IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Regional Workshop on Low Cycle Fatigue Analysis, Residual Lifetime Assessment and Time Limited Ageing Analysis (TLAAs)

Hosted by

The Government of Armenia

through the

Yerevan, Armenia

8 to 10 April 2026

Ref. No.: ME-RER2019-2500794

Information Sheet

Purpose

The purpose of the event is to discuss and share experiences in the TLAAs and residual lifetime assessments focusing on components
susceptible to low cycle fatigue in water cooled nuclear power plants.

Working Language(s)

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

Deadline for Nominations

Nominations received after 27 February 2026 will not be considered.

Project Background

The project aims to comprehensively address aspects related to the operation of nuclear power plants (NPPs) beyond their existing long-term operation (LTO). It focuses on developing and enhancing capacities in the region, with a focus on the legal, technical, managerial, and research considerations, specifically covering challenges associated with the subsequent operation of NPPs beyond their existing LTO, such as maintenance effectiveness monitoring, ageing management, time limited ageing analysis management, technical obsolescence, spare part management, environmental risks, equipment reliability, knowledge management, preservation and retention, cycle fatigue calculations, embrittlement and irradiation issues, including their regulatory review, and human resources capacities, the use of advanced inspection topics, programmes and other aspects. Previous IAEA TC projects, RER2012 (2016 2017) and RER2015 (2018 2022), have covered important aspects of LTO, including: (1) methodologies and techniques for the on-line monitoring of equipment performance (maintenance and qualification); (2) approaches in the field of passive components, resource evaluation and strength analyses; and (3) the regulatory requirements regarding LTO and regulatory oversight with regard to the subsequent period of LTO of NPPs. The current project builds upon the knowledge gained and aims to further explore the safety aspects through a coordinated approach among Member States (MSs) and will concentrate on building and developing capacities with particular focus on the period beyond the existing LTO programmes. The project is designed with a preliminary approach, allowing for a detailed analysis of the present LTO situation in the region, including the necessary identification of related technical issues, and the subsequent development of holistic approaches for possible extensions of existing LTO programmes which can be considered as a first phase. The outcomes of this project will serve as a basis for a more extensive and detailed exploration of identified technical aspects which could be covered in a second phase within future TC programmes.

Scope and Nature

This workshop focuses on sharing experiences and discussing proven practices on Time Limited Ageing Analysis (TLAAs) and residual lifetime assessments of main components of NPPs, focusing on VVER technology. The following topics will be covered:1. Practical discussions of existing methodologies for fatigue calculations and related ageing management activities, including interfaces with other plant programmes as maintenance and in-service inspections.2. Practical discussion on aspects of technical condition assessment and residual lifetime assessment of main components of NPPs.3. Review some examples and discussion of technical activities related to ageing management of mechanical components susceptible to low cycle fatigue.4. Improve awareness of and provide information for participant NPPs and regulatory authorities on IAEA safety standards on TLAAS, ageing management and long-term operation.5. Discuss documentation and records of results of TLAAs and residual lifetime assessments including typical documentation submitted to regulators and processes under regulatory oversight.The event will cover current IAEA requirements and guidelines on ageing management and TLAAs for main mechanical components of nuclear power plants susceptible to low cycle fatigue, as well as presentation of national approaches implemented in the member states of the region. The event will be conducted by the IAEA staff and qualified international experts.

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 (EVT2500794) 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 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.

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.

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