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Nonproliferation Aspects for Transportable Nuclear Plant Lifecycle

New trend in development of nuclear energy use is small modular reactors (SMR) as energy source for remote regions. Special directions in those trends take innovation projects of transportable nuclear power plants (TNPP) with factory fueled and sealed core, having resources for exploitation for 10 years without reloading and without storage for spent nuclear fuel at the site. Such nuclear installation has additional proliferation resistance. Due to earlier (conceptual) stage of such projects it should be advisable to use “safeguards –by design” approach developed by IAEA to optimize safeguards implementation for those installations.

In the paper the approaches for IAEA safeguards measures implementation for TNPP which will satisfy with maximum extend requirements in present Agency documents (CSA, VOA etc.) taking in to account requirement to minimize Agency’s expenses and inspector’s efforts using modern methods and means remote monitoring.

Using hypothetical project floating TNPP in the paper will be discussed possible combinations of collaboration the countries involved in realization of such projects (supplier and host countries) with the aim to support effective and sufficient IEAE safeguards measure implementation.

Which “Key Question” does your Abstract address?

NEW2.1

Which alternative “Key Question” does your Abstract address? (if any)

NEW2.3

Topics

NEW2

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