IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Training Workshop on

Technical Requirements in the Bidding Process for a New Research Reactor

IAEA Headquarters
Vienna, Austria

Vienna International Centre
Meeting Room C0343 (C Building)

4 to 6 November 2019

Ref. No.: EVT18004392

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 technical specifications for the bidding process of a research reactor. In responding to this need, in 2014 the IAEA published Technical Requirements in the Bidding Process for a New Research Reactor (IAEA Nuclear Energy Series No. NP-T-5.6) [2]. The scope of this publication is to cover the bidding process for a new research reactor, from the preparation of the technical requirements for the bid invitation specifications until the selection of the research reactor design and the signing of the contract, including criteria for bid evaluation. The publication is meant to be used in conjunction with the Research Reactor Milestones publication, Feasibility Study for a New Research Reactor Project (IAEA Nuclear Energy Series No NG-T-3.18, published in 2018 [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; however, such guidance could be also used for the bidding process of a subsequent reactor in a country. Furthermore, the publication is mainly directed to the turnkey contractual approach, but it also could be useful in other kinds of contractual arrangements.

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 technical specifications for the bidding process for a new research reactor.

Objectives

The workshop is intended to provide the participating Member States with practical information and knowledge on developing the technical requirements for the bidding process of a new research reactor project, taking into account operation, utilization and safety requirements, and guidance on the criteria for bid evaluation. The workshop aims also to provide a forum at which participants can share and discuss experiences, challenges and lessons learned in the preparation and implementation of the bidding process for a new research reactor.

Target Audience

The workshop is intended for individuals from IAEA Member States that are 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 Language

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

Expected Output

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 new research reactor projects, including the development of technical requirements for a new research reactor project; and

- Identify issues of common concern related to bidding processes for a new research reactor projects and ways to address them, including with the IAEA assistance.

Structure

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 State experiences and needs.
The meeting will start on Monday, at **09:30 on 4 November 2019**, and will be concluded by **12:00 on 6 November 2019.**

Topics

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

- General considerations of the bidding process;
- General considerations in developing specifications for a bid invitation;
- Linkage between stakeholder/user needs and specifications
- Design features related to research reactor utilization/applications;
- Research reactor design requirements, including technical safety features, and nuclear fuel supply and back-end considerations;
- Personnel management;
- Project documentation;
- Research reactor infrastructure requirements; and
- Bid evaluation process, including evaluation criteria.

Participants' working groups will be formed to share and discuss experiences, challenges and lessons learned in the preparation of the technical specifications and in the implementation of the bidding process for a new research reactor. The working group discussions will also aim at identifying issues of common concern and possible ways to address these, including Member States' needs for IAEA assistance. 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, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **24 September 2019**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Please note that the IAEA is in a transition phase to manage the entire registration process for all regular programme events electronically through the new InTouch+ (https://intouchplus.iaea.org) facility, which is the improved and expanded successor to the InTouch platform that has been used in recent years for the IAEA's technical cooperation events. Through InTouch+, prospective participants will be able to apply for events and submit all required documents online. National authorities will be able to use InTouch+ to review and approve these applications. Interested parties that would like to use this new facility should write to: InTouchPlus.Contact-Point@iaea.org.

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 2 pages (including figures and tables) and should not exceed 2000 words. It should be sent electronically to Mr Andrey Sitnikov, the Scientific Secretary of the event (see contact details below).

In addition, participants have to submit the abstract together with the **Participation Form (Form A)** and the attached **Form for Submission of a Paper (Form B)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or their organization for onward transmission to the IAEA not later than **24 September 2019.**

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 using the **Grant Application Form (Form C),** which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **24 September 2019**.

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: http://www-pub.iaea.org/iaeaevents/GeneralInfo/Guide/VIC.

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 (in print), working material.

[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: Guidance for reactor managers, TECDOC-1212, IAEA, Vienna (2001).

[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. NS-R-4, IAEA, Vienna (2005).

[8] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment of Research Reactors and Preparation of the Safety Analysis Report, IAEA Safety Standards Series No. SSG-20, IAEA, Vienna (2012).

[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 (2006).

[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 Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.