# International Conference on Small Modular Reactors and their Applications



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# Implementation of projects of nuclear floating power units within the framework of maritime and nuclear law and approaches to regulation

The world is facing growing global energy demands and the need to reduce reliance on non-ecological energy sources. Floating nuclear power units can serve as a flexible and sustainable option for generating power. The identification of FNPUs as nuclear vessels and facilities underlines the need for adherence to international regulations of both the nuclear and maritime law, because the deployment of FNPUs presents unique challenges in terms of safety and optimal regulatory approach.

There are no specific nuclear safety regulations for FNPUs in the maritime and nuclear law, moreover the standard scenario for licensing stationary nuclear power plants is not applicable to FNPUs. Operating different types of nuclear vessels, including the FOAK FNPU *Akademik Lomonosov*, has provided the unique operation experience. FNPUs comply with safety and regulatory requirements for nuclear vessels, except for those specific to the nuclear power unit, except the distinction that FNPUs are non-self-propelled. The IAEA GSRs and SSRs seem also to be applicable in general.

In the future when more FNPUs operation experience is gained it would be possible to develop special nuclear safety requirements and to adapt the practices of regulating nuclear vessels in relation to FNPUs.

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

YES

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