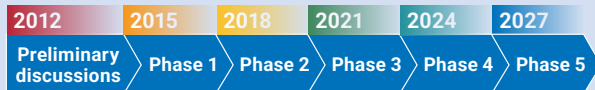


Timeline

Phase 1 (Pilot) of the SMR RF was launched in March 2015 to demonstrate the ability to produce meaningful cooperative outputs. The SMR RF Working Groups (WGs) studied how emergency planning zones, the principles of graded approach and defence-in-depth should be applied to SMRs.



During Phase 2, the current WGs were created.

During Phase 3, the SMR RF joined the IAEA Nuclear Harmonization and Standardization Initiative (NHSI) to lead the Regulatory Track (RT) WG3, tasked with developing processes for leveraging other regulatory bodies' reviews and for enabling them to work together when performing reviews. This work resulted in the development of **IAEA TECDOC-2098**.



The SMR RF continued its partnership with the RT during NHSI Phase II (2025–2026), which resulted in the development of a **Regulatory Cooperation Toolkit**, a suite of tools, i.e. guidance documents, templates, tables and questionnaires, designed to facilitate practical use of the TECDOC-2098 processes and to advance international regulatory cooperation for SMR technologies.



Launched in 2024, Phase 4 focuses on six topics: mechanistic source term; 3S (safety, security and safeguards) in remote locations; fleet-wide deployment of SMRs; manufacturing without an owner/licensee; construction oversight; and regulatory oversight of the organizational capability of a new licensee (no prior nuclear experience). Reports on mechanistic source term, fleet-wide deployment of SMRs, and manufacturing without an owner/licensee are already available.

Reports Phase 1 to Phase 3

Phase 1 (Pilot) is covered in the following report:

- Pilot Project Report with appendices on:
 - Graded Approach
 - Defence-in-Depth
 - Emergency Planning Zone

Phase 2 is covered in the following reports:

- SMR RF Phase 2 Summary Report
- Report from WG on Licensing Issues
- Report from WG on DSA
- Report from WG on MCCO

Phase 3 is covered in the following reports:

- SMR RF Phase 3 Summary Report
- Containment Systems
- Safety, Security and Safeguards from a Regulatory Perspective: An Integrated Approach
- Regulatory Considerations in Pre-Licensing Engagement for Long-Lead Item Requests
- Conduct of Authorized Activities: Impact on Stakeholders' Organizational Capabilities (Designers, Vendors, Manufacturers, Supply Chains, Operators)

Key outcomes of the Phase 3 and Phase 4 reports were also discussed in webinars, and available on the SMR RF website.



Small Modular Reactor (SMR) Regulators' Forum



Background

The Small Modular Reactor Regulators' Forum (SMR RF) was established in 2014 as a regulator-to-regulator entity driven by its members. It was created to specifically address SMR-related regulatory issues and provide enabling discussions among Member States and other stakeholders to share relevant regulatory knowledge and experience.

Objectives

- Develop common positions based on identification and discussion of key safety issues that may challenge regulatory reviews associated with SMRs and, if possible, approaches for their resolution
- Encourage enhanced nuclear safety and security
- Facilitate international cooperation among regulatory bodies performing SMR-related assessments
- Facilitate efficient, robust and thorough regulatory decisions
- Advise the IAEA on the need for revision or development of new publications on safety and security of SMRs.

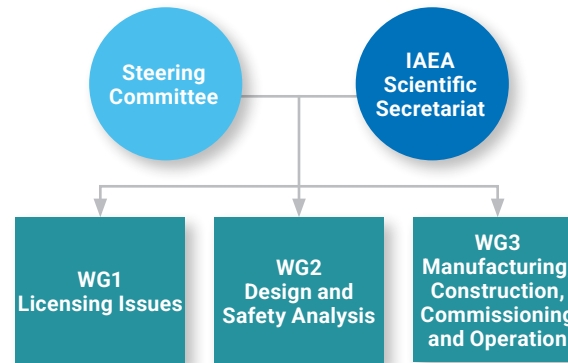
Outcomes

The SMR RF activities result in the following outcomes: common position statements on regulatory issues; sharing of information; discussions on regulatory challenges and paths forward; and recommendations with respect to IAEA publications.

The key findings and common positions developed by the forum are reflected in its reports. The SMR RF reports are publicly available on the forum's official website. Additionally, they are disseminated through webinars

and during SMR-related capacity-building activities aimed at regulatory bodies in countries embarking or expanding the nuclear programme and considering deploying SMRs.

Organization/structure



As the SMR RF Scientific Secretariat, the IAEA is responsible for supporting the Forum Steering Committee (SC) and its Working Groups (WGs) in achieving the forum's objectives. The SMR RF WGs are:

Licensing Issues (LI) WG: addresses issues related to regulatory approaches for the licensing of SMRs, including key regulatory interventions and international regulatory cooperation.

Design and Safety Analysis (DSA) WG: addresses issues related to the safety demonstration of designs, including the consideration of fundamental safety functions and key design requirements, the integration of safety, security and safeguards and the safety analysis approaches for SMRs.

Manufacturing, Construction, Commissioning and Operation (MCCO) WG: addresses issues related to the manufacturing, construction, commissioning, operation and maintenance of SMRs, including long-lead procurement items and the organizational capability of stakeholders involved in the deployment of SMRs.

Membership

Current (2026) SMR RF membership stands at 12: Canada, China, Czechia, Finland, France, Japan, the Republic of Korea, the Netherlands, the Russian Federation, South Africa, the United Kingdom and the United States.



Ways to participate

The SMR RF membership is open to all IAEA Member States able to contribute in a meaningful manner to the work of its WGs. The work being conducted is generally of a complex nature with a focus on SMRs that requires experience in various areas of nuclear safety, and in regulatory (including licensing) activities.

Membership presupposes a commitment to devote adequate resources to ensure that the forum's purpose and objectives can be fully achieved.

The SMR RF may grant observer status to international and regional organizations. Currently, there are three permanent observers: the European Commission; the Nuclear Energy Agency of the Organisation for Economic Cooperation and Development (OECD NEA); and the Cooperation in Reactor Design Evaluation and Licensing WG of the World Nuclear Association (WNA-CORDEL).

Website

For more information on the SMR RF, its activities, webinars and reports, please visit:

<https://gnssn.iaea.org/regnet/SMR-Forum/Pages/default.aspx>



Contact us

SMR-RF.Contact-Point@iaea.org