

LOCAL VESSELS ADVISORY COMMITTEE

Amendment of the Code of Practice: Safety and Operational Guidelines for Bunkering of Alternative Fuels

Introduction of Methanol Bunkering

Purpose

This document outlines the proposed amendments by the Marine Department (MD) to the Code of Practices (COP). Building on Paper No. 13/2024, these revisions aim to incorporate safety standards for methanol bunkering operations into the Safety and Operational Guidelines for Bunkering of Alternative Fuels, which were introduced in January 2025 while also refining the guidelines based on feedback from the industry.

Proposed Amendments Guidelines

Methanol Bunkering

2. To ensure safe bunkering operation, the Methanol Bunkering Safety guidelines will be incorporated to the COP as a new Chapter. The Methanol bunkering guidelines makes references to the widely adopted international and industrial standards and provides practical guidance for the operators to comply with the relevant regulatory requirements related to Methanol bunkering operations. The proposed new Chapter is provided in Annex I.

Miscellaneous Amendments

3. In addition to the introduction of Chapter III, it is also proposed to introduce minor amendments to Chapters I and II. These proposed amendments aim to streamline the approval process for LNG bunkering. Details of the amendments are provided in Annex II.

Way Forward

4. Members are invited to provide their comments by 16 June 2025. Subject to member's comments and acceptance, the amended COP will be gazetted and come into effect on 30 June 2025.

Local Vessels and Examination Division
Marine Department
May 2025

CHAPTER III

Methanol Bunkering Operations

1 General

- 1.1 This Chapter outlines the comprehensive requirements of licensing and operation for ship to ship methanol bunkering operations in waters of Hong Kong, between a methanol bunker supplier (“MBS”) and a methanol bunker receiver (“MBR”). The safety requirements are based on the requirements of the IGF Code and MSC.1/Circ.1621 as updated from time to time.
- 1.2 To conduct methanol bunkering operations in Hong Kong, a MBS must:
- a. Obtain approval from the MD for performing every bunkering operation according to Section 3; and
 - b. The MBS vessel shall maintain valid certificates as required by the IBC Code at all times during methanol bunkering operations.
- 1.3 The owner and the coxswain of the MBS vessel are responsible for the safety of all activities related to the methanol bunkering operations.
- 1.4 All bunkering operations must be agreed upon by both the MBS and MBR in accordance with the approved Methanol Bunker Management Plan (MBMP) before commencing operation.

2 Licensing requirements

To demonstrate the ability to safely execute the methanol bunkering operations, the following documentation shall be provided for the application of Operating Licence for the MBS vessel.

2.1 MBS vessel certificates

The following certificates for the vessel:

- a) Certificate of Survey under the Survey Regulation;
- b) Declaration of Fitness for Carriage of Dangerous Goods under the Survey Regulation;
- c) Relevant certificate as required by IBC Code;
- d) Relevant certificate as required by ISM Code; and
- e) Relevant Classification Certificate issued by an AO as a Chemical Tanker that is suitable to provide Methanol Bunker Fuel.

2.2 Risk Assessment

The MBS shall conduct Risk Assessments in accordance with ISO 31010 or a standard acceptable by MD. The risk assessment shall be submitted as part of the MBMP as specified in section 2.3, and shall cover the following items:

- The location of the operation: Impact to port operations and marine traffic, neighboring facilities, number of people within the vicinity of the operation and weather / sea conditions.
- Layout and Equipment of vessels: Arrangements of bunkering equipment, function and design of mechanical/electrical control systems and their components.
- Bunker transfer process: Flow rate, pressures, time, temperatures.
- Operations: Arrival, mooring, rigging of hose connections, bunker transfer procedure, vapour management, post-transfer procedure, inert gas management, departure, risk to personnel, roles and responsibilities.

2.3 Proposed MBMP

The MBS shall submit a proposed MBMP (with or without the information of Methanol bunker receiving end) that comprehensively outlines the procedures and safety measures for the pre-bunkering phase, bunkering phase and bunkering completion phase of the Methanol bunkering operation. The proposed MBMP shall include:

- a. Proposed operation of bunker supply vessel: The intended location of proposed methanol bunkering operation.
- b. Risk Assessment: The MBMP shall include a comprehensive risk assessment covering the entirety of the proposed operation in accordance with section 2.2.
- c. Safety Protocols: Detailed steps to ensure safe bunkering operation, including hazard assessments and emergency response action procedures.
- d. Operational Procedures: Specific guidelines for conducting Methanol transfers, including equipment checks and communication protocols between vessels, in accordance with International Association of Port and Harbour (IAPH) bunkering checklist or equivalent.
- e. Compatibility Assessment Checklist Templates: Comprehensive mechanism and check lists to ensure that potential bunker receiver's vessel, system and operations are compatible with bunker supply vessel.
- f. Certificates and functional test reports of bunkering equipment.
- g. Personnel Training: Requirements for the training and certification of personnel involved in the bunkering process.
- h. Emergency Contingency Plans: Measures to contain and mitigate any accidents that could affect the safety of the vessel and surrounding areas.
- i. Mechanism for documentation of all bunkering related operations.

2.4 Typhoon Evacuation Plan

The MBS shall submit a typhoon evacuation plan for the bunker supply vessel including the requirement that the vessel shall seek safe refuge or leave the water of Hong Kong prior to the issuing of No. 3 tropical cyclone warning signal.

2.5 Safety Management System Manual

The MBS shall submit a copy of safety management system manual that covers Methanol bunkering operations.

3 Approval for Methanol bunkering operations

3.1 The MBS is required to obtain approval from the MD for the first Methanol bunkering operation of each pair of MBS and MBR vessels.

3.2 The approval is valid for a period not exceeding 12 months. The approval may be cancelled by the MD if any condition of the approval or applicable requirement in this Code is not complied with.

3.3 To apply for approval, the MBS must submit the following documents to the Vessel Traffic Centre of the MD:

- a. Complete MBMP: At this stage the MBMP shall be completed with input from the MBR. This plan must be endorsed by representatives from the MBS, the MBR and endorsed by a suitably qualified person or organization accepted by MD, ensuring mutual agreement and compliance with safety standards.
- b. Joint Plan Bunkering Operation (JPBO)¹: To demonstrate the compatibility of hardware and operational interfaces between the MBS and the intended MBR, and their vessels.

4 Operational Requirements

4.1 Safety Zone

MBS and MBR are required to maintain a safety zone around the bunkering and receiving facilities / vessels for each Methanol bunkering operation to ensure ignition sources are adequately controlled. The extent of the safety zone shall be calculated on risk based

¹ The JPBO should be prepared according to the SGMF document: Methanol as a Marine Fuel, Safety and Operational Guidelines – Bunkering, or other equivalent standards accepted by MD.

approach but shall in no case be smaller than the hazardous zones².

4.2 Security Zone

MBS and MBR are required to maintain a security zone that is based on the results of the Risk Assessment of the MBMP. MBS and MBR are responsible for monitoring all activities and operations within this vicinity to identify and mitigate any potential risks to the bunkering operation.

4.3 Participation in Vessel Traffic Services (VTS)

The bunker supply vessel is required to participate in the Vessel Traffic Service (VTS) of MD. Additionally, it must maintain continuous VHF watch on the appropriate VHF channels whenever the vessel is within Hong Kong Waters.

4.4 Bunkering Operation

The MBS and MBR must operate in accordance with the MBMP and complete the Methanol Bunker Checklist for pre-bunkering phase within 48 hours in advance of a planned Methanol bunker operation. The Checklist shall be kept on both vessels and produced for inspection by an authorized officer of the MD.

4.5 Notifications

The MBS is required to adhere to the following notification procedures with the MD:

(a) Pre-Notification of Methanol Bunkering Operation

24-Hour Advance Notice: The MBS must notify the Vessel Traffic Centre of the MD (VTC) at least 24 hours prior to the commencement of any Methanol bunkering operation by email. This notification should include the specific time and location of the bunkering operation, and a 24-hour contact number to ensure immediate communication in case of any emergency.

(b) Reporting of Bunkering Phases

Commencement and Completion: The MBS must report both the commencement and the completion of each Methanol bunkering operation to the VTC via appropriate VHF channel.

(c) Incident Reporting

Immediate Notification: In the event of any incident during the Methanol bunkering operation, the MBS must report the incident immediately to the relevant government department(s).

² Hazardous Zone, as defined in MSC.1/Circ.1621 Interim Guidelines For The Safety Of Ships Using Methyl/Ethyl Alcohol As Fuel

5 Requirements for crew members

In addition to the manning requirements as specified under the vessel's certificate;

- 5.1 Crewmember assigned specific duties and responsibilities related to cargo or cargo equipment on chemical tankers shall hold an endorsement in training (Basic) for chemical tankers cargo operations as recognized by MD.
- 5.2 Crewmember with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations on chemical tankers shall hold an endorsement in training (Advanced) for chemical tanker cargo operations as recognized by MD.

Annex II

Amendments for Code of Practice – Safety and Operational Guidelines for Bunkering of Alternative Fuels

| 編號 /No. | 章 / Chapter | 節 / Section | 修訂內容 / Amendment |
|---------|-------------|-------------|--|
| 1 | I | 1.3 | 新增有關須遵守其他政府部門的規例的提醒。 / Addition of reminder to comply with other Regulations of other Departments. |
| 2 | II | 3.1 | 編輯更改，並將有關 LBMP 的規定移至第 3.3(b)段。 / Editorial Changes with the requirement of LBMP relocated to para. 3.3(b). |
| 3 | II | 3.2 | 編輯更改/ Editorial Changes |
| 4 | II | 3.3 | 編輯更改/ Editorial Changes |
| 5 | II | 3.3(a) | 加注相容性核對清單／報告不再需要獲特許機構認可。 / Bunkering Compatibility Checklist/Report no longer needs to be endorsed by AO. |
| 6 | II | 3.3(b) | LNG 加注管理計劃需要獲海事處認可的專業人士或組織認可。 / LBMP shall be endorsed by qualified person or organization accepted by MD |
| 7 | II | 4.1 and 4.4 | 編輯更改/ Editorial Changes |
| 8 | II | 5.1 and 5.2 | 編輯更改/ Editorial Changes |