



Group Scientific Visit Programme on Advanced Technologies using IT to Strengthen Capabilities of Design, Construction and Operating and Decommissioning in Nuclear Power Plants

Hosted by

the Government of the Republic of Korea

through the

Korea Hydro Nuclear Power Company (KHNP)

and

the Government of People's Republic of China

through the

China Nuclear Power Operation Technology Corporation (CNPO)

**27 March to 1 April 2023, Republic of Korea
3 to 7 April 2023, the People's Republic of China**

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Information Sheet

Purpose

The purpose of the group scientific visit programme is to provide the participants with opportunities to further learn and share good practices and experiences on the advanced technologies using IT for the entire process of design, construction and operation including decommissioning to sustain operational excellence of nuclear power plants (NPPs).

The group scientific visit programme will be held in Republic of Korea from 27 to 31 March 2023 and in the People's Republic of China from 3 to 7 April 2023 and will focus on managerial, organizational and technical aspects rather than detailed technical issues. This programme will be awarded to senior staff and these awards are intended to broaden the technical or managerial capabilities of senior staff to effectively strengthen capabilities of design, construction and operation and decommissioning in NPPs.

Working Language(s)

The working language of the event will be English.

Deadline for Nominations

Nominations received after **15 February 2023** will not be considered.

Project Background

In the Central European region, ten countries have operating nuclear power plants (NPPs) with WWER and Candu type reactors. A sustainable nuclear power programme is considered to be one that is based on the highest level of safety and security, real long-term needs design and operation for nuclear power in the energy mix.

When the design lifetime for NPP operation expires, relevant license beyond design lifetime for long term operation should be obtained from the regulatory authority. This activity requires the regulatory authority to establish clear requirements and operating organizations of NPPs to develop relevant safety justifications and performance improvement methodologies for the facilities.

Some Member States in region are planning to construct new NPPs. The construction of the third generation reactors should therefore be focused on creating the conditions to facilitate the establishment of adequate infrastructure. To avoid delays in the early stages of the national project, all of this should be prepared before the start of the construction phase. New NPPs using the advanced technologies like Building Information Modelling (BIM) and Plant Information Modelling (PIM) are being designed, constructed and operated by multidimensional modelling computer aided design, engineering and electronic documents. Some third generation reactors have been constructed based on the experience of existing reactors in the Republic of Korea and China recently.

The Configuration Management (CM) process is one of the integrated set of processes for the safety and performance of NPPs. The CM is needed for both the construction and operation phase. It encompasses activities that evaluate the need to change NPP configuration and establish the optimum implementation method to produce an approved, implemented, and documented change to the NPP configuration.

Scope and Nature

The purpose of group scientific visits is to provide the participants with opportunities to further learn and share good practices and experience on the advanced technologies using IT for the entire process of design, construction and operation including decommissioning to sustain operational excellence of nuclear power plants (NPPs). The group scientific visit programme is intending to share more managerial issues, challenges and organizational aspects of NPPs. The group scientific visit programme will consist of:

- Lectures of and direct dialogue with international/ Republic of Korea and China experts from the nuclear industry, operators and the regulatory body;
- Technical/scientific visit to various nuclear facilities will include NPPs in construction site, operating NPPs, research organization for large and SMR development and technical support organizations for IT applications;
- Interactive high level discussions on the participants' challenges and solutions among participants and experts from the managerial and organizational aspects;
- Case studies and assessment of advance IT technologies such as configuration management information system, BIM and PIM.

Participation

The group scientific visit programme is open to 30 participants from the following Member States: Armenia, Belarus, Bulgaria, Croatia, Czech Republic, Hungary, Kazakhstan, Poland, Romania, Russian Federation, Slovakia, Slovenia, Türkiye, Ukraine and Uzbekistan.

In addition, this event will possibly be open to a few candidates from Africa, Asia and the Pacific, and Latin America and the Caribbean.

Priority will be given to candidates from countries that have operating NPPs and newcomer countries to gain the lessons learned from the more experienced Member States.

Participants' Qualifications and Experience

The target participants of this event consist of middle or high level managers involved and have experience in plant life management of NPPs and construction of NPPs from:

- Nuclear energy programme implementing organization (NEPIO);
- Nuclear power plant construction organizations
- Nuclear power plant operating organizations;
- Nuclear regulatory bodies;
- Nuclear technical support organizations; and
- National networks of nuclear organizations, governmental agencies or bodies that support nuclear power programme.
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The group scientific visit will be conducted in English and candidates must have sufficient English proficiency to ensure their active participation in discussions, etc.

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 (**EVT2207481**) 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 from countries eligible to receive technical assistance will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence, and miscellaneous expenses. They will be also provided with a round trip economy class air ticket from their home countries to Incheon, Republic of Korea, and other air tickets in the host countries of Republic of Korea and China as well as return through the IAEA's travel agency American Express, or a travel grant.

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.