



Contribution ID: 262

Type: Oral

Novel Organizational Models for Advanced Reactors' Operations: the Implementation of A/CPPNM Obligations in the Context of Multiple Jurisdictions

International commerce in small modular reactors (SMR) supplied from a state to another state is poised to expand considerably in the near term. "While most advanced reactors will likely be sited in conventional terrestrial locations, marine-based water cooled SMRs have been designed for deployment either as a barge-mounted floating power unit or as an immersible underwater power unit. In addition, underground deployment of SMRs is under consideration. [...] New organizational models have been recently developed in connection with advanced reactors. Under the build, own, and operate (BOO) model, the supplier remains the owner and operator for the life of the facility. Under the build, own, operate, and transfer (BOOT) model, the supplier is initially the owner and operator of the facility, but the contract includes arrangements for the transfer of ownership and operation to the host country at a specified point in the life of the facility." (See Morris, Man, Marek, 2022) An advanced reactor may be transported across multiple jurisdictions and operated using the BOO and BOOT models. Such scenarios may pose challenges in the application and operationalization of Article 5 of the Convention on Physical Protection of Nuclear Material as amended (A/CPPNM). This paper analyzes the legal implications of multiple jurisdictions in the application of A/CPPNM Article 5 in the context of an SMR built, owned and operated by State A on the territory of State B. (Released under PNNL-SA-195388)

Country OR International Organization

United States of America

Email address

madalina.man@pnnl.gov

Confirm that the work is original and has not been published anywhere else

YES

Author: MAN, Madalina (Pacific Northwest National Laboratory (PNNL))

Presenter: MAN, Madalina (Pacific Northwest National Laboratory (PNNL))

Track Classification: Topical Group B: Legislative and Regulatory Frameworks: Track 6: International and National Legal Frameworks and SMRs