IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Technical Meeting on the Applicability of Nuclear Power Plant Safety Experiences in Management of Radioactive Waste, Spent Fuel, and Decommissioning for Small Modular Reactors (SMRs)

IAEA Headquarters
Vienna, Austria

1 - 5 March 2027

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Information Sheet

Introduction

The deployment of Small Modular Reactors (SMRs) introduces innovative technologies, designs and operational concepts that may influence the application of existing approaches to the safety of radioactive waste and spent fuel management, and decommissioning. While many fundamental safety principles remain applicable, the diversity of SMR designs, including water-cooled, gas-cooled, molten salt, sodium-cooled and microreactor concepts, presents new challenges and opportunities in the SMRs backend safety. SMRs may incorporate modular construction, factory fabrication, novel waste streams and diverse spent fuel, and novel approaches to decommissioning and dismantling. These characteristics may have implications for the generation, characterization, processing, storage, transport and disposal of radioactive waste, spent nuclear fuel as well as for decommissioning planning, environmental discharges. Over several decades, valuable experience and lessons learned have been accumulated from the operation, waste and spent fuel management, and decommissioning of past and existing nuclear reactors. Many of these lessons may remain relevant to SMRs and can support the development of effective safety approaches for backend activities. At the same time, certain SMR-specific features may create new considerations that merit further assessment to determine the extent to which existing experience and safety practices can be directly applied or adapted.

To support Member States in addressing these issues, the IAEA is developing a TECDOC entitled *"Applicability of Nuclear Power Plant Experience in Backend Safety to Small Modular Reactors (SMRs)."* The publication aims to identify and evaluate relevant experience from past and existing nuclear reactors and assess its applicability to radioactive waste and spent fuel management and discharges, and decommissioning associated with SMRs.

Member States and international organizations will be invited to provide papers and presentations describing relevant lessons learned and practical experience from nuclear power plants that may be applicable to the management of radioactive waste, spent fuel, environmental discharges, and decommissioning for SMRs.

Objectives

The objective of the Technical Meeting is to obtain expert input and practical experience to support the development of the IAEA TECDOC on the applicability of nuclear power plant experience in backend safety to Small Modular Reactors (SMRs).

The meeting will:

- Identify lessons learned from past and existing nuclear power plants that may be applicable to SMR backend safety.
- Review experiences and lessons learned related to safety assessment, safety case development and regulatory oversight that may be relevant to SMR backend activities.
- Discuss decommissioning strategies for SMRs, including modular removal, centralized dismantling facilities, and off-site dismantling approaches, etc.
- Discuss the applicability and limitations of existing IAEA Safety Standards for SMRs in the areas of radioactive waste and spent fuel management, effluent discharges, and decommissioning.

Target Audience

The meeting is intended for experts from Member States and international organizations including regulatory bodies, operating organizations, designers, technical support organizations and other interested stakeholders with practical insights regarding the experience related to radioactive waste and spent fuel management, effluent discharges, and decommissioning of nuclear facilities.

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 or invited organization, participants are requested to submit their application via the InTouch+ platform (https://intouchplus.iaea.org) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **1 January 2027**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (https://intouchplus.iaea.org):
   - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
   - Persons without an existing NUCLEUS account can register here.

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
- Search for the relevant event under the 'My Eligible Events' tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
- If applicable, indicate whether a paper is being submitted and complete the relevant information;
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
- Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
- Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **01 January 2027**.

For additional information on how to apply for an event, please refer to the InTouch+ Help page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

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. 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. Further information can be found in the Data Processing Notice concerning the IAEA InTouch+ platform.

In addition to the registration already submitted through the InTouch+ platform, participants have to submit the abstract, together with the Form for Submission of a Paper (Form B), to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA not later than **01 January 2027.**

Submission of a paper should be confirmed, together with the submission of the main application via the InTouch+ platform, by **01 January 2027.**

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, together with the submission of the application, by **01 January 2027**.

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: https://www.iaea.org/events.

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.

Organization

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.