



Workshop on Alternative Fuels (biofuels and ammonia), Power Solutions for Shipping and Ports

Follow-up on HAZID recommendations

2.1 Safety & Security

19th October 2022

EMSA Studies

- Ammonia, Biofuels - completed studies with HAZID
- Hydrogen – on-going study with HAZID

IMO developments (CCC and MSC)

- INTERIM GUIDELINES FOR SHIPS USING LPG FUELS – Finalized at CCC 8
- INTERIM GUIDELINES FOR THE SAFETY OF SHIPS USING HYDROGEN AS FUEL - possible finalization at CCC 9 in 2023
- INTERIM GUIDELINES FOR THE SAFETY OF SHIPS USING AMMONIA – possible finalization at CCC 10 in 2024
- Guidelines for other low flash point fuels – possible finalization at CCC 10 in 2024
- Mandatory instrument for fuel cells – possible finalization at CCC 11 in 2025
- Mandatory instrument for methyl/ethyl alcohols – possible finalization at CCC 11 in 2025

Some preliminary considerations:

- For several energy sources and prime movers (such as ammonia and hydrogen as fuels) only very limited experience exists in maritime industry;
- Need to bring-in the knowledge of other industries;
- Need for adaptation of the methodologies and tools (risk-assessment, goal based, formal safety assessment) in use so far;

EMSA safety for sustainability preliminary program:

- Safety assessment for ammonia as fuel;
- Completion of Battery Guidance (detailed requirements);
- Safety assessment for hydrogen as fuel;
- Safety assessment for alcohols (methyl/ethyl) and bio fuels,



Thank you!



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