



Webinar on Applicability of IAEA Safety Standards to the Safe Operation and Regulation of Evolutionary and Innovative Reactor Designs including SMRs

**Organized by the
The IAEA Division of Nuclear Installation Safety**

30 August 2022

Scheduled for 14:00 CET

Duration 2 hours

Information Sheet

Background

The IAEA Department of Nuclear Safety and Security (with involvement from the IAEA Department of Nuclear Energy) has completed a high-level review of applicability of the [IAEA safety standards](#) to evolutionary and innovative designs (EIDs) including Small Modular Reactors (SMRs), high temperature gas cooled reactors (HTGR), sodium fast reactors (SFR), lead fast reactors (LFR), molten salt reactors (MSR), and transportable NPPs (TNPPs).

Objectives

The objective of this webinar is to inform interested stakeholders on the results of this review, focusing on the operational and regulatory safety standards including:

- [SSR-2/2 Rev. 1](#) and relevant safety guides;
- [GSR pt. 1](#) and [GSR pt. 2](#);
- [NS-G-2.2 \(SSG-70\)](#), [NS-G-2.3 \(SSG-71\)](#), [NS-G-2.4 \(SSG-72\)](#), [NS-G-2.5 \(SSG-73\)](#), [NS-G-2.6 \(SSG-74\)](#), [NS-G-2.8 \(SSG-75\)](#), and [NS-G-2.14 \(SSG-76\)](#);
- [SSG-12](#), [SSG-13](#), [SSG-16](#), [SSG-25](#), [SSG-28](#), [SSG-48](#), [SSG-50](#), and [SSG-77](#);
- [GSG-6](#), [GSG-12](#), and [GSG-13](#).

The purpose of this IAEA webinar is:

- to share the results of the applicability review of IAEA safety standards to EIDs including SMRs in the areas of safe operation.
- to share the results of the applicability review of IAEA safety standards to EIDs including SMRs in the areas of safe regulation.

Target Audience

The webinar is open to officials and nuclear security professionals from regulatory bodies, designers, operating organizations, technical support and research organizations as well as consultants, who are engaged in the operation and regulation of evolutionary and innovative reactor designs.

Working Language(s)

The webinar will be conducted in English.

Registration

Please register for the webinar using this link to [register](#) not later than **29 August 2022**.

After the registration and acceptance of your participation, you will receive an electronic mail containing information on how to access the webinar by following a hyperlink to join the WebEx meeting or by calling in by phone.

You can test your ability to connect to a WebEx meeting at the following link: <https://www.webex.com/test-meeting.html#>. Please contact your IT department if the test fails.

For additional help regarding registration, please contact Heather Morgan, Operational Safety Section (Email: h.morgan@iaea.org)

Webinar Programme

The IAEA has an important role to support Member States and regulatory bodies to develop nuclear safety and regulatory framework that is applicable to evolutionary and innovative designs (EIDs), including Small Modular Reactors (SMR), high temperature gas cooled reactors (HTGR), sodium fast reactors (SFR), lead fast reactors (LFR), molten salt reactors (MSR), floating SMRs and microreactors.

The IAEA safety standards reflect an international consensus among Member States on what constitutes a high level of safety for protecting people and the environment from harmful effects of ionizing radiation. Although the IAEA safety standards are intended to be technology neutral, they may be unintentionally influenced by technology specific issues of water-cooled large reactors, as most of the experience and knowledge in the Member States contributing to them is focused predominantly on that technology.

The high-level mapping of applicability of the [IAEA safety standards](#) to EIDs was completed in October 2021 by the IAEA supported by a team of 150 international experts, from 30 Member States and 40 organizations including regulatory bodies and technical safety organizations, and collaboration with the safety standards committees.

The outcomes of this work have been captured in a safety report that provides a mapping of areas of the safety standards that are technology neutral and applicable to all types of EIDs and also identify gaps in applicability. In anticipation of the pre-print publication expected in 2022, this event aims to present the review outcomes to Member States that are currently considering or planning to consider the applicability of their regulatory frameworks to innovative technologies as well as the developers of these technologies and the future operators. **This webinar will focus on the operational and regulatory safety standards.**

The webinar will include:

- Opening Remarks: Anna Bradford, Director of the IAEA Division of Nuclear Installation Safety (NSNI), Department of Nuclear Safety and Security, IAEA
- Overview of Review of Applicability of IAEA Safety Standards to EIDs, resulting Safety Report and future programme of work: Paula Calle Vives, Senior Nuclear Safety Officer (NSNI) and Chair of the Working Group on SMR Safety
- Applicability of Operational Safety Standards to EIDs: Miroslav Lipar, Nuclear Safety expert, senior consultant

- Applicability of Leadership and Management Safety Standards to EIDs: Miroslav Lipar, Nuclear Safety expert, senior consultant
- Applicability of Regulatory Safety Standards to EIDs: Miguel Santini, Senior Nuclear Safety Officer and Mario Santos, consultant, IAEA Regulatory Activities Section
- Q&A
- Closing remarks and what's next: Moderator - Heather Morgan, Associate Nuclear Safety Officer, (NSNI)

Presenters

Miroslav Lipar

Mr Lipar has over 40 years of experience in nuclear power plant management, operation, commissioning, leadership and management for safety, and safety assessment. He is knowledgeable about the IAEA safety standards and has contributed to the development of IAEA safety standards in the domain of Nuclear Power Plant Operations and Leadership and Management for Safety. Mr Lipar has participated in several IAEA peer review missions in the field of safety of nuclear installations and has extensive knowledge concerning the application of the IAEA safety standards in the Member States.

Miguel Santini

Mr Miguel Santini is the Scientific Secretary of the SMR Regulators Forum and participated in the review of Applicability of Safety Standards to the regulation of evolutionary and innovative reactor designs. Previously, he worked for 25 years as Senior Regulator at the Canadian Nuclear Safety Commission (CNSC) directing the regulatory oversight of nuclear power plants. Before joining the CNSC, Miguel worked in the design and safety assessments of small modular reactors.

Mario Santos

Mr Mario Santos works as part of the SMR Regulators' Forum Secretariat and participated in the preparation of IAEA-TECDOC-2003 – Lessons Learned in Regulating Small Modular Reactors. Previously, he worked as project manager for nuclear fuel cycle research installations in Brazil.

Paula Calle Vives

Ms Calle Vives is the Chair of the IAEA Working Group on SMR Safety. She has led the review of applicability of the IAEA safety standards to non-water cooled reactors and SMRs and coordinated the SMR safety activities at the IAEA. Previously, she was the Lead of Advanced Nuclear Technologies at the Office for Nuclear Regulation (ONR), UK. She also undertook roles on regulation of new build and operating reactors. Before ONR, she worked on operating reactors safety in the UK and France.

Moderator

Heather Morgan, Associate Nuclear Safety Officer, Division of Nuclear Installation Safety,
Department of Nuclear Safety and Security, IAEA