IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Technical Meeting on Operation, Maintenance and Ageing Management for Research Reactors

IAEA Headquarters, Vienna, Austria

15 – 19 June 2026

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Information Sheet

Introduction

Research reactors are used for variety of purposes, such as education and training, research and development in nuclear science and engineering, development of technologies including in nuclear energy industry, and irradiation and analytical services. Research reactors are also utilized for the production of radioisotopes for medical, industrial and agricultural applications.

According to the International Atomic Energy Agency (IAEA) Research Reactor Database (RRDB) shows that, as of 2025, there are 227 research reactors are currently operational in 54 countries. They vary in type, design, power level, utilization, operation cycle, management aspects, etc. The RRDB 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 is challenged by the negative impacts of ageing of systems, structures and components (SSCs). The IAEA Incident Reporting System for Research Reactors (IRSRR) shows that ageing and maintenance, including physical degradation of SSCs and deficiencies in maintenance, is one of the major root causes that lead to reportable events at research reactor facilities worldwide.

Feedback from the IAEA activities shows that along the past years the operating organizations of many research reactor facilities have established, or are in the process of establishing, ageing management programme and have continued to strengthening maintenance and operational programmes in accordance with the IAEA safety standards.

Collecting and sharing this information and experience on ageing management, operation and maintenance will help continuous improvement of these programmes, in particular by preventing the negative consequences on safety, operability and service lifetime of the operating and future research reactors. This can also help to improve the design of new facilities from the viewpoint of safe operation and effective utilization.

In this context, the IAEA is organizing the Technical Meeting on Operation, Maintenance, and Ageing Management for Research Reactors bi-annually. The upcoming event in the series is scheduled to take place at the IAEA Headquarters in Vienna from 15 to 19 June 2026.

Objectives

The objective of the event is to bring together operators, designers and regulators of research reactors to discuss operational, maintenance and ageing management issues, with the aim of improving 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 (s)

English

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. 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.

Discussions on ageing management can be divided into two themes: general and specific. Examples of general theme include 1) experience of application of the IAEA safety standards and technical publications on ageing management, 2) development and implementation of an ageing management programme, 3) performance of ageing management review, 4) determination of acceptance criteria, and 5) activities conducted to minimize and mitigate ageing effects, including modernization and refurbishment activities in different phases of research reactors lifetime. Examples of specific theme include 1) ageing (including physical ageing and obsolescence) of instrumentation and control systems, 2) ageing of reactor core structures, including core grid, reflector, 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

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 **23 March 2026**, 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 **23 March 2026**.

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.

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 **23 March 2026**.

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: 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.

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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.