Webinar on Safety, Security and Safeguards Interfaces and Challenges for Novel Advanced Reactors

Organized by the
IAEA Division of Nuclear Installation Safety

Thursday, 3 February 2022

Scheduled at 14:00 CET

Duration:2.5 hours

Information Sheet

INTRODUCTION

The IAEA has completed a high-level mapping of applicability of the IAEA safety standards to Novel Advanced Reactors (NARs) including small modular reactors (SMRs), high temperature gas cooled reactors (HTGRs), sodium fast reactors (SFRs), lead fast reactors (LFRs), molten salt reactors (MSRs), marine-based SMRs and micro-sized reactors. The review was completed in October 2021 by the IAEA supported by a team of 150 international experts, from 30 Member States and 40 organisations including regulatory bodies and technical safety organisations, 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 NARs and identify gaps in applicability.

During the above-mentioned activity, it was concluded that the implementation of the safety requirements for NARs at the design stage has interfaces with security and safeguards considerations. The unique features of NARs offer benefits and challenges to each area in the 3S (safety, security and safeguards) concept. As many NARs are still at a conceptual or early design stage, they present a unique opportunity to pursue a holistic approach to safety, security and safeguards and their interfaces.

The IAEA Department of Nuclear Safety and Security, in co-operation with the IAEA Department of Safeguards, together with external experts, have identified and described the safeguards and security challenges for novel advanced reactors as well as safety, security and safeguards interfaces. Identification of challenges was implemented with specific focus on Novel Advanced Reactors (NARs) characteristics, such as new fuel types, transportability features, deployment in remote locations, factory-sealed cores, and long refuelling periods. Identified challenges and interfaces are discussed and reflected in the IAEA Safety Report.

OBJECTIVES

The webinar aims to:

- Provide an overview to interested stakeholders from industry and regulatory bodies of the outcomes of the IAEA activity on safety, security and safeguards considerations for NARs, covering challenges and interfaces.
- Provide a forum for discussions and promote the holistic approach towards safety, security and safeguards in early design stages of NARs.
- Provide an overview of the other IAEA activities in this area.

TARGET AUDIENCE

The event is targeted at professionals from nuclear regulatory authorities, design organisations, operating organisations, technical support organisations, and research and other institutions engaged in activities related to nuclear power plants safety, security and safeguards.

WORKING LANGUAGE(S)

The webinar will be conducted in English.

REGISTRATION

Please register for the webinar using this link < https://cutt.ly/IAEA-3S-Webinar > not later than **3 February 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 Mr Francisco Parada, Safety Assessment Section (F.Parada-Iturria@iaea.org).

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