



Atoms for Peace and Development

الوكالة الدولية 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: EVT2103897

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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 Common Cause Failures in Nuclear Power Plant Instrumentation and Control Systems** (hereinafter referred to as "event") to be held at the IAEA's Headquarters in Vienna, Austria, from **6 to 8 December 2022**.

The purpose of the event is to provide a forum for the international exchange of information and experiences related to the causes, effects and management of common cause failures in nuclear power plant instrumentation and control systems.

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 **6 October 2022** using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Copies should be sent by email to the Scientific Secretary of the event, Ms Nelly Ngoy Kubelwa, Division of Nuclear Power, Department of Nuclear Energy (Email: N.Ngoy-Kubelwa@iaea.org), and to the Administrative Secretary, Ms Olga Gloeckler (Email: O.Gloeckler@iaea.org). 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.

Should Governments wish, in addition, to appoint one or more observers to assist and advise the designated participants, they are kindly requested to inform the IAEA of the names and contact details of any such observers by the above date. In accordance with the established rules, Governments are expected to bear the cost of attendance of any observers they may send to IAEA events. Compensation is not payable by the IAEA for any damage to or loss of observers' personal property or for illness, injury or death occurring while travelling to or in connection with their attendance at IAEA events.

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.



2022-08-30

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



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Technical Meeting on Common Cause Failures in Nuclear Power Plant Instrumentation and Control Systems

IAEA Headquarters, Vienna, Austria

6–8 December 2022

Ref. No.: EVT2103897

Information Sheet

Introduction

The issue of common cause failures (CCF), especially in computer-based safety I&C systems, is of great interest because of not only an increased number of implementations of digital and/or interconnected systems but also the use of equipment with embedded software. Demonstrating the absence of common cause failure in computer-based I&C nuclear safety systems remains a subject of discussion. The risk of common cause failures which may interfere with the safety functions of the I&C system is considered carefully during the design and the operation of any I&C systems. This includes, among others, the concerns related to common cause failures triggered by a latent fault in the software, small devices with embedded software, ageing and life cycle issues.

Recognizing the relevance of the above-mentioned issues, at their 2021 meeting the members of the Technical Working Group on Nuclear Power Plant Instrumentation and Control recommended to the IAEA that it should initiate relevant activities to address these problems in the nuclear power engineering field. In response, the IAEA organizes this technical meeting on *Common Cause Failures in Nuclear Power Plant Instrumentation and Control Systems* to share the experience of the Member States in this area.

Objectives

The purpose of the event is to provide a forum for the international exchange of information and experiences related to the causes, effects and management of common cause failures in nuclear power plant (NPP) instrumentation and control systems.

Target Audience

In view of the subject of the event, participation is limited to IAEA Member States that currently operate NPPs or are constructing their first NPP units. Participation is solicited from representatives of nuclear facilities and regulatory bodies, utilities, technical support organizations, designers, developers, vendors, and research organizations engaged in the field of I&C design and the application of such systems at NPPs. To ensure maximum effectiveness in the exchange of information, participants should be persons actively involved in the subject matter of the event.

The event is, in principle, open to all officially designated persons. The IAEA, however, reserves the right to limit participation due to limitations imposed by the available facilities. The maximum number of participants for this event is 50. It is therefore recommended that interested persons take the necessary steps to secure their official designation as early as possible.

Working Language

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

Structure

The objective of the event is to serve as an international forum for enhancing interaction and information exchange among international experts on their professional experience on common cause failures in nuclear power plant instrumentation and control.

Topics

Presentations are invited on all approaches related to common cause failure in nuclear power plant instrumentation and control systems. The following list provides examples of presentation topics that would be appropriate for the event:

- Evaluation of CCF vulnerability;
- Assessment of susceptibility to CCFs;

- Measures against CCF;
- Propagation of failures between I&C systems;
- Definitions and criteria on simplicity and complexity ;
- Aspect of CCF of digital systems versus FPGA based systems;
- Treatment (CCF avoidance/mitigation) of equipment with embedded digital devices;
- Innovative methods for addressing common cause failures in digital systems;
- Treatment of CCF in human-system interfaces;
- Lessons learned from experience (case studies, operating experience, proven practices, etc.).

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

Expenditure 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 on whose behalf assistance is requested 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 **6 October 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 are listed on the following IAEA web page:

<https://www-pub.iaea.org/iaeameetings/GeneralInfo/Guide/VIC>.

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

Designated participants who require a visa to enter Austria should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of 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.

Presentations

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. However, the IAEA welcomes and encourages contributions in this format. Time for the presentations will be limited to 25 minutes followed by a 5-minute discussion period.

Additional Information

The event will start on Tuesday, 6 December 2022, at 9.30 a.m. and end on Thursday, 8 December 2022, at 2.00 p.m.

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

General information on hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page: <https://www.iaea.org/sites/default/files/20/01/hotels.pdf>.

Additionally, participants may elect to make their own bookings at hotels in the area of the event location.

IAEA Contacts

Scientific Secretary:

Ms Nelly Ngoy Kubelwa
Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
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1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 24213

Email: N.Ngoy-Kubelwa@iaea.org

Administrative Secretary:

Ms Olga Gloeckler
Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 22804

Email: O.Gloeckler@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.

Participation Form

Technical Meeting on Common Cause Failures in Nuclear Power Plant Instrumentation and Control Systems

IAEA Headquarters, Vienna, Austria

6–8 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: 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 N.Ngoy-Kubelwa@iaea.org and to the Administrative Secretary O.Gloeckler@iaea.org.

Deadline for receipt by IAEA through official channels: 6 October 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:	
If/as applicable: Do you intend to make a presentation? 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

Technical Meeting on Common Cause Failures in Nuclear Power Plant Instrumentation and Control Systems

IAEA Headquarters, Vienna, Austria

6–8 December 2022

To be completed by the applicant 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 N.Ngoy-Kubelwa@iaea.org and to the Administrative Secretary O.Gloeckler@iaea.org.

Deadline for receipt by IAEA through official channels: 6 October 2022

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 _____