



Interregional Workshop on the Fundamentals of Regulatory Inspections of Nuclear Power Plant during Construction and Operation

Hosted by

The Republic of Austria

through the

Energie Versorgung Niederösterreich (EVN) AG,
Nuclear Power Plant Zwentendorf

Zwentendorf, Austria

23 to 27 May 2022

Ref. No.: ME-INT2021-2201853

Information Sheet

Purpose

The purpose of the event is to familiarize the participants with the fundamentals of regulatory inspections of nuclear power plants and offer hands-on, real-life scenario training as an introduction to inspection skills and methods.

Working Language

The training course will be conducted in English

Deadline for Nominations

Nominations received after **31 March 2022** will not be considered.

Project Background

Today many countries are considering nuclear power as part of their energy strategy. As a result, there is a need within these countries to hire and train staff in various areas of nuclear safety. To help meet the needs of these embarking countries, the IAEA has established the highly successful hands-on inspector workshop using nuclear power plants that were almost fully constructed but never operated. This workshop is specifically intended for staff of nuclear regulatory bodies.

These workshops are aimed to assist Member States that have decided to develop a nuclear power programme in planning, building and assessing a nuclear power infrastructure (political, socio-economical, technical, financial etc.), a nuclear safety infrastructure and a regulatory framework in accordance with the IAEA safety standards. This would include strategy development, feasibility, financing, and nuclear power infrastructure programme management which relates to the 20 issues identified in IAEA Safety Standard SSG-16, “Establishing the Safety Infrastructure for a Nuclear Power Programme.” New challenges are emerging and require emphasis on issues such as NPP modifications, reactor aging and lifetime management, energy market deregulation, staff aging and maintenance of knowledge, and licensing of new NPP units.

Scope and Nature

This event is planned for five working days and will include a combination of classroom workshop, visit to Zwentendorf Nuclear Power Plant and interactive exercises.

- Basic knowledge of the IAEA Safety Standards
 - Brief introduction to IAEA activities in nuclear regulatory area
 - An overview of the standards that are applicable to regulatory inspections
 - Highlights of applying specific requirements such as unannounced inspections and unfettered access to the facilities and activities of the NPP
- Fundamentals of inspection
 - Preparation (gathering of information, prepare an inspection plan and schedule using risk insights, operating experience and other relevant information as discussed in the inspection procedure)
 - Conduct (field techniques using direct observation, indirect observation, performance based, interviewing skills, role and conduct of inspector)
 - Evaluation (determine extent of condition and root cause – if appropriate, safety significance of findings)
 - Reporting (what does it take to communicate findings)
- An overview of the basic information required for inspections
 - Plant familiarization
 - Review the preliminary/final safety analysis, probabilistic risk assessment, plant drawings, technical specifications,
 - Overview of operating and maintenance procedures
 - Industrial safety
 - Radiological protection and controls
 - Discuss housekeeping and fire protection standards
 - Security
- How to perform general plant inspections
 - Fire protection
 - Housekeeping
 - Radiological protection

- Foreign material exclusion
- Scaffolding over safety systems
- Flood barriers

Valve position, indicator lights, locking devices, improper pipe supports, labelling errors, thread engagement, temporary modifications, material damage, etc.

Expected outputs

At the conclusion of the event the participant will:

- Have a basic knowledge of the IAEA Safety Standards pertaining to regulatory inspections.
- Know the steps in planning inspections.
- Be able to construct a simple plan for conducting an inspection.
- Know the activities involved with performing an inspection and interacting with operations personnel in the field.
- Be able to perform inspections to assess compliance with regulatory and licensing requirements using a graded approach to safety and focusing on safety related plant structures, systems and components.
- Be able to evaluate the safety significance of inspection findings.

Participation

The event is open to a maximum of 25 candidates from the following target countries:

Argentina, Armenia, Bangladesh, Belarus, Brazil, Bulgaria, Czech Republic, Egypt, Ghana, Hungary, Indonesia, Iran, Jordan, Kazakhstan, Kenya, Lithuania, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Poland, Romania, Saudi Arabia, Slovakia, South Africa, Sudan, Turkey, and United Arab Emirates.

Participants' Qualification and Experience

The participants for the workshop should represent the regulatory body and have a basic understanding of the IAEA Safety Standards relating to the inspection and enforcement of nuclear power plants. Participants should meet the following qualifications:

- Engineering or science degree, or equivalent experience;
- No or limited inspection experience;
- Basic power reactor knowledge;
- Limited risk assessment and deterministic knowledge of NPPs;
- A member of a regulatory body;

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.

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 (EVT2201853) 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 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.

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.

NOTE: The event will be hosted in Zwentendorf, Austria, therefore nominated participants who require a visa to enter Republic of Austria should submit the necessary application to the nearest diplomatic or consular representative of Republic of Austria as soon as possible.

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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