



№ 16/CIRC/FSI

2021 / 09 / 23

To: All Owners, Managers and Representatives of Ships flying
Georgia Flag, Masters and Officers, Recognized Organizations,
Flag State Inspectors, Recognized Agents.

Subject : Entering Enclosed Spaces - Safety Precautions

Reference:

- International Convention for the Safety of Life at Sea (SOLAS), as amended;
- IMO Resolution A.1050(27), Revised Recommendations for Entering Enclosed Spaces Aboard Ships, adopted 30 November 2011;
- IMO Resolution MSC.380(94), Amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as Amended (Chapters II-2, VI and XI-1 and Appendix), adopted 21 November 2014;
- IMO Resolution MSC.350(92), Amendments to the International Convention for the Safety of Life at Sea, 1974, as Amended, adopted 21 June 2013;
- IMO Circular MSC.1/Circ.1581, Unified Interpretation of SOLAS Chapter II-2, issued 16 June 2017;
- IMO Circular MSC.1/Circ.1561, Unified Interpretation of SOLAS Regulation XI-1/7, issued 28 November 2016;
- IMO Circular MSC.1/Circ.1477, Guidelines to Facilitate the Selection of Portable Atmospheric Testing Instruments for Enclosed Spaces as Required by SOLAS Regulation XI-1/7, issued 09 June 2014;
- IMO Circular MSC.1/Circ.1401, Guidelines for Tank Entry for Tankers Using Nitrogen as an Inerting Medium, issued 09 June 2011;
- Maritime Code of Georgia;
- Order N 16 dated December 1 of the Director of LEPL Maritime Transport Agency of the Ministry of Economy and Sustainable Development of Georgia on the approval Technical Standards and the Safety Rules for Yachts (YACHT CODE).

1. Purpose:

1.1 This Circular establishes requirements and elaborates on safety standards that must be followed by personnel entering enclosed spaces onboard ships. These requirements are necessary because lives continue to be lost by personnel entering shipboard spaces where the atmosphere is oxygen depleted, oxygen-enriched, toxic, or flammable.

2. Introduction:

2.2 The atmosphere in any enclosed space may be oxygen-deficient or oxygen-enriched and/or contain flammable and/or toxic gases or vapours. Such unsafe atmospheres could also subsequently occur in a space previously found to be safe. Unsafe atmospheres may also be present in spaces adjacent to those spaces where a hazard is known to be present.

3. Application:

3.1 This Circular applies to all Georgia flagged vessels engaged in the international voyage to which SOLAS convention applies, (including private/commercial yachts more than 500 GT.

4. Testing Instruments and Drills:

4.1 In accordance with Regulation 19.3.3 and 19.3.6 of the Chapter III of the SOLAS Convention, crew members with enclosed space entry or rescue responsibilities shall participate in an enclosed space entry and rescue drill to be held on board the ship at least once every two months.

4.2 In accordance with regulation 19.3.6.2.3 of the Chapter III of the SOLAS Convention, that each enclosed space entry and rescue drill shall include: **“Checking and use of instruments for measuring the atmosphere in enclosed spaces”**.

4.3 in accordance with regulation 7 of the Chapter XI-1 of the SOLAS Convention Every ship to which chapter I applies shall carry an appropriate portable atmosphere testing instrument or instruments. As a minimum, these shall be capable of measuring concentrations of oxygen, flammable gases or vapours, hydrogen sulphide and carbon monoxide prior to entry into enclosed spaces.

5. Safety Managements (Safety Strategy)

5.1 In order to maintain a high level of personnel safety measures on Georgian flagged vessels, ship owners/operators must adopt a comprehensive safety strategy to prevent accidents while entering enclosed spaces.

5.2 The safety strategy shall be full in compliance with IMO (Resolution A.1050(27)) recommendations for entering enclosed spaces aboard ships and shall be incorporated into the Safety Management System (SMS), as appropriate.

5.3 The safety strategy of the tankers using nitrogen as an inerting medium shall be full in compliance with IMO (Circular MSC.1/Circ.1401), guidelines on tank entry for tankers using nitrogen as an inerting medium and shall be incorporated into the SMS.

5.4 The strategy shall be ship-specific, and shall establish safety instructions and training initiatives to emphasize proper utilization of personal safety equipment and procedures. Safety instructions and training shall consider and include a review and briefing of the following primary mistakes made by personnel that have led to casualties:

- entering an enclosed space without advising other persons of intent;
- entering an enclosed space without ensuring the space is adequately ventilated; and
- attempting to enter an enclosed space to give aid to a person or persons inside the space, without first taking the necessary safety precautions.

6. Entering Enclosed Space (rescue drills & periodical)

6.1 The crew members with enclosed space entry or rescue responsibilities to participate in periodic enclosed space entry and rescue drills to be held on board at least once every two months.

6.2 Drills shall be planned and conducted in a safe manner, taking into account, as appropriate, the guidance provided in IMO Resolution A.1050(27) and shall include the following exercises:

- checking and use of personal protective equipment required for entry;
- checking the use of communication equipment and procedures;
- checking and use of instruments for measuring the atmosphere in enclosed spaces;
- checking the suitability, including length, of sampling hoses of portable detectors for gas measurement at all levels in double bottom spaces (SOLAS II/2, Regulation 4.5.7);
- checking and use of rescue equipment and procedures;
- calibration of instruments in accordance with the manufacturer’s instructions, either on board or ashore (SOLAS II-2/4.5.7.1 and IMO Circular MSC.1/Circ.1581); and
- instructions in first aid and resuscitation techniques.

6.3 The Master and responsible officer must review periodically the safety instructions.

6.4 Every crew member, upon joining the vessel, shall be given instructions of the risks associated with enclosed spaces and the onboard procedures for safe entry into such spaces and take into account, IMO guidance “recommendations for entering enclosed spaces aboard ships” (IMO Resolution A.1050(27)).

7. Authorization of Entry:

7.1 No person should open or enter an enclosed space unless authorized by the master or the nominated responsible officer and unless the appropriate safety procedures laid down for the particular ship have been followed.

7.2 An Enclosed Space Entry Permit should be issued by the master or the nominated responsible officer, and completed by the personnel who enter the space prior to entry.

7.3 Entry into enclosed spaces should be planned and the use of an entry permit system (checklist), example of the checklist is attached of the IMO Resolution A.1050(27).

8. Testing the Atmosphere:

8.1 Testing of the atmosphere of a space should be carried out with properly calibrated equipment by persons trained in the use of the equipment. The manufacturers’ instructions should be strictly followed.

8.2 Testing of the space should be carried out before any person enters the space and at regular intervals thereafter until all work is completed.

8.3 According to paragraph 7.2 of the IMO Resolution A.1050(27) a safe atmospheric range for entry into enclosed spaces is the following:

- 21% oxygen by volume by oxygen content meter;
- Not more than 1% of lower flammable limit (LFL) on a suitably sensitive combustible gas indicator, where the preliminary assessment has determined that there is potential for flammable gases or vapours; and
- Not more than 50% of the occupational exposure limit (OEL) of any toxic vapours and gases.

8.4 The safe atmospheric range shall be incorporated into the vessel SMS.

8.5 Only if the test results indicate acceptable levels of oxygen and acceptable levels of flammable or toxic vapors, shall entry be permitted. This means that testing must indicate an oxygen reading that is no lower than it is outside the space. If the area has a lower content of oxygen than outside the space, the cause of this difference must be determined in case the oxygen has been displaced by toxic or inflammable gases. Appropriate measures shall be taken to remove the risks.

8.6 It should be emphasized that the internal structure of a space, or liquid residues, may present situations where oxygen-deficient areas exist. Even when an enclosed space has been satisfactorily tested and found suitable for entry, there is a risk that oxygen-deficient areas can exist and precautions must be taken. This is especially the case where the path of supply and outlet ventilation is obstructed by structural members or liquid residues are still present.

9. Breathing Apparatus:

9.1 A breathing apparatus of an approved type shall be carried in all ships in accordance with regulation 10.2 of the Chapter II-2 of the SOLAS Convention, but breathing apparatus for chemical carriers and liquefied gas carriers is prescribed by the Chemical Code and Gas Code respectively, and shall be carried accordingly.

9.2 In all cases where the atmosphere of a space is known or suspected to be unsafe, persons entering such spaces shall only do so while wearing an approved Self Contained Breathing Apparatus (SCBA), and all such persons shall be trained for used it.

9.3 Under no circumstances shall an Emergency Escape Breathing Device (EEBD) be used to enter an enclosed space in which the atmosphere is known or suspected to be oxygen-depleted, oxygen-enriched, toxic, or flammable.

10. Records:

10.1 The dates when enclosed space entry, rescue drills, and on board training are held shall be recorded in the vessel's log book.

10.2 If a drill or training session is not held at the appointed time, an entry shall be made in the log book stating the circumstances and the extent of the drill or training session held.

11. Contact Details:

11.1 Recognized Organizations, Shipowner, ship operator or Management Company of a ship flying the Georgian flag may contact MTA for Additional consultations and assistance.

LEPL – Maritime Transport Agency of Georgia
Ships Registry and Flag Control Department
Tel: +995 (422) 274925
E-mail: fsi@mta.gov.ge
Hotline/AOH: +995 (577) 221622

Attachments:

Annex I – IMO Resolution A.1050(27), Revised Recommendations for Entering Enclosed Spaces Aboard Ships;
Annex II - IMO Circular MSC.1/Circ.1401, Guidelines for Tank Entry for Tankers Using Nitrogen as an Inerting Medium;
Annex III - IMO Circular MSC.1/Circ.1477, Guidelines to Facilitate the Selection of Portable Atmospheric Testing Instruments for Enclosed Spaces as Required by SOLAS Regulation XI-1/7.

Director

SIGNED/SEALED
ELECTRONICALLY 

Tamar Ioseliani