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The Activities of INPRO in Transportable Nuclear Power Plants

The International Atomic Energy Agency (IAEA) through its forward-looking International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO) assists Member States (MSs) in formulating comprehensive long-term strategies for implementation of sustainable nuclear energy. INPRO has several activities related to the deployment of transportable small modular reactors (SMRs). The first activity, completed in 2012, focused on legal, institutional, and ownership-related challenges associated with deploying TNPPs, analysed various technological options and deployment scenarios, identified challenges, and assessed the impact on recipient countries' infrastructure. This activity explored two technical options for TNPPs. Option 1: involved a preassembled TNPP with fuelling, testing, maintenance, and decommissioning done at the supplier's factory. Option 2: was a preassembled TNPP with non-nuclear testing done at the factory, and maintenance, fuelling, and refuelling done on site. A second study, begun in 2015, delved deeper into some of the issues from Option 1, identifying gaps and providing more detailed analysis of legal and institutional challenges related to TNPP deployment. In November 2023, INPRO in collaboration with other departments, held a symposium on Floating Nuclear Power Plants (FNPPs), which brought together international experts and organizations to discuss the challenges of deploying sustainably FNPPs.

Country OR International Organization

International Atomic Energy Agency (IAEA)

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YES

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