

Fifth International Conference on Nuclear Power Plant Life Management

28 November – 2 December 2022
Vienna, Austria

#PLIM22



IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Background

The capacity weighted age of the world's operating nuclear power plants (NPPs) is, on average, more than 30 years old. Even though the design life of an NPP is typically 30–40 years, the operational lifetime of many plants is, following a comprehensive review, extended. To enable this, NPP engineers have demonstrated — through analysis, testing and ageing management for equipment and system upgrades — that the plants can continue to operate safely and reliably. Plant operators and regulators must ensure safety is maintained and, where possible, enhanced during a plant's operating lifetime. Reliability and performance are becoming increasingly important, especially for ageing NPPs. Low electricity prices in many markets and investment requirements to maintain, replace or modernize ageing components threaten the economic viability of operating plants, in some cases with many years remaining on approved licenses.

In most Member States, the task of ageing management is assigned to an engineering discipline called plant life management (PLiM), which has gained increased attention over the past two decades. The effective ageing management of structures, systems and components (SSCs) is a key element in PLiM for the safe and reliable

long-term operation (LTO) of NPPs. Plant life management can be defined as the integration of ageing and economic planning for the purpose of maintaining a high level of safety and optimizing plant performance by addressing extended life ageing issues, maintenance prioritization, periodic safety reviews, education and training.

A PLiM programme is an effective tool that allows an operator to manage ageing effects in SSCs for LTO in a safe and cost effective manner. Such a programme helps facilitate decisions regarding when and how to repair, replace or modify SSCs in an economically optimized manner, while maintaining a high level of safety.

The IAEA previously organized International Conferences on Nuclear Power Plant Life Management from 4 to 8 November 2002 in Budapest, Hungary, from 15 to 18 October 2007 in Shanghai, China, from 14 to 18 May 2012 in Salt Lake City, United States of America and from 23 to 27 October 2017 in Lyon, France. Participants in these earlier conferences greatly appreciated the opportunities for information exchange and recommended that the IAEA continue to organize conferences every four to five years. Accordingly, the IAEA is organizing the fifth conference in the series from 28 November to 2 December 2022 in Vienna, Austria.

Purpose and Objectives

The purpose of the event is to provide a forum for information exchange on national and international practices as well as regulatory approaches related to plant life management for long term operation, considering the sustainability, safety and efficiency of nuclear power plants.

The main objectives of the conference are to:

- Emphasize the role of PLiM programmes in assuring safety and improving reliable NPP operation;
- Identify the economic impacts of PLiM and LTO programmes, as well as methodologies for their evaluation;
- Provide key elements and good practices related to the safety aspects of ageing, ageing management and LTO;
- Provide a forum for information exchange on national and international policies, regulatory practices, and for the demonstration of strategies, including their application in ageing management and PLiM programmes for operating and new NPPs; and
- Exchange lessons learned from managing NPP PLiM during the global pandemic.

Audience

The conference is directed mainly at the staff of utilities, research and design organizations, regulatory bodies, manufacturing and service companies, as well as government decision makers concerned with near, medium and long-term energy needs.

Main topics

Papers are invited on the following below-mentioned subject areas:

- Approaches to Plant Life Management;
- Economics of Plant Life Management;
- Ageing Management and Preparation of Long-Term Operation;
- Configuration and Modification Management for Safety Enhancement and improved reliability;
- Stakeholder Engagement, Human Factors and Managerial Aspects;
- Regulatory Approaches to Ageing Management and Long-Term Operation;

Registration

No registration fee is charged.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants.

Conference webpage

Please visit the IAEA conference web page regularly for new information regarding this conference.

www.iaea.org/events/plim-5

Language

The working language of the conference will be English.

Key deadlines

- 1 August 2022: Deadline for submission of synopses together with the Form for Submission of a Paper (Form B) and the Participation Form (Form A) through the competent national authority using the InTouch+ Platform
- 1 August 2022: Deadline for submission of the Grant Application Form (Form C), together with Form A, through the competent national authority using the InTouch+ Platform
- No deadline: Registration only (no paper submission, no grant request) using Form A through the InTouch+ Platform

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