Nuclear Energy Series No. NP-T-5.6, IAEA, Vienna (2014).
- [3] INTERNATIONAL ATOMIC ENERGY AGENCY, Utilization Related Design Features of Research Reactors: A Compendium, Technical Report Series No. 455, IAEA, Vienna (2007).
- [4] INTERNATIONAL ATOMIC ENERGY AGENCY, Applications of Research Reactors, IAEA Nuclear Energy Series No. NP-T-5.3, IAEA, Vienna (2014).
- [5] INTERNATIONAL ATOMIC ENERGY AGENCY, Strategic Planning for Research Reactors, No. NG-T-3.16, IAEA, Vienna (2017).
- [6] INTERNATIONAL ATOMIC ENERGY AGENCY, Code of Conduct on the Safety of Research Reactors, IAEA, Vienna (2006).
- [7] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Research Reactors, IAEA Safety Standards Series No. SSR-4, IAEA, Vienna (2016).
- [8] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment of Research Reactors and Preparation of the Safety Analysis Report, IAEA Safety Standards Series No. SSG-20 (Rev.1), IAEA, Vienna (2022).

- [9] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Analysis for Research Reactors, Safety Reports Series No. 55, IAEA, Vienna (2008).
- [10] INTERNATIONAL ATOMIC ENERGY AGENCY, The Management System for Facilities and Activities, IAEA Safety Standards Series No. GS-R-3, IAEA, Vienna (2006).
- [11] INTERNATIONAL ATOMIC ENERGY AGENCY, Implementation of a Management System for Operating Organizations of Research Reactors, Safety Reports Series No. 75, IAEA, Vienna (2013).
- [12] INTERNATIONAL ATOMIC ENERGY AGENCY, Feasibility Study for a New Research Reactor Project, IAEA Nuclear Energy Series No NG-T-3.18, Vienna (2018).

IAEA Contacts

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

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

<https://www.iaea.org/events/EVT2404928>