

**RULES
FOR THE CLASSIFICATION OF
SHIPS**

*Part 17 – FIRE PROTECTION
July 2024*

*Amendments No. 3
January 2026*

CROATIAN REGISTER OF SHIPPING

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By the decision of the General Committee of Croatian Register of Shipping,

Amendments No. 3 to the
RULES FOR THE CLASSIFICATION OF SHIPS
Part 17 – FIRE PROTECTION

have been adopted on 22nd December 2025 and shall enter into force on 1 January 2026

This Part of the Rules for the classification of ships includes the requirements of the following international Organisations:

International Maritime Organization (IMO)

Conventions: International Convention for the Safety of Life at Sea, 1974 (SOLAS 74) and all subsequent and applicable amendments adopted up to MSC 108 Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS PROT 1988)

Resolutions: A.123(V), A.567(14), A.654(16), A.752(18), A.756(18), A.800(19), A.951(23), A.952(23), A.1021(26) and A.1116(30); MSC.62(67)/Rev.1; MSC.98(73), MSC.206(81), MSC.217(82), MSC.256(84), MSC.265(84), MSC.266(84), MSC.269(85), MSC.284(86), MSC.291(87), MSC.292(87), MSC.307(88), MSC.308(88), MSC.311(88), MSC.327(90), MSC.338(91), MSC.339(91), MSC.365(93), MSC.367(93), MSC.380(94), MSC.392(95), MSC.403(96), MSC.404(96), MSC.408(96), MSC.409(97), MSC.410(97), MSC.421(98), MSC.437(99), MSC.457(101), MSC.484(103), MSC.520(106), MSC.532(107), MSC.550(108) and MSC.555(108)

Circulars: MSC/Circ.353, MSC/Circ.387, MSC/Circ.451, MSC/Circ.474, MSC/Circ.485, MSC/Circ.553, MSC/Circ.606, MSC/Circ.608/Rev.1, MSC/Circ.670, MSC/Circ.677/Rev.1, MSC/Circ.730, MSC/Circ.731, MSC/Circ.777, MSC/Circ.798, MSC/Circ.808, MSC/Circ.848, MSC/Circ.849, MSC/Circ.858, MSC/Circ.910, MSC/Circ.917, MSC/Circ.917/Corr.1, MSC/Circ.1002, MSC/Circ.1003, MSC/Circ.1005, MSC/Circ.1009, MSC/Circ.1035, MSC/Circ.1036, MSC/Circ.1037, MSC/Circ.1050, MSC/Circ.1081, MSC/Circ.1082, MSC/Circ.1084, MSC/Circ.1085, MSC/Circ.1086, MSC/Circ.1087, MSC/Circ.1120, MSC/Circ.1129, MSC/Circ.1142, MSC/Circ.1165, MSC/Circ.1167 and MSC/Circ.1168; MSC.1/Circ.1002/Corr.1, MSC.1/Circ.1002/Corr.2, MSC.1/Circ.1120/Corr.1, MSC.1/Circ.1203, MSC.1/Circ.1237, MSC.1/Circ.1240, MSC.1/Circ.1242, MSC.1/Circ.1266/Rev.1, MSC.1/Circ.1267, MSC.1/Circ.1268, MSC.1/Circ.1269, MSC.1/Circ.1270, MSC.1/Circ.1270/Corr.1, MSC.1/Circ.1275, MSC.1/Circ.1275/Corr.1, MSC.1/Circ.1276/Rev.2, MSC.1/Circ.1312, MSC.1/Circ.1312/Corr.1, MSC.1/Circ.1314, MSC.1/Circ.1316, MSC.1/Circ.1317, MSC.1/Circ.1319, MSC.1/Circ.1320, MSC.1/Circ.1322, MSC.1/Circ.1324, MSC.1/Circ.1368, MSC.1/Circ.1369/Add.1, MSC.1/Circ.1370, MSC.1/Circ.1384, MSC.1/Circ.1385, MSC.1/Circ.1386, MSC.1/Circ.1387/Corr.1, MSC.1/Circ.1388, MSC.1/Circ.1395/Rev.7, MSC.1/Circ.1422, MSC.1/Circ.1430/Rev.3, MSC.1/Circ.1431, MSC.1/Circ.1432, MSC.1/Circ.1433, MSC.1/Circ.1434, MSC.1/Circ.1435, MSC.1/Circ.1436, MSC.1/Circ.1437, MSC.1/Circ.1456/Rev.1, MSC.1/Circ.1458, MSC.1/Circ.1459, MSC.1/Circ.1471, MSC.1/Circ.1472, MSC.1/Circ.1480, MSC.1/Circ.1487, MSC.1/Circ.1488, MSC.1/Circ.1491, MSC.1/Circ.1492, MSC.1/Circ.1499, MSC.1/Circ.1501, MSC.1/Circ.1505, MSC.1/Circ.1510, MSC.1/Circ.1511/Rev.1, MSC.1/Circ.1514, MSC.1/Circ.1515, MSC.1/Circ.1516, MSC.1/Circ.1527, MSC.1/Circ.1528, MSC.1/Circ.1533, MSC.1/Circ.1539/Rev.1, MSC.1/Circ.1550, MSC.1/Circ.1552, MSC.1/Circ.1554, MSC.1/Circ.1555, MSC.1/Circ.1556, MSC.1/Circ.1573, MSC.1/Circ.1581, MSC.1/Circ.1582/Rev.1, MSC.1/Circ.1616, MSC.1/Circ.1634; MSC.1/Circ.1655; MSC.1/Circ.1683; MSC.1/Circ.1684 and MSC.1/Circ.1695 ; BLG.1/Circ.23

International Association of Classification Societies (IACS)

Unified requirements (UR):

F1(2002), F2(2012), F3(1971), F5(1973), F6(1996), F7 (rev. 3, June 2020; corr. 1 Nov. 2020), F13(1977), F16(2000), F20(2015), F21(1974), F26(2004), F27(1978), F29(2005), F32(1976), F33(1981), F35(2005), F41(1993), F44(rev. 3, corr. 1 Mar 2025); F45(2021) and F46 (2021)

Unified Interpretations (UI):

SC16(2006), SC17(2020), SC25(2005), SC30(2023), SC35(2013), SC39(2005), SC41(2005), SC42(2021), SC43(2021), SC45(2005), SC46(2005), SC48(2005), SC49(2021), SC52(2005), SC54(2005), SC55(2005), SC57(2021), SC58(2005), SC62(2020), SC64(2021), SC70(2023), SC73(2005), SC75(2005), SC79(2021), SC84(2005), SC85(2021), SC87(2021), SC89(2018), SC90(2005), SC91(2020), SC92(2005), SC97(2005), SC98(2005), SC99(2024), SC100(2014), SC101(2005), SC102(2005), SC103(2005), SC106(2005), SC107(2005), SC108(2005), SC109(2005), SC110(2005), SC111(2005), SC114(2005), SC118(2015), SC119(2005), SC120(2023), SC121(2023), SC125(2020), SC126(2021), SC127(2023), SC129(2005), SC130(2005), SC132(2013), SC140(rev. 4 corr. 1 Nov. 2025), SC146(2021), SC147(2021), SC148(2015), SC149(2012), SC150(2005), SC158(2005), SC159(2021), SC160(2005), SC162(2005), SC163(2009), SC164(2005), SC166(2005), SC167(2021), SC168(2005), SC169(2021), SC172(2005), SC173(2003),

SC174(2006), SC175(2003), SC176(2004), SC178(2011), SC188(2015), SC192(2004), SC196(2005), SC197(2021), SC198(2022), SC199(2005), SC200(2022), SC201(2022), SC204(2022), SC205(2006), SC211(rev. 1, Sep. 2024), SC214(2006), SC217(2022), SC218(2022), SC219(2022), SC239(2010), SC240(2011), SC241(2010), SC243(2012), SC245(2023), SC247(2011), SC250(2022), SC252(2011), SC253(2016), SC260(2015), SC262(2015), SC264(2023), SC268(2014), SC269(rev. 2, Nov. 2024), SC270(2015), SC271(2015, corr. 1 June 2025), SC272(2015), SC273(2015), SC275(2016), SC276(2024), SC277(2024), SC278(2016), SC282(2016), SC284(2018), SC285(2018), SC286(2018), SC287(2018), SC288(2018), SC291(2018), SC294(2018), SC300(2023); SC301(2024); SC302(2024); SC307(Nov. 2024); SC308(rev.1 Nov. 2025) and SC309(May 2025)

FTP3(2021), FTP4(2022), FTP5(2022) and FTP6(2015)

Recommendations (Rec.):

No.123 (2012), No.131(2023) and No.135(2014)

TABLE 1 – REVIEW OF AMENDMENTS

This review comprises amendments in relation to the Rules for the Classification of Ships, Part 17 – Fire protection, edition July 2024, as last amended by Amendments No. 2 edition July 2025.

<i>ITEM</i>	<i>DESCRIPTION OF THE AMENDMENTS</i>
SECTION 1 - GENERAL	
Sub-item 1.1.10.3	Res. MSC.520(106)-1 included
Sub-item 1.1.10.7	Res. MSC.532(107)-3 included
Sub-item 1.1.10.8	Res. MSC.550(108)-8,10,15
SECTION 3 - DEFINITIONS AND EXPLANATIONS	
Sub-item 3.1.2.6	IACS UI SC211 Rev.1 included
Sub-items 3.1.2.59, 3.1.2.60 and 3.1.2.61	Res. MSC.520(106)-2 included
SECTION 4 - PROBABILITY OF IGNITION	
Item 4.2.1	Res. MSC.520(106)-3,4 and Res. MSC.550(108)-1,2 included
Sub-item 4.5.1.1	IACS UI SC211 Rev.1 included
Sub-item 4.5.3.2.2	IACS UI SC140 Rev.4 Corr.1 included
Sub-item 4.5.9.3	IACS UR F44 Rev.3 Corr.1 included
Sub item 4.5.10.1	IACS UI SC 307 included
SECTION 5 - FIRE GROWTH POTENTIAL	
Sub-item 5.2.1.1	IACS UI SC 308 Rev.1 included
SECTION 7 - FIRE DETECTION AND ALARM	
Items 7.5.2 and 7.5.5	Res. MSC.550(108)-3,4
SECTION 9 - CONTAINMENT OF FIRE	
Items 9.6.1 and 9.6.2	Res. MSC.550(108)-5
SECTION - 10 FIRE FIGHTING	
Head 10.11	Res. MSC.532(107)-4 and IACS UI SC 309 included
SECTION 11 - STRUCTURAL INTEGRITY	
Sub-item 11.6.3.2	IACS UI SC140 Rev.4 Corr.1 included
SECTION 13 - MEANS OF ESCAPE	
Sub-items 13.4.2.2 and 13.4.2.3	IACS UI SC269 Rev.2 included
SECTION 19 - CARRIAGE OF DANGEROUS GOODS	
Item 19.4.1	MSC.1/Circ.1266/Rev.1 included
SECTION 20 - PROTECTION OF VEHICLE, SPECIAL CATEGORY, OPEN AND CLOSED RO-RO SPACES, AND WEATHER DECKS INTENDED FOR THE CARRIAGE OF VEHICLES	
Title of Section modified	Res. MSC.550(108)-6
Heads 20.1 to 20.6 and new Head 20.7	Res. MSC.550(108)-7,9,11to14,16,17
SECTION 23 - SAFETY CENTRE ON PASSENGER SHIPS	
Item 23.6.1	Res. MSC.550(108)-18
SECTION 24 - FIRE SAFETY SYSTEMS	
Head 24.7	Res. MSC.555(108)-1
Head 24.9	Res. MSC.555(108)-2to6, IACS UI SC271 Corr.1 and MSC.1/Circ.1695 included
ANNEX 4	
Item 1	MSC.1/Circ.1395/Rev.7 included

1 GENERAL

■ **Head 1.1 APPLICATION**, sub-item 1.1.10.3 has been added and should be read as follows:

1.1.10.3 Ships constructed before 1 July 2012 shall also comply with 10.10.1.2 and 4.2.1.6 to 4.2.1.8.

■ **Head 1.1 APPLICATION**, sub-items 1.1.10.7 and 1.1.10.8 has been added and should be read as follows:

1.1.10.7 Ships constructed before 1 January 2026 shall comply with 10.11.2 not later than the date of the first survey (first annual survey, the first periodical survey or the first renewal survey, whichever is due first) on or after 1 January 2026.

1.1.10.8 Passenger ships constructed before 1 January 2026, including those constructed before 1 July 2012, shall comply with the requirements of 20.4.1.6 not later than the first survey (first annual survey, the first periodical survey or the first renewal survey, whichever is due first) on or after 1 January 2028.

Passenger ships with vehicle, special category or ro-ro spaces constructed before 1 January 2026, including those constructed before 1 July 2012, shall comply with the requirements of 20.4.4.1, 20.4.4.2 and 20.6.2.3 not later than the first survey (first annual survey, the first periodical survey or the first renewal survey, whichever is due first) on or after 1 January 2028.

3 DEFINITIONS AND EXPLANATIONS

■ **Head 3.1 DEFINITIONS**, sub-item 3.1.2.6 has been added and should be read as follows:

3.1.2.6 Cargo area – that part of the ship that contains, cargo tanks, slop tanks and cargo pump-rooms including pump-rooms, cofferdams, ballast and void spaces adjacent to cargo tanks and also deck areas throughout the entire length and breadth of the part of the ship over the afore-mentioned spaces. See IACS UI SC211 **Rev.1**.

■ **Head 3.1 DEFINITIONS**, sub-items 3.1.2.59, 3.1.2.60 and 3.1.2.61 have been added and should be read as follows:

3.1.2.59 Confirmed case (flashpoint) is when a representative sample analysed in accordance with standards acceptable to the Register by an accredited laboratory (to ISO/IEC 17025:2017 or an equivalent standard) or by laboratory approved by the Register.

3.1.2.60 Representative sample is a product specimen having its physical and chemical characteristics identical to the average characteristics of the total volume being sampled.

3.1.2.61 Oil fuel is defined in regulation 1 of Annex 1 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto.

4 PROBABILITY OF IGNITION

■ **Head 4.2 ARRANGEMENTS FOR OIL FUEL, LUBRICATION OIL AND OTHER FLAMMABLE OILS,** item 4.2.1 has been changed and should be read as follows:

4.2.1 Limitations in the use of oils as fuel

The following limitations shall apply to the use of oil as fuel:

- .1 except as otherwise permitted by this item, no oil fuel with a flashpoint of less than 60°C shall be used, see *Recommended procedures to prevent the illegal or accidental use of low flashpoint cargo oil as fuel* (resolution A.565(14));
- .2 in emergency generators, oil fuel with a flashpoint of not less than 43°C may be used;
- .3 the use of oil fuel having a flashpoint of less than 60°C but not less than 43°C may be permitted (e.g. for feeding the emergency fire pump's engines and the auxiliary machines which are not located in the machinery spaces of category A) subject to the following:
 - .3.1 fuel oil tanks except those arranged in double-bottom compartments shall be located outside of machinery spaces of category A;
 - .3.2 provisions for the measurement of oil temperature are provided on the suction pipe of the oil fuel pump;
 - .3.3 stop valves and/or cocks are provided on the inlet side and outlet side of the oil fuel strainers; and
 - .3.4 pipe joints of welded construction or of circular cone type or spherical type union joint are applied as much as possible;
- .4 in cargo ships, to which part G of SOLAS, Ch. II-1 is not applicable, the use of oil fuel having a lower flashpoint than otherwise specified in 4.2.1.1, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the *Register* of the complete installation;
- .5 in ships, to which part G of Chapter II-1 is applicable, the use of oil fuel having a lower flashpoint than otherwise specified in 4.2.1.1 is permitted;
- .6 ships carrying oil fuel shall prior to bunkering be provided with a declaration signed and certified by the oil fuel supplier's representative, that the oil fuel to be supplied is in conformity with this item, and the test method used for determining the flashpoint. A bunker delivery note for the oil fuel delivered to the ship shall contain either the flashpoint specified in accordance with standards acceptable to the Register (such as ISO 2719:2016, Determination of flash point – Pensky-Martens closed cup method, Procedure A (for Distillate Fuels) or Procedure B (for Residual Fuels)), or a statement that the flashpoint has been measured at or above 70°C (this information may be included in the bunker delivery note according to MARPOL Annex VI/18);
- .7 Flag State Administration shall ensure that appropriate authorities designated by them inform the IMO, for transmission to Contracting Governments and Member States thereof, of all confirmed cases (flashpoint) where oil fuel suppliers have failed to meet the requirements specified in this item;
- .8 Flag State Administration shall ensure that appropriate authorities designated by them take action, as appropriate, against oil fuel suppliers that have been found to deliver oil fuel that does not comply with this item; and
- .9 oil fuel delivered to and used on board ships shall not jeopardize the safety of ships or adversely affect the performance of the machinery or be harmful to personnel.

In addition, the requirements specified in *Rules for the classification of ships, Part 7 - Machinery installation, 1.1, Part 8 - Piping, 8 and Part 9 - Machines, 2.6* shall be complied with.

■ **Head 4.5 CARGO AREAS OF TANKERS,** sub-items 4.5.1.1, 4.5.3.2.2, 4.5.9.3 and 4.5.10.1 have been changed and should be read as follows:

4.5.1.1 Cargo pump-rooms, cargo tanks, slop tanks and cofferdams shall be positioned forward of machinery spaces. However, oil fuel bunker tanks need not be forward of machinery spaces. Cargo tanks and slop tanks shall be isolated from machinery spaces by cofferdams, cargo pump-rooms, oil bunker tanks or ballast tanks.

Pump-rooms containing pumps and their accessories for ballasting those spaces situated adjacent to cargo tanks and slop tanks and pumps for oil fuel transfer shall be considered as equivalent to a cargo pump-room within the context of this Section provided that such pump-rooms have the same safety standard as that required for cargo pump-rooms. Pump-rooms intended solely for ballast or oil fuel transfer, however, need not comply with the requirements of head 10.9. The lower portion of the pump-room may be recessed into machinery spaces of category A to accommodate pumps, provided that the deck head of the recess is in general not more than one third of the moulded depth above the keel, except that in the case of ships of not more than 25,000 tonnes deadweight, where it can be demonstrated that for reasons of access and satisfactory piping arrangements this is impracticable, the Register may permit a recess in excess of such height, but not exceeding one half of the moulded depth above the keel. See IACS UI SC188 Rev.3 and IACS UI SC211 **Rev.1**. See also MSC/Circ.1037.

4.5.3.2.2 Where the arrangements are combined with other cargo tanks, either stop valves or other acceptable means shall be provided to isolate each cargo tank. Where stop valves are fitted, they shall be provided with locking arrangements which shall be

under the control of the responsible ship's officer. There shall be a clear visual indication of the operational status of the valves or other acceptable means. Where tanks have been isolated, it shall be ensured that relevant isolating valves are opened before cargo loading or ballasting or discharging of those tanks is commenced.

Any isolation must continue to permit the flow caused by thermal variations in a cargo tank in accordance with 11.6.1.1.

Any isolation shall also continue to permit the passage of large volumes of vapour, air or inert gas mixtures during cargo loading and ballasting, or during discharging in accordance with 11.6.1.2.

See IACS UI SC140 Rev.4 Corr.1 and MSC.1/Circ.1684.

4.5.9.3 Fore peak ballast system on oil tankers (IACS UR F44 Rev.3 Corr.1)

The following definitions apply in this sub-item:

- *Hazardous area* means an area in which an explosive gas atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of equipment.
- *Non-hazardous area* means an area that is not a hazardous area.
- *Cargo area of tankers* are defined in:
 - for tankers to which 1.1.13.1 applies, see 3.1.2.6;
 - for chemical tankers, Paragraph 1.3.6 of the IBC Code as amended by IMO resolutions up to MSC.460(101).

4.5.9.3.1 Fore peak ballast tanks and space arrangements on tankers for oil and/or chemicals

The fore peak tank can be ballasted with the system serving other ballast tanks within the cargo area, provided:

- a) The vent pipe openings are located on open deck at a distance from sources of ignition as required by IEC 60092-502:1999 Electrical installations in ships – Tankers – Special features; This requirement does not apply to sounding arrangements.
- b) Access to the fore peak tank is direct from open deck. Alternatively, indirect access from the open deck to the forepeak tank may be from a pump-room, deep cofferdam, pipe tunnel, cargo hold, double hull space, bosun's store or similar compartment not intended for the carriage of oil or hazardous cargoes, conforming to the requirements of SOLAS II-1/3-6.3.1. Electrical equipment in such indirect access shall be of the certified safe type suitable for use in the hazardous area it opens into or shall be isolated before entry.
- c) Continuous ventilation is maintained while accessing the forepeak tank.
- d) The sounding arrangement to the fore peak tank is direct from open deck.
- e) The forepeak tank is gas freed direct from open deck, or through a dedicated trunk to open deck. Before the manhole and the entrance of the dedicated trunk are opened, the trunk and the forepeak tank shall be confirmed as made gas free. Means are to be provided to free the space of gas without opening manholes or the entrance to a dedicated trunk. Manholes on the open deck and away from sources of ignition at the top of the dedicated trunk which are used to gas-free the space are allowed to be opened.
- f) The fore peak ballast tank is considered as a hazardous zone 2 if segregated from cargo area with a cofferdam, or as a hazardous zone 1 if located adjacent to a cargo tank. For tankers where a bow thruster space is provided, the piping passing through the non-hazardous bow thruster room shall be fully welded and it is required to have the collision bulkhead valve located within the forepeak tank.
- g) Means are to be provided on the open deck by a suitable portable instrument, to allow detection of toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of FPT was carried out), in order to ensure the FPT is fully gas freed. In the case that sounding arrangements can be used as the means for the portable instrument additional means for the purpose is not required.

4.5.9.3.2 Additional requirements for forward spaces not being defined as a ballast tank

- .1 Any spaces, voids and/or indirect accesses from the open deck or intermediate space being located adjacent to cargo tanks, and/or are defined as hazardous area zone 1 or 2, shall follow the same requirements to openings and access as reflected for fore peak ballast tanks in 4.5.9.3.1.
- .2 In case any spaces or voids are defined as non-hazardous spaces and have access to other non-hazardous spaces (such as bosun store), the following applies:
 - a) For any non-hazardous space with access to a hazardous space (example: fore peak ballast tank), the non-hazardous space must have access directly to open deck and shall be gas freed directly from open deck, and not through the non-hazardous space (example: bosun store).
 - b) Access from bosun store to a non-hazardous space (example: void) having access to hazardous space (example: fore peak ballast tank) may be accepted through a gas tight bolted manhole, with signboard stating that the non-hazardous space cannot be entered until the space is confirmed gas free. Separation of such spaces are described in IEC 60092-502:1999 section 4.1.4 and 4.1.5 as applicable.

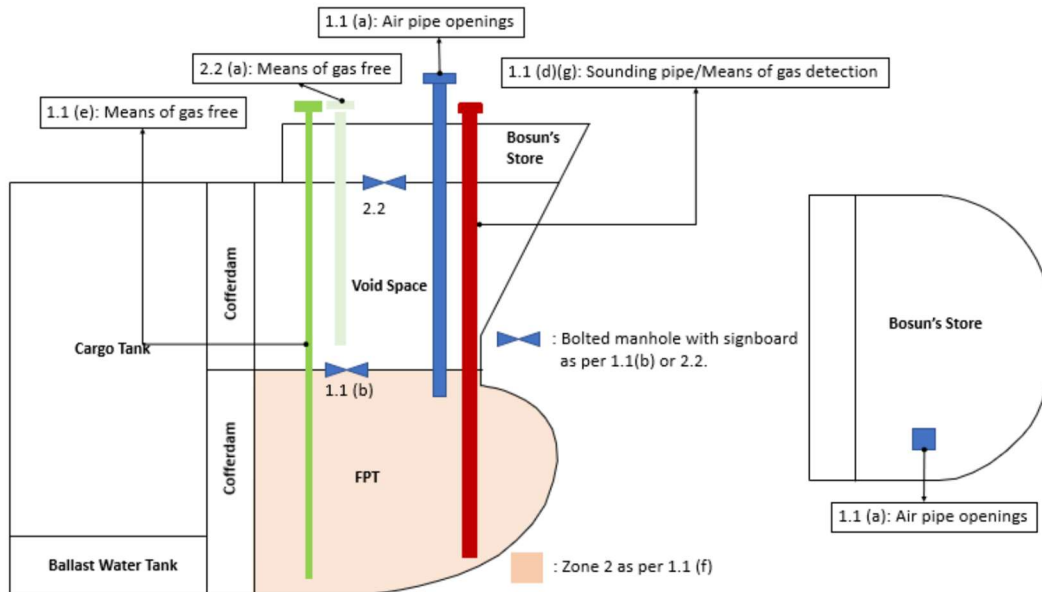
The following figures illustrate the above points:

(Arrangements shown in samples 1, 2, 5 and 6 are applicable to both oil tankers and chemical tankers)

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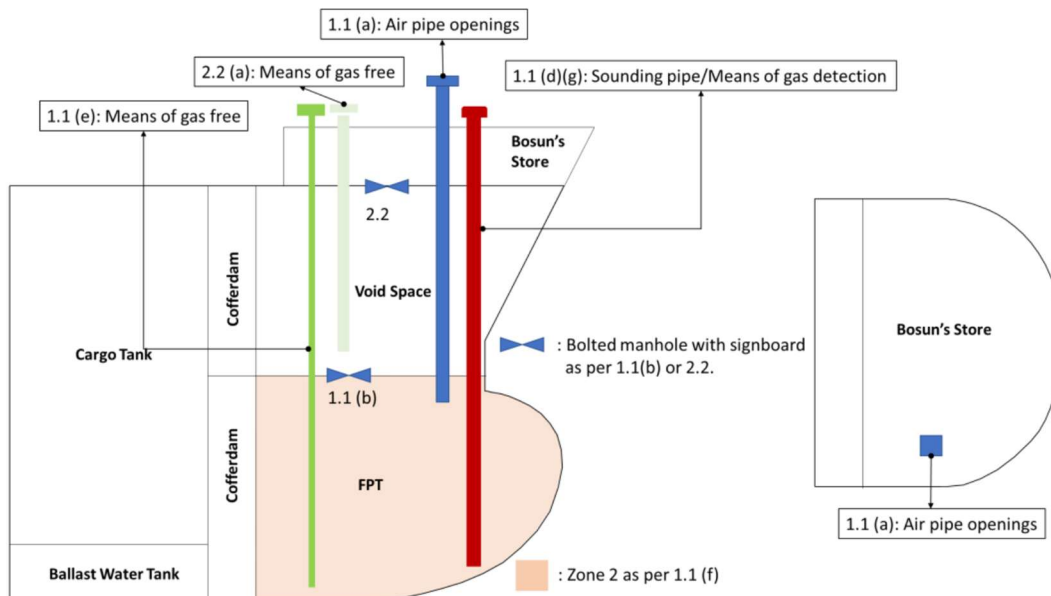
[Sample 1]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes for a minimum of 24hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

[Sample 1]



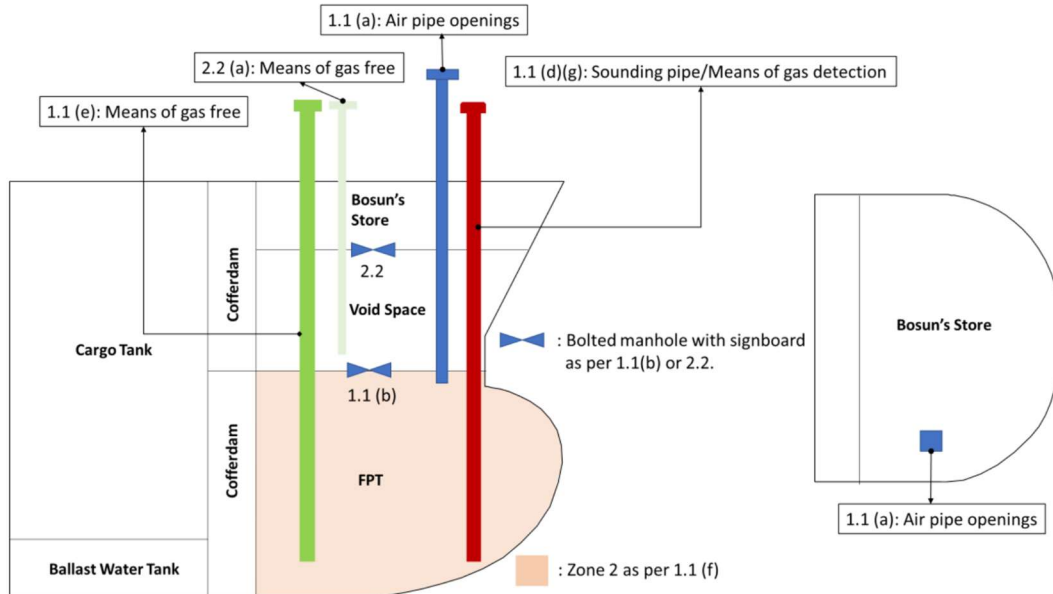
<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes/hr for a minimum of 24 hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

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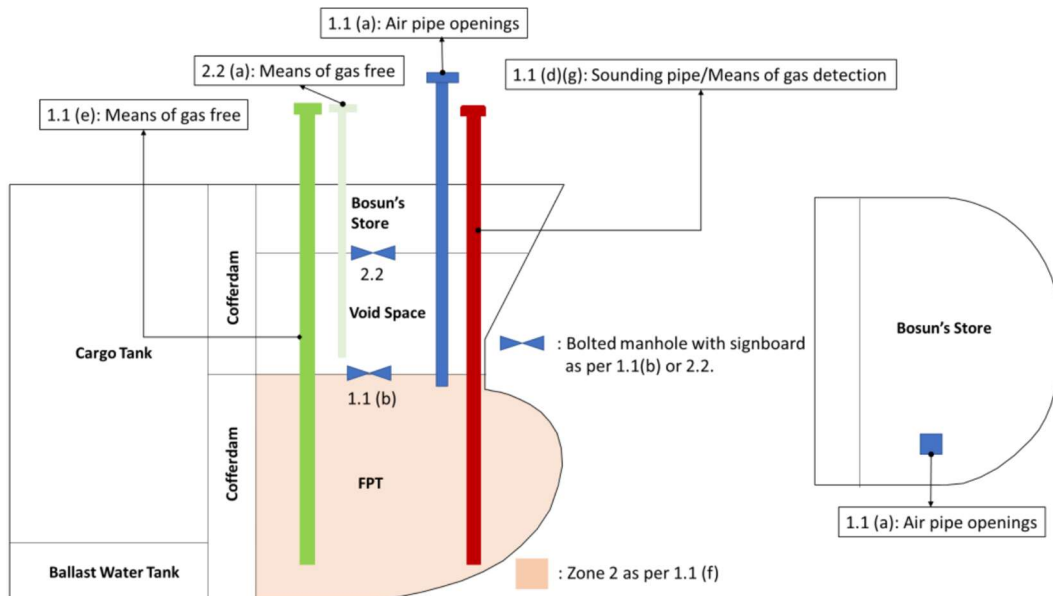
[Sample 5]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes for a minimum of 24hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

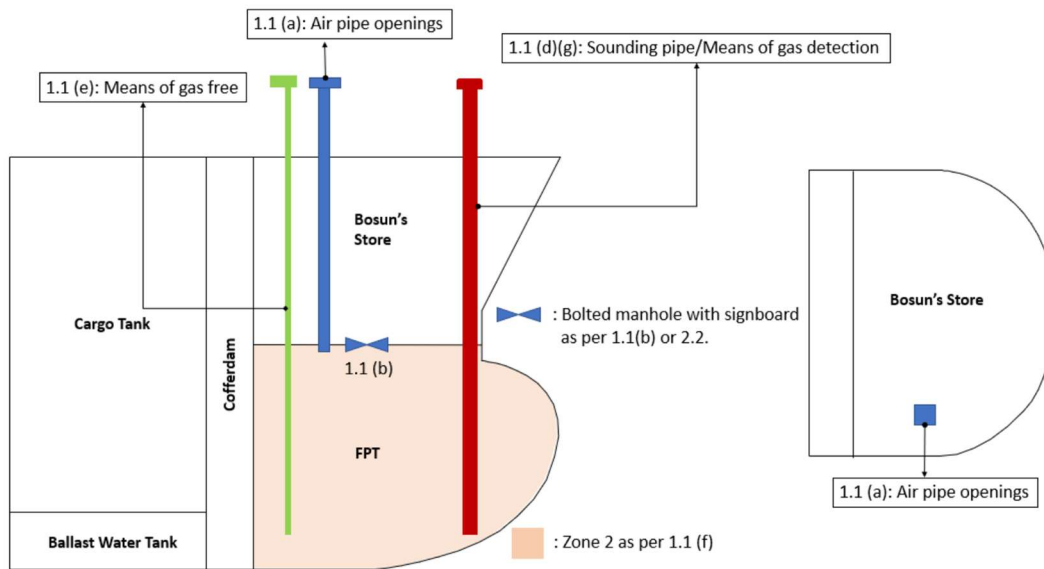
[Sample 5]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes/hr for a minimum of 24 hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

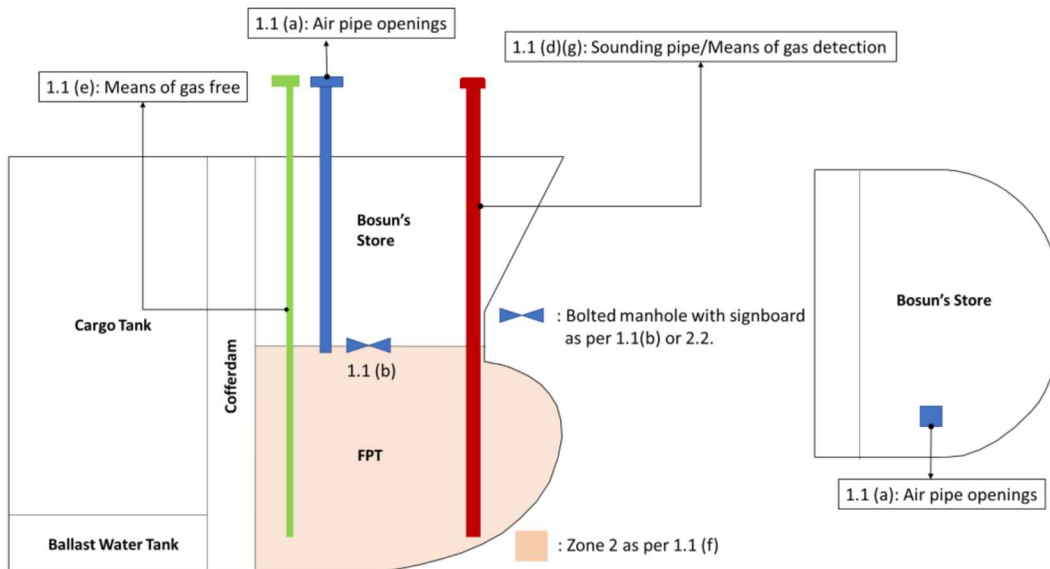
[Sample 6]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes for a minimum of 24hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

[Sample 6]



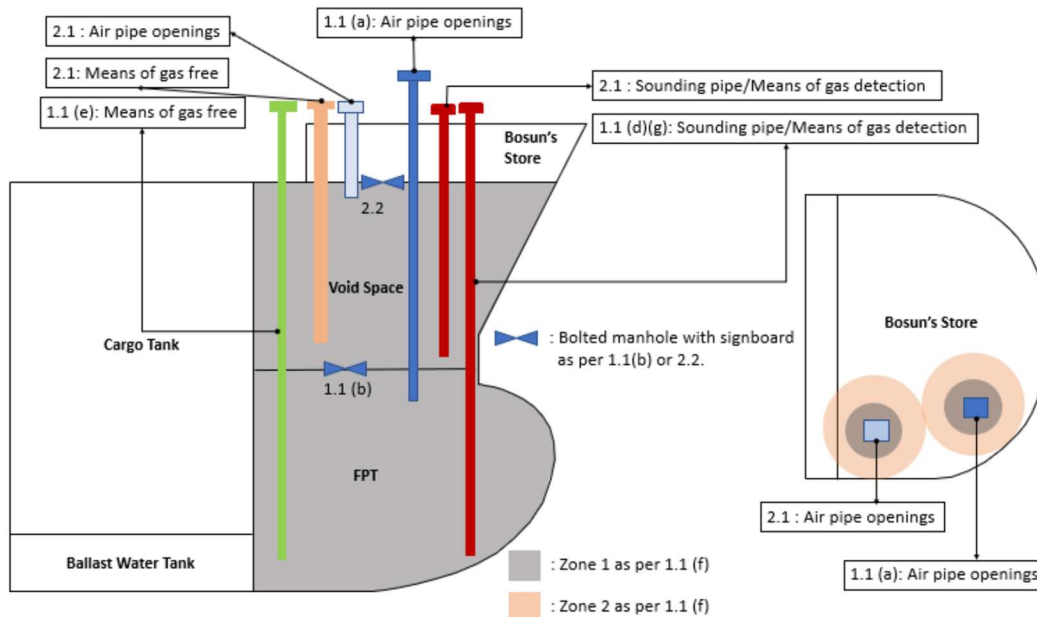
<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes/hr for a minimum of 24 hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

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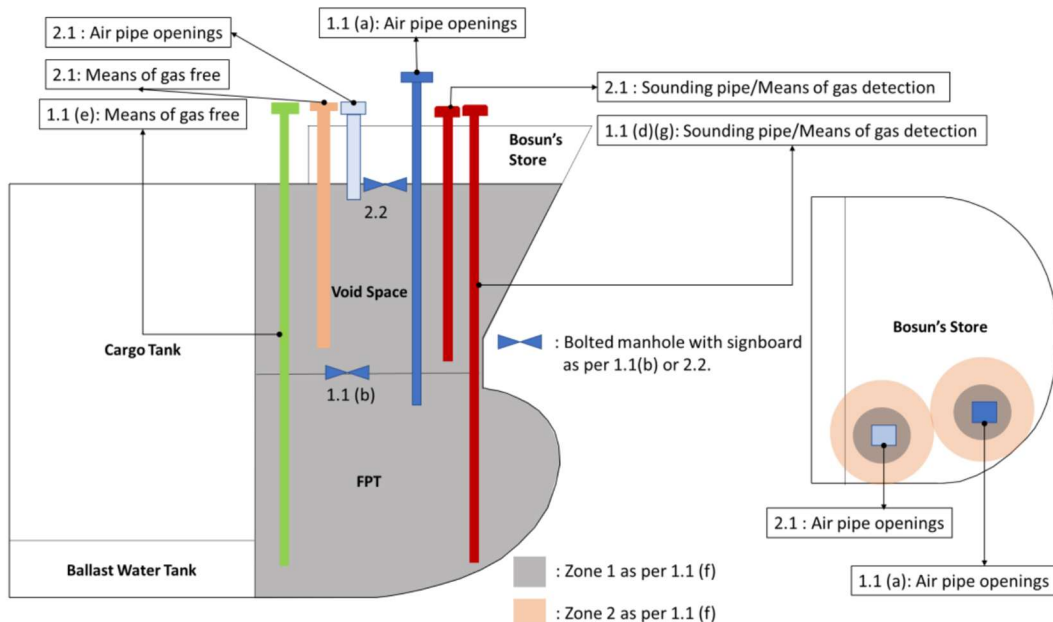
[Sample 3]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes for a minimum of 24hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

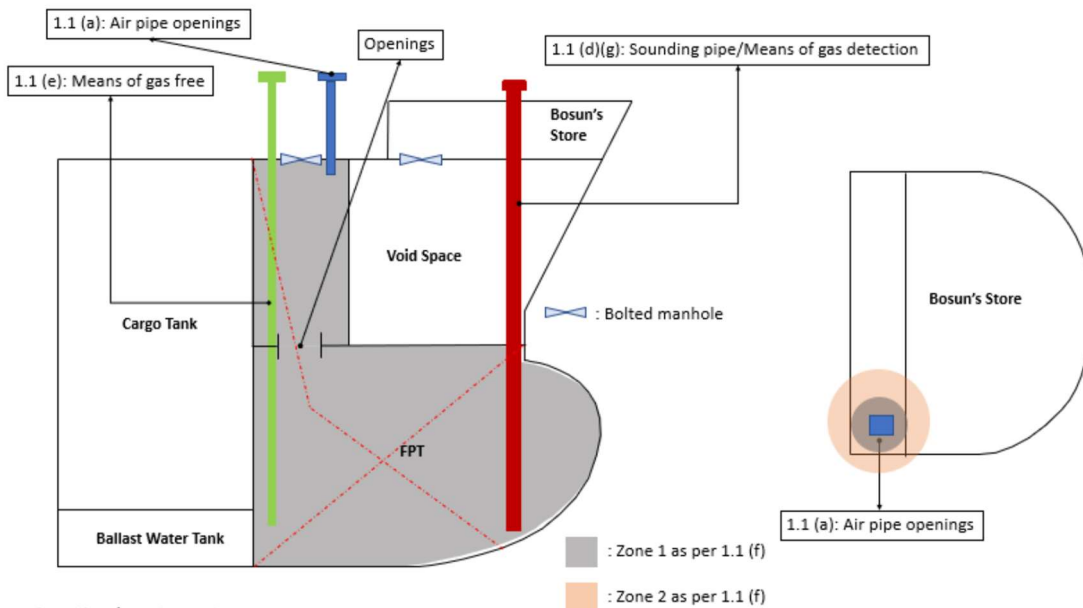
[Sample 3]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes/hr for a minimum of 24 hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

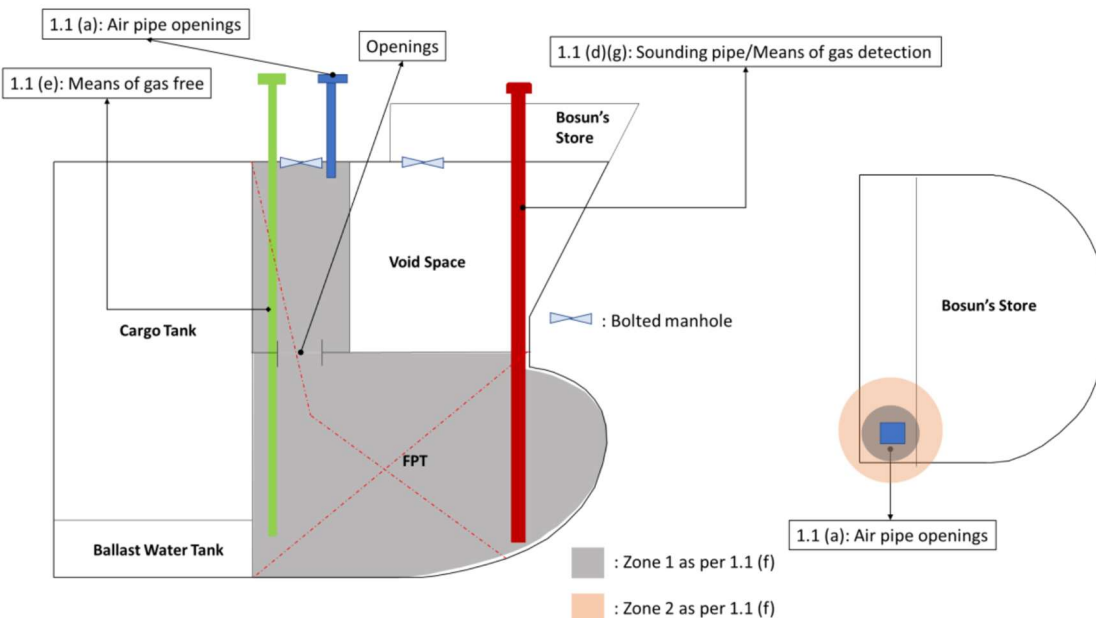
[Sample 4]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes for a minimum of 24hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

[Sample 4]



<Operational requirements>

1. Continuous ventilation is maintained while accessing the FPT as per 1.1(c).
2. To detect toxic and flammable vapours within the FPT (based on the cargoes carried in current voyage, and since last de-ballasting of the FPT was carried out), in order to ensure the FPT is fully gas freed as per 1.1(g).
3. Where toxic-vapour-detection equipment is not available for some cargoes which require such detection, the FPT may be ventilated by dilution method at a minimum rate of 6 air changes/hr for a minimum of 24 hrs. Tank entry procedures to be done in accordance with IMO resolution A.1050(27) and IBC code 13.2.3.

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4.5.10.1 In tankers:

- .1 cargo pumps, ballast pumps and stripping pumps, installed in cargo pump-rooms and driven by shafts passing through pump-room bulkheads shall be fitted with temperature sensing devices for bulkhead shaft glands, bearings and pump casings. A continuous audible and visual alarm signal shall be automatically effected in the cargo control room or the pump control station;
- .2 lighting in cargo pump-rooms, except emergency lighting, shall be interlocked with ventilation such that the ventilation shall be in operation when switching on the lighting. Failure of the ventilation system shall not cause the lighting to go out (see MSC/Circ.1037);
- .3 a system for continuous monitoring of the concentration of hydrocarbon gases shall be fitted. Sampling points or detector heads shall be located in suitable positions in order that potentially dangerous leakages are readily detected. When the hydrocarbon gas concentration reaches a preset level, which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically effected in the pump-room, engine control room, cargo control room and navigation bridge to alert personnel to the potential hazard, see IACS UI SC172 Rev.1; and
- .4 all pump-rooms shall be provided with bilge level monitoring devices together with appropriately located alarms. See MSC/Circ.1037 and IACS UI SC 307.

5 FIRE GROWTH POTENTIAL

■ **Head 5.2 CONTROL OF AIR SUPPLY AND FLAMMABLE LIQUID TO THE SPACE**, sub-item 5.2.1.1 has been changed and should be read as follows:

5.2.1.1 The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the spaces being ventilated. The means of closing shall be easily accessible as well as prominently and permanently marked and shall indicate whether the shut-off is open or closed. See *IACS UI SC100 Rev.2/Corr.1*, *IACS UI SC240/Corr.1* and *IACS UI SC 308 Rev.1*. See also *MSC.1/Circ.1434*.

7 FIRE DETECTION AND ALARM

■ **Head 7.5 PROTECTION OF ACCOMMODATION AND SERVICE SPACES AND CONTROL STATIONS,** items 7.5.2 and 7.5.5 have been changed and should be read as follows:

7.5.2 Requirements for passenger ships carrying more than 36 passengers

A fixed fire detection and fire alarm system shall be so installed and arranged as to provide smoke detection in service spaces, control stations and accommodation spaces, including corridors, stairways and escape routes within accommodation spaces. Smoke detectors need not be fitted in private bathrooms and galleys. Spaces having little or no fire risk such as voids, public toilets, carbon dioxide rooms and similar spaces need not be fitted with a fixed fire detection and fire alarm system. Detectors fitted in cabins, when activated, shall also be capable of emitting, or cause to be emitted, an audible alarm within the space where they are located.

7.5.5 Cargo ships

Accommodation and service spaces and control stations of cargo ships shall be protected by a fixed fire detection and fire alarm system and/or an automatic sprinkler, fire detection and fire alarm system as follows depending on a protection method adopted in accordance with 9.2.3.1.

7.5.5.1 Method IC

A fixed fire detection and fire alarm system shall be so installed and arranged as to provide smoke detection in all corridors, stairways and escape routes within accommodation spaces and in all control stations and cargo control rooms.

7.5.5.2 Method IIC

An automatic sprinkler, fire detection and fire alarm system of an approved type complying with the relevant requirements of the Fire Safety Systems Code shall be so installed and arranged as to protect accommodation spaces, galleys and other service spaces, except spaces which afford no substantial fire risk such as void spaces, sanitary spaces, etc. In addition, a fixed fire detection and fire alarm system shall be so installed and arranged as to provide smoke detection in all corridors, stairways and escape routes within accommodation spaces and in all control stations and cargo control rooms.

7.5.5.3 Method IIIC

A fixed fire detection and fire alarm system shall be so installed and arranged as to detect the presence of fire in all accommodation spaces and service spaces providing smoke detection in corridors, stairways and escape routes within accommodation spaces, except spaces which afford no substantial fire risk such as void spaces, sanitary spaces, etc. In addition, a fixed fire detection and fire alarm system shall be so installed and arranged as to provide smoke detection in all corridors, stairways and escape routes within accommodation spaces and in all control stations and cargo control rooms.

9 CONTAINMENT OF FIRE

■ **Head 9.6 PROTECTION OF CARGO SPACE BOUNDARIES**, items 9.6.1 and 9.6.2 have been changed and should be read as follows:

9.6.1 In passenger ships, indicators shall be provided on the navigation bridge which shall indicate when any fire door leading to or from the special category spaces is closed.

9.6.2 In tankers, for the protection of cargo tanks carrying crude oil and petroleum products having a flashpoint not exceeding 60°C, materials readily rendered ineffective by heat shall not be used for valves, fittings, tank opening covers, cargo vent piping, and cargo piping so as to prevent the spread of fire to the cargo.

10 FIRE FIGHTING

■ **Head 10.11 FIRE-EXTINGUISHING MEDIA RESTRICTIONS** has been added and should be read as follows:

10.11 FIRE- EXTINGUISHING MEDIA RESTRICTIONS

10.11.1 Application

This item applies to ships constructed on or after 1 January 2026.

Ships constructed before 1 January 2026 shall comply with 10.11.2 not later than the date of the first survey (first annual survey, the first periodical survey or the first renewal survey, whichever is due first) on or after 1 January 2026.

10.11.2 General

10.11.2.1 The prohibited substances in this item shall be delivered to appropriate shore-based reception facilities when removed from the ship.

10.11.2.2 Use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) shall be prohibited. See IACS UI SC 309.

11 STRUCTURAL INTEGRITY

■ **Head 11.6 - PROTECTION OF CARGO TANK STRUCTURE AGAINST PRESSURE OR VACUUM IN TANKERS**, sub-item 11.6.3.2 has been changed and should be read as follows:

11.6.3.2 Secondary means for pressure/vacuum relief

A secondary means of allowing full flow relief of vapour, air or inert gas mixtures shall be provided to prevent over-pressure or under-pressure in the event of failure of the arrangements in 11.6.1.2. In addition, the secondary means shall be capable of preventing over-pressure or under-pressure in the event of damage to, or inadvertent closing of, the means of isolation required in 4.5.3.2.2.

Alternatively, pressure sensors may be fitted in each tank protected by the arrangement required in 11.6.1.2, with a monitoring system in the ship's cargo control room or the position from which cargo operations are normally carried out. Such monitoring equipment shall also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank. See IACS UI SC140 [Rev.4 Corr.1](#) and MSC.1/Circ.1684.

13 MEANS OF ESCAPE

■ **Head 13.4 - MEANS OF ESCAPE FROM MACHINERY SPACES**, sub-items 13.4.2.2 and 13.4.2.3 have been changed and should be read as follows:

13.4.2.2 Dispensation from two means of escape

In a ship of less than 1,000 gross tonnage, the Register may dispense with one of the means of escape required under 13.4.2.1, due regard being paid to the dimension and disposition of the upper part of the space. In addition, the means of escape from machinery spaces of category A need not comply with the requirement for an enclosed fire shelter listed in 13.4.2.1.1. In the steering gear space, a second means of escape shall be provided when the emergency steering position is located in that space unless there is direct access to the open deck. See IACS UI SC269 [Rev.2](#).

13.4.2.3 Escape from machinery spaces other than those of category A

From machinery spaces other than those of category A, two escape routes shall be provided except that a single escape route may be accepted for spaces that are entered only occasionally and for spaces where the maximum travel distance to the door is 5 m or less. See IACS UI SC269 [Rev.2](#).

19 CARRIAGE OF DANGEROUS GOODS

■ **Head 19.4 - DOCUMENT OF COMPLIANCE**, item 19.4.1 has been changed and should be read as follows:

19.4.1 The *Register* shall provide the ship with an appropriate document as evidence of compliance of construction and equipment with the requirements of this Section (see *MSC.1/Circ.1266/Rev.1*). Certification for dangerous goods, except solid dangerous goods in bulk, is not required for those cargoes specified as class 6.2 and 7 and dangerous goods in limited quantities and excepted quantities.

The cargoes covered by the IMSBC Code do not require certification, unless such cargoes are classified as dangerous goods, except class 6.2 and 7.

Such a document of compliance is required only when a ship carries or intends to carry dangerous goods and is (see *MSC/Circ.858*):

- .1 a passenger ship constructed on or after 1 September 1984; or
- .2 a cargo ship of 500 GT or over constructed on or after 1 September 1984; or
- .3 a cargo ship of less than 500 GT constructed on or after 1 February 1992.

See *IACS UI SC87 Rev.2* and *IACS UI SC196*.

See *Document of compliance with the special requirements for ships carrying dangerous goods under the provisions of regulation 19, as amended, and paragraph 7.17 of the 2000 HSC Code, as amended (MSC.1/Circ.1266/Rev.1)*.

20 PROTECTION OF VEHICLE, SPECIAL CATEGORY, OPEN AND CLOSED RO-RO SPACES, AND WEATHER DECKS INTENDED FOR THE CARRIAGE OF VEHICLES

■ **Head 20.1 - PURPOSE**, item 20.1.1 has been changed and should be read as follows:

20.1.1 The purpose of this Section is to provide additional safety measures in order to address the fire safety objectives of this Rules for the classification of ships for ships fitted with vehicle, special category and ro-ro spaces. For this purpose, the following functional requirements shall be met:

- .1 fire protection systems shall be provided to adequately protect the ship from the fire hazards associated with vehicle, special category and ro-ro spaces, and weather deck intended for the carriage of vehicles;
- .2 ignition sources shall be separated from vehicle, special category and ro-ro spaces; and
- .3 vehicle, special category and ro-ro spaces shall be adequately ventilated.

■ **Head 20.2 - GENERAL REQUIREMENTS**, sub-item 20.2.1.3 has been changed and should be read as follows:

20.2.1.3 Passenger ships constructed before 1 January 2026, including those constructed before 1 July 2012, shall also comply with 20.4.1.6, 20.4.4 and 20.6.2.3.

■ **Head 20.3 - PRECAUTION AGAINST IGNITION OF FLAMMABLE VAPOURS IN CLOSED VEHICLE SPACES, CLOSED RO-RO SPACES AND SPECIAL CATEGORY SPACES**, sub-item 20.3.1.5 has been changed and should be read as follows:

20.3.1.5 Permanent openings

In cargo ships, permanent openings in the side plating, the ends or deckhead of the space shall be so situated that a fire in the cargo space does not endanger stowage areas and embarkation stations for survival craft and accommodation spaces, service spaces and control stations in superstructures and deckhouses above the cargo spaces.

■ **Head 20.4 - DETECTION AND ALARM**, items 20.4.1 and 20.4.3 have been changed and should be read as follows:

20.4.1 Fixed fire detection and fire alarm systems

Passenger ships

20.4.1.1 In vehicle, special category and ro-ro spaces, there shall be provided an individually identifiable fixed fire detection and fire alarm system. The system shall comply with the requirements of the Fire Safety Systems Code.

20.4.1.1.1 The fixed fire detection and fire alarm system shall provide smoke and heat detection throughout vehicle, special category and ro-ro spaces. The *Register* may accept linear heat detectors as the required system for heat detection. The system shall be capable of rapidly detecting the onset of fire. The location of detectors shall be to the satisfaction of the Register, taking into account the effects of ventilation and other relevant factors. After being installed, the system shall be tested under normal ventilation conditions and shall give an overall response time to the satisfaction of the *Register*.

20.4.1.2 If a fixed water-based deluge system is used for vehicle, special category and ro-ro spaces, then a fire detection and fire alarm system identifiable to the same sections of the deluge system shall be arranged.

20.4.1.3 The fire detection and fire alarm system shall be designed with a system interface which provides logical and unambiguous presentation of the information, to allow a quick and correct understanding and decision-making. In particular, section numbering of the alarm system shall coincide with that of other systems, such as a fixed water-based fire-extinguishing system or video monitoring system, if available.

20.4.1.4 There shall be provided a fixed fire detection and fire alarm system for the area on the weather deck intended for the carriage of vehicles. The fixed fire detection system shall be capable of rapidly detecting the onset of the fire anywhere on the area. The type of detectors and their spacing and location shall be to the satisfaction of the *Register*, taking into account the effects of weather conditions, cargo obstruction and other relevant factors. Different settings may be used for specific operation sequences, such as during loading or unloading and during voyage, in order to reduce the false alarms.

Cargo ships

20.4.1.5 In cargo ships, vehicle spaces, special category spaces and ro-ro spaces shall be provided with a fixed fire detection and fire alarm system complying with the requirements of the Fire Safety Systems Code. The fixed fire detection system shall be capable of rapidly detecting the onset of fire. The type of detectors and their spacing and location shall be to the satisfaction of the Register, taking into account the effects of ventilation and other relevant factors. After being installed, the system shall be tested under normal ventilation conditions and shall give an overall response time to the satisfaction of the Register.

20.4.1.6 For passenger ships constructed before 1 January 2026, including those constructed before 1 July 2012, a fixed fire detection and fire alarm system complying with the requirements of the Fire Safety Systems Code shall be provided in special category spaces, open and closed ro-ro and vehicle spaces. The fixed fire detection system shall be capable of rapidly detecting the onset of fire. The fixed fire detection and fire alarm system shall provide smoke and heat detection throughout vehicle, special category and ro-ro spaces. In this context, heat detectors shall comply with the spacing and coverage area requirements as applicable for smoke detectors. Heat detectors are only required where there is already a smoke detector.

20.4.3 Special category spaces

20.4.3.1 An efficient fire patrol system shall be maintained in special category spaces.

20.4.3.2 Manually operated call points shall be spaced so that no part of the space is more than 20 m from a manually operated call point, and one shall be placed close to each exit from such spaces.

■ **Head 20.4 - DETECTION AND ALARM**, item 20.4.4 has been added and should be read as follows:

20.4.4 Video monitoring

20.4.4.1 For passenger ships, an effective video monitoring system shall be arranged in vehicle, special category and ro-ro spaces for continuous monitoring of these spaces. The system shall be provided with immediate playback capability to allow for quick identification of fire location, as far as practicable. Cameras shall be installed to cover the whole space, high enough to see over cargo and vehicles after loading.

20.4.4.2 The videos recorded by this monitoring system shall be available for replay at a continuously manned control station or at the safety centre for at least seven days for installation on ro-ro passenger ships constructed on or after 1 January 2026 and 24 hours for existing ro-ro passenger ships constructed before 1 January 2026, including those constructed before 1 July 2012. The correspondence between any one video camera and the section of the fixed water-based fire-extinguishing system protecting the space covered by this camera shall be clearly displayed close to the video monitor. Continuous monitoring of the video image by the crew is not required.

■ **Head 20.5 - STRUCTURAL FIRE PROTECTION AND ARRANGEMENT OF OPENINGS**, has been changed and should be read as follows:

20.5 STRUCTURAL FIRE PROTECTION AND ARRANGEMENT OF OPENINGS

20.5.1 Structural fire protection

20.5.1.1 In passenger ships carrying more than 36 passengers, the boundary bulkheads and decks of special category and ro-ro spaces shall be insulated to "A-60" class standard. However, where a category (5), (9) and (10) space, as defined in 9.2.2.3, is on one side of the division, the standard may be reduced to "A-0". Where fuel oil tanks are below a special category space, the integrity of the deck between such spaces may be reduced to "A-0" standard.

20.5.1.2 Where a special category space or ro-ro space is subdivided with internal decks, the fire rating of these decks shall be determined based on the capacity and arrangement of the fixed water-based fire-extinguishing system. If the fixed water-based fire-extinguishing system cannot simultaneously cover the applicable area above and below a given deck, this deck shall be of "A-30" standard while any ramps and doors between decks shall be made of steel and of a design being as tight as practical.

20.5.2 Arrangement of openings in ro-ro spaces and special category spaces

20.5.2.1 Openings in the side plating, the ends or deckhead of the ro-ro space shall be situated and arranged so that a fire in the ro-ro space does not endanger:

- .1 stowage areas for survival craft;
- .2 embarkation stations and assembly stations, including access to such stations; and

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- .3 accommodation spaces, control stations and normally occupied service spaces in superstructures and deckhouses above the ro-ro space.

Openings are not permitted for all decks directly below these objects and within a safety distance of minimum 6.0 m measured horizontally.

20.5.2.2 This requirement does not apply to openings fitted with closing arrangements, such as ramps and doors. Ramps and doors shall be of steel for all decks directly below accommodation spaces, control stations and normally occupied service spaces, and minimum "A-0" for all decks directly below survival craft, embarkation stations and assembly stations.

20.5.2.3 Openings are, however, accepted in ro-ro spaces below accommodation spaces, control stations and normally occupied service spaces, when the fire integrity of the ship's side, including windows and doors, is "A-60" on boundaries in a rectangular area measured 6.0 m horizontally forward and aft of the openings and vertically minimum two deck levels above the deck level with the opening. "A-0" windows protected by a water-based system with an application rate of at least 5.0 L/min per square metre may be accepted as equivalent to "A-60" windows. Ventilation inlets shall be designed to minimize the risk of contamination, refer to 5.2, 8.2, 9.7.1.5 and 20.3.1.4.

20.5.2.4 Openings for mechanical ventilation of ro-ro and special category spaces are permitted below accommodation spaces, service spaces and control stations in superstructures, if the opening is protected by a closing device, with a closing arrangement not likely to be cut off in case of a fire in the ro-ro spaces, capable of being closed from a readily accessible position. The closing device shall be made of steel or other fire-resistant material. Such openings are not permitted below survival craft, the emergency generator and air intakes for the engine-room(s).

20.5.2.5 Notwithstanding the above, air intakes serving machinery used for the ship's main propulsion, power generation and emergency power generation shall be in a position minimizing the risk of being contaminated by a fire in the ro-ro space or special category space.

20.5.3 Arrangement of weather deck intended for the carriage of vehicles

20.5.3.1 Appropriate arrangements shall be made so that a fully developed fire on weather decks intended for the carriage of vehicles does not endanger:

- .1 stowage areas for survival craft;
- .2 embarkation stations and assembly stations including access to these; and
- .3 accommodation spaces, control stations and normally occupied service spaces in superstructures and deckhouses adjacent to the weather deck.

20.5.3.2 Appropriate arrangements shall be made providing a safety distance, measured horizontally, from the designated vehicle lanes of more than 6.0 m to accommodation spaces, control stations and normally occupied service spaces in superstructures and deckhouses adjacent to the weather deck.

20.5.3.3 The safety distance can be reduced to 3.0 m when boundaries, including windows and doors, within 6.0 m are of "A-60" integrity. Alternatively, "A-0" boundaries protected by a water-based system with an application rate of at least 5.0 L/min per square metre may be accepted as equivalent.

20.5.3.4 Survival craft and embarkation stations, including access to these, shall be protected with a safety distance of more than 12.0 m. Safety distances shall be measured horizontally.

20.5.3.5 Notwithstanding the above, air intakes serving machinery used for the ship's main propulsion, power generation and emergency power generation shall be in a position minimizing the risk of being contaminated by a fire on the weather deck intended for carriage of vehicles.

■ **Head 20.6 - FIRE EXTINCTION**, items 20.6.2 and 20.6.3 have been changed and should be read as follows:

20.6.2 Fixed water-based fire-extinguishing system on weather decks intended for carriage of vehicles

20.6.2.1 In passenger ships, a fixed water-based fire-extinguishing system based on monitor(s) shall be installed in order to cover weather decks intended for the carriage of vehicles. The monitor(s) shall comply with the provisions of the Fire Safety Systems Code.

20.6.2.2 In passenger ships, drainage shall be provided where a fixed water-based fire-extinguishing system is installed to cover weather decks intended for carriage of vehicles. The system shall be sized to remove no less than 125% of the combined capacity of both the monitor(s) and the required number of fire hose nozzles.

20.6.2.3 For passenger ships constructed before 1 January 2026, including those constructed before 1 July 2012, a fixed water-based fire-extinguishing system based on monitor(s) shall be installed in order to protect areas on weather decks intended for the carriage of vehicles. Monitors shall be located in positions which ensure unobstructed protection of vehicles in the area on the weather deck intended for carriage for vehicles, as far as practicable. Operation of monitors shall be ensured by safe access ways or remote

control not to be impaired by a fire in the area protected by that monitor. Capacity of each monitor shall be at least 1,250 L/min. The Register may permit lower flow rates when the required rate is not practical given the size and arrangement of the ship. The Register may also permit alternative arrangements for ships that have already installed a fixed water-based fire-extinguishing system based on monitor(s) prior to 1 January 2026.

20.6.3 Portable fire extinguishers

See *IACS UI SC205*.

20.6.3.1 Portable fire extinguishers shall be provided at each deck level in each hold or compartment where vehicles are carried, spaced not more than 20 m apart on both sides of the space. At least one portable fire extinguisher shall be located at each access to such a cargo space, see *Unified interpretation of SOLAS Chapter II-2 on the number and arrangement of portable fire extinguishers on board ships (MSC.1/Circ.1275 and MSC.1/Circ.1275/Corr.1.)*.

20.6.3.2 In addition to the provision of 20.6.3.1, the following fire-extinguishing appliances shall be provided in vehicle, ro-ro and special category spaces intended for the carriage of motor vehicles with fuel in their tanks for their own propulsion:

- .1 at least three water-fog applicators; and
- .2 one portable foam applicator unit complying with the provisions of the Section 24, provided that at least two such units are available in the ship for use in such spaces.

■ **Head 20.7 - DECISION-MAKING**, has been added and should be read as follows:

20.7 DECISION-MAKING

20.7.1 In passenger ships, vehicle, special category and ro-ro spaces, where fixed pressure water-spraying systems are fitted, shall be provided with suitable signage and marking on deckhead and bulkhead and on the vertical boundaries allowing easy identification of the sections of the fixed fire-extinguishing system. Suitable signage and markings shall be adapted to typical patterns of crew movement taking into consideration obstruction by cargo or fixed installations. Section number signs shall be of photoluminescent material (see 24.11 for the evaluation and testing of photoluminescent material). The section numbering indicated inside the space shall be same as section valve identification and section identification at the safety centre or continuously manned control station.

23 SAFETY CENTRE ON PASSENGER SHIPS

■ **Head 23.6 - CONTROL AND MONITORING OF SAFETY SYSTEMS**, item 23.6.1 has been changed and should be read as follows:

23.6.1 Notwithstanding the requirements set out elsewhere in the Convention, the full functionality (operation, control, monitoring or any combination thereof, as required, see MSC.1/Circ.1368) of the safety systems listed below shall be available from the safety centre:

- .1 all powered ventilation systems;
- .2 fire doors;
- .3 general emergency alarm system;
- .4 public address system;
- .5 electrically powered evacuation guidance systems;
- .6 watertight and semi-watertight doors;
- .7 indicators for shell doors, loading doors and other closing appliances;
- .8 water leakage of inner/outer bow doors, stern doors and any other shell door;
- .9 television surveillance system;
- .10 fire detection and fire alarm system;
- .11 fixed fire-fighting local application system(s);
- .12 sprinkler and equivalent systems;
- .13 water-based fire-extinguishing systems for machinery spaces;
- .14 alarm to summon the crew;
- .15 atrium smoke extraction system;
- .16 flooding detection systems; and
- .17 fire pumps and emergency fire pumps.

24 FIRE SAFETY SYSTEMS

■ **Head 24.7 - FIXED PRESSURE WATER-SPRAYING AND WATER-MIST FIRE-EXTINGUISHING SYSTEMS**, sub-item 24.7.2.5 has been added and should be read as follows:

24.7.2.5 Fixed water-based fire-extinguishing system on ro-ro passenger ships' weather decks intended for the carriage of vehicles

This paragraph details the specification of fixed water-based fire-extinguishing system on ro-ro passenger ships having weather decks intended for the carriage of vehicles as required by this Part of the Rules.

24.7.2.5.1 The protected area shall be the entire length and width of the weather deck intended for the carriage of vehicles. The fixed monitor(s) shall be capable of delivering water to:

- .1 the area of weather decks intended for carriage of vehicles; and
- .2 the area, including superstructure boundaries located up to 8.0 m, measured horizontally, from the area intended for vehicle storage, or the next vertical boundaries, whichever is less.

24.7.2.5.2 The combined capacity of all fixed monitors shall be minimum 2.0 L/min per square metre of the protected area, but in no case shall the output of any monitor be less than 1,250 L/min. Even distribution of water shall be ensured.

24.7.2.5.3 The distance from the monitor to the farthest extremity of the protected area forward of that monitor shall not be more than 75% of the monitor throw in still air conditions.

24.7.2.5.4 Each monitor shall be located outside the area which it protects, in a safe position, with access not likely to be cut off in case of fire. Monitors shall be installed in positions which allow for unobstructed water coverage with vehicles stowed to maximum capacity of the weather deck. However, areas that cannot be covered by water monitors shall be protected by water nozzles. Nozzles shall be designed and installed taking into account weather conditions and provide 5.0 L/min per square metre for the area they cover and have release controls in a position being accessible in case of a fire.

24.7.2.5.5 The system shall be available for immediate use and capable of continuously supplying water. The water supply shall be capable of simultaneously supplying water at the required rate for the entire width of the weather deck intended for carriage of vehicles and a length of 40 m, or the entire length of the weather deck if this is less than 40 m. In no case shall the supply capacity be less than that required for the largest monitor.

24.7.2.5.6 The system may be supplied by the fire main, the pump(s) serving other fixed water-based fire-fighting systems or a dedicated pump providing a continuous supply of seawater.

Where the ship's fire pumps are used to feed the monitor(s):

- .1 it shall be possible to segregate the ship's fire main from the monitor(s) by means of a valve in order to operate both systems separately or simultaneously; and
- .2 the capacity of the pumps shall be sufficient to serve both systems simultaneously, including two jets of water at the required pressure from the fire main system. In case the weather deck shall also carry dangerous goods, capacity for four jets of water at the required pressure shall be provided.

Where another fixed water-based fire-fighting system is used to feed the monitor(s):

- .3 it shall be possible to segregate the other fixed water-based fire-fighting system from the monitor(s) by means of a valve in order to operate both systems separately or simultaneously; and
- .4 the capacity of the pump(s) shall, in case of open ro-ro spaces, be sufficient to serve both systems simultaneously, minimum two sections of the fixed water-based fire-fighting system being close to the openings facing weather deck and one monitor serving the weather deck. For closed ro-ro spaces and special category spaces, simultaneous operation is not required.

■ **Head 24.9 - FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS**, sub-item 24.9.2.3.1 has been changed and should be read as follows:

24.9.2.3.1 Detectors

- .1 Detectors shall be operated by heat, smoke or other products of combustion, flame, or any combination of these factors. Detectors operated by other factors indicative of incipient fires may be considered by the *Register* provided that they are no less sensitive than such detectors.
- .2 Smoke detectors required in all stairways, corridors and escape routes within accommodation spaces shall be certified to operate before the smoke density exceeds 12.5% obscuration per metre, but not until the smoke density exceeds 2% obscuration per metre, when tested according to standards EN 54:2001 and IEC 60092-504. Alternative testing standards may be used as determined by the *Register*. Smoke detectors to be installed in other spaces shall operate within sensitivity limits to the satisfaction of the *Register* having regard to the avoidance of detector insensitivity or oversensitivity.

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- .3 Heat detectors and linear heat detectors shall be certified to operate before the temperature exceeds 78°C but not until the temperature exceeds 54°C, when the temperature is raised to those limits at a rate less than 1°C per min, when tested according to relevant parts of standards EN 54:2001 and IEC 60092-504. Alternative testing standards may be used as determined by the Register. At higher rates of temperature rise, the heat detector and linear heat detector shall operate within temperature limits to the satisfaction of the Register having regard to the avoidance of detector insensitivity or oversensitivity.
- .4 The operation temperature of heat detectors and linear heat detectors in drying rooms and similar spaces of a normal high ambient temperature may be up to 130°C, and up to 140°C in saunas.
- .5 Linear heat detectors shall be tested according to standards EN 54-22:2015 and IEC 60092-504. Alternative testing standards may be used as determined by the Register.
- .6 Flame detectors shall be tested according to standards EN 54-10:2001 and IEC 60092-504. Alternative testing standards may be used as determined by the Register.
- .7 All detectors shall be of a type such that they can be tested for correct operation and restored to normal surveillance without the renewal of any component.
- .8 Fixed fire detection and fire alarm systems for cabin balconies shall be approved by the Register, based on the guidelines developed by the IMO, see *Guidelines for approval of fixed fire detection and fire alarm systems for cabin balconies*(MSC.1/Circ.1242).
- .9 Detectors fitted in hazardous areas shall be tested and approved for such service. Detectors required by 20.4 and installed in spaces that comply with 20.3.2.2 need not be suitable for hazardous areas. Detectors fitted in spaces carrying dangerous goods, required by Section 19, table 19.3, to comply with 19.3.2, shall be suitable for hazardous areas.

■ **Head 24.9 - FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS**, sub-item 24.9.2.4.2 has been changed and should be read as follows:

24.9.2.4.2 Position of detectors

- .1 Detectors shall be located for optimum performance. Positions near beams and ventilation ducts, or other positions where patterns of air flow could adversely affect performance, and positions where impact or physical damage is likely, shall be avoided. Detectors shall be located on the overhead at a minimum distance of 0.5 m away from bulkheads, except in corridors, lockers and stairways.
- .2 The maximum spacing of detectors shall be in accordance with the table below. See also MSC.1/Circ.1695.

Type of detector	Maximum floor area per detector (m ²)	Maximum distance apart between centres (m)	Maximum distance away from bulkheads (m)
Heat	37	9	4.5
Smoke	74	11	5.5
Combined smoke and heat	74	9	4.5

- .1 The Register may require or permit other spacing based upon test data which demonstrate the characteristics of the detectors. Detectors located below moveable ro-ro decks shall be in accordance with the above.
- .2 The distance between two sensor cables of the linear heat detection system shall not be more than 9.0 m, while the distance between such cables and bulkheads shall not be more than 4.5 m.
- .3 Detectors in stairways shall be located at least at the top level of the stair and at every second level beneath.
- .4 When fire detectors are installed in freezers, drying rooms, saunas, parts of galleys used to heat food, laundries and other spaces where steam and fumes are produced, heat detectors may be used.
- .5 Where a fixed fire detection and fire alarm system is required by 7.5, spaces having little or no fire risk need not be fitted with detectors. Such spaces include void spaces with no storage of combustibles, private bathrooms, public toilets, fire-extinguishing medium storage rooms, cleaning gear lockers (in which flammable liquids are not stowed), open deck spaces and enclosed promenades having little or no fire risk and that are naturally ventilated by permanent openings.

■ **Head 24.9 - FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS**, sub-item 24.9.2.5.1 has been changed and should be read as follows:

24.9.2.5.1 Visual and audible fire signals

- See Code on Alerts and Indicators, 2009, as adopted by IMO by resolution A.1021(26).
- .1 The activation of any detector or manually operated call point shall initiate a visual and audible fire detection alarm signal at the control panel and indicating units. If the signals have not been acknowledged within 2 min, an audible fire alarm shall be automatically sounded throughout the crew accommodation and service spaces, control stations

and machinery spaces of category A. This alarm sounder system need not be an integral part of the detection system. See *IACS UI SC35 Rev.3* (taking into account 24.1.1.1). See also *MSC.1/Circ.1487*.

- .2 On ro-ro passenger ships constructed on or after 1 January 2026, alarm notifications shall follow a consistent alarm presentation scheme (wording, vocabulary, colour and position). Alarms shall be immediately recognizable on the navigation bridge and shall not be compromised by noise or poor placing.
- .3 On ro-ro passenger ships constructed on or after 1 January 2026, the interface shall provide alarm addressability, allow the crew to identify the alarm history, the most recent alarm and the means to suppress alarms while ensuring the alarms with ongoing trigger conditions are still clearly visible.
- .4 On ro-ro passenger ships constructed on or after 1 January 2026, the smoke detector function in special category and ro-ro spaces may be disconnected during loading and unloading of vehicles. The time of disconnection shall be adapted to the time of loading/unloading and be automatically reset after this predetermined time. The central unit shall indicate whether the detector sections are disconnected or not. Disconnection of the heat detection function or manual call points shall not be permitted.
- .5 In passenger ships, the control panel shall be located in the onboard safety centre. In cargo ships, the control panel shall be located on the navigation bridge or in the fire control station.
- .6 In passenger ships, an indicating unit that is capable of individually identifying each detector that has been activated or manually operated call point that has operated shall be located on the navigation bridge. In cargo ships, an indicating unit shall be located on the navigation bridge if the control panel is located in the fire control station. In ships with a cargo control room, an additional indicating unit shall be located in the cargo control room. In cargo ships and on passenger cabin balconies, indicating units shall, as a minimum, denote the section in which a detector has activated or manually operated call point has operated.
See *MSC.1/Circ.1528*. See also *IACS UI SC271 Corr.1*.
- .7 Clear information shall be displayed on or adjacent to each indicating unit about the spaces covered and the location of the sections.
- .8 Power supplies and electric circuits necessary for the operation of the system shall be monitored for loss of power and fault conditions as appropriate including:
 - (1) a single open or power break fault caused by a broken wire;
 - (2) a single ground fault caused by the contact of a wiring conductor to a metal component; and
 - (3) a single wire to wire fault caused by the contact of two or more wiring conductors.
 Occurrence of a fault condition shall initiate a visual and audible fault signal at the control panel which shall be distinct from a fire signal.
- .9 Means to manually acknowledge all alarm and fault signals shall be provided at the control panel. The audible alarm sounders on the control panel and indicating units may be manually silenced. The control panel shall clearly distinguish between normal, alarm, acknowledged alarm, fault and silenced conditions.
- .10 The system shall be arranged to automatically reset to the normal operating condition after alarm and fault conditions are cleared.
- .11 When the system is required to sound a local audible alarm within the cabins where the detectors are located, a means to silence the local audible alarms from the control panel shall not be permitted.
- .12 In general, audible alarm sound pressure levels at the sleeping positions in the cabins and 1 m from the source shall be at least 75 dB(A) and at least 10 dB(A) above ambient noise levels existing during normal equipment operation with the ship under way in moderate weather. The sound pressure level should be in the 1/3 octave band with respect to the fundamental frequency. Audible alarm signals shall not exceed 120 dB(A).

**ANNEX 4 NON COMBUSTIBLE
AND LOW FIRE RISK CARGOES / CARGOES FOR WHICH A
FIXED GAS FIRE-EXTINGUISHING SYSTEM IS INEFFECTIVE
(SOLAS REGULATION II-2/10.7.1 AND 10.7.2)**

1 Solid bulk cargoes and other cargoes which are non-combustible or constitute a low fire risk and for which a fixed gas fire-extinguishing system may be exempted are listed in Table 1-1 (see *MSC.1/Circ.1395/Rev.7*).

Table 1-1

Item	Name/Description of cargo	IMO class
1	Cargoes including, but not limited to, those listed in regulation II-2/10:	
	Ore	
	Coal (Coal and Brown Coal Briquettes)	MHB
	Grain	
	Unseasoned timber	
2	Cargoes listed in the IMSBC Code, which are not combustible or constitute a low fire risk:	
2.1	All cargoes not categorized into group B in the IMSBC Code;	
2.2	The following cargoes categorized into group B in the IMSBC Code:	
	ALUMINA HYDRATE	MHB
	ALUMINIUM SMELTING BY-PRODUCTS, UN 3170 (Both the names ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS are in use as proper shipping name)	4.3
	ALUMINIUM FERROSILICON POWDER, UN 1395	4.3
	ALUMINIUM SILICON POWDER, UNCOATED, UN 1398	4.3
	ALUMINIUM SULPHATE GRANULAR	
	AMORPHOUS SODIUM SILICATE LUMPS	MHB(CR)
	BORIC ACID	MHB(TX)
	CASTOR BEANS UN 2969	
	CLINKER ASH	MHB
	COAL TAR PITCH	MHB
	DIRECT REDUCED IRON (A) Briquettes, hot moulded	MHB
	ELECTRIC ARC FURNACE DUST, PELLETIZED	
	FERRIC SULPHATE GRANULAR	
	FERROPHOSPHORUS (including briquettes)	MHB
	FERROSILICON UN 1408, with 30% or more but less than 90% silicon (including briquettes)	4.3
	FERROSILICON, with at least 25% but less than 30% silicon, or 90% or more silicon	MHB
	FLUE DUST, CONTAINING LEAD AND ZINC	
	FLUORSPAR (calcium fluoride)	MHB
	GRANULATED NICKEL MATTE (less than 2% moisture content)	MHB
	LEACH RESIDUE CONTAINING LEAD	MHB
	LIME (UNSLAKED)	MHB
	LOGS	MHB
	MAGNESIA (UNSLAKED)	MHB
	MATTE CONTAINING COPPER AND LEAD	
	MONOCALCIUMPHOSPHATE (MCP)	
	MONOAMMONIUMPHOSPHATE (M.A.P.), MINERAL ENRICHED COATINGS	
	PEAT MOSS	MHB
	PETROLEUM COKE ¹ (calcined or uncalcined)	MHB
	PITCH PRILL	MHB

Item	Name/Description of cargo	IMO class
	PULP WOOD	MHB
	PYRITES, CALCINED (calcined pyrites)	
	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-1), non fissile or fissile – excepted UN 2912	7
	RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I), non fissile or fissile – excepted UN 2913	7
	ROUNDWOOD	MHB
	SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) UN 2912	
	SAW LOGS	MHB
	SILICOMANGANESE (low carbon)	MHB
	SULPHUR, UN 1350 (crushed lump and coarse grained)	4.1
	SUPERPHOSPHATE (triple, granular)	MHB
	TIMBER	MHB
	VANADIUM ORE	MHB
	WOODCHIPS, with moisture content of 15% or more	MHB
	WOOD PELLETS NOT CONTAINING ANY ADDITIVES AND/OR BINDERS	MHB(OH)
	ZINC ASHES, UN 1435	4.3
	ZINC OXIDE ENRICHED FLUE DUST	
2.3	Cargoes assigned to the following generic Group B shipping schedules when they do not exhibit any self-heating, flammability, or water-reactive flammability hazards in accordance with the MHB tests and classification criteria contained in the Code:	
	METAL SULPHIDE CONCENTRATES	
	METAL SULPHIDE CONCENTRATES, CORROSIVE UN 1759	
3	Solid bulk cargoes which are not listed in the IMSBC Code, provided that:	
3.1	they are assessed in accordance with section 1.3 of the Code;	
3.2	they do not present hazards of Group B as defined in the Code; and	
3.3	a certificate has been provided by the competent authority of the port of loading to the master in accordance with 1.3.2 of the Code.	

Notes to Table 1-1:

- .1 When loaded and transported under the provisions of the IMSBC Code.
- .2 Generally, *Register* may impose any additional conditions when granting such exemptions under the provisions of SOLAS regulation II-2/10.7.1.4

2 Solid bulk cargoes for which a fixed gas fire-extinguishing system is ineffective and for which a fire-extinguishing system giving equivalent protection shall be available are listed in Table 2-1 (see MSC.1/Circ. 1395/Rev.6).

Table 2-1

Item	Name/Description of cargo	IMO class
1	The following cargoes categorized into group B of the IMSBC Code	
	ALUMINIUM NITRATE, UN 1438	5.1
	AMMONIUM NITRATE, UN 1942 (with not more than 0.2% total combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance)	5.1
	AMMONIUM NITRATE BASED FERTILIZER	MHB
	AMMONIUM NITRATE BASED FERTILIZER, UN 2067	5.1
	AMMONIUM NITRATE BASED FERTILIZER, UN 2071	9
	BARIUM NITRATE, UN 1446	5.1
	CALCIUM NITRATE, UN 1454	5.1
	LEAD NITRATE, UN 1469	5.1
	MAGNESIUM NITRATE, UN 1474	5.1
	POTASSIUM NITRATE, UN 1486	5.1

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Item	Name/Description of cargo	IMO class
	SODIUM NITRATE, UN 1498	5.1
	SODIUM NITRATE AND POTASSIUM NITRATE, MIXTURE, UN 1499	5.1

Note to Table 2-1:

1. The *Register* shall take account of the provisions of 19.3.1 when determining suitable requirements for an equivalent fire-extinguishing system.