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International Atomic Energy Agency
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# Regional Meeting to Identify Needs and Interests for Developing Capabilities in the Area of Safety Assessment of Advanced Nuclear Power Plants and Innovative Technologies

**Hosted by**

The International Atomic Energy Agency (IAEA)
Vienna, Austria

**13 to 17 July 2026**

**Ref. No.: ME-RER9166 - EVT2600243**

# Information Sheet

## Purpose

The purpose of the event is to identify and analyse national needs, priorities, and technical interests for strengthening safety assessment capabilities of advanced NPPs—including SMRs and innovative safety features—and to support the development of a coordinated regional approach that enhances safety demonstration and regulatory assessment capacities for innovative reactor technologies.

## Working Language(s)

The working language(s) of the event will be English.

## Deadline for Nominations

Nominations received after **19 April 2026** will not be considered.

# Background Information

The regional project RER9166 – Enhancing Safety Assessment of Advanced Safety Features of Nuclear Power Plants Including Small Modular Reactors aims to strengthen the technical and regulatory capabilities of Member States in Europe and Central Asia to assess, review, and oversee advanced nuclear power plant (NPP) designs, including small modular reactors (SMRs) and innovative safety features. The project responds directly to growing regional interest in deploying advanced reactor technologies and the need for robust, well-supported safety demonstrations that are aligned with the IAEA Safety Standards.

The experience gained through previous regional and interregional projects, notably RER9160 and INT2024, revealed that while some progress has been made in applying harmonized, risk-informed approaches to severe accident management and safety analysis, Member States still require targeted support in developing comprehensive safety demonstrations for advanced NPPs. Many regulatory authorities and technical support organizations report challenges related to managing design uncertainties, applying advanced deterministic and probabilistic methodologies, and reviewing safety cases in the absence of sufficient operating experience. These challenges underscore the need for a structured, regional effort to expand technical competence and establish common approaches.

The regional dimension of RER9166 is critical. Member States are facing similar technical and regulatory challenges, including:

- New safety concepts and reactor configurations that differ from existing practices;
- Limited experience with risk-informed applications of DSA and PSA for advanced features;
- Fragmented national approaches without harmonized methodologies;
- The need for improved access to shared knowledge, practical guidance, and peer dialogue.

By addressing these issues through coordinated regional activities, RER9166 will support Member States in developing the competencies necessary to prepare, review, and assess safety cases for advanced NPPs. The project will provide a platform for exchanging national experiences, identifying common solutions, and fostering technical harmonization. It will also strengthen the application of relevant IAEA Safety Standards—particularly GSR Part 4 and SSR-2/1 (Rev.1)—which emphasize the need for robust safety demonstrations when introducing unproven or innovative design features.

Through regional workshops, training courses, expert missions, and technical exchanges, the project will enhance national and regional capabilities, facilitate mutual learning, and support the safe and effective deployment of advanced reactor technologies across Europe and Central Asia.

# Scope and Nature

The event aims to:

- Establish a clear understanding of Member States' current practices, challenges, and expectations for developing and reviewing safety demonstrations for advanced reactor technologies.
- Identify gaps in technical capacities, including deterministic safety analysis (DSA), probabilistic safety assessment (PSA), uncertainty management, and application of IAEA Safety Standards.

- Facilitate targeted discussions on national perspectives to support the formulation of future capacity-building activities under the project.
- Lay the groundwork for regional cooperation by enabling structured exchanges among regulatory authorities, technical support organizations, and operating organizations.

Through these objectives, the meeting supports a coordinated regional approach to strengthening safety demonstration and regulatory assessment capabilities supporting Member States in addressing the challenges posed by innovative reactor technologies.

The meeting will include:

- Presentations from participating Member States on national priorities, current practices, and challenges in safety assessment of advanced NPPs.
- Discussion of responses to preparatory questionnaires, identifying specific capacity-building needs in DSA, PSA, safety demonstration methodologies, and application of IAEA Safety Standards.
- Exchanges on approaches to harmonized methodologies for regulatory review and development of safety cases for innovative designs.
- Establishment of shared expectations for future regional activities under RER9166, including workshops, technical visits, and expert missions.

# Expected Outputs:

The list of expected outputs of the event are:

- A consolidated list of Member States' needs and interests for capacity building in safety assessment of advanced NPP designs.
- Identification of specific priority topics for future workshops, trainings, and expert missions under RER9166 and development of the preparatory material to implement them.
- Agreement on initial regional cooperation approaches for harmonizing practices in safety demonstration and regulatory review.
- Enhanced information sharing among regulatory authorities, TSOs, and operating organizations

# Participation

The regional meeting is open to candidates from Member States participating in project RER9166 that operate nuclear power plants and have established expertise in NPP safety assessment, including engineering analysis, deterministic safety analysis (DSA), and probabilistic safety assessment (PSA).

Each country is invited to nominate up to two participants who meet the required qualifications and experience indicated below.

Pre-requisite for Selection

As part of the nomination process, each nominee must complete and upload in Intouch the survey included in Annex A: Questionnaire – Capabilities in Member States to Conduct Safety Assessment of Advanced Nuclear Power Plants.

# Participants' Qualifications and Experience

Nominated candidates should be regulatory staff, TSO specialists, or utility experts with responsibilities in deterministic safety analysis, probabilistic safety assessment, or evaluation of advanced NPP designs and innovative safety features. Experience in safety reviews, application of IAEA Safety Standards, or development of safety demonstrations is desirable.

## Radiation exposure may occur

No radiation exposure is expected during the event.

## Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (https://intouchplus.iaea.org) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (https://websso.iaea.org/IM/UserRegistrationPage.aspx) before proceeding with the event application process below.

2. On the InTouch + platform, the candidate must:
    a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
    b. Search for the relevant technical cooperation event (EVT1906868) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

**NOTE:** Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

For additional support on how to apply for an event, please refer to the InTouch+ Help page. Any issues or queries related to InTouch+ can be addressed to InTouchPlus.Contact-Point@iaea.org.

Should online application submission not be possible, candidates may download the nomination form for the meeting from the IAEA website.

**NOTE:** A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

## Administrative and Financial Arrangements

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency American Express, or a travel grant, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

## Disclaimer of Liability

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in approving his/her participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

## Note for female participants

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

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