

RECOMMENDATIONS TO ACCELERATE THE DEPLOYMENT OF FLOATING NUCLEAR POWER PLANTS, FROM A LICENSING APPROACH

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This study investigates the licensing of Floating Nuclear Power Plants (FNPPs) in Nordic countries, particularly Small Modular Reactors (SMRs). FNPPs could offer a solution for the extreme conditions and complex electrical grids in some regions. Each country has its own regulatory organization responsible for issuing licenses. For the nordic countries, the regulatory bodies are: the Swedish Radiation Safety Authority (SSM) in Sweden, the Radiation and Nuclear Safety Authority (STUK) in Finland, the Danish Health Authority, Radiation Protection (DHARP), and the Danish Emergency Management Agency (DEMA) in Denmark and the Norwegian Radiation and Nuclear Safety Authority (DSA) in Norway. FNPPs will require a license under the national nuclear regulatory body. Each of these regulatory authorities will have to extend all the respective licences to the FNPP. But, international collaboration among these regulatory bodies could significantly accelerate the licensing process. The work in this study aims to analyse the challenges and gaps in current licensing processes and identify potential enablers for the licensing of FNPPs. To achieve this goal, the study follows the milestones proposed by the IAEA in “Milestones In The Development Of A National Infrastructure For Nuclear Power”, in the section on Legal and Regulatory Frameworks and robust licensing processes from experienced countries. Furthermore, the study examines the viability of a Centralized Spent Fuel & Waste Management facility in the Nordic countries for a sustainable FNPP deployment.

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