



IAEA

International Atomic Energy Agency
Atoms for Peace and Development

Technical Meeting on Innovative Solution to Address Technical Issues in the Long Term Operation of Nuclear Power Plants

18–21 June 2024

Ref. No.: EVT2303826

Information Sheet

Introduction

To achieve the Net Zero Emission by 2050 goal and ensure energy security under the complicated geopolitical situation, Long Term Operation (LTO) of nuclear power plants has become the top prioritized option for more and more nuclear power operating fleets. Especially, in recent years, the international organizations and countries have initiated the projects on LTO beyond 60 years to identify the technical gaps and seek the innovative solutions to support LTO.

As an evolutionary step to continue the support Member States (MS) efforts in LTO, the IAEA officially launched the International Network on Life Management of Nuclear Power Plants (LMNPP Network) on the Technical Meeting (TM) in November 2022. The LMNPP Network has been established on the IAEA CONNECT platform to promote international cooperation, to increase efficiency in sharing international experience in life management of nuclear power plants, and to provide for various project-based Working Groups (WGs) to be formed to further support MS long term operation efforts and knowledge transfer. The first Steering Committee (SC) Meeting of LMNPP Network was successfully held in November in 2023. The representatives from 26 MS and 7 IOs were nominated in the SC. The progress of the existing WGs was discussed, and two new WGs were recommended, including the one on Innovation for LTO. Furthermore, a separate International Network in Innovation to Support Operating Nuclear Power Plants (ISOP) was established in late 2019. ISOP aims to share experience of recent innovations and accelerate deployment of future innovative solutions to overcome diverse challenges facing operating NPPs or plants expected to enter service within ~five years. Working Groups developed under the auspices of ISOP are organized topically and focus on artificial intelligence, advanced manufacturing, next generation I&C and the application of robots and drones in the nuclear power industrial sector.

The scope of the WG on Innovation for LTO is to collect and share the practical cases of innovative approaches to address the technical issues in LTO of NPPs, and to provide practical advice on the selection and effective use of innovation for long term operation of NPPs.

The innovative approaches applied in the NPP for LTO might be broad, to narrow the scope, the working group will focus mainly on the following topics: Advanced manufacturing; Materials development; Digitalization; Automation/advanced sensor technology; Artificial intelligence; Applications of robots, drones, etc.

It is important to collect the practical innovative cases applied in the NPPs to address the technical issues and share them within the international community, e.g. LMNPP/ISOP Network. Such experience would be valuable information for a broad range of MS; including those that recently started considering LTO to those now applying to licence a reactor out to as long as 80 years. It would allow operating fleets to benchmark their efforts with other peers, and to ensure their priorities and technical solutions that have already been and will be identified are consistent with those of the world's leading utilities.

Objectives

The purpose of the event is to share operating experiences regarding innovative solutions to address technical issues in the long term operation of nuclear power plants in order to develop a new IAEA Technical Document on the same topic.

The event is also to collect the reports which might be integrated into the IAEA Technical Report. The following list provides examples of presentation/report topics that would be appropriate for the event:

- 1) Advanced Manufacturing
- 2) Materials Development
- 3) Digitalization
- 4) Automation/Advanced Sensor Technology
- 5) Artificial Intelligence
- 6) Application of Robots and Drones
- 7) Non Destructive Examination
- 8) Other

Working Language

The working language of the event will be English; no interpretation will be provided.

Working Material

The template of the presentation/report and other meeting materials will be provided to the participants prior to the meeting.

Topics

Please refer to “Objectives” for examples of topics.

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In view of the subject of the meeting, participation is limited to IAEA Member States that currently operate NPPs or are in the construction of their nuclear power units. Participation is solicited from representatives of NPPs and regulatory bodies, utilities, technical support organizations, developers, vendors, research organizations and international organizations engaged in the field of PLiM/LTO. To ensure maximum effectiveness in the exchange of information, participants should be persons actively involved in the subject matter of the meeting.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **15 April 2024**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

The meeting is planned to be Hybrid. The meeting’s agenda will be sent to each participant in advance of the event and the virtual meeting link and directions for entry will be sent.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency’s Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA’s scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA’s mandate.

Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above. The detailed report (.docx) is also encouraged to submit, it might be integrated to the IAEA Technical Report. The templates will be provided to the participants in due course.

Presentations should be prepared as Microsoft PowerPoint (.ppt) or Portable Document Format (.pdf) files. Computer-based projection facilities will be provided. Authors are requested to provide the Scientific Secretary with electronic copies of their presentation files in advance of their scheduled presentation slot

so that the files can be duly uploaded. Electronic versions of the presentations are also necessary to ensure timely issuance of the proceedings to be prepared and distributed in electronic form.

It is not mandatory for all participants to submit a presentation or report. However, the IAEA welcomes and encourages contributions in this format. Time for the presentations will be limited to 25 minutes followed by a five-minute discussion period.

Expenditures and Grants

The costs of the meeting are borne by the host organization; no registration fee is charged to participants. Travel and subsistence expenses of participants will have to be borne in general by their designating Governments/organizations. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the meeting. The application for financial support should be made at the time of designating the participant.

The application for financial support should be made using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **15 April 2024**.

The organizers of the meeting 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 meeting, and it is clearly understood that each Government, in designating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

Venue

The event will be held in the Room C-CR2, Conference Room 2, Second Floor, Building C of the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page: www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

Additional Information

The event will start on Tuesday, 18 June 2024, at 9.30 a.m. and end on Friday, 21 June 2024, at 3.00 p.m.

The event agenda, together with information on local arrangements, will be sent to the designated participants in due course.

IAEA Contacts

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Participation Form

Technical Meeting on Innovative Solution to Address Technical Issues in the Long Term Operation of Nuclear Power Plants

IAEA Headquarters Vienna, Austria

18 to 21 June 2024

To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary Q.Yu@iaea.org to the Administrative Secretary L.Makil@iaea.org.

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 15 April 2024

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms
Institution:		
Full address:		
Tel. (Fax):		
Email:		
Nationality:	Representing following Member State/non-Member State/entity or invited organization:	
If/as applicable: Do you intend to submit a paper? Yes <input type="checkbox"/> No <input type="checkbox"/> Would you prefer to present your paper as a poster? Yes <input type="checkbox"/> No <input type="checkbox"/> Title:		

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

Grant Application Form

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Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/mm/dd):	Nationality:	

1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended	
			from	to

2. Recent employment record (starting with your present post):

Name and place of employer/ organization	Title of your position	Type of work	Years worked	
			from	to

3. Description of work performed over the last three years:

4. Institute's/Member State's programme in field of event:

Date: Signature of applicant: _____

Date: Name, signature and stamp of Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority _____