

# Technical Meeting on Licensing of New Technologies and Approaches to Regulatory Readiness and Cooperation

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## **Information Sheet**

# Introduction

Significant advances have been made in recent years in the design and technology development of advanced reactors, including small modular reactors (SMRs), and interest in these technologies continues to grow across many IAEA Member States. There are over 70 SMR designs at different stages of development globally. These types of reactors may use innovative safety technologies, including a substantial use of passive and inherent safety features, diverse types of fuels and coolants, and potentially new different approaches to practically all aspects of a reactor lifecycle, such as construction, commissioning, operation, decommissioning, radioactive waste and spent fuel management, and transportation. Some Member States are already operating SMRs, while others are preparing for their commissioning or for licensing activities in the near term. A larger deployment of different types of SMRs, including microreactors, is expected in 2030 and beyond.

Experienced, embarking and expanding nuclear power countries are now building their safety and regulatory infrastructure and expertise in preparation for possible deployment of advanced technologies. Many Member States are creating or adapting their regulatory frameworks to be able to efficiently and effectively license new designs. Regulatory cooperation is essential for the deployment of standardized designs across different jurisdictions. There are various examples of past and ongoing regulatory cooperation arrangements aimed to facilitate the safe and secure deployment of new technologies. Such arrangements not only enhance safety, but also foster innovation by creating a more predictable and transparent regulatory environment.

The IAEA remains fully committed to enabling the safe and secure deployment of advanced nuclear reactors and supports Member States' efforts in these areas. The IAEA has a substantial programme of work on the safety and the security of SMRs and advanced nuclear technologies. Relevant activities include reviewing and updating relevant safety standards, developing technical documents and reports, organizing peer review missions, and providing training and capacity building. The IAEA will continue supporting regulatory bodies in the context of rapidly changing environment and the emergence of new needs.

In 2022, the IAEA Director General launched the Nuclear Harmonization and Standardization Initiative (NHSI), which is aimed at facilitating the effective global safe and secure deployment of advanced nuclear reactors by working towards the harmonization of regulatory approaches and standardization of industrial approaches. Under NHSI, policy makers, regulatory bodies, designers, vendors, and operators are collaborating on these topics. During NHSI Phase I (2022-2024), three working groups of the Regulatory Track have developed an infrastructure for regulatory cooperation in design reviews, including a framework for sharing information among regulatory bodies, a process for a multinational pre-licensing joint review process, a process for leveraging reviews already completed by regulatory bodies and a collaborative review process that allows regulatory bodies to work together during national regulatory reviews. The outcome of this work will be published in 2025 as three IAEA technical documents. In NHSI Phase II, (2025-2026), the IAEA Regulatory Track is leading efforts to implement processes developed in Phase I, in addition to developing a regulatory cooperation toolkit, an SMR Regulation and Cooperation Hub, a step-by-step Blueprint to establish a global framework for regulatory review, and a Working Group on Nuclear Security of SMRs.

This technical meeting will consider recent efforts by Member States and the IAEA to prepare for licensing new technologies, including revision of the IAEA safety standards, development of new processes for reviewing designs, adaptation of regulatory frameworks, and relevant regulatory cooperation initiatives. The meeting will also provide an update on the efforts of NHSI Phase II. The IAEA especially welcomes presentations from Member States that highlight examples or lessons learned from reviews of SMR designs and regulatory engagements with other new technologies and from efforts aimed at ensuring regulatory readiness, including participation in relevant bilateral and multilateral cooperative arrangements.

# **Objectives**

The purpose of the meeting is to enhance the knowledge and capacity of Member States by sharing experiences and discussing challenges in relation to the licensing of new technologies, such as SMRs and microreactors, in addition to approaches to regulatory readiness and cooperation.

The meeting will also be an opportunity for participants to provide feedback on the tools and publications under development for NHSI Phase II and other IAEA activities.

# **Target Audience**

The meeting is open to participants from regulatory bodies, technical support organizations and operator organizations from all Member States currently operating nuclear power plants, those embarking on a nuclear power programme or considering expanding their nuclear power programmes, as well as interested international organizations.

## **Working Language(s)**

English.

# **Topics**

The event will address experiences from Member States and the IAEA to prepare for licensing new technologies, including:

- Examples of application and/or revision of safety standards, regulatory guides, regulations and regulatory processes to consider the unique features, deployment models and supply chain of new technologies in preparation or during licensing processes.
- Examples and lessons learned on regulatory cooperation for the review of SMR designs during pre-licensing or licensing processes.
- Examples of benchmarking, comparisons among regulatory expectations or other efforts that
  may facilitate the harmonisation of regulatory approaches to consider new technologies and their
  supply chain.
- Examples of regulatory readiness programmes to consider new technologies, including regulatory capacity plans, training and lessons learned.

# **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 (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>) 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 **11 July 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 <u>here.</u>
- 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 11 July 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.

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 <a href="Data Processing Notice">Data Processing Notice</a> 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 one page (including figures and tables) and should not exceed 500 words. It should be sent electronically to **Mr Brett Rini**, the Scientific Secretary of the event (see contact details below), not later than **18 July 2025**. Authors will be notified of the acceptance of their proposed presentations by **15 August 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 11 July 2025.

## 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.

# **Organization**

#### **Scientific Secretary**

#### Mr Brett Rini

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## **Administrative 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.