IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Training Workshop on the Preparation of a Feasibility Study for a New Research Reactor Project

IAEA Headquarters, Vienna Austria

Hybrid Meeting

23 - 26 July 2024

Ref. No.: EVT2304725

Information Sheet

Introduction

A significant number of Member States are in different stages of new research reactor projects. Several of these Member States are building their first research reactor as their first major nuclear investment and opportunity to benefit from the peaceful uses of nuclear technology. The feedback from the IAEA's activities, in particular from Member States establishing their first research reactor, has indicated the need for further guidance on the development of the feasibility study for the new research reactor programmes.

In responding to this need, in 2018 the IAEA published a Feasibility Study Preparation for New Research Reactor Programmes (IAEA Nuclear Energy Series No. NG-T-3.18) [2]. This publication describes the various elements to be covered during a feasibility study and included in a comprehensive feasibility study report (FSR) for a new research reactor programme. It is intended to provide guidance in the preparation of an FSR that would be submitted to decision makers, typically at governmental level, in order to allow them to make an informed decision as to whether to commit to the long-term provision of resources and obligations for the proposed research reactor programme. The publication is meant to be used in conjunction with the Research Reactor Milestones publication [1], Strategic Planning for Research Reactors (IAEA Nuclear Energy Series No NG-T-3.16, published in 2017 [12]), Code of Conduct on the Safety of Research Reactors [6], IAEA Safety Standards and other IAEA publications referenced therein. The guidance applies to all research reactor types and technologies, and therefore is not recommending a specific reactor type or technology or a specific design. However, it is assumed that the document will be used by a Member State

that has already decided that its new research reactor should possess such general features as being safe, secure, robustly designed and easily maintained. The guidance provided in the publication is primarily oriented to countries developing their first research reactor.

Considering all the above elements, the IAEA is organizing a workshop to present the main concepts and good practices related to the preparation of the feasibility study for a new research reactor.

Objectives

The workshop is intended to provide the participating Member States with practical information and knowledge on preparation of feasibility study for a new research reactor project, taking into account operation, utilization and safety requirements. The workshop aims also to provide a forum at which participants can share and discuss experiences, challenges and lessons learned in undertaking a feasibility study for a new research reactor.

Target Audience

The workshop is intended for individuals from IAEA Member States that have built, building, or are considering building, a new research reactor. Participants should be representatives of the core team involved in and responsible for the new research reactor project, the future operating organization, 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 Languages

English

Expected Outputs

The expected output of the meeting is a report based on the papers and presentations provided by the participants and on subsequent discussions. The report will:·

- Provide an overview of the status of Member States' new research reactor projects;
- Collect and share experiences, challenges and lessons learned from the development and implementation of new research reactor projects, including the development of a feasibility study for a new research reactor project; and·
- Identify issues of common concern related to feasibility study for a new research reactor projects and ways to address them, including with the IAEA assistance.

The meeting will consist of plenary sessions and group discussions to share and discuss experiences, challenges and lessons learned in the development and implementation of recent and ongoing new research reactor projects. Time will be allocated for the meeting participants to present the Member States' experiences and needs.

The meeting will start on Tuesday, **23 July 2024**, and will be concluded on Friday, **26 July 2024**.

Topics

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

Content of a feasibility study in accordance with the IAEA publication "Feasibility Study for a New Research Reactor Project", including lessons learned and examples of the most recent feasibility studies;

IAEA milestones approach of a new research reactor project, according to the guidance provided in the IAEA's Research Reactor Milestones publication for the establishment of a research reactor project, with emphasis on Phase 1; ·

Methodology for the self-assessment of the national nuclear infrastructure for a new research reactor;

Strategic planning for research reactors;·

IAEA safety standards for research reactors.

Participants need to provide in advance a summary of their presentations to be included in the final report of the workshop.

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 April 2024**, 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 **12 April 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 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 2000 words. It should be sent electronically to Mr Andrey Sitnikov, Mr Danas Ridikas and Mr Amgad Shokr, the Scientific Secretaries of the event (see contact details below).

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 April 2024**.

No registration fee is charged to participants.

Expenditure and Grants

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 **12 April 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:

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.

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, Feasibility Study Preparation for New Research Reactor Programmes, IAEA Nuclear Energy Series No. NG-T-3.18, Vienna (2018).

[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, IAEA Nuclear Energy Series No. NG-T-3.16, 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-3, 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).

Organization

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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 Secretary.