MEDIA RELEASE

Singapore, 26 April 2023 | **Immediate Release**

International Chemical and Oil Pollution Conference and Exhibition 2023

The 13th biennial International Chemical and Oil Pollution Conference and Exhibition (ICOPCE) was held on 26 Apr 2023 at the Marina Bay Sands Expo and Convention Centre in conjunction with the Singapore Maritime Week. Organised by the Maritime and Port Authority of Singapore (MPA), the event was opened by Capt M Segar, Assistant Chief Executive (Operations), MPA.

2. Themed 'Spill Strategies in a Decarbonisation Era', the conference provided a platform for industry professionals to discuss spill strategies for alternative marine fuels, including best practices, safety challenges and crisis management. ICOPCE brought together more than 150 professionals from various government agencies, port operators, as well as industry players from the bunkering, petrochemicals, shipping, protection and indemnity, and emergency response sectors.

3. Key speakers include Mr Christophe Logette, Director, Cedre, Mr Rob Boudestijn, Managing Director, Vopak Terminals Singapore, and Capt Clint Bout, General Manager and Head of Marine, Hafnia.

Methanol-based Spill Scenario for the ICOPCE Table-Top Exercise

4. A table-top exercise (TTX) was organised as part of the ICOPCE programme to provide an opportunity for participants to review existing safety measures and standards, identify potential gaps and new safeguards, clarify roles and responsibilities, and strengthen cross-agency coordination for an effective response to a chemical spill incident. This year's TTX scenario involved, for the first time, methanol spill at sea to prepare for methanol bunkering in the Port of Singapore later this year (see para 10). A modelling study of plume clouds that could form when methanol is suddenly released into the atmosphere during an incident or emergency was presented by MPA's Port Chemist for participants' awareness.

5. Participants also learnt about the specific hazards of methanol where a methanol flame is difficult to detect by sight, possible safety measures that could be adopted when handling the fuel, effective measures to detect and put out a methanol fire onboard a vessel, and the training of seafarers, operators, and engineers to reduce the risks of methanol handling.

6. Panos Koutsourakis, Vice President, Global Sustainability from ABS, said, "ABS is committed to supporting the safe adoption of methanol by the industry and today's event is an important aspect of that. This year's ICOPCE TTX provided participants with insights into the behaviour of methanol in a maritime operating environment and helped build confidence of how the maritime industry can safely manage its risks and hazards while achieving net-zero

emissions. By working together to examine challenges and explore solutions, we can keep our industry in the forefront of the energy transition."

Development of Safety Standards for New Fuels

7. A key pillar of Singapore's multi-fuel future development is the safe handling of alternative new marine fuels. MPA, together with various research agencies and the industry, are developing the necessary safety standards and procedures to ensure safe and efficient bunkering operations of new fuels, including methanol and ammonia.

8. The ongoing key safety studies and plans related to Methanol include:

- **Working Group on standard development for Methanol Bunkering** – Appointed by Enterprise Singapore as the Standards Development Organisation, the Singapore Chemical Industry Council has formed a Working Group, in consultation with MPA, to develop a Technical Reference (TR) for methanol bunkering for Singapore. The TR will cover custody transfer requirements for delivery of methanol from the bunker tanker to receiving vessels, operational and safety requirements for methanol bunkering as well as crew training and competency. Discussions on the TR has commenced within the Working Group[1] in April 2023 and it is expected to be ready in 2024.

- **Hazard Identification (HAZID) and Hazard and Operability Study (HAZOP) workshop** – MPA will organise a HAZID and HAZOP workshop in May 2023 with methanol bunkering trial partners, working group members and relevant government agencies to develop prevention, control and mitigation methods, as well as safety and operational readiness standards required during the bunkering operation.

- **Full Deployment Exercise (FDX)** – MPA will hold a FDX involving government agencies and the stakeholders in Q3 2023 to validate the effectiveness of the emergency preparedness, procedures, and responses for methanol bunkering.

Infrastructure for Methanol Bunkering

9. Since 2022, Singapore has completed more than 70 methanol loading and discharging operations for industrial use, measuring a total of more than 400,000 tonnes. These operations were conducted across 10 storage tanks at Jurong Island of varying capacities at Vopak Terminals, Stolthaven Terminal, Petrochemical Corporation of Singapore (PCS) Terminal, and Chevron Oronite Terminal. These tanks can also be used to store methanol for bunkering requirements.

[1] The Working Group consists of industry stakeholders such as government agencies, bunker suppliers, bunker craft operators, engine manufacturers, testing and certification bodies, shipowners and operators, terminal operators, and classification societies.

Maersk Methanol Bunkering Operation Pilot in Port of Singapore

10. First announced during the Singapore International Bunkering Conference and Exhibition (SIBCON) in 2022, Singapore's first methanol bunkering pilot will be conducted with Maersk Oil Trading, Mitsui & Co. Ltd., Mitsui & Co. Energy Trading Singapore Pte. Ltd, and American Bureau of Shipping in Q3 2023. The pilot will be coordinated by MPA, who will work closely with the stakeholders, research community and national entities to ensure that the bunkering operation is carried out safely and securely.

11. The lessons gleaned from this bunkering operation will inform the development of processes and procedures for other maritime fuels under consideration such as ammonia and hydrogen.

MPA to Work with Industry and Green and Digital Shipping Corridor Partners on Trials and Pilots of New Fuels in the Port of Singapore

12. As the port authority, MPA will continue to work closely with the industry and the research community to facilitate all trials and pilots[2] of new marine fuels in the Port of Singapore and in conjunction with MPA's green and digital shipping corridor partners.

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[2] Industry stakeholder planning to conduct trials or pilots using any alternative fuel in the Port of Singapore must inform MPA.

About the Maritime and Port Authority of Singapore (MPA)

MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA is the driving force behind Singapore's port and maritime development, taking on the roles of port authority, maritime and port regulator and planner, international maritime centre champion, national maritime representative and a champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, and develops maritime digitalisation and decarbonisation policies and plans, R&D and manpower development. MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2022, Singapore remained one of the world's busiest transshipment hubs with a container throughput of 37.3 million 20-foot equivalent units (TEUs).

For more information, please visit https://www.mpa.gov.sg

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