

Interregional Workshop on Preparedness of the Operating Organization for Construction and Operation of Nuclear Power Plants

Hosted by

The Government of the Republic of Korea

Through the

KEPCO International Nuclear Graduate School

Ulsan, THE REPUBLIC OF KOREA

9 - 13 June 2025

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Information Sheet

Purpose

The purpose of the event is to discuss and share experiences on good practices related to the establishment of a knowledgeable and competent owner/operator organization for construction, commissioning, and operation of a nuclear power plant (NPP) in line with the guidance provided by the IAEA.

Working Language

The working language of the event will be English.

Deadline for Nominations

Nominations received after 9 March 2025 will not be considered.

Background Information

The use of nuclear power as a source of energy is increasing globally, with many countries introducing or expanding their nuclear power programmes. Such programmes require a long-term commitment and a national nuclear infrastructure that provides governmental, legal, regulatory, institutional, managerial, technological, human resource, industrial and stakeholder support throughout its life cycle. The adherence to international legal instruments, and the adoption of internationally accepted nuclear safety standards, nuclear security guidance and safeguards requirements are essential in establishing a responsible nuclear power programme. It is each country's sovereign decision whether to include nuclear power in its national energy mix. However, when countries proceed with this option, the IAEA is ready to support them through a variety of activities and services to do so safely, securely and sustainably.

Currently, the IAEA provides nuclear infrastructure development training to its Member States through a number of mechanisms. Through the Technical Cooperation programme, Member States benefit from training at the national, regional and interregional level. The majority of the training provided on the introduction of nuclear power is general in nature and cuts across the 19 infrastructure issues. In this respect, the interregional projects are an important mechanism, delivering support across national and regional boundaries and addressing the common needs of different regions. The interregional approach through INT2024–NPID is then necessary to streamline the IAEA support in this area.

IAEA Nuclear Energy Series No. NG-G-3.1 (Rev. 2), Milestones in the Development of a National Infrastructure for Nuclear Power, first issued in 2007 and updated in 2024, defines three milestones in the development of infrastructure and provides detailed guidance for 19 specific infrastructure issues ranging from a government's national position on nuclear power to the procurement of items and services for the first nuclear power plant. The guidance in that publication is referred to here as 'the Milestones approach'.

The development of the infrastructure for a nuclear power programme includes the establishment of policies and strategies in areas such as human resource development, nuclear fuel cycle and waste management, industrial involvement, and nuclear safety. A legal and regulatory framework that creates an environment enabling the project to be implemented in a transparent and effective manner will also need to be established.

This workshop is part of the Interregional Project INT2024 which covers the 19 infrastructure issues for all stakeholders. This workshop focuses on the owner/operator and its role and responsibilities in the programme and project development. The workshop provides an overview of the evolution of owner/operator from the initiation of the project to the beginning of safe, secure and reliable operations.

Scope and Nature

This event will focus on the owner/operator organisation roles and responsibilities in the planning for construction and overseeing the EPC contractor, as well as preparing the organization for operation. The workshop will mainly consist in a series of presentations delivered by IAEA staff, international experts, and experts from Korea. 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 workshop 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:

The following IAEA publications provide relevant information to Member States:

- 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, Initiating Nuclear Power Programmes: Responsibilities and Capabilities of Owners and Operators, Nuclear Energy Series No. NG-T-3.1 (Rev. 1), IAEA, Vienna (2020).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Management of Nuclear Power Plant Projects, Nuclear Energy Series No. NG-T-1.6, IAEA, Vienna (2020).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Project Management in Nuclear Power Plant Construction: Guidelines and Experience, IAEA Nuclear Energy Series No. NP-T-2.7, IAEA, Vienna (2012)
- INTERNATIONAL ATOMIC ENERGY AGENCY, Construction Technologies for Nuclear Power Plants, IAEA Nuclear Energy Series No. NP-T-2.5, IAEA, Vienna (2011)
- INTERNATIONAL ATOMIC ENERGY AGENCY, Commissioning Guidelines for Nuclear Power Plants, IAEA Nuclear Energy Series No. NP-T-2.10, IAEA, Vienna (2018).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Procurement Engineering and Supply Chain Guidelines in Support of Operation and Maintenance of Nuclear Facilities, IAEA Nuclear Energy Series No. NP-T-3.21, IAEA, Vienna (2016)
- INTERNATIONAL ATOMIC ENERGY AGENCY, Technical Support to Nuclear Power Plants and Programmes, IAEA Nuclear Energy Series No. NP-T-3.28, IAEA, Vienna (2018).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Leadership and Management for Safety, IAEA Safety Standards Series No. GSR Part 2, IAEA, Vienna (2016).
- INTERNATIONAL ATOMIC ENERGY AGENCY, The Operating Organization for Nuclear Power Plants, IAEA Safety Standards Series No. SSG-72, IAEA, Vienna (2022).

Expected Outputs

The expected output of the workshop is that the decision makers of the Nuclear Energy Programme Implementation Organization (NEPIO), Owner/Operators, and Government that will be involved in a future Owner/Operator Organization, understand their roles and responsibilities in preparing for construction of a nuclear power plant, in implementing oversight processes and programmes, and in preparing the organization for commissioning and operations.

Participation

The event is open to up to 25 participants from the following Member States (Phase 2, 3 and Expanding Countries) participating in the INT/2/024 that have expressed an interest in developing a nuclear power programme:

Argentina, Armenia, Bangladesh, Brazil, Bulgaria, Czech Republic, Egypt, Estonia, Ghana, Hungary, Iran, Jordan, Kazakhstan, Kenya, Lithuania, Mexico, Nigeria, Pakistan, Poland, Romania, Saudi Arabia, Slovakia, Slovenia, South Africa, Türkiye, Uzbekistan

Participants' Qualification and Experience

The workshop is designed for professionals from expanding and active newcomer countries, specifically in the preparatory work for construction and operations of NPPs. Applicants should be from NEPIOs, owner/operating organizations (utility/headquarters) 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 similar course will not be accepted to participate more than once to give the opportunity for new candidates to gain the knowledge of the course. This will enhance the capacity building of multiple staff in the organization.

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

• Culture for Safety

https://nucleus.iaea.org/sites/connectmembers/cbh/publicpages/E Learning Modules/16/Default.htm

• Construction Management

https://nucleus.iaea.org/sites/connectmembers/cbh/publicpages/E Learning Modules/05/Default.htm

• Management System

https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E_Learning_Modules/08/Default.htm

Application Procedure

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

- 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 (**EVT2407165**) 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 <u>InTouch+ Help page</u>. Any issues or queries related to InTouch+ can be addressed to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Should online application submission not be possible, candidates may download the nomination form for the training course from the <u>IAEA website</u>.

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 she/he is travelling to and from or attending the course, and it is clearly understood that each Government, in approving her/his 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.

Programme Management Officer

Mr Jing Zhang
Division for Europe
Department of Technical Cooperation
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA, AUSTRIA

Tel.: +43 1 2600 26540 Fax: +43 1 26007

Email: J.Zhang@iaea.org

Administrative Contact

Mr Kyoung-Pyo KIM
Division for Europe
Department of Technical Cooperation
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA, AUSTRIA

Tel.: +43 1 2600 22481 Fax: +43 1 26007

Email: K.P.Kim@iaea.org