

WENRA calls for a regulatory framework allowing a robust and consistent safety assessment across countries of potential new nuclear propulsion modes for merchant ships

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The International Maritime Organisation (IMO), eager to reduce greenhouse gases emissions in the shipping sector, has decided to revise the Code of Safety for Nuclear Merchant Ships.

This Code, issued in 1981, was initially drafted to define safety requirements to allow the use of pressurized water reactors (PWRs) for merchant ships propulsion, the only technology assessed suitable for naval use at that time. Since then, increasing concerns regarding the consequences of climate change, the development of new reactor technologies and the strengthening of nuclear safety standards have led the IMO to decide to revise the Code in order to bring it to the current safety standards and expand the possibility of using nuclear technology for the propulsion of merchant ships beyond the sole technology of PWRs.

Meanwhile, the IAEA is about to launch its initiative ATLAS (Atomic Technologies Licensed for Applications at Sea) intended to create a framework that promotes and supports safety, security and safeguards in deployment of nuclear applications at sea, specifically merchant ships and floating nuclear power plants.

WENRA notes with interest these initiatives taken by the IMO and IAEA.

WENRA recommends first that the IMO and IAEA work closely together to ensure that their respective activities are carried out in a consistent manner, and the revision of the Code be aligned with the most up-to-date IAEA safety standards, preferably referring, where appropriate, to each other's set of safety requirements. In particular, the revision of the Code should achieve the highest safety, security and safeguards levels reasonably achievable, given the specific hazards of the maritime environment.

Then, given the specificities of the maritime environment and its hazards, and the diversity in the current maturity level of the reactor technologies considered, WENRA further calls for the demonstration of a sufficient level of maturity of both the design, the safety case and the licensee, before a reactor (light water or advanced) is licensed to be used at sea. Due to the strong international component the naval sector has, with its inherent potential for transboundary consequences and the fast development of new reactor technologies worldwide, WENRA reminds that these conditions are essential for considering the harmonization of safety requirements and criteria at the international level.

WENRA also calls for a revision of the Code that ensures a consistent application of relevant safety requirements and navigation authorization procedures across countries. As a consequence, WENRA encourages the IMO to consider, in close coordination with the IAEA, a revision of the Code which firmly establishes the safety objectives and then provides sufficiently comprehensive and detailed safety requirements to be used by national competent bodies to grant the ships navigation licenses with the specific chosen technology.

Lastly, WENRA members confirm their willingness to support their national competent authorities in the work conducted by the IMO by contributing, in their field of competences, to the revision of the Code.