

Atoms for Peace and Development

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National Liaison Officers /

**National Coordinators** 

2025-10-22

Subject: Interregional Training Course on Basic Safety in Nuclear Power Plants (BPTC) for Regulatory Authorities, Islamabad, Pakistan, from 30 March to 24 April 2026

Dear National Liaison Officer / National Coordinator,

I am pleased to inform you, that the International Atomic Energy Agency (IAEA) is organizing the above event under the IAEA technical cooperation project INT2024, "Supporting Member States Introducing or Expanding Nuclear Power Programmes to Develop a National Infrastructure for a Safe, Secure and Peaceful Nuclear Power Programme".

The purpose of the event is to train participants on basic safety concepts and associated topics and issues in nuclear power.

The attached Information Sheet provides further details, including technical and administrative aspects of the event. Selection of participants will be in accordance with IAEA procedures. Member States are strongly encouraged to identify women participants.

We would appreciate receiving your country's nominations by **21 November 2025** through the IAEA's InTouch+ platform (<a href="https://Intouchplus.iaea.org">https://Intouchplus.iaea.org</a>). Please be advised that late nominations or replacements of participants after the closing date for nominations will not be accepted.

We look forward to receiving your early response.

Yours sincerely,

Jing Zhang

Programme Management Officer

Division for Europe

Department of Technical Cooperation

Enclosure:

Information Sheet



# Interregional Training Course on Basic Safety in Nuclear Power Plants (BPTC) for Regulatory Authorities

#### Hosted by

The Government of Pakistan

through the

Pakistan Nuclear Regulatory Authority (PNRA)

Islamabad, Pakistan

**30 March to 24 April 2026** 

Ref. No.: TN-INT2024-2503740

# **Information Sheet**

# Purpose

The purpose of the event is to train participants on basic safety concepts and associated topics and issues in nuclear power.

# Working Language(s)

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

### **Deadline for Nominations**

Nominations received after 21 November 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 TC project INT2024 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.

As one of the main capacity building tool, the Basic Professional Training Course on Nuclear Safety was offered to Member States for the first time at the end of 1999. After that the BPTC has been organized many times upon request of IAEA Member States under national TC projects as well as regional and interregional TC projects.

### **Scope and Nature**

The event is planned for four weeks and will include a combination of classroom lectures, exams and technical tours. The event will be conducted as a series of presentations by IAEA staff, local and international experts and will focus on nuclear power nuclear reactors, nuclear safety and associated topics and issues to enhance the understanding of the basic safety-related characteristics of nuclear reactors; basic principles of radiation protection; the principles of safety assessment; the defence-in-depth concept; the importance of the integrated management system; the principles of management of safety including safety culture; the role of regulatory body, etc.

The BPTC is intended to provide a broad overview of all the safety concepts and their application to nuclear reactors design, construction, commissioning and operation.

#### **References:**

- <u>IAEA Nuclear Energy Series No. NG-G-3.1, Rev. 1 "Milestones in the Development of a National Infrastructure for Nuclear Power"</u>
- Fundamental Safety Principles, IAEA Safety Standards Series No. SF-1, IAEA, Vienna (2006)
- Governmental, Legal and Regulatory Framework for Safety IAEA safety standards series No. GSR
   Part 1 (Rev. 1), Vienna (2016)
- Establishing the Safety Infrastructure for a Nuclear Power Program IAEA safety standards series
   No. SSG-16, IAEA, Vienna (2011)
- Organization, Management and Staffing of the Regulatory Body for Safety, IAEA Safety Standards Series No. GSG-12, IAEA, Vienna (2018).
- <u>Functions and Processes of the Regulatory Body for Safety, IAEA Safety Standards Series No. GSG-13, IAEA, Vienna (2018).</u>
- <u>Licensing the First Nuclear Power Plant, INSAG-26, IAEA, Vienna (2012).</u>
- Ensuring Robust National Nuclear Safety Systems Institutional Strength in Depth, INSAG-27, Vienna (2017).
- Construction for Nuclear Installations, IAEA Safety Standards Series No. SSG-38, IAEA, Vienna

(2015).

- Commissioning for Nuclear Power Plants, IAEA Safety Standards Series No. SSG-28, IAEA, Vienna (2014).
- IAEA Nuclear Safety and Security Glossary, 2022 (Interim) Edition, IAEA, Vienna (2022).
- <u>Safety of Nuclear Power Plants: Design, IAEA Safety Standards Series No. SSR-2/1 (Rev. 1), IAEA, Vienna (2016).</u>
- Safety of Nuclear Power Plants: Commissioning and Operation, IAEA Safety Standards Series No. SSR-2/2 (Rev. 1), IAEA, Vienna (2016).
- Safety Assessment for Facilities and Activities, IAEA Safety Standards Series No. GSR Part 4 (Rev. 1), IAEA, Vienna (2016).

#### **Expected outputs**

The expected outputs of the training course are improved knowledge and understanding in the following areas:

- The IAEA Safety Guide SSG-16 on establishment of a nuclear safety infrastructure for nuclear power programme in the three Phases of the Milestones Approach;
- IAEA services in support of the development or enhancement of nuclear safety infrastructure;
- The basic knowledge about nuclear reactor physics and safety-related characteristics of nuclear reactors;
- The defence-in-depth concept and safety principles applied in nuclear reactor design and operation;
- The roles and responsibilities of the operating organization and regulatory body;
- The main regulatory functions;
- Establishment of an integrated management system in the regulatory body;
- The principles of management of safety including safety culture for both the operating organisation and the regulatory body;
- The licensing process for nuclear reactors;
- Safety assessment, deterministic and probabilistic safety analysis and engineering factors for safety;
- Operating limits and conditions of the nuclear reactor;
- The regulatory aspects of emergency preparedness;
- Important safety-related tasks in the operation of a nuclear reactor, with special emphasis on planning and management of surveillance, testing and maintenance activities;
- The preparation and execution of a plan for radiological emergency;
- The rationale of the various management process activities at the plant; etc.

The event will also provide participants the opportunity to share and discuss common challenges and lessons learned, fostering enhanced networking between Member States embarking on new nuclear power programmes or expanding their existing NPP programme. Participants will also have the opportunity to visit Pakistan's nuclear facilities as well as relevant national organizations.

# **Participation**

The event is open up to 25 participants from the following Member States participating in the INT/2/024 project which need assistance to enhance the number and knowledge of staff involved in launching nuclear power programmes, namely:

Algeria; Azerbaijan; Bangladesh; Democratic Republic of the Congo; Ecuador; El Salvador; Estonia; Ethiopia; Ghana; Indonesia; Iraq; Jamaica; Jordan; Kazakhstan; Kenya; Malaysia; Mongolia; Morocco;

Myanmar; Niger; Nigeria; Philippines; Rwanda; Senegal; Serbia; Singapore; Sri Lanka; Sudan; Thailand; Tunisia; Uganda; Uzbekistan; Viet Nam; Zambia.

NOTE: At no cost to the IAEA, participants from Norway can also be considered.

### Participants' Qualification and Experience

This training course is open to young professionals recently employed or to be employed by nuclear regulatory bodies that are currently regulating or getting prepared to regulate nuclear power reactors in a near future. The participants will be expected to fit the following criteria:

- \* Have at least a first university degree in engineering or science related to nuclear technology; and
- \* Possess the interpersonal skills and language skills necessary to participate effectively in the BPTC.

Candidates are requested to include a summary of how this training will provide direct benefit to their current or future job position in their application.

Individuals who participated in this course or a similar course in the past three years should not apply.

Participants are encouraged to complete the following IAEA e-learning modules before joining the course:

- E-Learning Course on IAEA Safety Standards
   <a href="https://www.iaea.org/newscenter/news/now-available-e-learning-course-on-iaea-safety-standards
- E-learning for Nuclear Newcomers https://www.iaea.org/topics/infrastructure-development/e-learning-for-nuclear-newcomers
- Implementing a Nuclear Power Programme
   <a href="https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/01/Default.htm">https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/01/Default.htm</a>

   | https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/01/Default.htm
   | https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/01/Default.htm</a>
- Safety Infrastructure
  <a href="https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/09/Default.htm">https://nucleus.iaea.org/sites/connect-members/cbh/publicpages/E\_Learning\_Modules/09/Default.htm</a>

# **Application Procedure**

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

- Access the InTouch+ home page (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>) 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 (<a href="https://websso.iaea.org/IM/UserRegistrationPage.aspx">https://websso.iaea.org/IM/UserRegistrationPage.aspx</a>) 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. Download and complete the Designation of Beneficiary and Emergency Contact Form, and

- upload to InTouch+ ('Profile' tab under the personal section) specifying the document name. If already provided, kindly discard this step; and
- c. Search for the relevant technical cooperation event (EVT2503740) 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 <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 AX Travel Management, or a travel allowance, 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.

#### **IAEA Contacts**

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