



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

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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 the Evaluation of Defence in Depth in Periodic Safety Reviews** (hereinafter referred to as "event") to be held in Temelín, Czech Republic, from **18 to 21 May 2021**.

The purpose of the event is to discuss approaches to reviewing the adequacy of the nuclear power plant's defence in depth in periodic safety review global assessment by using an updated objective tree method for assessing defence in depth for nuclear power plants, taking into consideration the updated IAEA Nuclear Power Plant Design Safety Requirements published in *Safety of Nuclear Power Plants: Design* (IAEA Safety Standards Series No. SSR-2/1 (Rev. 1)).

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 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 **12 March 2021** 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, Mr Alexander Duchac, Division of Nuclear Installation Safety, Department of Nuclear Safety and Security (Email: A.Duchac@iaea.org), and to the Administrative Secretary, Ms Leticia Sedlazek (Email: L.Sedlazek@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.

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.

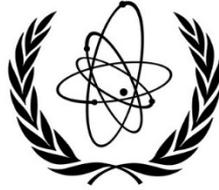


2020-11-19

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 the Evaluation of Defence in Depth in Periodic Safety Reviews

Hosted by the
Government of the Czech Republic

Through
Temelín Nuclear Power Plant

Temelín, Czech Republic

18–21 May 2021

Ref. No: EVT2003081

Information Sheet

Introduction

A periodic safety review (PSR) is a comprehensive and systematic safety review of all important aspects of safety, carried out at regular intervals, typically every ten years. PSR is considered an effective way to obtain an overall view of actual plant safety, and to determine reasonable and practicable modifications that should be made in order to ensure that a high level of safety is maintained during continued operation.

Since the complex process of conducting a PSR can be aided by appropriate subdivision of tasks, IAEA Safety Standards Series No. SSG-25 – Periodic Safety Review for Nuclear Power Plants sets out these tasks in accordance with 14 safety factors. These safety factors have been selected on the basis of

international experience and are intended to cover all aspects important to the safety of an operating nuclear power plant. The global assessment evaluates the impact on safety based on the findings from all the separate safety factors and so needs to be performed after completion of all the individual safety factor reviews.

The scope and methodology for performing a global safety assessment includes a thorough assessment of defence in depth of the plant. Among many IAEA documents related to defence in depth, there is the document Safety Reports Series No. 46 – Assessment of defence in depth for NPPs (published in early 2005), which describes a practical screening method for assessing comprehensiveness of the defence in depth capabilities of a nuclear power plant (mainly for an existing plant), including both its design features and the operational measures taken to ensure safety.

Since development of the Safety Report No. 46, significant enhancement in international safety requirements as well as enhancement of defence in depth took place. As a result, an updated methodology to assess a defence in depth of the plant has been recently prepared. It incorporates new safety requirements and, in particular, lessons learned from the Fukushima Dai-ichi accident.

This updated methodology has been adapted from IAEA Safety Reports Series No. 46 considering all new developments and also to improve its user friendliness considering experience from its previous applications. It provides a discussion on selecting state of the art approaches to review the adequacy of the plant's defence in depth in PSR global assessment by using updated method of objective trees for assessment of defence in depth for nuclear power plants with consideration of the updated IAEA safety requirements. This methodology is intended to be predominantly used by the operating organization, and therefore the provisions are focused on those which can be managed or at least influenced by the operating organization.

Objectives

The objective of the technical meeting is to discuss approaches to review the adequacy of the plant's defence in depth in PSR global assessment by using updated method of objective trees for assessment of defence in depth for nuclear power plants with consideration of the updated IAEA safety requirements.

Target Audience

Participation is solicited from staff members of regulatory bodies, NPP operators, utility organizations, design and engineering consultant organizations, as well as from international organizations engaged in activities related to NPP safety and regulation. To ensure maximum effectiveness in the exchange of information, participants should be actively involved in the subject of the event.

The event is, in principle, open to all officially designated persons. The IAEA, however, reserves the right to restrict participation due to limitations imposed by the available facilities. It is, therefore, recommended that interested persons take the necessary steps for the official designation as early as possible.

Working Language(s)

English.

Expected Outputs

An important aim of the meeting is to undertake comparison and identification of good practices and difficulties experienced on selecting state of the art approaches to review the adequacy of the plant's defence in depth in PSR global assessment with consideration of the updated IAEA safety requirements.

It is expected that the meeting will also provide valuable recommendations for future IAEA activities in the areas covered by the workshop, and for strengthening international cooperation to advance nuclear safety.

Structure

The opening session will include welcome addresses. This session will be further complemented by keynote presentations on the importance of the workshop's overall theme. The topic of each session will be introduced by a chairperson, followed by oral presentations that will be selected based on papers submitted to the Scientific Secretary. Each session will comprise a common discussion.

Finally, during the concluding session, the respective chairpersons will summarize their sessions. After the workshop, the IAEA and the Temelin NPP will jointly consolidate and publish the event findings, conclusions and recommendations of the event.

Topics

Technical Meeting will provide opportunity to discuss approaches to review the adequacy of the plant's defence in depth in PSR global assessment with consideration of updated IAEA safety requirements. The following topics for checking comprehensiveness of defence in depth by screening the individual provisions defined in updated method of objective trees for assessment of defence in depth for nuclear power plants will be discussed:

- Comparison of provisions in the objective trees with capabilities of the plant;
- Judgment of the level of implementation of each provision in design and operation;
- Consideration of optional provisions and judgment whether an absence of a provision leads to the weakness in defence in depth;
- Judgment whether a mechanism can be considered as prevented to occur;
- Judgment whether a challenge can be considered as prevented to affect fulfilment of a safety function.

Specific themes of the technical meeting will also include:

- Alternative approaches of defence in depth assessment implemented by organisations within their PSR programmes or other licencing or safety assessment activities;
- Strengthening of defence in depth in accordance with the most recent safety objectives reflected in new IAEA Safety Standards (in particular attention paid to level 4 of defence and to independence of levels) and its maintenance by periodic safety reviews over the entire life of the plants;
- Consideration of potential effects of extreme external hazards jeopardizing simultaneously several levels of defence;
- Consideration of additional guidance on effects of hazards and combination of hazards, of human factor and reliability of instrumentation and control (I&C) systems on defence in depth;
- Extending the concept of defence in depth from technical systems to institutional systems, involving all stakeholders (operators, regulators, industry), with possible assessments presented in Nuclear Safety Convention review meetings;
- Further development of guidance documents and tools for assessment of required new features of defence in depth.

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 March 2021**. 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.

Please note that the IAEA is in a transition phase to manage the entire registration process for all regular programme events electronically through the new InTouch+ (<https://intouchplus.iaea.org>) facility, which is the improved and expanded successor to the InTouch platform that has been used in recent years for the IAEA's technical cooperation events. Through InTouch+, prospective participants will be able to apply for events and submit all required documents online. National authorities will be able to use InTouch+ to review and approve these applications. Interested parties that would like to use this new facility should write to: InTouchPlus.Contact-Point@iaea.org.

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 indicate their intention in the **Participation Form (Form A)**.

Presentations must last no more than 20 minutes and will be followed by further ten-minute discussion. They should be sent electronically in PowerPoint format to the Scientific Secretary of the event (see contact details below) not later than **7 May 2021**.

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 March 2021**.

Venue

The event will be held in the Meeting Room AB 257, Administrative building AB, Temelín Nuclear Power Plant. The nearest towns with suitable accommodation facilities are Hluboká nad Vltavou and České Budějovice. The host organisation will provide for bus transportation service for all participants. List of hotels offering appropriate standard of service will be provided to the participants.

Visas

Participants who require a visa to enter the Czech Republic should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of the Czech Republic.

Additional Information

The event will commence on Tuesday, 18 May 2021 at 9.30 a.m. and end at 1 p.m. on Friday, 21 May 2021.

The event agenda and the information on local arrangements will be sent to the designated participants not later than one month before the beginning of the event.

IAEA Contacts

Scientific Secretary:

Mr Alexander Duchac

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Vienna International Centre
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AUSTRIA

Tel.: +43 1 2600 22671

Fax: +43 1 26007 22671

Email: A.Duchac@iaea.org

Administrative Secretary:

Ms Leticia Sedlazek

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 22687

Fax: +43 1 26007 22687

Email: L.Sedlazek@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/EVT2003081

Participation Form

Technical Meeting on the Evaluation of Defence in Depth in Periodic Safety Reviews

Temelín, Czech Republic

18–21 May 2021

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 A.Duchac@iaea.org and to the Administrative Secretary L.Sedlazek@iaea.org.

Please attach a passport copy or other document of identification (ID).

Deadline for receipt by IAEA through official channels: 12 March 2021

Family name: (e.g. Smith)	First name(s): (e.g. John)	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:		

Grant Application Form

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Family name: (e.g. Smith)	First name(s): (e.g. John)	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 _____