

International Workshop on Treatment of Uncertainties for Novel Aspects of Risk Analyses

Madrid, Spain, 31 March – 2 April 2025



Hosted by the Consejo Seguridad Nuclear (CSN), Spain

Key Dates

15 November 2024
20 December 2024
31 January 2025
14 March 2025
31 March – 2 April 2025

Deadline for Abstract Submission
Notification to Authors
Deadline for Attendance Registration
Deadline for Presentation Submission
Workshop

General Information

This is the announcement and call for presentations for the *International Workshop on Treatment of Uncertainties for Novel Aspects of Risk Analyses* being organized under the auspices of the OECD Nuclear Energy Agency (NEA) Committee on the Safety of Nuclear Installation (CSNI) Working Group on Risk Assessment (WGRISK). The Workshop will be hosted by the Spanish Consejo de Seguridad Nuclear (CSN) in Madrid, Spain, March 31 – April 2, 2025.

Working under the mandate of the CSNI, the main objectives of WGRISK are to maintain, assess, and advance the technical and scientific knowledge base of PSA methods, tools, data, and analysis practices; to strengthen the interfaces between PSA and the disciplines from which PSA draws; and to facilitate the use of risk assessment results in decision-making and in safety management programs.

Background

Uncertainties for probabilistic safety and risk assessments continue to be an important aspect in risk-informed decision-making. Treatment of uncertainties by PSA practitioners, researchers, and decision-makers (both utilities and regulators) may vary when considering novel aspects of risk analyses. The WGRISK initiated a task entitled *Treatment of Uncertainties for Novel Aspects of Risk Analyses* to assess how members currently treat uncertainties for novel aspects in risk-informed decision-making and to assess potential improvements in treatment where relative lack of operational experience exists. This Workshop for the presentation and discussion of *uncertainty considerations and their role in risk-informed decision-making* is at the centre of the second phase of this task, following the WGRISK member survey questionnaire on the topic. This electronic leaflet is the Workshop Announcement.

Workshop Objectives

The objectives of the Workshop are to provide a forum to exchange information on the current and potential treatment of uncertainties for novel aspects of risk analyses and their associated considerations in risk-informed decision-making. The participants will also discuss the technical and organizational challenges associated with the different approaches and the ongoing work in these areas. The perspectives of practitioners, decision-makers, and other nuclear safety professionals with expertise in the treatment of uncertainties in risk assessments will enrich the Workshop.

Suggested Topics

Participants are invited to present contributions on topics such as:

- Experiences with the interpretation and handling of uncertainties especially related to novel aspect of risk analyses and the use of the results by decision-makers;
- Experiences and approaches for considering the uncertainty in function and reliability of portable equipment;
- Addressing the epistemic uncertainty on completeness of the analyses;

- Addressing uncertainties in risk applications and RIDM involving incremental in CDF or LERF;
- Treatment of uncertainties in the screening process (e.g., screening of initiating events to be included in PSA);
- Assessment of LOCA frequencies and RPV rupture frequencies;
- Experiences and approaches for the treatment of uncertainty associated with passive safety features;
- Impacts of unique scenarios or environmental conditions on human reliability analysis (HRA) uncertainty assessments;
- Uncertainty assessment approaches and experiences with limited or non-existent operational experience data (e.g., passive safety features, new technical solutions);
- Experience of participants regarding different types of uncertainties in single, and particularly combined hazards PSA for internal and external hazards (this is a result also from the joint WGEV and WGRISK task on combined hazards);
- Potential impact of climate change and of plant ageing on future analyses and their uncertainties;
- Identification of risk-informed decision-making cases (scenarios, nuclear safety issues, etc.) where the uncertainty considerations provided improved or additional insights to support a decision;
- Experiences with the novel uncertainty assessment approaches and the use of the results by decision-makers;
- Use of operating experience (national, international) for reducing uncertainties in PSA;
- Adaptation of methods for the safety demonstration for nuclear installations to the uncertainties and level of knowledge;
- Organizational challenges related to the communication and consideration of uncertainty results in risk-informed decision-making.

The Workshop will consider all scopes of PSA for nuclear power plants and other nuclear installations, the associated safety issues and the diverse decisions made by stakeholders including licensees and regulatory bodies. The uncertainty approaches and impacts on decision-making cases to be identified may be defined for any of these scopes or parts thereof, including Level 1/2/3 PSA, any plant operational modes, internal events, internal and external hazards, as well as diverse specific concerns such as spent fuel pools, equipment recovery, portable equipment deployment, accident management, and site-level risk.

Format

The Workshop will include plenary and technical sessions in addition to a facilitated wrap-up session. Active participation of the Workshop attendees in the discussions as well as in the formulation of conclusions and recommendations will be highly appreciated. Information obtained as a result of the Workshop will provide a better understanding and improved interpretation of subjects, topics, and issues related to the treatment of uncertainties for novel aspects of risk analyses in risk-informed decision-making for nuclear installations.

A WGRISK report (Workshop Proceedings with summarized results and conclusions, as well as recommendations for follow-on activities) will be prepared on the basis of the information presented and discussed during the Workshop.

The Workshop will be an in-person event only as default plan. The virtual participation as audience might be considered.

Participation in the Workshop and Logistics

Participants

The organizers kindly invite experts from industry, regulatory authorities, technical support organizations (TSOs) and research institutes, safety analysis practitioners and consultants involved in the probabilistic safety assessment of nuclear installations or the associated decision-making from the OECD member countries, the NEA member countries, and NEA strategic partners, invitees, and partner international organizations to contribute and participate.

Registration

Registration is required for all participants. To support effective planning, please register early, but at latest by the deadline **31st January 2025**. Please register using the **Registration Form** on the [WS event page](#).

Presentations

Participants intending to present a contribution related to the workshop topics are requested to submit an abstract (between 300 and 500 words) that provides a brief overview of the content of their proposed presentation. All abstracts should be submitted by **15th November 2024**; see the submission form on the [WS event page](#). The Organizing Committee will review abstracts and notify the authors by 20th December 2024 on the acceptance of the presentations.

Presenters will be asked to upload their presentations prior to the workshop – instructions will be available at the [event website](#).

Registration Fee

The Workshop is free of charge for all participants. Accommodation and travel will not be provided and must be organised by the participants.

Language

All presentations and discussions will be in English; translation will not be provided.

Workshop Location

The Consejo de Seguridad Nuclear (CSN) is looking forward to hosting the Workshop starting on March 31, 2025. Please remember to bring your photo ID/Passport when you show yourself at the CSN reception, we will be waiting for you.

The CSN does not have any special arrangement with nearby hotels. Nevertheless, based on the experience of foreign visitors, there are convenient lodging options within close proximity to the CSN. Hotel Jardín Metropolitano is located relatively close to the CSN (5 minutes walking distance) and AC Los Vascos is also close to the CSN (2 minutes walking distance). There are plenty of alternative hotels in the area and in Madrid for consideration.

Please find below a map with the approximate location of the CSN and a metro map (CSN's closest metro station is 'Guzman el Bueno'- Lines 6 and 7. Hotel Jardín Metropolitano is in front of 'Cuatro Caminos' metro Station – Lines 1, 2 and 6). There is a taxi flat rate from the airport to the city at 30€. There is also a direct metro line (number 8) and a commuter train, both leaving directly from the airport terminals, please find additional information at the airport website.

CSN Location

<https://www.csn.es/en/donde-estamos>

<https://maps.app.goo.gl/x59N1fP7W4vqgk5P7>

Metro map

http://www.metromadrid.es/en/viaja_en_metro/red_de_metro/planos/index.html

Venue Address

C. de Pedro Justo Dorado Dellmans, 11, 28040, Madrid, Spain

For **practical travel information** (how to get there, accommodation options); see the [WS event page](#).

Workshop Contacts

NEA Secretariat:

Yuji Kumagai

E-mail: Yuji.Kumagai@oecd-nea.org

Stephanie Ruiz

E-mail: Stephanie.RUIZ@oecd-nea.org

Workshop Organizing Committee

Matthew Humberstone (Chair)	U.S. NRC	USA
Enrique Melendez Ascensio (Co-Chair)	CSN	Spain
Marina Roewekamp	GRS	Germany
Kwang-II Ahn	KAERI	Republic of Korea
Vinh Dang	PSI	Switzerland
Mehdi Reisi Fard	U.S. NRC	USA
Yuji Kumagai	OECD NEA	France

Key Dates and Deadlines

Deadline for Abstract Submission	<i>November 15, 2024</i>
Notification of Accepted Presentations	<i>December 20, 2024</i>
Deadline for Attendance Registration	<i>January 31, 2025</i>
Deadline for Presentation Submission	<i>March 14, 2025</i>
The Workshop	<i>March 31- April 2, 2025</i>

Please refer to the Uncertainty [WS event page](#) for

- Guidelines for the abstracts and instructions for their submission
- How to register and practical information for participants

and the latest information and updates on the Workshop.

Workshop Proceedings

The Task Report from the Workshop will be published by the OECD NEA and will include objectives and important comments provided during the Workshop, all Workshop presentations, summaries, conclusions and recommendations made during the discussions, concluding remarks as well as new or emerging areas of interest identified in the final closing session. A specific part of the report will be dedicated to the discussion of experiences.