



IAEA

International Atomic Energy Agency
Atoms for Peace and Development

Technical Meeting on Good Practices in Operation and Maintenance and Ageing Management Programmes for Research Reactors

**International Atomic Energy Agency
Vienna, Austria**

Hybrid Event

02 – 06 September 2024

Ref. No: EVT2103949

Information Sheet

Introduction

For over the past six decades, research reactors have played an important role within several fields of basic sciences; in the development of nuclear science and technology; in the production of radioisotopes for various applications; and in the development of human resources and skills in the nuclear field. Moreover, research reactors have been effectively utilized to support sustainable development worldwide.

The information collected in the International Atomic Energy Agency (IAEA) Research Reactor Database (RRDB) shows that there are 220 research reactors currently operational in 53 countries. They vary in type, design, power level, utilization, operation cycle, management aspects, etc. Operating practices also vary in different Member States based on national regulations and available resources. The IAEA Incident Reporting System for Research Reactors (IRSRR) shows that human factor, including inadequate operating procedures or insufficient compliance with the procedures, is one of the major root causes of incidents that

occur in research reactors/reactor facilities. The operating organizations of many research reactor facilities have established, or are in the process of establishing, integrated management systems to safety and reliability of operations of the facilities.

In addition, the RRDB also shows that over two-third of the research reactors that are currently operational are over 40 years with many exceeding their originally conceived design life. The majority of them are challenged by the negative impacts of ageing of systems, structures and components. The IRSRR also shows that ageing is the other major root cause for a large number of events that occurred at research reactor facilities. Many research reactor facilities have established, or are in a process of establishing, a proactive strategy and a systematic programme to manage ageing and to mitigate its impact on the safety and availability of the facilities.

Collecting and sharing this information and experience within the research reactor community will help in improving operation, maintenance, and ageing management programmes, in particular by preventing the negative consequences on the safety, operability and lifetime of operating and future research reactors. The exchange of good practices for the operation, maintenance, and ageing management of research reactors can also help to improve the design of new facilities from the viewpoint of safe operation and effective utilization.

On the basis of the facts mentioned above, the IAEA is organizing this Technical Meeting on Operation, Maintenance, and Ageing Management for Research Reactors to be held at its Headquarters in **Vienna from 2 to 6 September 2024**.

Objectives

The purpose of the meeting is to bring together operators, designers and regulators of research reactors in order to discuss issues related to the operation, maintenance, and ageing management of such facilities and further improve their safety, reliability and performance. The meeting will also provide a forum for the participants to exchange information and experience on good practices, issues and challenges related to research reactor operation, maintenance and ageing management.

Target Audience

Participation in the meeting is subject to designation by governmental or national organizations that are involved in the planning, construction, commissioning or operation of research reactors. To ensure maximum effectiveness in the exchange of information, participants should be persons responsible for the operation, maintenance, or aging management of research reactors. Specialists from regulatory bodies who are responsible for the regulatory supervision of research reactors are also invited to participate in the meeting. Member States are strongly encouraged to identify suitable women participants.

Working Language

The meeting will be held in English.

Expected Output

Meeting report summarizing the discussions and conclusions.

Topics

A. Research Reactor Operation and Maintenance

Participants are expected to report on the existing experience, examples and programmes related to research reactor operation and maintenance, including utilization and modifications. The examples of this subject include, but are not limited to, 1) experience of application of the IAEA safety standards and technical publications related to research reactor operation and maintenance, 2) activities performed to enhance availability and reliability, including measures for reducing risks and unplanned shutdowns, 3) operating procedures including those on responding to anticipated operational occurrences and design basis accidents, 4) core management and fuel handling, including optimization of fuel burn-up and spent fuel management, and 5) reactor management, staffing, training and qualification, knowledge management and succession planning for safe and reliable operation 6) quality assurance programmes and methods used for continuous improvement pursuing high availability and reliability figures.

The discussions will focus on the practical aspects related to the operating and maintenance programmes for safe and reliable operation and effective utilization of research reactors.

B. Research Reactor Ageing Management

Participants are expected to report on the existing experience within the following scopes:

- Experiences, examples and programmes related to research reactor ageing management, including modernization and refurbishment activities,
- All areas, aspects, and issues within the field of ageing and measures to minimize or mitigate the effects of ageing as well as features of research reactors designed to minimize the adverse effects of ageing.

The ageing management subject can be divided into two themes: general and specific. The examples of general theme include, but are not limited to, 1) experience of application of the IAEA safety standards and technical publications on ageing management, 2) activities performed to minimize ageing degradation, and 3) activities performed to mitigate ageing effects, including modernization and refurbishment activities in different phases of research reactors lifetime. The examples of specific themes include, but are not limited to, 1) ageing (including physical ageing and obsolescence) of instrumentation and control systems, 2) ageing of core structures including high-performance reflector/thermal column materials (beryllium, graphite) and related measures/services, 3) ageing of pool liners and spent fuel storage tank pits, spent fuel bays (tile/brick lined) and related measures (materials, welding, cleaning, repairs, chemistry), and 4) ageing of experimental facilities such as beam tubes and irradiation loops.

Participation and Registration

Participation to the event can be done in person or by videoconference. All persons wishing to participate in the event must be designated by an IAEA Member State or should be members of organizations that have been invited by IAEA.

Participants must apply and submit all required documents online.

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>).

The application should be sent 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 **31 July 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.

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 in PowerPoint on the work of their respective institutions that falls under the topics listed above. Maximum duration of individual presentation should be 20 minutes including questions and answers.

Participants who wish to give presentations at the Event are requested to submit an **abstract** of their work (maximum 300 words) and complete the **Participation Form of a Paper - Form B** (see attached)

The **abstract** and the **signed copy of Form B** must be uploaded at InTouch+ as supporting documents of the event selected and send 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 **31 July 2024**. Authors will be notified of the acceptance of their proposed presentations by **09 August 2024**.

Expenditures and Grants

No registration fee is charged to participants.

Traveling, accommodation and other related cost must be beared by participants, their Member States or related organizations. IAEA has, however, limited funds at its disposal to help meet the cost of attendance of some 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. Preference will be given to participants giving a presentation.

The application for financial support should be made clear indicating in the corresponding box at InTouch+.

The countries eligible for Technical Cooperation (TC) assistance which participate in TC projects may submit the request for TC support through their respective National Liaison Officers (NLOs), using InTouch+. Participants can apply 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 facility should write to: InTouchPlus.Contact-Point@iaea.org.

NOTE: The application for financial support should be made, together with the submission of the application, by **31 July 2024**.

Venue

The meeting will be held at the IAEA's Headquarters in Vienna, Austria, and will start at 09:00 on **Monday, 2 September 2024**. Participants are advised to arrive one hour prior to the convening time of the Technical Meeting to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

The following IAEA web page can be accessed for more detailed information on Vienna and the VIC: <http://www-pub.iaea.org/iaemeetings/GeneralInfo/Guide/VIC>

Visa

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

Scientific Secretaries:

Mr Ruben Mazzi

Research Reactor Section
Division of Nuclear Fuel Cycle and Waste Technology
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA
Tel.: +43 1 2600 22762
Fax: +43 1 26007
Email: r.mazzi@iaea.org

Mr Sumanth Panyam

Research Reactor Section
Division of Nuclear Fuel Cycle and Waste Technology
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA
Tel.: +43 1 2600 21558
Fax: +43 1 26007
Email: s.panyam@iaea.org

Mr Kaichao Sun

Research Reactor Safety Section
Division of Nuclear Installation Safety
Department of Nuclear Safety and Security
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA
Tel.: +43 1 2600 26475
Fax: +43 1 26007
Email: k.sun@iaea.orgmailto:D.V.Rao@iaea.org

Note: Official correspondence regarding administrative issues should be addressed to the administrative Secretary.

Administrative Secretary:

Ms Reena Thottakkara

Research Reactor Section
Division of Nuclear Fuel Cycle and Waste Technology
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 Vienna, Austria
Tel.: +43 1 2600 22755
Fax: +43 1 26007
Email: R.Thottakkara@iaea.org

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

Form A – Via InTouch+

Form B – See attachment

Form C – Via InTouch+

Form for Submission of a Paper

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To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretaries, Messrs Ruben Mazzi, Sumanth Panyam, Kaichao Sun [Emails: R.Mazzi@iaea.org, S.Panyam@iaea.org, K.Sun@iaea.org] and to the Administrative Secretary, Reena Thottakkara [R.Thottakkara@iaea.org].

Deadline for receipt by IAEA through official channels: 31 July 2024

Title of the paper:		
If applicable: Abstract ID in IAEA-INDICO:		
Family name(s) and first name(s) of all author(s) (same as in passport(s):	Scientific establishment(s) in which the work has been carried out	City/Country
1.		
2.		
3.		
Family name(s) and first name(s) of author presenting the paper (same as in passport):	Mr/Ms:	

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Date:

Signature of main author: