

Subject

Atmosphere Testing Instrument for Enclosed Spaces
(Singapore and Vanuatu)

ClassNK

Technical Information

No. TEC-1032
Date 2 June 2015

To whom it may concern

The Maritime and Port Authority of Singapore and Vanuatu Maritime Services have informed ClassNK of the requirement for atmosphere testing instrument for enclosed spaces.

Both Flag Administrations require ships which are registered in the flag states to provide atmosphere testing instrument for enclosed spaces specified in Resolution MSC.380(94) as soon as possible but not later than 1 July 2015.

Compliance of above requirement shall be verified by surveyor at first survey relating to the Safety Equipment on or after 1 July 2015.

For any questions about the above, please contact:

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Attachment:

1. Shipping Circular No.8 of 2015 (Singapore)
2. Fleet/Safety Letter 170415. Gen (Vanuatu)

NOTES:

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MARITIME AND PORT AUTHORITY OF SINGAPORE
SHIPPING CIRCULAR
NO. 8 OF 2015

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6 April 2015

Applicable to: Shipowners, shipmanagers, operators, agents and masters of Singapore-registered ships

EARLY IMPLEMENTATION OF SOLAS REGULATION XI-1/7 ON ATMOSPHERE TESTING INSTRUMENT FOR ENCLOSED SPACES

1. The Maritime Safety Committee (MSC) of the International Maritime Organisation (IMO) adopted SOLAS regulation III/19.3.6.2.3 relating to enclosed space entry and rescue drills, by Resolution MSC.350(92). The Merchant Shipping (Safety Convention) (Amendment No. 2) Regulations 2014 which gives effect to the Resolution entered into force on 1 January 2015.
2. The MSC at its ninety-third session confirmed that regulation III/19.3.6.2.3 does not introduce carriage requirements for atmosphere testing instruments for enclosed spaces.
3. The MSC at its ninety-fourth session, in adopting Resolution [MSC.380\(94\)](#) recognised the need to implement the new SOLAS regulation XI-1/7 early in order to expedite the carriage of portable atmosphere testing instruments. [MSC/Circ.1485](#) invited SOLAS Contracting Governments to voluntarily implement SOLAS regulation XI-1/7 to ships under their flags, as soon as practicable, taking into account that the entry-into-force date of the corresponding amendment to SOLAS is 1 July 2016.
4. In view of the testing of atmosphere of enclosed spaces is critical for the safe entry by ship crew and the carriage of portable atmosphere testing instrument introduced by regulation XI-1/7 is essential to satisfying the requirement of regulation III/19.3.6.2.3, the Director of Marine has decided to implement regulation XI-1/7 early. Singapore registered ships to which chapter I of the Merchant Shipping (Safety Convention) Regulations apply, shall implement regulation XI-1/7 as soon as possible but not later than **1 July 2015**.
5. Shipowners should take into consideration [MSC.1/Circ.1477](#) "Guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed

spaces as required by SOLAS regulation XI-1/7", when selecting portable atmosphere testing instrument for enclosed spaces as required by regulation XI-1/7.

6. Recognised Organisations have been separately instructed to verify compliance onboard Singapore registered ships when carrying out the first survey relating to the Safety Equipment Certificate after **1 July 2015**.

7. Queries relating to this circular should be directed to Mr. Calvin Lee at telephone 6375-6269 or email calvin_lee@mpa.gov.sg.

TAN SUAN JOW
DIRECTOR OF MARINE
MARITIME AND PORT AUTHORITY OF SINGAPORE



ANNEX 1

**RESOLUTION MSC.380(94)
(adopted on 21 November 2014)**

**AMENDMENTS TO THE INTERNATIONAL CONVENTION
FOR THE SAFETY OF LIFE AT SEA (SOLAS), 1974, AS AMENDED**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO article VIII(b)(vi)(2) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 ("the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I,

HAVING CONSIDERED, at its ninety-fourth session, amendments to the Convention, proposed and circulated in accordance with article VIII(b)(i) thereof,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 January 2016 unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments, the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified to the Secretary-General of the Organization their objections to the amendments;

3 INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 July 2016 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention; and

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE
SAFETY OF LIFE AT SEA (SOLAS), 1974, AS AMENDED**

**CHAPTER II-2
CONSTRUCTION – PROTECTION, FIRE DETECTION AND FIRE EXTINCTION**

**Part C
Suppression of fire**

Regulation 10 – Fire fighting

- 1 The title of existing paragraph 5.2 is replaced as follows:

"5.2 Machinery spaces of category A containing internal combustion machinery"

**CHAPTER VI
CARRIAGE OF CARGOES AND OIL FUELS**

**Part A
General Provisions**

Regulation 2 – Cargo information

- 2 The following new paragraphs 4 to 6 are added after existing paragraph 3:

"4 In the case of cargo carried in a container*, except for containers carried on a chassis or a trailer when such containers are driven on or off a ro-ro ship engaged in short international voyages as defined in regulation III/3, the gross mass according to paragraph 2.1 of this regulation shall be verified by the shipper, either by:

- .1 weighing the packed container using calibrated and certified equipment; or
- .2 weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

5 The shipper of a container shall ensure the verified gross mass** is stated in the shipping document. The shipping document shall be:

- .1 signed by a person duly authorized by the shipper; and
- .2 submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan***.

6 If the shipping document, with regard to a packed container, does not provide the verified gross mass and the master or his representative and the terminal representative have not obtained the verified gross mass of the packed container, it shall not be loaded on to the ship.

* The term "container" should be considered as having the same meaning as defined and applied in the International Convention for Safe Containers (CSC), 1972, as amended, taking into account the *Guidelines for the approval of offshore containers handled in open seas* (MSC/Circ.860) and the *Revised recommendations on harmonized interpretation and implementation of the International Convention for Safe Containers, 1972, as amended* (CSC.1/Circ.138/Rev.1).

** Refer to the *Guidelines regarding the verified gross mass of a container carrying cargo* (MSC.1/Circ.1475).

*** This document may be presented by means of EDP or EDI transmission techniques. The signature may be an electronic signature or may be replaced by the name, in capitals, of the person authorized to sign."

CHAPTER XI-1 SPECIAL MEASURES TO ENHANCE MARITIME SAFETY

3 The following new regulation 7 is added after existing regulation 6:

"Regulation 7 – Atmosphere testing instrument for enclosed spaces

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**. Instruments carried under other requirements may satisfy this regulation. Suitable means shall be provided for the calibration of all such instruments.

* Refer to the *Guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed spaces as required by SOLAS regulation XI-1/7* (MSC.1/Circ.1477).

** Refer to the *Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27))."

APPENDIX

CERTIFICATES

Record of Equipment for Cargo Ship Safety (Form C) Record of Equipment for Cargo Ship Safety (Form E)

4 Section 2 of the Record of Equipment for Cargo Ship Safety (Form C) and the Record of Equipment for Cargo Ship Safety (Form E), is replaced with the following:

"2 **Details of life-saving appliances**

1	Total number of persons for which life-saving appliances are provided		
2	Total number of davit launched lifeboats	Port Side	Starboard Side
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of self-righting partially enclosed lifeboats (regulation III/43 ¹)	.....	.....
2.3	Number of totally enclosed lifeboats (regulation III/31 and LSA Code, section 4.6)	.....	.....
2.4	Number of lifeboats with a self-contained air support system (regulation III/31 and LSA Code, section 4.8)	.....	.....
2.5	Number of fire-protected lifeboats (regulation III/31 and LSA Code, section 4.9)	.....	.....
2.6	Other lifeboats	.....	.....
2.6.1	Number	.....	.....
2.6.2	Type	.....	.....
3	Total number of free-fall lifeboats	.....	.....
3.1	Total number of persons accommodated by them	.....	.....
3.2	Number of totally enclosed lifeboats (regulation III/31 and LSA Code, section 4.7)	.....	.....
3.3	Number of lifeboats with a self-contained air support system (regulation III/31 and LSA Code, section 4.8)	.....	.....
3.4	Number of fire-protected lifeboats (regulation III/31 and LSA Code, section 4.9)	.....	.....
4	Number of motor lifeboats (included in the total lifeboats shown in 2 and 3 above)	.....	.....
4.1	Number of lifeboats fitted with searchlights	.....	.....
5	Number of rescue boats	.....	.....
5.1	Number of boats which are included in the total lifeboats shown in 2 and 3 above	.....	.....
6	Liferafts	.....	.....
6.1	Those for which approved launching appliances are required	.....	.....
6.1.1	Number of liferafts	.....	.....

¹ Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1 July 1986, but before 1 July 1998.

2 Details of life-saving appliances (continued)

1 Total number of persons for which life-saving appliances are provided		Port Side	Starboard Side
6.1.2	Number of persons accommodated by them	.....	.....
6.2	Those for which approved launching appliances are not required	.....	.....
6.2.1	Number of liferafts	.....	.....
6.2.2	Number of persons accommodated by them	.....	.....
6.3	Number of liferafts required by regulation III/31.1.4	.....	.....
7	Number of lifebuoys	.....	.....
8	Number of lifejackets	.....	.....
9	Immersion suits	.....	.....
9.1	Total number	.....	.....
9.2	Number of suits complying with the requirements for lifejackets	.....	.....
10	Number of anti-exposure suits	.....	.....
11	Radio installations used in life-saving appliances	.....	.....
11.1	Number of search and rescue locating devices	.....	.....
11.1.1	Radar search and rescue transponders (SART)	.....	.....
11.1.2	AIS search and rescue transmitters (AIS-SART)		
11.2	Number of two-way VHF radiotelephone apparatus		

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MSC.1/Circ.1485
14 January 2015

EARLY IMPLEMENTATION OF SOLAS REGULATION XI-1/7 ON ATMOSPHERE TESTING INSTRUMENT FOR ENCLOSED SPACES

1 The Maritime Safety Committee, at its ninety-third session (14 to 23 May 2014), when approving the draft new SOLAS regulation XI-1/7 "Atmosphere testing instrument for enclosed spaces", recalled that MSC 92 had adopted, by resolution MSC.350(92), SOLAS regulation III/19 "Emergency training and drills" with an entry-into-force date of 1 January 2015, requiring that each enclosed space entry and rescue drill shall include checking and use of instruments for measuring the atmosphere in enclosed spaces.

2 MSC 93, having confirmed that paragraph 3.6.2.3 of SOLAS regulation III/19 does not introduce carriage requirements for atmosphere testing instruments for enclosed spaces, recognized the need to implement the draft new SOLAS regulation XI-1/7 early, in order to expedite the carriage of portable atmosphere testing instruments for enclosed spaces.

3 Consequently, the Maritime Safety Committee, at its ninety-fourth session (17 to 21 November 2014), in adopting resolution MSC.380(94) on *Amendments to the International Convention for the Safety of Life at Sea, 1974*, as amended, invited SOLAS Contracting Governments to voluntarily implement SOLAS regulation XI-1/7, as set out below, to ships entitled to fly their flags, as soon as practicable, taking into account that the entry-into-force date of the corresponding amendments to SOLAS is 1 July 2016:

"Regulation 7 - Atmosphere testing instrument for enclosed spaces

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**. Instruments carried under other requirements may satisfy this regulation. Suitable means shall be provided for the calibration of all such instruments.

* Refer to the *Guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed spaces as required by SOLAS regulation XI-1/7* (MSC.1/Circ.1477).

** Refer to the *Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27))."

4 Member Governments are invited to bring this circular to the attention of all parties concerned.

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MSC.1/Circ.1477
9 June 2014

**GUIDELINES TO FACILITATE THE SELECTION OF PORTABLE ATMOSPHERE
TESTING INSTRUMENTS FOR ENCLOSED SPACES AS REQUIRED BY
SOLAS REGULATION XI-1/7**

1 The Maritime Safety Committee, at its ninety-third session (14 to 23 May 2014), having considered the proposal by the Sub-Committee on Dangerous Goods, Solid Cargoes and Containers, at its eighteenth session (16 to 20 September 2013), approved the *Guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed spaces as required by SOLAS regulation XI-1/7*, as set out in the annex.

2 The Guidelines are intended to be read in conjunction with new SOLAS regulation XI-1/7 (Atmosphere testing instruments for enclosed spaces) upon its entry into force and the *Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27)).

3 Member Governments are invited to bring the annexed Guidelines to the attention of all parties concerned.

ANNEX

GUIDELINES TO FACILITATE THE SELECTION OF PORTABLE ATMOSPHERE TESTING INSTRUMENTS FOR ENCLOSED SPACES AS REQUIRED BY SOLAS REGULATION XI-1/7

Introduction

1 These Guidelines are to facilitate the selection of a portable atmosphere testing instrument for enclosed spaces as required by SOLAS regulation XI-1/7. They are intended to be read in conjunction with this SOLAS regulation and the *Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27)). They are not intended to constitute a performance standard for such equipment.

2 It should be noted that, given a ship's specific characteristics and operations, additional atmospheric hazards in enclosed spaces may be present that may not be detected by the instrument recommended to be selected by these Guidelines, and in such cases, if known, additional appropriate instruments should be carried.

General

3 These Guidelines refer to the instrument that is used to test the atmosphere in an enclosed space before entry and at appropriate intervals thereafter until all work is completed. They do not refer to a personal gas detector that is intended to be carried by an individual whilst inside the enclosed space.

4 The instrument should be capable of remote sampling and detection for all gases that it is designed for, without interference from the atmosphere or other characteristics of the intervening space.

5 Upon activation, the instrument should perform a "self-test" which indicates that the instrument is functioning correctly.

6 Training requirements should be considered when selecting the instrument. Any atmosphere testing should be performed by trained personnel.

Gases and vapours to be measured

7 The instrument should be capable of measuring and displaying concentrations of:

- .1 oxygen;
- .2 flammable gases or vapours (% of LFL);
- .3 carbon monoxide; and
- .4 hydrogen sulphide,

8 The instrument should clearly and unambiguously show which gas or vapour it is measuring (noting that the display may be switchable or menu accessible).

9 If the instrument is fitted with an alarm function, it should activate at the appropriate level as determined by the flag State Administration.

Use of the instrument for atmosphere testing of enclosed spaces on board ships

- 10 The instrument should be suitably protected, having due regard for the environment and temperatures in which it is expected to operate.
- 11 The instrument should be capable of being easily carried.
- 12 The instrument should be suitably protected from the ingress of dust and water.
- 13 The minimum battery life of the instrument (with fresh batteries of recommended type) should be 10 hours.
- 14 The instrument should be intrinsically safe.
- 15 The instrument display should be readable in all lighting conditions.

Calibration

- 16 The manufacturers' instructions should have clearly defined calibration requirements.
- 17 If the instrument is fitted with an alarm or shutdown function that activates if the manufacture's calibration interval is exceeded, this should not stop the instrument from functioning during actual use and the unit should not restart once the alarm or function has been activated.

Instruction manual

- 18 The instrument should be provided with a manual that describes its features and alarms and explains how to calibrate, operate and maintain it. The information in this manual should be available in the working language of the ship.

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FLEET / SAFETY LETTER 170415.GEN
17 April 2015

Applicable to: This circular should be brought to the attention of ship-owners, ship managers, operators and masters of Vanuatu-registered ships.

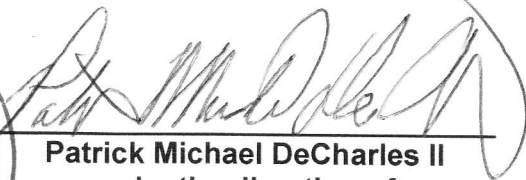
EARLY IMPLEMENTATION OF SOLAS REGULATION XI-1/7 ON ATMOSPHERE TESTING INSTRUMENT FOR ENCLOSED SPACES

1. The Maritime Safety Committee (MSC) of the International Maritime Organization (IMO) adopted SOLAS regulation III/19.3.6.2.3 relating to enclosed space entry and rescue drills, by **Resolution MSC.350(92)**.
2. The MSC at its ninety-third session confirmed that regulation III/19.3.6.2.3 does not introduce carriage requirements for atmosphere testing instruments for enclosed spaces.
3. The MSC at its ninety-fourth session, in adopting Resolution **MSC.380(94)** recognized the need to implement the new SOLAS regulation XI-1/7 early in order to expedite the carriage of portable atmosphere testing instruments. **MSC/Circ.1485** invited SOLAS Contracting Governments to voluntarily implement SOLAS regulation XI-1/7 to ships under their flags, as soon as practicable, taking into account that the entry-into-force date of the corresponding amendment to SOLAS is 1 July 2016.
4. In view of the testing of atmosphere of enclosed spaces is critical for the safe entry by ship crew and the carriage of portable atmosphere testing instrument introduced by regulation XI-1/7 is essential to satisfying the requirement of regulation III/19.3.6.2.3, Vanuatu Maritime Services has decided to implement regulation XI-1/7 early. Vanuatu registered vessels to which SOLAS Regulations apply, shall implement regulation XI-1/7 as soon as possible but no later than 1 July 2015.
5. Shipowners should take into consideration **MSC.1/Circ.1477** "Guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed

spaces as required by SOLAS regulation XI-1/7", when selecting portable atmosphere testing instrument for enclosed spaces as required by regulation XI-1/7.

6. Recognized Organizations have been separately instructed to verify compliance onboard Vanuatu registered ships when carrying out the first survey relating to the Safety Equipment Certificate after 1 July 2015.




Patrick Michael DeCharles II
by the direction of
The Deputy Commissioner of Maritime Affairs
The Republic of Vanuatu

