



Interregional Training Course on Nuclear Safety Assessment for Nuclear Power Plants

Hosted by

The Government of the People's Republic of China

Through the

China Nuclear Power Engineering Co. and Ltd. (CNPEC)

Shenzhen, China

13 October to 7 November 2025

Ref. No.: TN-INT2024-EVT2500343

Information Sheet

Purpose

The purpose of the event is to train the participants on Nuclear Safety Assessment focusing on safety assessment of engineering aspects, deterministic safety analyses, and probabilistic safety analysis (PSA) Levels 1 and 2.

Working Language

The working language of the event will be **English**.

Deadline for Nominations

Nominations received after **20 June 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, including small modular reactors (SMRs) 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 nuclear safety assessment will be based on the updated relevant IAEA publications, including requirements and recommendations in Safety Standards, as well as the recent operating experience in Member States in the topical areas relevant for this training course.

The nuclear safety assessment is implemented as a face-to-face event, and the experts, including lecturers from the China Nuclear Power Engineering Co. and Ltd. (CNPEC), international experts as well as IAEA staff, will be organized in the following format:

- Week 1 will cover the topic of safety assessment of engineering aspects important to safety;
- Week 2 will cover the topic of the deterministic safety analyses (DSA);
- Week 3 will cover the topic of the Level 1 probabilistic safety analyses (PSA);
- Week 4 will cover the topic of the Level 2 probabilistic safety analyses (PSA).

During each week, participants will receive lectures on theoretical fundamentals relevant for each topical area, which will be complemented by practical sessions including case studies. During the case studies, participants will have the opportunity, first to practise on performing the safety assessment of some key aspects of the particular topical area, and second, to facilitate discussion on key self-questions to be raised concerning the safety assessment topical area.

A technical visit to a nuclear facility might be organized by the host country.

Expected Outputs

The expected outputs of four-week training course are:

- Participants will deepen their knowledge about the requirements of the IAEA Safety Standards concerning safety assessment of engineering aspects important to safety, deterministic safety analyses and probabilistic safety analysis (PSA Level 1 and PSA Level 2);
- Participants will acquire practical knowledge on the application of the IAEA Safety Standards for performing the safety assessment of some key aspects of the particular topical area through case studies;
- Participants will exchange experiences and discuss with both peers and experts concerning the safety assessment topical area.

Participation

The event is open to 25 participants from the Member States participating in the INT/2024 project which need support for their human resources and capacity building programmes to enhance the number and knowledge of staff involved in launching nuclear power programmes:

Bangladesh, Egypt, Ghana, Jordan, Kenya, Nigeria, Poland, Saudi Arabia, Türkiye, Uzbekistan.

Participations' Qualification and Experience

This nuclear safety assessment aims for representatives from invited Member States' governments, regulatory bodies, technical scientific support organizations, or prospective owner/operator organizations particularly those with the responsibility for conducting or revising the safety assessment of engineering aspects important to safety, deterministic safety analyses and/or probabilistic safety analyses for a Nuclear Power Plant.

The event will be conducted in English, and it is expected that candidates possess a sufficient level of English proficiency to actively engage in the event without encountering any language-related difficulties.

Note that accepted nominees are expected to read the following IAEA Basic Professional Training Course Modules: Basic Principles of Nuclear Safety; Design of Nuclear Reactor, Safety Classification of Structures, Systems and Components and Deterministic safety Assessment, and to respond to an online questionnaire that will be provided in due course.

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. 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 (EVT2500343) 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 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 regarding 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.

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