

Technical Meeting on the Fuel Supply, Operation and Utilization of TRIGA Research Reactors

Hosted by the Government of Italy

through the University of Pavia

Pavia, Italy

and virtual participation via Cisco Webex

20-23 May 2025

Ref. No.: EVT2302732

Information Sheet

Introduction

The TRIGA (*Training, Research, Isotopes, General Atomic*) is a type of research reactor that has always played an important role worldwide in contributing to both basic and applied nuclear research and training. Its design features make it inherently safe for reactivity insertion events and it is simple to operate. All operating TRIGA reactors are now fuelled with low enriched uranium (LEU) fuel with the last TRIGA reactor conversion completed from HEU to LEU in 2012 (Austria's TRIGA Mark II at the Atominstitut, Vienna). TRIGA reactors are versatile, multipurpose facilities covering diverse areas of applications from academic research and education to production of radioisotopes and material testing.

Currently there are 36 TRIGA reactors operating in 17 countries around the world. Fuel fabrication for TRIGA reactors was originally conducted in the United States; between 1995 and 2011, production was continued by a joint venture of General Atomics and CERCA in Romans-sur-Isère, France. This production was terminated in 2011, but in recent years the production facility has been renovated and fuel production resumed in 2022.

The TRIGA research reactor community faces common challenges for the long-term sustainability of these facilities, including those related to fresh fuel supply, spent fuel management, and ageing. The IAEA supports Member States to address these challenges to safely operate and enhance utilization of their facilities.

Objectives

The purpose of this event is to gather the TRIGA research reactor community to discuss LEU fuel supply issues and plans, operation, and utilization of TRIGA reactors, including:

- Procurement and transportation of HALEU for TRIGA fuel fabrication
- Procurement and transportation of fresh TRIGA fuel assemblies
- Available and potential transport packages, certifications
- Related legal issues, liabilities, ownership transfer, including scrap management
- Operation, maintenance, and aging management of TRIGA Research Reactors
- Utilization experience and plans
- Role of the Global TRIGA Research Reactor Network

Target Audience

This meeting is intended for technical experts, operators, managers, researchers, technology developers, and other stakeholders involved with TRIGA reactors, in particular experts in the areas of fresh fuel transports, fuel fabrication, and irradiated fuel management.

Working Language(s)

English

Expected Outputs

The meeting is expected to provide a community of sharing between TRIGA research reactor stakeholders to identify the status, issues, and options available for TRIGA fuel supply. It is expected that potential optimized practices for TRIGA fuel supply will be identified to help with the purchasing and transportation process, including suitable transportation containers, certifications, and timelines. TRIGA research reactor experience in operation, maintenance and utilization will be updated. This international collaboration will result in the exchange of information related to common TRIGA challenges and fuel needs and will provide a common understanding of the potential of the Global TRIGA Research Reactor Network.

Topics

Topics to be covered include:

- TRIGA operator experiences and plans (Short presentations from all attending TRIGA operators)
 - Status of facility
 - Operation, maintenance, and modernization
 - Experience and plans for utilization
 - Experience with TRIGA fuel

- Plans for continued operation and prospective fuel demand
- Other challenges
- Resumption of TRIGA fuel supply
 - Upgrade of TRIGA fuel fabrication facility
 - Production capacity and future availability
 - Process and anticipated timeline of TRIGA fuel procurement
 - Available and prospective transportation options
- Coordination needs and possibilities
- Decommissioning of TRIGA Reactors and new projects
- Other topics of common interest, if any

A tour of the operational TRIGA Research Reactor and EUCENTER (earthquake engineering laboratories) is planned during the meeting.

A virtual tour of the CERCA TRIGA fuel fabrication facility is planned during 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 15 March 2025, 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 <u>InTouchPlus.Contact-Point@iaea.org</u>);
 - 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 meeting application, by 15 March 2025.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters. Selected participants will also be requested to complete a questionnaire regarding TRIGA fuel needs and plans for the future prior to the technical meeting.

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 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 1 page (including figures and tables) and should not exceed 200 words. It should be sent electronically to Ms Kerry Dunn, the Scientific Secretary of the event (see contact details below), not later than 15 March 2025. Authors will be notified of the acceptance of their proposed presentations by 27 March 2025.

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 15 March 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.

The application for financial support should be made, together with the submission of the application, by 15 March 2025.

Venue

The event will be held at the University of Pavia in Pavia, Italy at the EUCENTRE in the scientific campus of the University.

Participants must make their own travel and accommodation arrangements.

General information about the venue and other practical details, such as a list of hotels for participants are provided in the Annex.

Participants are advised to arrive at the EUCENTRE 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 premises.

Visas

Participants who require a visa to enter Italy should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Italy.

Scientific Secretary

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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 and Form C via InTouch+ Platform Form B (see attachment)



Form for Submission of a Paper

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20 – 23 May 2025, University of Pavia, Italy

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: <a href="https://doi.org/00/16/16/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007/00/2007

Deadline for receipt by IAEA through official channels: 15 March 2025

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.			
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