



**IAEA**

International Atomic Energy Agency  
*Atoms for Peace and Development*

# **Technical Meeting on the On-Site Technical Adaptation of Nuclear Power Plants to Environmental Changes**

**IAEA Headquarters, Vienna, Austria**  
and virtual participation via Microsoft Teams

**4-7 June 2024**

**Ref. No.: EVT2302792**

## **Information Sheet**

### **Introduction**

Nuclear is seen as a key contributor to deliver a net zero world in the context of climate change. At the same time, climate change is recognised to pose risks to nuclear power safety and cost-effectiveness as climate change could challenge existing safety margins and is definitively causing generation losses while exacerbating adverse weather conditions. The bi-annual IAEA conferences on “Nuclear Power and Climate Change” explore and document these aspects but have not considered the practical, technical responses brought in at nuclear power plants to address the risks and to mitigate the impacts.

### **Objectives**

The purpose of the event is to share approaches and examples of performance-related technical solutions to reduce production losses caused by environmental changes and climate variability before safety and protection measures are triggered, and to identify recommendations to be considered by operators for further adapting their nuclear power plants in that respect.

The detailed objectives of the event are to:

- Present latest experience and lessons learned at operating nuclear power plants to reduce production losses caused by environmental changes and climate variability. The design adaptations made before commissioning are of interest if the technical solutions brought in are of interest for operating plants. Adaptations included in the scope cover the full range of climate and environment hazards, from extreme cold to heat wave, drought to flooding, etc. Details of the scope are given in section ‘Topics’ below.
- Review, comment and further develop the draft IAEA TECDOC publication on “Adaptation of Operating Nuclear Power Plants to Climate and Environment Variability to Enhance Resilience to Production Losses” produced since the first consultancy meeting was held in November 2023.

## Target Audience

Experts from nuclear power plants, operating organisations and, technical support organisations all around the world, in areas such as design changes, Operations, asset management, LTO projects where environmental changes led to technical adaptations at NPPs.

## Working Language(s)

English.

## Expected Outputs

- Shared presentation materials on country’s/owner-operators’ case studies as suggested in section ‘Objectives’ above and detailed in section Topics below.
- Revised draft IAEA TECDOC publication on “*Adaptation of Operating Nuclear Power Plants to Climate and Environment Variability to Enhance Resilience to Production Losses*” that considers comments and, includes suggested technical conclusions and, recommendations drawn at the event.

## Topics

The topics of interest for the country’s/owner-operators’ case studies are as follows:

- Adaptations of operating modes<sup>1</sup>, operating procedures and, physical assets, through design changes, improvements, and modifications ...

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<sup>1</sup> Adaptation of operating modes includes adding new criteria for continuing operation in adverse conditions (e.g. temporarily waiving legal requirements, increasing thresholds) and, developing new decision-making processes that account for real-time

- To enhance resilience to production losses caused by ...
- Adverse weather conditions incl. those exacerbated by climate change and ...
- Any other changes in the natural environment including proliferation of aquatic organisms at ...
- Nuclear Power Plants in operation (including in long-term operation and newly commissioned) and Nuclear Power Plants under construction (when the adaptations are relevant for Nuclear Power Plants in operation).

Climate and environment hazards to be considered are as follows:

- Air temperature, dry and wet bulb, low/high;
- Cooling water temperature, low/high;
- Drought;
- Flooding/surge and, intense precipitations (rainfalls but also snowpack, hail, freezing rains);
- Aquatic and biological organisms' populations;
- High winds, incl. effects of tornadoes and transport of airborne particles at events such as dust storms and salt sprays;
- Lightning strike;
- Large wildfires.

Adaptations of interest for the work could be corrective actions from events, proactive measures (design improvement, investment project) or transformational programmes to adapt organisations and business models to a new normal.

This event does not consider topics already covered in other IAEA publications such as:

- Safety standards for designing nuclear installations against weather-related hazards (incl. the climate predictive methods used for assessing site hazards);
- Resilience of the grid to climate variability;
- Economic impact of climate change to power systems.

## 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 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 **12 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.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **12 April 2024**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):

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modelling and for forecasting of climate and environment conditions (from in-house organisation, river/sea water authorities, meteorological services, etc.) while optimising operation.

- Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
- Persons without an existing NUCLEUS account can register here.

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under ‘Complete Profile’ and upload the relevant supporting documents;
- Search for the relevant event under the ‘My Eligible Events’ tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating Authority’ (if an invited organization is not listed, please contact [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org));
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
- Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
- Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **12 April 2024**.

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

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

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. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to give presentations are requested to submit it to Mr Laurent Bourdonneau, the Scientific Secretary of the event (see contact details below). It should be sent electronically not later than **12 April 2024**. Authors will be notified of the acceptance of their proposed presentations by **30 April 2024**.

In addition to the registration already submitted through the InTouch+ platform, participants have to submit the presentation's title along with a very brief (2-3 sentence) description of their work, to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA not later than **12 April 2024**.

## Expenditures and Grants

No registration fee is charged to participants.

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. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

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 **12 April 2024**.

The application for financial support should be made, together with the submission of the application, by **12 April 2024**.

## Venue

The event will be held at 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](http://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.

The virtual component of the event will be held via Microsoft Teams for a limited number of participants.

## 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.

# IAEA Contacts

## Scientific Secretary

### Mr Laurent Bourdonneau

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AUSTRIA

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Fax: +43 1 26007

Email: [L.Bourdonneau@iaea.org](mailto:L.Bourdonneau@iaea.org)

## Administrative Secretary

### Ms Inessa Kovalenko

Division of Nuclear Power  
Department of Nuclear Energy  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
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AUSTRIA

Tel.: +43 1 2600 22801

Fax: +43 1 26007

Email: [I.Kovalenko@iaea.org](mailto:I.Kovalenko@iaea.org)

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.

## Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

[www.iaea.org/events/evt2302792](http://www.iaea.org/events/evt2302792)

# Participation Form

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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](mailto: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 (Email: [L.Bourdonneau@iaea.org](mailto:L.Bourdonneau@iaea.org)) and to the Administrative Secretary (Email: [L.Kovalenko@iaea.org](mailto:L.Kovalenko@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: 12 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 presentation?		Yes <input type="checkbox"/> No <input type="checkbox"/>
Title:		
I plan to attend virtually:		Yes <input type="checkbox"/> No <input type="checkbox"/>

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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**Deadline for receipt by IAEA through official channels: 12 April 2024**

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:	
I plan to attend virtually:	Yes <input type="checkbox"/> No <input type="checkbox"/>	

### 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 \_\_\_\_\_