



Regional Workshop on Strengthening Severe Accident Management through Risk-Informed Practices

Hosted by

The Government of Czech Republic

through the

ÚJV Řež

18 – 21 November 2025

Ref. No.: ME-RER9160- EVT2503208

Information Sheet

Purpose

The purpose of the event is to discuss and share experience on how to strengthen capabilities in severe accident management through the application of risk-informed approaches that support the development of Severe Accident Management Guidelines (SAMGs).

Working Language

The working language of the event will be English.

Deadline for Nominations

Nominations received after **15 September 2025** will not be considered.

Project Background

The project is designed to support Member States (MSs) in the Europe and Central Asia regions in strengthening their capacities for severe accident management and the analysis of off-site consequences. These efforts are critical for protecting people and the environment from the harmful effects of ionizing radiation.

According to design requirements, nuclear power plants (NPPs) are expected to develop and implement Severe Accident Management Guidelines (SAMGs). These guidelines provide a structured framework for taking deliberate and sequential actions during a severe accident. SAMGs are a key component of the defence-in-depth approach, aimed at mitigating the consequences of such events.

While many MSs operating NPPs have developed SAMGs, they often face similar challenges. These include a lack of harmonized approaches and limited experience in using risk-informed methods to support the development of SAMGs and the evaluation of off-site consequences. This issue is further complicated in MSs that lack a comprehensive risk-informed regulatory framework. Although most MSs require and apply risk analysis—primarily through Probabilistic Safety Assessment (PSA)—the maturity of Level 2 and Level 3 PSA capabilities lags that of Level 1 PSA. The absence of detailed Level 2 PSA models, along with limited application frameworks and practical experience, poses a significant barrier to advancing risk-informed SAMGs. Additionally, the lack of regulatory requirements for Level 3 PSA in the region restricts the scope and implementation of off-site consequence analyses.

The project aims to enhance cooperation and facilitate the exchange of experience among MSs that have already developed SAMGs or are planning to develop or improve them. By fostering collaboration, the project will help address common challenges and promote more effective and harmonized approaches to severe accident management and consequence analysis.

Scope and Nature

The scope of the regional workshop covers the major technical aspects related to severe accident management approaches, including:

- Identification and analysis of severe accident sequences,
- Development of severe accident mitigation strategies;
- Application of risk information approaches in decision making;
- Assessment of the availability and reliability of key parameters (e.g., containment pressure, core temperature, hydrogen concentration), and human reliability analysis in the context of SAM planning;
- Verification and validation of SAMGs;
- Interfaces between SAMGs and emergency operation procedures (EOP) and integration of SAM programme into emergency preparedness and response arrangement;
- SAMGs in the multi-unit context.

During the workshop, the invited experts will provide presentations on state-of-the-art approaches, available practices, and key challenges in this area. Interactive discussions will also be held with the participants of the workshop to exchange experiences in the area and further enhance their understanding and capabilities. In addition to that, it is planned to organise a technical tour to get further insights regarding severe accident modelling.

Severe accident analysis related discussions are expected to address both reactor core and the spent fuel pool related accident scenarios.

Expected outputs

The expected outputs of the regional workshop is to exchange experiences and strengthen the capabilities of participants in following area:

- Technical bases for developing severe accident programme;
- Methods and approaches of severe accident analysis and mitigation strategies;
- Enhancing decision-making skills by utilizing severe accident analysis results within PSA framework;
- Assessing and improving SAMGs for better preparedness and response;
- Practical insights into implementing SAMGs effectively.

The regional workshop will also provide opportunities for participants to network, to share their experiences in topical areas of the event, to their challenges and obtain insights from international experts on the recommended path forward.

Participation

The workshop is open to up to **30** participants from TCEU Member States and local participants participating in the regional TC project RER/9/160.

Participants' Qualifications and Experience

The nominees for the regional workshop should be representatives of regulatory bodies, operating organizations, design organizations, technical support organizations, research or governmental institutes and industry, actively involved in the subject of the event.

They should be professionals working in the area of severe accident analysis and/or accident management programmes development and implementation and having experience in analytical support to SAMGs (e.g. severe accident modelling, deterministic and probabilistic safety analyses).

As the workshop will be conducted in English, participants should have sufficient proficiency to deliver and follow talks and participate in the discussions in this language without difficulty.

Applications failing to clarify compliance to the requirements listed above will be automatically rejected.

Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (<https://intouchplus.iaea.org>) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (<https://websso.iaea.org/IM/UserRegistrationPage.aspx>) before proceeding with the event application process below.
2. On the InTouch + platform, the candidate must:
 - a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
 - b. Search for the relevant technical cooperation event **EVT2503208** under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

NOTE: Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

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

Should online application submission not be possible, candidates may download the nomination form for the meeting from the [IAEA website](#).

NOTE: A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

Administrative and Financial Arrangements

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency American Express, or a travel grant, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

Disclaimer of Liability

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood

that each Government, in approving his/her participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

Note for female participants

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

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