

Opportunities and Challenges for Commercial Maritime Nuclear

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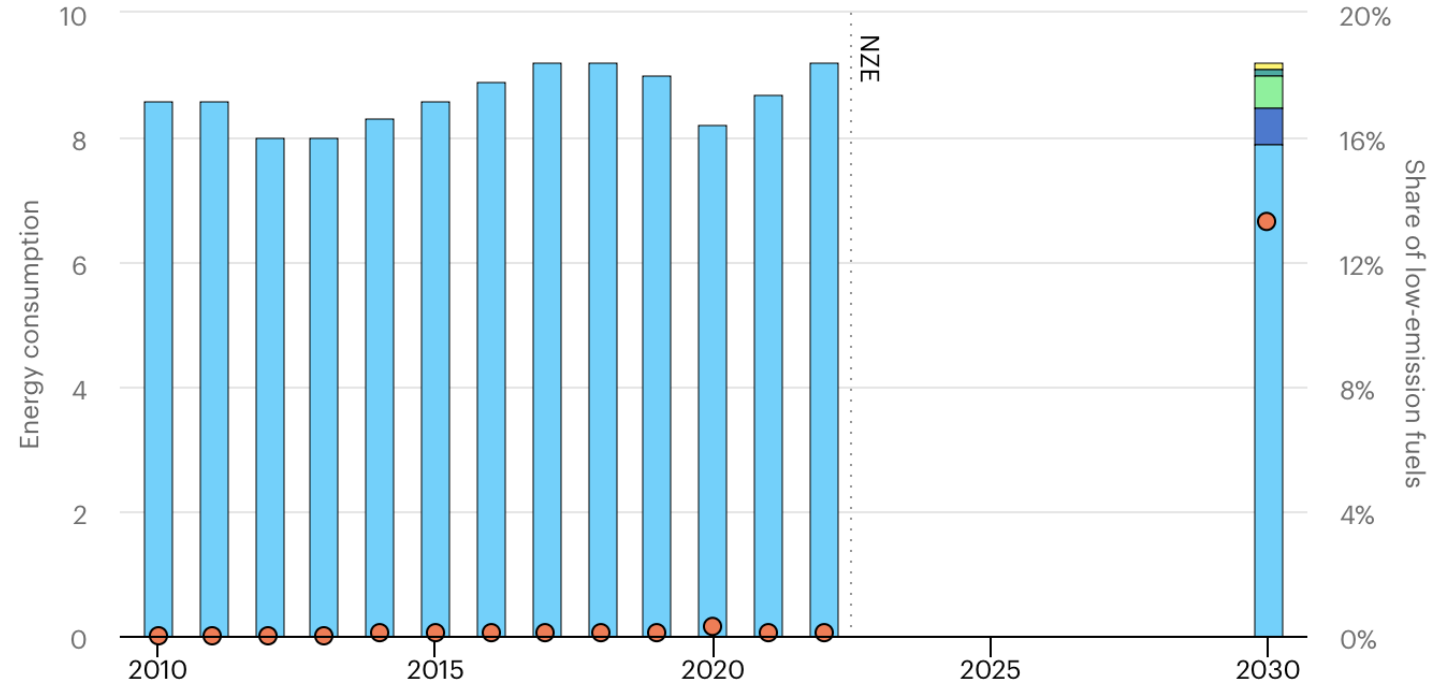


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Why?

Energy consumption in international shipping by fuel in the Net Zero Scenario, 2010-2030

[Open](#)



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- Fossil fuels
- Biofuels
- Ammonia
- Hydrogen
- Methanol
- Electricity
- Share of low-carbon fuels



Opportunities for floating nuclear

- Reduction in carbon emissions (and other emissions)
- Energy efficiency and range
- Energy security and stability
- Support to green hydrogen and ammonia production
- Grow Small Modular Reactor (SMR) and Micro-reactor industry



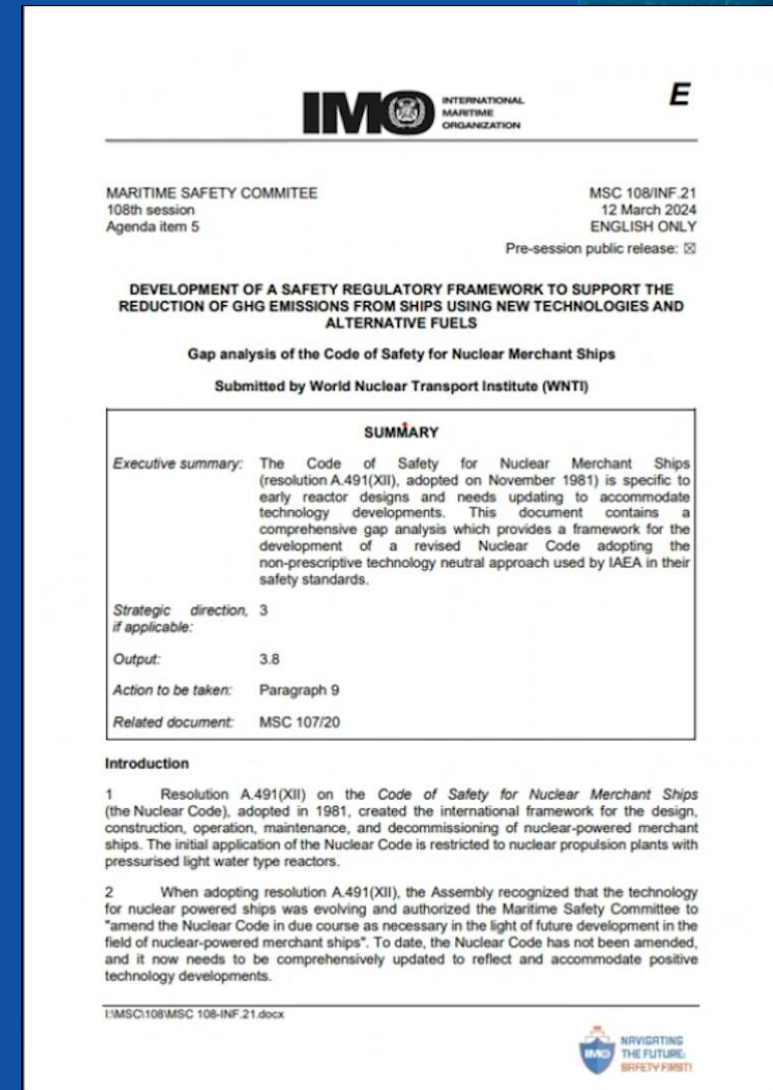
Challenges

- Safety
- Security
- Safeguards
- Regulatory and legal
- Nuclear waste management
- Port access and infrastructure
- Liability and insurance



International Maritime Organisation (IMO)

- Supplement to the International Convention to Safety Of Life At Sea
- Code for Safety for Nuclear Merchant Ships (resolution A.491 (XII))
- Convention on the Liability of Operators of Nuclear Ships (1962)
- Safety recommendations on the use of ports by Nuclear Merchant Ships (1968)





NEMO

NUCLEAR ENERGY
MARITIME
ORGANIZATION

A new industry association for all stakeholders
around FNPPs and nuclear ships


NEMO Mission Statement



“Establish a harmonised regulatory framework that allows for floating nuclear demonstration by 2030.”

NEMO Membership Summary



- 1  Nuclear tech developers and vendors / project managers
- 2  Shipowners/operators
- 3  Shipyards
- 4  Port Authorities
- 5  Class Societies
- 6  Insurance
- 7  Maritime & Energy Law
- 8  Power offtakers / end-users



Working Groups: Overview



Initial Set-Up featured 2 x WGs, now expanded to 3 as of Q3 2024:

1 Maritime Regulations (MR)

Looking at the application of Nuclear technology within Maritime. In particular regulatory development at IMO and supporting A.491XII.

2 Nuclear Safety, Security & Safeguards (NSSS)

Looking at the challenges and opportunities of maritime deployment from the perspective of Nuclear regulatory bodies. Shepherding progress of FNPP developments through IAEA.

3 Maritime Nuclear Liability (MNL)

Looking at the concept of commercial 'insurability' and the development of a suitable liability convention for floating nuclear, in the context of the 1962 Brussels Convention.

Future WG potential development:

WG4 = Seafarer Training Regimes

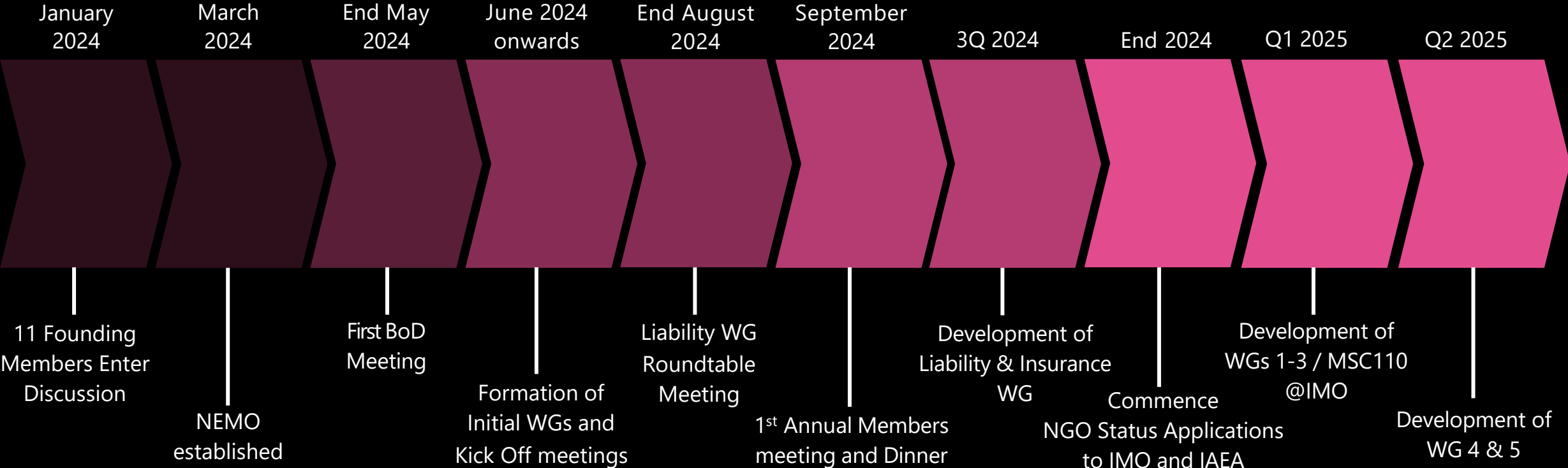
WG5 = Ports and Interfaces

2024 – 2025 lookahead



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ORGANIZATION



11 Members



34 Members (Currently)



50+ Members (Anticipated)

Where to from here?



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Thank You!

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Source: Maritime Regulators News



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