Interregional Training Course on Siting for Nuclear Power Plants, Including SMRs

Hosted by

The Government of the Russian Federation

through the

State Atomic Energy Corporation 'Rosatom'

Moscow, Russian Federation

12 to 16 May 2025

Ref. No.: TN-INT2024-2500379

Information Sheet

Purpose

The purpose of the event is to train participants on the principles and good practices related to the siting survey and selection process of a Nuclear Power Plant (NPP) including Small Modular Reactor (SMRs) in line with the guidance provided by the IAEA and international practice.

Working Language

The event will be conducted in English

Deadline for Nominations

Nominations received after 14 March 2025 will not be considered.

Project Background

As a low carbon source of energy, nuclear power is expected to play an increasing role in the energy mix of many countries around the world — for energy security and sustainable development, as well as for addressing environmental concerns. With more countries starting the operation of their first nuclear power plants (NPPs), as well as significant expansion in some countries, total global nuclear capacity is expected to grow despite the expected shutdown of several nuclear power plants in the coming years, with new technologies also expected to contribute in this regard. A nuclear power programme is a major undertaking requiring careful planning, preparation and investment in time, institutions and human resources. Nuclear power requires establishing a sustainable national infrastructure that provides governmental, legal, regulatory, managerial, technological, human resource, industrial and stakeholder support for the nuclear power programme throughout its life cycle. The INT2024 project aims to support participating Member States in creating an enabling environment to facilitate the safe, secure and sustainable introduction or expansion of nuclear power. It is intended to address the common issues identified in many of those Member States. It builds on the lessons learned from three previous four-year interregional projects in this field of activity (INT2013, INT2018 and INT2021) with adaptations to match the needs of the Member States.

Scope and Nature

This event will focus on the siting survey and selection process of NPPs including SMRs in line with the guidance provided by the IAEA and international practice.

The course will mainly consist in a series of presentations delivered by IAEA staff, international experts, and experts from the key organizations in the Russian Federation. The programme of the workshop will include discussions, peer-to-peer exchange of good practices, working group sessions on related topical issues, and a technical tour to a nuclear facility.

In addition, the course will provide opportunities for participants to network and continue sharing information and good practices as well as other potential follow-up tasks and coordinated activities, as appropriate.

References

- INTERNATIONAL ATOMIC ENERGY AGENCY, Milestones in the Development of a National Infrastructure for Nuclear Power, Nuclear Energy Series No. NG-G-3.1 (Rev. 2), IAEA, Vienna (2024).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Evaluation of the Status of National Nuclear Infrastructure Development, Nuclear Energy Series No. NG-T-3.1 (Rev. 1), IAEA, Vienna (2022).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Managing Siting Activities for Nuclear Power Plants, Nuclear Energy Series No. NG-T-3.7 (Rev. 1), IAEA, Vienna (2022).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Environmental Protection n New Nuclear Power Programmes, Nuclear Energy Series No. NG-T-3.11 (Rev. 1), IAEA, Vienna (2024).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Strategic Environmental Assessment for Nuclear Power Programmes, Nuclear Energy Series No. NG-T-3.17, IAEA, Vienna (2018).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Building a National Position for a New Nuclear Power Programme, Nuclear Energy Series No. NG-T-3.14, IAEA, Vienna (2016).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Stakeholder Engagement in Nuclear Programmes, Nuclear Energy Series No. NG-G-5.1, IAEA, Vienna (2021).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Resource Requirements for Nuclear Power Infrastructure Development, Nuclear Energy Series No. NG-T-3.21, IAEA, Vienna (2021).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Site Evaluation for Nuclear Installations, IAEA Safety Standards Series No. SSR-1, IAEA, Vienna (2019).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Site Survey and Site Selection for Nuclear Installations, IAEA Safety Standards Series No. SSG-35, IAEA, Vienna (2015).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Prospective Radiological Environmental Impact Assessment for Facilities and Activities, IAEA Safety Standards Series GSG-10, IAEA, Vienna (2018).

Advanced manuscripts of recent IAEA publications and materials from the host organization may also be used to aid learning.

For all references covering the Milestones Approach and its 19 Issues, please refer to the IAEA Infrastructure Bibliography:

https://www.iaea.org/topics/infrastructure-development/bibliography

More IAEA publications and information about IAEA services are available at the following sites:

- https://www.iaea.org/publications
- https://www.iaea.org/resources/safety-standards
- https://www.iaea.org/resources/treaties/treaties-under-IAEA-auspices

Expected outputs

The expected outputs of the event are improved knowledge and understanding of the site and supporting facilities issue within the context of the IAEA Milestones Approach, to help countries embarking and expending on nuclear power in developing these two infrastructure issues, covering the following areas:

- IAEA Milestones approach and the 19 nuclear infrastructure issues
- Processes and prerequisites for undertaking site surveys, identifying, and selecting candidate sites and the preparation for detailed site characterization
- Relevant legal and regulatory obligations associated with the introduction of nuclear power and the construction of a nuclear power plant.
- Establishing appropriate site selection criteria
- Stakeholder involvement/public communication during the siting processes
- Developing and maintaining an integrated management system
- The roles and responsibilities of the key organizations with regards to siting in each phase of nuclear power programme and project development, including the interface between the nuclear and environmental regulators.
- IAEA Safety Standards and Publications related to siting, covering safety and non-safety considerations.
- The interaction between siting and supporting facilities, environmental protection, and other infrastructure issues such as safety, environmental protection, transmission grid, etc.
- Specific or unique issues and siting considerations associated with the introduction of nuclear power.
- The challenges and lessons learned in siting for a nuclear power programme

The event will provide participants the opportunity to be involved in roundtable sessions and interactive exercises to discuss common challenges and lessons learned. It is expected to foster enhanced networking between Member States embarking on new nuclear power programmes.

Participation

The event is open up to 25 participants from the following Member States participating in the INT/2/024 project:

Algeria; Argentina; Armenia; Brazil; Bulgaria; Czech Republic; El Salvador; Estonia; Ethiopia; Ghana; Hungary; Indonesia; Iran; Jamaica; Jordan; Kazakhstan; Kenya; Mexico; Mongolia; Morocco; Myanmar; Nigeria; Pakistan; Philippines; Rwanda; Senegal; Slovakia; Slovenia; South Africa; Sri Lanka; Sudan; Thailand; Tunisia; Uganda; Zambia.

Participants' Qualification and Experience

The training course is designed for professionals from expanding and active newcomer countries, specifically in site survey and selection for NPPs. Applicants should be from NEPIOs, owner/operating organizations (utility/headquarters), regulatory body or decision makers from other relevant institutions involved in the nuclear power programme. The candidates should have at least 5 years of experience developing nuclear power programmes. Excellent English-language skills are necessary.

Candidates who previously attended this course will not be accepted to participate and the opportunity will be given to new candidates to enhance the capacity building in member states..

Participants are encouraged to complete the following IAEA E-Learning Modules before joining the course:

- **Siting and Supporting facilities**
https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E_Learning_Modules/13/Default.htm

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 (**EVT2500379**) 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. **All nominations must include a scan of the candidate's first page of passport with photo.**

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 training course 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.

Training on Basic Security in the Field (BSITF)

In order to comply with UN system-wide security measures, it is required that all training course participants complete the online security awareness training BSAFE (which replaces BSITF and ASITF), prior to traveling to locations where UN security phases are in effect. The aim of these course is to educate participants on how best to avoid or minimize potential dangers and threats, and to demonstrate what individuals can do if they find themselves in insecure situations. The course is available online (https://training.dss.un.org/course/category/6).

Once an individual has completed the training, he/she must go back to the main training page to receive the certificate. If the button to get the certificate is not immediately visible, please refresh the page. BSAFE is maintained by UNDSS; in case of problems with the system, please contact UNDSS through the "Contact Us" page on the training website (https://dss.un.org/dssweb/contactus.aspx).

This certificate is compulsory for any IAEA-supported activity and should be submitted, along with the Nomination Form, through the competent authority in your country (NLO). Copies of the certificate should be kept by the candidate for his/her records as the BSAFE certificate does not expire.

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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