

الوكائة الدرية للطاقة الذرية 国际原子能机构 International Atomic Energy Agency Agence internationale de l'énergie atomique Международное агентство по атомной энергии Organismo Internacional de Energía Atómica

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In reply please refer to: EVT2104475 Dial directly to extension: (+43 1) 2600-24412

The Secretariat of the International Atomic Energy Agency (IAEA) presents its compliments to the IAEA's Member States and has the honour to draw their attention to the **Technical Meeting on the Optimization of Protection of Advanced Reactors Against External Hazards** (hereinafter referred to as "event") to be held at the IAEA's Headquarters in Vienna, Austria, from **28 November to 2 December 2022**.

In addition, the event will allow for virtual participation via Cisco Webex.

The purpose of the event is to share practices and methods related to hazard assessment and the design of protection for advanced reactors, with reference to the draft IAEA Technical Documents provisionally entitled *Optimization of Protection of Advanced Reactors Against External Hazards* and *Handbook on Site Selection and Evaluation*.

The attached Information Sheet provides further details of the event.

The event will be held in English.

Member States are invited to designate one or more participants to represent the Government at this event. Member States are strongly encouraged to identify suitable women 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 at the time of designating the participant(s) using the attached Grant Application Form (Form C).

It should be noted that compensation is not payable by the IAEA for any damage to or loss of personal property. The IAEA also does not provide health insurance coverage for participants in IAEA events. Arrangements for private insurance coverage on an individual basis should therefore be made. The IAEA will, however, provide insurance coverage for accidents and illnesses that clearly result from any work performed for the IAEA.

Designations should be submitted to the IAEA through the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) not later than **15 September 2022** using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: <u>Official.Mail@iaea.org</u> or by fax to: +43 1 26007 (no hard copies needed). Copies should be sent by email to the Scientific Secretary of the event, Mr Ayhan Altinyollar, Division of Nuclear Installation Safety, Department of Nuclear Safety and Security (Email: <u>A.Altinyollar@iaea.org</u>), and to the Administrative Secretary, Ms Nadia Nammari (Email: <u>N.Nammari@iaea.org</u>). The Scientific Secretary of the event will liaise with the participants directly concerning further arrangements, including travel details, as appropriate, once the official designations have been received.

The IAEA takes no responsibility for, and the provider of the virtual meeting services has represented and warranted that the Services shall not contain, and that no end user shall receive from the software used to hold the virtual meeting, any virus, worm, trap door, back door, timer, clock, counter or other limiting routine, instruction or design, or other malicious, illicit or similar unrequested code, including surveillance software or routines which may, or is designed to, permit access by any person, or on its own, to erase, or otherwise harm or modify any data or any system, server, facility or other infrastructure of any end user (collectively, a "Disabling Code").

The Secretariat of the International Atomic Energy Agency avails itself of this opportunity to renew to the IAEA's Member States the assurances of its highest consideration.



2022-06-30

Enclosures: Information Sheet Participation Form (Form A) Grant Application Form (Form C)



# Technical Meeting on the Optimization of Protection of Advanced Reactors Against External Hazards

**IAEA Headquarters, Vienna, Austria** and virtual participation via Cisco Webex

28 November-2 December 2022

Ref. No.: EVT2104475

# **Information Sheet**

# Introduction

IAEA Safety Standards provide requirements and recommendations for all types of nuclear installations, and includes a graded approach, based on the risk posed by the installations to workers, people, and environment. In particular, grading is supported by IAEA Safety Standard Series No. SF-1, Fundamental Safety Principles, particularly Principle 5: Optimization of Protection, which states:

"3.21. The safety measures that are applied to facilities and activities that give rise to radiation risks are considered optimized if they provide the highest level of safety that can reasonably be achieved throughout the lifetime of the facility or activity, without unduly limiting its utilization."

"3.24. The resources devoted to safety by the licensee, and the scope and stringency of regulations and their application, have to be commensurate with the magnitude of the radiation risks and their amenability to control. Regulatory control may not be needed where this is not warranted by the magnitude of the radiation risks."

The level of detail needed in the evaluation of a site for a nuclear installation should be commensurate with the risk associated with the nuclear installation and specific site conditions. It is specific to the type of nuclear installation. According to IAEA Safety Standard Series No. SSR-1, Site Evaluation for Nuclear Installations, para. 4.4, "The scope and level of detail of the site evaluation process necessary to support the safety demonstration for the nuclear installation shall be determined in accordance with

a graded approach." Designs for external events (and evaluations for beyond design basis external events) are customized for different types of nuclear installations.

Current development of nuclear technology has led to new designs with advanced safety features. New and advanced power reactors being proposed and built today (e.g. Small Modular Reactors) provide evolutionary improvements in design that incorporate improved reactor technology. Based on safety analyses of current available SMR designs, there is a widespread opinion in the nuclear industry that the new designs may pose a much smaller risk to people and environment than large regular nuclear power plants and, therefore, that the application of the same project constraints as for large nuclear power plants would not be consistent with the Fundamental Safety Principle of "Optimization of Protection" stated above.

The IAEA developed a TECDOC on "Optimization of Protection Against External Hazards for Advanced Reactors," which provides a framework for the application of a graded approach in design and site evaluation considering the site-installation interactions. The application of a graded approach, supported by a risk informed and performance-based strategy, is a proportional application of the safety requirements considering the risk posed by the facility to the population and environment, ensuring that the overall safety objectives are met and adhered to, without undue conservatism, high costs and long time periods for site licensing.

# **Objectives**

The objective of the meeting is to share practices and methods related to hazard assessment and the design of protection for advanced reactors, with reference to the draft IAEA Technical Document provisionally entitled "Optimization of Protection of Advanced Reactors Against External Hazards".

The meeting will:

(1) assess proposals for the development of the technology-neutral safety framework for assessing the applicability of site evaluation requirements considering site–installation interactions, and

(2) given the innovative safety features of the new reactors, which could be significantly different from those implemented in existing reactors, suggest a methodology for an overall optimization of the safety measures against external hazards supporting effective and balanced implementation of the defence-in-depth concept.

# **Target Audience**

The target audience is limited to regulators, operators, vendors, research institutes and technical support organisations working in the area of nuclear safety in Member States with an established nuclear programme, and countries at an advanced stage of embarking on a nuclear power programme.

# Working Language(s)

English

# **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 **15 September 2022**. 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 above deadline.

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 <u>Agency's Personal Data and Privacy Policy</u> and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the <u>Data Processing Notice</u> concerning IAEA InTouch+ platform.

# **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 **15 September 2022**.

# 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: <u>https://www.iaea.org/events</u>.

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.

# **IAEA Contacts**

## **Scientific Secretary**

## Mr Ayhan Altinyollar

Division of Nuclear Installation Safety Department of Nuclear Safety and Security International Atomic Energy Agency Vienna International Centre PO Box 100 1400 VIENNA AUSTRIA

Tel.: +43 1 2600 24412 Fax: +43 1 26007 Email: <u>A.Altinyollar@iaea.org</u>

## Administrative Secretary

## Ms Nadia Nammari

Division of Nuclear Installation Safety Department of Nuclear Safety and Security International Atomic Energy Agency Vienna International Centre PO Box 100 1400 VIENNA AUSTRIA

Tel.: +43 1 2600 22518 Fax: +43 1 26007 Email: <u>N.Nammari@iaea.org</u>

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.



# **Participation Form**

## **Technical Meeting on the Optimization of Protection of Advanced Reactors Against External Hazards**

### IAEA Headquarters, Vienna, Austria and virtual participation via Cisco Webex

## 28 November-2 December 2022

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: <u>Official.Mail@iaea.org</u> or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary <u>A.Altinyollar@iaea.org</u> and to the Administrative Secretary <u>N.Nammari@iaea.org</u>.

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 September 2022**

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:			
Virtual Attendance	Yes 🗌 No	» []		
If/as applicable:				
Do you intend to submit a paper?	Yes 🗌 No 🗌			
Would you prefer to present your paper as a	poster? Yes 🗌 No 🗌			
Title:				

Participants are hereby informed that the personal data they submit will be processed in line with the <u>Agency's Personal</u> <u>Data and Privacy Policy</u> and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the <u>Data Processing Notice</u> concerning IAEA InTouch+ platform.



# **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 (yyyy/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