



GUIDANCE CHANGES NOTICE No.2

October 2022

Part 1 Seagoing Ship

Volume Y

GUIDANCE FOR CODE AND CONVENTION INTERPRETATIONS

Consolidated Edition 2022

Biro Klasifikasi Indonesia

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Foreword

This Guidance Change Notices (GCN) No. 2 provide amendment and corrigenda to the “Guidance for Code and Convention Interpretations (Pt. 1, Vol. Y), 2022 Consolidated edition” along with effective date from which these change are applicable. **This Guidance is also to be used as a reference and/or additional requirements to all applicable BKI technical rules in Part 1 to Part 7.**

Amendments to the preceding Edition are marked by strikethrough, red color, and expanded text. These new additions and amendments are to be read in conjunction with the requirements given in the Consolidated 2022 edition of the Guidance.

The summary of current amendments for each section including the implementation date are indicated in ***Table 1 - Amendments Incorporates in This Notice.***

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Further queries or comments concerning this Guidance are welcomed through communication to BKI Head Office.

Guidance Changes Notice No. 2 – October 2022

Table 1 – Amendments Incorporates in This Notice

These amendments will come into force in accordance with the date which stated in the notes in each Sub-Section.

Paragraph	Title/Subject	Status/Remark
Foreword		
Foreword	-	To add an explanation that this Guidance is also to be used as a reference and/or additional requirements to all applicable BKI technical rules in Part 1 to Part 7.
Section 4 – Gas Code		
GC 38.	Deck areas above F.O. tanks installed at the after end of the aftermost hold space	To add a new interpretation application of the design temperature for piping, fittings and related components under IGC Code 11.3.6 from the industry.
Section 7 – Load Line Convention		
LL 11.	Scuppers, inlets and discharges (Regulation 22(1))	To add an interpretation that is applicable to Regulation 22(1) of International Convention on Load Lines 1966 and to Regulation 22(1) of 1988 Protocol to International Convention on Load Lines 196, and deleted the word “inlets” from regulation 22(1)(g).
LL 80.	Unprotected openings	Modified to include closed ro-ro and vehicle spaces and delete the word “Unprotected”. Also needed to be aligned with the revised IMO circular.
LL 81.	Deduction for superstructure and trunks	To add a new interpretation that clarify the application of ICLL Reg 37(3) with respect to deduction for superstructures and trunks.
Section 11 – SOLAS Convention		
SC 161.	Timber deck cargo in the context of damage stability requirements	To change circular MSC/Circ.998 and that uprights should comply with the 2011 TDC Code.
SC 170.	Low pressure CO ₂ systems	To be deleted because of FSS Code amendments introduced by resolution MSC.206(81) and UR F46.
SC 200.	Container storage arrangement for equivalent fixed gas fire extinguishing systems (FSS Code, Ch. 5, 2.5)	Amendment to FSS Code (MSC.339(91)) deleted paragraph 2.4 and renumbered paragraphs in Chapter 5.
SC 201.	Location of paint lockers within cargo block	Amendment to IBC Code Res. MSC.176(79) updated the SOLAS Convention reference
SC 204.	Storage of fire-extinguishing media forward the cargo holds	Amendment to FSS Code Res. MSC. 206 (81) modified requirements in Chapter 5, paragraph 2.1.3.3.
SC 218.	Fire Testing of Equivalent Water-Based Fire Extinguishing Systems	To aligned with the amended version of the circular MSC.1/Circ.1237 and MSC.1/Circ.1269
SC 219.	Fire Testing of Equivalent Water-Based Fire Extinguishing Systems	To aligned with the amended version of the circular MSC.1/Circ.1237 and MSC.1/Circ.1269

Paragraph	Title/Subject	Status/Remark
SC 261.	Interpretation of Performance Standards for voyage data recorders (VDRs) (resolution MSC.333(90))	Developed due to IMO adopting Resolution MSC.494(104) which amends Resolution MSC.333(90)
SC 280.	Angle of down-flooding (ϕ) / Angle at which an opening incapable of being closed weathertight (θ_v)	To be aligned with the revised IMO circular MSC.1/Circ.1537
SC 296.	Noise level limit in workshops onboard ships	To add a new interpretation due to the lack of regulatory clarity regarding what limitations must be owned by a workshop that is not part of the engine room.

Section 4 Gas Code

GC 38. Deck areas above F.O. tanks installed at the after end of the aftermost hold space

(Mar 2022)

IGC Code as amended by Res. MSC.370(93), 11.1.4 reads:

For the purposes of firefighting, any weather deck areas above cofferdams, ballast or void spaces at the after end of the aftermost hold space or at the forward end of the forward most hold space shall be included in the cargo area.

IGC Code as amended by Res. MSC.370(93), 11.3.6 reads:

All pipes, valves, nozzles and other fittings in the water-spray system shall be resistant to corrosion by seawater. Piping, fittings and related components within the cargo area (except gaskets) shall be designed to withstand 925 °C. The water-spray system shall be arranged with in-line filters to prevent blockage of pipes and nozzles. In addition, means shall be provided to back-flush the system with fresh water.

Interpretation

Where 'F.O. tanks' are installed at the after end of the aftermost hold space or at the forward end of the forwardmost hold space instead of cofferdams as allowed for in paragraphs 3.1.2 and 3.1.3 of the IGC Code, the weather deck area above these tanks shall be regarded as a 'cargo area' for the purpose of applying paragraph 11.3.6 of the IGC Code.

Note:

1. *This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2022.*
2. *The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.*

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Section 7 Load Line Convention

LL 11. Scuppers, inlets and discharges¹⁵

(1968)

(Rev.1 1990)

(Rev.2 1994)

(Rev.3 July 2008)

(Rev.4 July 2022)

Interpretation of Regulation 22(1) of the 1966 International Convention on Load Lines and of Regulation 22(1)(a) of the 1988 Protocol to the 1966 International Convention on Load Lines as amended by resolution MSC.143(77).

Regulation 22(1) of the 1966 International Convention on Load Lines reads as follows:

Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of Regulation 12 shall be fitted with efficient and accessible means for preventing water from passing inboard. Normally each separate discharge shall have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck. Where, however, the vertical distance from the summer load waterline to the inboard end of the discharge pipe exceeds 0,01L, the discharge may have two automatic non-return valves without positive means of closing, provided that the inboard valve is always accessible for examination under service conditions; where that vertical distance exceeds 0,02L a single automatic non-return valve without positive means of closing may be accepted subject to the approval of the Administration. The means for operating the positive action valve shall be readily accessible and provided with an indicator showing whether the valve is open or closed.

Regulation 22(1)(a) of the 1988 Protocol to the 1966 International Convention on Load Lines as amended by resolution MSC.143(77) reads as follows:

(a) Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of regulation 12 shall, except as provided in paragraph (2), be fitted with efficient and accessible means for preventing water from passing inboard. Normally each separate discharge shall have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck. Where the inboard end of the discharge pipe is located at least 0,01L above the Summer Load Line, the discharge may have two automatic non-return valves without positive means of closing. Where that vertical distance exceeds 0,02L, a single automatic non-return valve without positive means of closing may be accepted. The means for operating the positive action valve shall be readily accessible and provided with an indicator showing whether the valve is open or closed.

Interpretations

AA. It is considered that an acceptable equivalent to one automatic non-return valve with a positive means of closing from a position above the freeboard deck would be one automatic non-return valve and one sluice valve controlled from above the freeboard deck.

¹⁵ ~~This UI is also applicable to Regulation 22(1) of the 1988 Protocol.~~ This UI is applicable to Regulation 22(1) of International Convention on Load Lines, 1966 and the 1988 Protocol. Paragraphs under subsection BB of this UI are also applicable to Regulation 22(1) of the 1988 Protocol as amended by resolution MSC.143(77).

Where two automatic non-return valves are required, the inboard valve must always be accessible under service condition, i.e., the inboard valve should be above the level of the tropical load water line. If this is not practicable, then, provided a locally controlled sluice valve is interposed between the two automatic non-return valves, the inboard valve need not to be fitted above the LWL.

Where sanitary discharges and scuppers lead overboard through the shell in way of machinery spaces, the fitting to shell of a locally operated positive closing valve, together with non-return valve inboard, is considered to provide protection equivalent to the requirements of Regulation 22(1).

It is considered that the requirements of Regulation 22(1) for non-return valves are applicable only to those discharges which remain open during the normal operation of a vessel. For discharges which must necessarily be closed at sea, such as gravity drains from topside ballast tanks, a single screw down valve operated from the deck is considered to provide efficient protection.

The inboard end of a gravity discharge which leads overboard from an enclosed superstructure or space is to be located above the water line formed by a 5 degree heel, to port or starboard, at a draft corresponding to the assigned summer freeboard.

It is considered that the position of the inboard end of discharges should be related to the timber summer load waterline when timber freeboard is assigned.

Refer to the attached Table for the acceptable arrangements of scuppers, ~~inlets~~, and discharges.

For garbage chutes it is considered that an acceptable equivalent to the non-return valve with a positive means of closing from a position above the freeboard deck would be two gate valves controlled from the working deck of the chute. The lowest gate valve should, in addition, be controlled from a position above the freeboard deck. An interlock system between the two valves should be arranged.

It is recommended that the inboard end be located above the waterline formed by an 8.5 degree heel, to port or starboard, at a draft corresponding to the assigned summer freeboard, but not less than 1000 mm above the summer waterline.

Where the inboard end of the garbage chute exceeds 0.01L above the summer waterline, valve control from the freeboard deck is not required, provided the inboard gate valve is always accessible under service conditions.

The distance between the two gate valves should be adequate to allow the smooth operation of the interlock system.

Alternatively, the upper gate valve may be replaced by a hinged weathertight cover at the inboard end of the chute together with a discharge flap which replaces the lower gate valve.

The cover and flap are to be arranged with an interlock so that the discharge flap cannot be operated until the hopper cover is closed.

The chute is to be constructed of material of substantial thickness up to, and including, the cover.

The gate valve(s) controls and/or hinged cover are to be clearly marked: "Keep closed when not in use".

Where the inboard end of a garbage chute is below the margin line in a passenger ship, or the critical (crucial) waterline of a cargo ship of more than 100 m in length then:

- i) The inboard end hinged cover/valve is to be watertight.
- ii) The valve is to be a screw-down non-return valve fitted in an easily accessible position above the deepest subdivision load line.
- iii) The screw-down non-return valve is to be controlled from a position above the bulkhead deck and provided with open/shut indicators. The valve control is to be clearly marked:

“Keep closed when not in use”

BB. Where plastic pipes are used for sanity discharges and scuppers, they are also subject to the requirements of the Table, and the valve at the shell is to be operated from outside the space in which the valve is located.

Where such plastic pipes are located below the summer waterline (timber summer load waterline), the valve is to be operated from a position above the freeboard deck.

The portion of discharge line from the shell to the first valve as well as shell fittings and valves shall be of steel, bronze or other approved ductile material. The approval of plastic piping in any location will be subject to the consideration of strength and fire hazards involved with special reference to penetrations through bulkheads, decks or other significant compartment boundaries.

Attention must also be paid to valid fire technical regulations.

Table LL11

Discharges coming from enclosed spaces below the freeboard deck or on the freeboard deck			Discharges coming from other spaces																				
General requirement Reg. 22(1) where inboard end \leq 0,01L above SWL	Discharges through machinery space	Alternatives Reg. 22(1) where inboard end		outboard end > 450 mm below FB deck or \leq 600 mm above SWL Reg. 22(3)	otherwise Reg. 22(4)																		
		> 0,01L above SWL	> 0,02L above SWL																				
<p>Superstructure or Deckhouse Deck</p>																							
<p>* / control of the valves are to be in an approved position</p>																							
<p>Symbols:</p> <table border="0"> <tr> <td></td> <td>inboard end of pipes</td> <td></td> <td>non return valve without positive means of closing</td> <td></td> <td>remote control</td> </tr> <tr> <td></td> <td>outboard end of pipes</td> <td></td> <td>Non return valve with positive means of closing controlled locally</td> <td></td> <td>normal thickness</td> </tr> <tr> <td></td> <td>Pipes terminating on the open deck</td> <td></td> <td>valve controlled locally</td> <td></td> <td>substantial thickness</td> </tr> </table>							inboard end of pipes		non return valve without positive means of closing		remote control		outboard end of pipes		Non return valve with positive means of closing controlled locally		normal thickness		Pipes terminating on the open deck		valve controlled locally		substantial thickness
	inboard end of pipes		non return valve without positive means of closing		remote control																		
	outboard end of pipes		Non return valve with positive means of closing controlled locally		normal thickness																		
	Pipes terminating on the open deck		valve controlled locally		substantial thickness																		

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LL 80. Unprotected openings^{103 104}

(June 2016)

(Rev.1 June 2022)

Interpretation of ICLL Regulation 27(13)(e) of the International Convention on Load Lines, 1966, as amended by the Protocol of 1988 as amended by resolution MSC.329(90).

Subdivision and Damage stability

ICLL Regulation 27(13)(e) reads as follows:

Condition of equilibrium

When any part of the deck outside the compartment assumed flooded in a particular case of damage is immersed, or in any case where the margin of stability in the flooded condition may be considered doubtful, the residual stability is to be investigated. It may be regarded as sufficient if the righting lever curve has a minimum range of 20° beyond the position of equilibrium with a maximum righting lever of at least 0,1 m within this range. The area under the righting lever curve within this range shall be not less than 0,0175 m.rad. The Administration shall give consideration to the potential hazard presented by protected or unprotected openings which may become temporarily immersed within the range of residual stability.

Interpretation

~~Unprotected openings include~~ Ventilators (complying with ILLC 19(4)) that for operational reasons have to remain open to supply air to the engine room or emergency generator room **or closed ro-ro and vehicle spaces** (if the same is considered buoyant in the stability calculation or protecting openings leading below) for the effective operation of the ship, **are to be considered as unprotected openings with regard to the residual range of stability.**

Note:

The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.

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LL 81. Deduction for superstructure and trunks¹⁰⁵⁴

(May 2022)

Interpretation of the Regulation 37(3) of the International Convention on Load Lines 1966, as amended by the Protocol of 1988

Paragraph 37(3) reads as follows:

For ships of type ‘B’ where the effective length of a forecastle is less than 0,07L no deduction is allowed.

Interpretation

¹⁰³ This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2017.

¹⁰⁴ Rev.1 is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2023.

¹⁰⁵ This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2023.

For ships assigned a type 'B' freeboard, including reduced type 'B', if the effective length of a forecastle is less than $0,07L$, a superstructure deduction cannot be applied to the vessel.

For example, if the vessel has no forecastle, or the effective length of the forecastle is less than $0,07L$, and has other superstructure, no superstructure deduction is to be applied.

In case the vessel has a full superstructure (one that extends from AP to FP, per Regulation 3(10)(h)), the deduction for superstructure may be applied in accordance with Regulation 37(1).

Note:

The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.

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Section 11 SOLAS Convention

SC 161. Timber deck cargo in the context of damage stability requirements

(May 2000)

(Rev.1 Feb 2008)

(Rev.2 Apr 2021 Withdrawn)

(Rev.3 May 2022)

SOLAS Regulation II-1/5-1 reads:

1 *The master shall be supplied with such information to the satisfaction of the Administration as is necessary to enable him by rapid and simple processes to obtain accurate guidance as to the stability of the ship under varying conditions of service. A copy of the stability information shall be furnished to the Administration.*

2 *The information should include:*

- .1 curves or tables of minimum operational metacentric height (GM) and maximum permissible trim versus draught which assures compliance with the intact and damage stability requirements where applicable, alternatively corresponding curves or tables of the maximum allowable vertical centre of gravity (KG) and maximum permissible trim versus draught, or with the equivalents of either of these curves or tables;*
- .2 instructions concerning the operation of cross-flooding arrangements; and*
- .3 all other data and aids which might be necessary to maintain the required intact stability and stability after damage.*

3 *The intact and damage stability information required by regulation 5-1.2 shall be presented as consolidated data and encompass the full operating range of draught and trim. Applied trim values shall coincide in all stability information intended for use on board. Information not required for determination of stability and trim limits should be excluded from this information.*

4 *If the damage stability is calculated in accordance with regulation 6 to regulation 7-3 and, if applicable, with regulations 8 and 9.8, a stability limit curve is to be determined using linear interpolation between the minimum required GM assumed for each of the three draughts d_s , d_p and d_{dl} . When additional subdivision indices are calculated for different trims, a single envelope curve based on the minimum values from these calculations shall be presented. When it is intended to develop curves of maximum permissible KG it shall be ensured that the resulting maximum KG curves correspond with a linear variation of GM.*

5 *As an alternative to a single envelope curve, the calculations for additional trims may be carried out with one common GM for all of the trims assumed at each subdivision draught. The lowest values of each partial index A_s , A_p and A_l across these trims shall then be used in the summation of the attained subdivision index A according to regulation 7.1. This will result in one GM limit curve based on the GM used at each draught. A trim limit diagram showing the assumed trim range shall be developed.*

6 *When curves or tables of minimum operational metacentric height (GM) or maximum allowable KG versus draught are not provided, the master shall ensure that the operating condition does not deviate from approved loading conditions, or verify by calculation that the stability requirements are satisfied for this loading condition.*

Scope

The provisions given hereunder apply to ships that are subject to SOLAS, Chapter II-1, subdivision and damage stability calculations and engaged in carrying timber deck cargoes where the buoyancy of the timber deck cargo is taken into account in the damage stability calculations.

Definitions

The following definitions apply for the purposes of this interpretation:

timber, is used as a collective expression used for all types of wooden material covered by CODE OF SAFE PRACTICE FOR SHIPS CARRYING TIMBER DECK CARGOES, 2011 (Resolution A.1048(27)), including both round and sawn wood but excluding wood pulp and similar cargo;

timber deck cargo means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck;

timber load line means a special load line assigned to ships complying with certain conditions set out in the International Convention on Load Lines.

deepest timber subdivision draught is the waterline which corresponds to the timber summer draught to be assigned to the ship;

partial timber subdivision draught is the light service draught as defined in SOLAS Reg.II- 1/2.11 plus 60% of the difference between the light service draught and the deepest timber subdivision draught.

Interpretation

1. The ship shall be supplied with comprehensive stability information which takes into account timber deck cargo. Such information shall enable the master to rapidly and simply obtain accurate guidance as to the stability of the ship under varying conditions of service, and as required in SOLAS Regulation II-1/5-1 it shall include, among other damage stability related issues, a curve of minimum operating metacentric height (GM) versus draught or maximum allowable vertical centre of gravity (KG) versus draught which covers the requirements of SOLAS Regulation II-1/5-1.2.1.

2. To ensure the buoyancy of timber deck cargo can be justifiably credited in damage stability calculations, the integrity of the lashed timber deck cargo shall comply with the following:

.1 The timber deck cargo is to be stowed in accordance with the requirements of 2.9 of the CODE OF SAFE PRACTICE FOR SHIPS CARRYING TIMBER DECK CARGOES, 2011 (Resolution A.1048(27)).

.2 The timber deck cargo is to be secured by lashings and/or uprights.

.3 Lashings **and uprights** are to comply with the requirements of 2.10 of the CODE OF SAFE PRACTICE FOR SHIPS CARRYING TIMBER DECK CARGOES, 2011 (Resolution A.1048(27)).

~~.4 Uprights are to~~

~~.1. be made of steel or other suitable material of adequate strength, taking into account the breadth of the deck cargo;~~

~~.2. be spaced at intervals not exceeding 3 m;~~

~~.3. be fixed to the deck by angles, metal sockets or equally efficient means; and~~

~~.4. if deemed necessary, be further secured by a metal bracket to a strengthened point, i.e. bulwark, hatch coaming.~~

3. The height and extent of the timber deck cargo shall be in accordance with 3.3.2 of Chapter 3, Part A of the International Code on Intact Stability, 2008 and shall be at least stowed to the standard height of one superstructure.

4. The permeability of the timber deck cargo is not to be less than 25% of the volume occupied by the cargo up to one standard superstructure.
5. Unless instructed otherwise by the Administration, the stability information for ships with timber deck cargoes shall be supplemented by additional curve(s) of limiting GM (or KG) covering the timber draught range.
6. The above described curve(s) applicable for conditions with timber deck cargo is/are to be developed as described in SOLAS Regulation II-1/5-1.4, and considering timber deck cargo at the deepest timber subdivision draught and at the partial timber subdivision draught only.
7. The limiting GM shall be varied linearly between the deepest timber subdivision draught, and between the partial timber subdivision draught and the light service draught respectively. Where timber freeboards are not assigned the deepest and partial draughts shall relate to the summer load line.
8. When considering the vertical extent of damage, the upper deck may be regarded as a horizontal subdivision (in accordance with SOLAS Regulation II-1/7-2.6.1). Thus when calculating damage cases **which** are limited vertically to the upper deck with the corresponding vfactor, the timber deck cargo may be considered to remain buoyant with an assumed permeability of 0.25 at the deepest and partial draught. For damage extending above the upper deck the timber deck cargo buoyancy in way of the damage zone is to be ignored.

Note:

1. *Implementation date 1 January 2001.*
2. ~~This Unified Interpretation Rev.1~~ **of this UI is to be applied by all Members and Associate on ships contracted for construction on or after 1 January 2009. However, Members and Associate are not precluded from applying this UI before this date.**
3. *The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.*
4. ~~This Unified Interpretation Rev.2 is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2022.~~ **Rev.2 of this UI was withdrawn before coming into force on 1 July 2022.**
5. **Rev.3 of this UI is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2023.**

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SC 170. Low pressure CO₂ systems

(June 2002)

(Rev.1 Nov 2005)

(Deleted Aug 2021)

Deleted in July 2022 because of FSS Code amendments introduced by resolution MSC.206(81) and UR F46.

(FSS Code Ch.5.2.2)

Where a low pressure CO₂ system is fitted to comply with this regulation, the following applies:

1. ~~The system control devices and the refrigerating plants should be located within the same room where the pressure vessels are stored.~~
2. ~~The rated amount of liquid carbon dioxide should be stored in vessel(s) under the working pressure in the range of 1.8 to 2.2 N/mm². The normal liquid charge in the container should be limited to~~

~~provide sufficient vapour space to allow for expansion of the liquid under the maximum storage temperatures than can be obtained corresponding to the setting of the pressure relief valves but should not exceed 95% of the volumetric capacity of the container.~~

~~3. Provision should be made for:~~

- ~~— pressure gauge;~~
- ~~— high pressure alarm: not more than setting of the relief valve;~~
- ~~— low pressure alarm: not less than 1.8 N/mm²;~~
- ~~— branch pipes with stop valves for filling the vessel;~~
- ~~— discharge pipes;~~
- ~~— liquid CO₂ level indicator, fitted on the vessel(s);~~
- ~~— two safety valves.~~

~~4. The two safety relief valves should be arranged so that either valve can be shut off while the other is connected to the vessel. The setting of the relief valves should not be less than 1,1 times working pressure. The capacity of each valve should be such that the vapours generated under fire condition can be discharged with a pressure rise not more than 20% above the setting pressure. The discharge from the safety valves should be led to the open.~~

~~5. The vessel(s) and outgoing pipes permanently filled with carbon dioxide should have thermal insulation preventing the operation of the safety valve in 24 hours after de-energizing the plant, at ambient temperature of 45°C and an initial pressure equal to the starting pressure of the refrigeration unit.~~

~~6. The vessel(s) should be serviced by two automated completely independant refrigerating units solely intended for this purpose, each comprising a compressor and the relevant prime mover, evaporator and condenser.~~

~~7. The refrigerating capacity and the automatic control of each unit should be so as to maintain the required temperature under conditions of continuous operation during 24 hours at sea temperatures up to 32 °C and ambient air temperatures up to 45°C.~~

~~8. Each electric refrigerating unit should be supplied from the main switchboard busbars by a separate feeder.~~

~~9. Cooling water supply to the refrigerating plant (where required) should be provided from at least two circulating pumps one of which being used as a stand-by. The stand-by pump may be a pump used for other services so long as its use for cooling would not interfere with any other essential service of the ship. Cooling water should be taken from not less than two sea connections, preferably one port and one starboard.~~

~~10. Safety relief devices should be provided in each section of pipe that may be isolated by block valves and in which there could be a build-up of pressure in excess of the design pressure of any of the components.~~

~~11. The piping system should be designed in such a way that the CO₂ pressure at the nozzles should not be less than 1 N/mm².~~

~~12. Audible and visual alarms should be given in a central control station when:~~

- ~~— the pressure in the vessel(s) reaches the low and high values according to 2;~~
- ~~— any one of the refrigerating units fails to operate;~~
- ~~— the lowest permissible level of the liquid in the vessels is reached.~~

13. — If the system serves more than one space, means for control of discharge quantities of CO₂ should be provided, e.g. automatic timer or accurate level indicators located at the control position(s).

14. — If a device is provided which automatically regulates the discharge of the rated quantity of carbon dioxide into the protected spaces, it should be also possible to regulate the discharge manually.

(MSC/Circ. 1120)

Note:

~~This UI SC 170 is to be uniformly implemented by IACS Members and Associates from 1 January 2003.~~

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SC 200. Container storage arrangement for equivalent fixed gas fire extinguishing systems (FSS Code, Ch. 5, 2.54)

(June 2005)

(Corr.1 May 2022)

Interpretation of paragraph 2.4 of Chapter 5 of the IMO International Code for Fire Safety Systems as amended by resolution MSC.339(91)

~~Regulation:~~ Paragraph 2.4 of Chapter 5 of the FSS Code reads as follows:

Fixed gas fire-extinguishing systems equivalent to those specified in paragraphs 2.2 to 2.43 shall be approved by the Administration based on the guidelines developed by the Organization.

Interpretation:

Agent containers stored in a protected space shall be distributed throughout the space with bottles or groups of bottles located in at least six separate locations. Duplicate power release lines shall be arranged to release all bottles simultaneously. The release lines shall be so arranged that in the event of damage to any power release line, five sixth of the fire extinguishing gas can still be discharged. The bottle valves are considered to be part of the release lines and a single failure shall include also failure of the bottle valve.

For systems that need less than six cylinders (using the smallest bottles available), the total amount of extinguishing gas on the bottles shall be such that in the event of a single failure to one of the release lines (including bottle valve), five sixth of the fire extinguishing gas can still be discharged. This may be achieved by for instance using more extinguishing gas than required so that if one bottle is not discharging due to a single fault, the remaining bottles will discharge the minimum five sixth of the required amount of gas. This can be achieved with minimum two bottles. However, NOEL values calculated at the highest expected engine room temperature are not to be exceeded when discharging the total amount of extinguishing gas simultaneously.

Systems that can not comply with the above, for instance systems using only one bottle located inside the protected space, cannot be accepted. Such systems shall be designed with the bottle(s) located outside the protected space, in a dedicated room in compliance with SOLAS Reg.II-2/10.4.3.

Note:

This UI is to be uniformly implemented by IACS Members and Associates on ships the keels of which are laid from 1 January 2006.

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SC 201. Location of paint lockers within cargo block

~~{ Interpretation of SOLAS Chapter regulations II-2/ regulations 4.5.1.2 and 4.5.1.3, and of the International code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) regulation 3.2.1 as amended by resolution MSC.176(79) }~~

(Sept 2005)

(Corr.1 Jan. 2006)

(Rev.1 Apr 2006)

(Corr.1 May 2022)

~~Regulations~~ SOLAS Regulations II-2/4.5.1.2 and 4.5.1.3 read:

~~II-2/4.5.1.2~~

Main cargo control stations, control stations, accommodation and service spaces (excluding isolated cargo handling gear lockers) shall be positioned aft of cargo tanks, slop tanks, and spaces which isolate cargo or slop tanks from machinery spaces, but not necessarily aft of the oil fuel bunker tanks and ballast tanks, and shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into the main cargo control stations, control stations, or accommodation and service spaces. A recess provided in accordance with paragraph 5.1.1 need not be taken into account when the position of these spaces is being determined.

~~II-2/4.5.1.3~~

However, where deemed necessary, the Administration may permit main cargo control stations, control stations, accommodation and service spaces forward of the cargo tanks, slop tanks and spaces which isolate cargo and slop tanks from machinery spaces, but not necessarily forward of oil fuel bunker tanks or ballast tanks. Machinery spaces, other than those of category A, may be permitted forward of the cargo tanks and slop tanks provided they are isolated from the cargo tanks and slop tanks by cofferdams, cargo pump-rooms, oil fuel bunker tanks or ballast tanks, and have at least one portable fire extinguisher. In cases where they contain internal combustion machinery, one approved foam-type extinguisher of at least 45 l capacity or equivalent shall be arranged in addition to portable fire extinguishers. If operation of a semi-portable fire extinguisher is impracticable, this fire extinguisher may be replaced by two additional portable fire extinguishers. Main cargo control stations, control stations and accommodation and service spaces shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into such spaces. In addition, where deemed necessary for the safety or navigation of the ship, the Administration may permit machinery spaces containing internal combustion machinery not being main propulsion machinery having an output greater than 375 kW to be located forward of the cargo area provided the arrangements are in accordance with the provisions of this paragraph.

IBC Code regulation 3.2.1 reads:

~~No accommodation or service spaces or control stations should be located within the cargo area except over a cargo pump room recess or pump room recess that complies with regulation II-2/56 of the 1983 SOLAS amendments and no cargo or slop tank should be aft of the forward end of any accommodation. No accommodation or service spaces or control stations shall be located within the cargo area except over a cargo pump-room recess or pump-room recess that complies with SOLAS regulations II-2/4.5.1 to 4.5.2.4 and no cargo or slop tank shall be aft of the forward end of any accommodation.~~

Interpretation

Paint lockers, regardless of their use, cannot be located above the tanks and spaces defined in SOLAS II-2/4.5.1.2 for oil tankers and the cargo area for chemical tankers.

Note:

1. This UI is to be uniformly implemented by IACS Members and Associates to ships constructed or arrangements fitted on or after 1 January 2006.
2. Revision 1 is to be uniformly implemented by IACS Members and Associates to ships constructed or arrangements fitted on or after 1 July 2006. Revision 0, Sept 2005, is withdrawn in light of the decision of FP 50.

-----end-----

SC 204. Storage of fire-extinguishing media forward the cargo holds

Interpretation of SOLAS Chapter II-2 regulation 10.4.3 and paragraph 2.1.3.3, Chapter 5 of the IMO International Code for Fire Safety Systems (FSS Code), as amended by resolution MSC.206(81)

(April 2006)

(Corr.1 May 2022)

~~{SOLAS regulation II-2/10.4.3. and FSS Code paragraph 2.1.3.3, Chapter 5}~~

Regulations

SOLAS Regulation II-2/10.4.3 reads **as follows**:

“When the fire-extinguishing medium is stored outside a protected space, it shall be stored in a room which is located behind the forward collision bulkhead, and is used for no other purposes. Any entrance to such a storage room shall preferably be from the open deck and shall be independent of the protected space. If the storage space is located below deck, it shall be located no more than one deck below the open deck and shall be directly accessible by a stairway or ladder from the open deck. Spaces which are located below deck or spaces where access from the open deck is not provided, shall be fitted with a mechanical ventilation system designed to take exhaust air from the bottom of the space and shall be sized to provide at least 6 air changes per hour. Access doors shall open outwards, and bulkheads and decks including doors and other means of closing any opening therein, which form the boundaries between such rooms and adjacent enclosed spaces shall be gastight. For the purpose of the application of tables 9.1 to 9.8, such storage rooms shall be treated as fire control stations.”

Fire Safety Systems Code, Chapter 5, paragraph 2.1.3.3 reads:

*“The means of control of any fixed gas fire-extinguishing system shall be readily accessible, simple to operate and shall be grouped together in as few locations as possible at positions not likely to be cut off by a fire in a protected space. **At each location there shall be clear instructions relating to the operation of the system having regard to the safety of personnel.**”*

Interpretation

Fire-extinguishing media protecting the cargo holds may be stored in a room located forward the cargo holds, but aft of the collision bulkhead, provided that both the local manual release mechanism and remote control(s) for the release of the media are fitted, and the latter is of robust construction or so protected as to remain operable in case of fire in the protected spaces. The remote controls shall be placed in the accommodation area in order to facilitate their ready accessibility by the crew. The capability to release different quantities of fire-extinguishing media into different cargo holds so protected shall be included in the remote release arrangement.

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies from 1 January 2007.

-----end-----

SC 218. Fire Testing of Equivalent Water-Based Fire Extinguishing Systems

(Oct 2007)

(Rev.1 July 2022)

{**Interpretation of IMO MSC/Circ.1165, Appendix B, 4.5.1, as amended by MSC.1/Circ.1237 and MSC.1/1269**}

{**Regulation (IMO MSC/Circ.1165, Appendix B, 4.5.1, as amended by MSC.1/Circ.1237 and MSC.1/Circ.1269) reads:**

4.5 Procedure

4.5.1 *Except for the flowing fire, the trays used in the test should be filled with at least 50 mm fuel on a water base. Freeboard is to be 150 mm ± 10 mm. For the flowing fire, the fuel should be ignited when flowing down the side of the mock-up, approximately 1 m below the notch. The pre-burn time should be measured from the ignition of the fuel.*

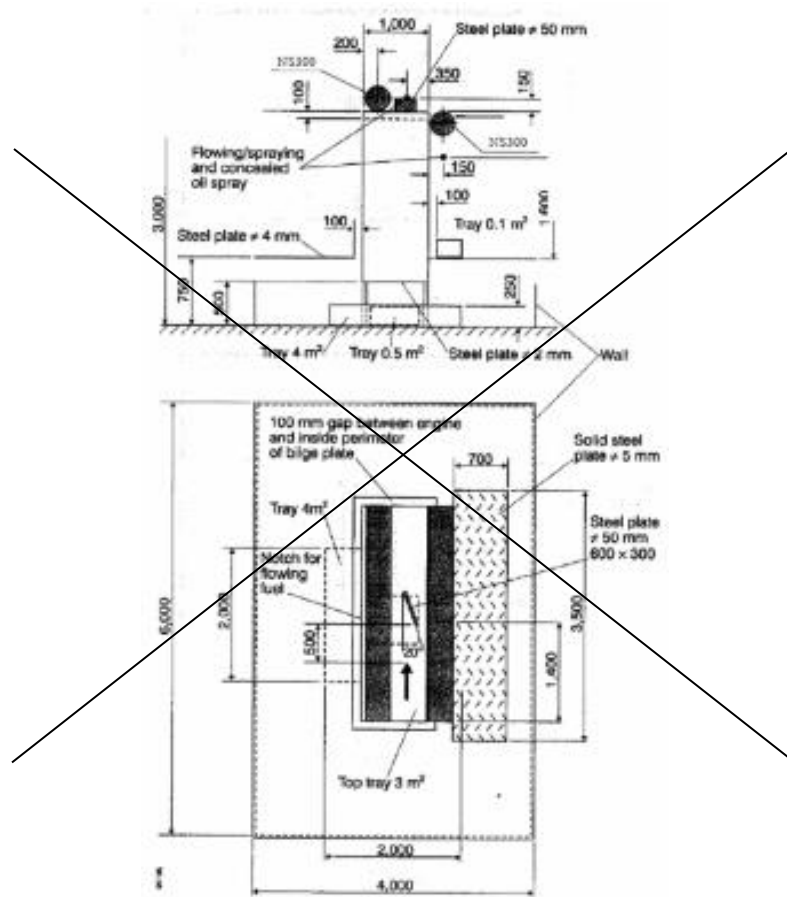


Fig. 1

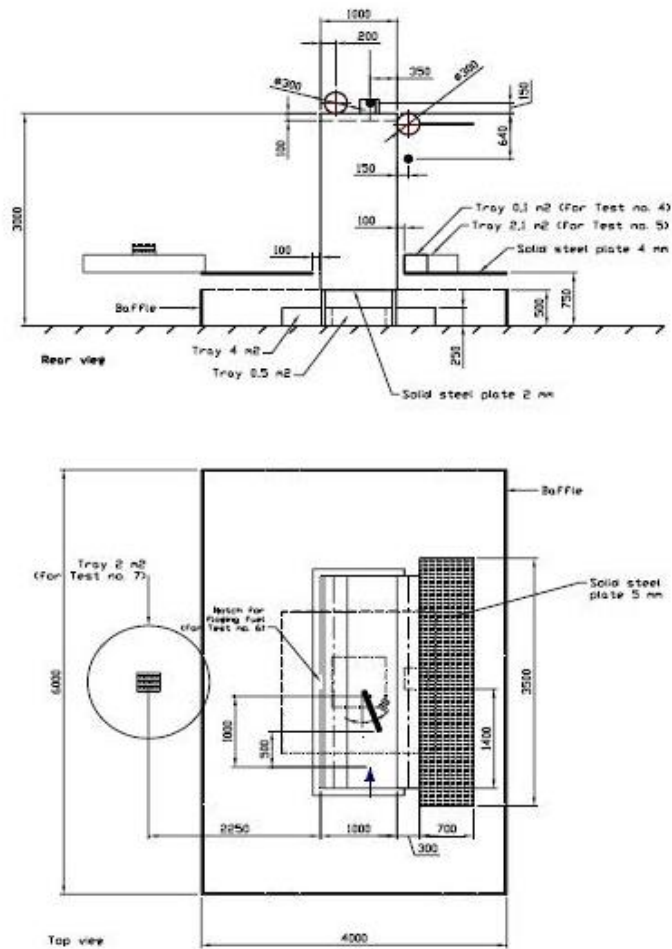


Figure 1

Fig.1

Interpretation

It has been recognized that this cannot be achieved for the 3 m² top tray as the total height of this particular tray is only 100 mm.

The freeboard requirement of 150 mm applies consequently only to the 0,1 m², 0,5 m², 2,1 m² and 4 m² tray (see IMO MSC/Circ.1165, Appendix B, MSC.1/Circ.1237, Annex, Figure 1).

Freeboard in the 3 m² top tray measured from heptane level (which is same as top of notch) to the top of this tray shall be 50 mm.

Note:

1. This Unified Interpretation is to be applied by all Members and Associate for systems approved on or after 1 July 2008.
2. Rev.1 of this UI shall be uniformly implemented by IACS Societies on or after 1 July 2023.

-----end-----

SC 219. Fire Testing of Equivalent Water-Based Fire Extinguishing Systems

(Oct 2007)

(Rev.1 July 2022)

{Interpretation of IMO MSC/Circ.1165, Appendix B, 4.5.4.1, as amended by MSC.1/Circ.1237 and MSC.1/Circ.1269 }

(Regulation {IMO MSC/Circ.1165, Appendix B, 4.5.4.1, as amended by MSC.1/Circ.1237 and MSC.1/Circ.1269 } reads as follows:

4.5.4 Duration of test

4.5.4.1 After ignition of all fuel sources, a 2-min preburn time is required before the extinguishing agent is discharged for the fuel tray fires **and thermal management tests** and 5-15 s for the fuel spray and heptane fires and 30 s for the Class A fire test (Test No. 7).

Interpretation

For flowing fire (Test No. 6), the 4 m² fire tray below the engine mock-up should be filled with a 50 mm water base and the ~~3-m²~~ fire tray on top of the engine mock-up should be filled with a 40 mm water base. The fuel should be ignited when flowing down the side of the mock-up, approximately 1m below the notch. The pre-burn time should be measured from the ignition of the fuel.

Note:

1. This Unified Interpretation is to be applied by all Members and Associate for systems approved on or after 1 July 2008.
2. Rev.1 of this UI shall be uniformly implemented by IACS Societies for systems approved on or after 1 July 2023.

-----end-----

SC 261. Interpretation of Performance Standards for voyage data recorders (VDRs)

(May 2013)

(Rev.1 Apr 2022)

(resolution MSC.333(90) as amended by MSC.494(104))

~~Operative paragraph 2 of resolution MSC.333(90) read:~~

2. ~~RECOMMENDS Governments to ensure that VDRs:~~
 - ~~.1 if installed on or after 1 July 2014, conform to performance standards not inferior to those specified in the annex to the present resolution; and~~
 - ~~.2 if installed before 1 July 2014, conform to performance standards not inferior to those specified in the annex to resolution A.861(20), as amended by resolution MSC.214(81).~~

Operative paragraph 2 of resolution MSC.494(104) reads:

2. **RECOMMENDS Governments to ensure that VDRs:**
 - .1 if installed on or after 1 July 2022, conform to performance standards not inferior to those specified in the annex to resolution MSC.333(90), as amended by the present resolution;**

- .2 if installed on or after 1 July 2014 and before 1 July 2022, conform to performance standards not inferior to those specified in the annex to resolution MSC.333(90);

Interpretation

For application of resolution MSC.333(90) as amended by MSC.494(104), the phrase "installed on or after ~~1 July 2014~~ 1 July 2022" shall be interpreted as follows:

- a) for ships for which the building contract is placed on or after ~~1 July 2014~~ 1 July 2022, or in the absence of the contract, constructed on or after ~~1 July 2014~~ 1 July 2022, "installed on or after ~~1 July 2014~~ 1 July 2022" means any installation on the ship; and
- b) for ships other than those ships prescribed in (a) above, "installed on or after ~~1 July 2014~~ 1 July 2022" means a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after ~~1 July 2014~~ 1 July 2022.

Note:

1. This UI is to be uniformly implemented by IACS Societies from 1 July 2014.

2. Rev.1 of this Unified Interpretation is to be uniformly implemented by IACS Societies not later than 1 July 2022.

~~2. The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.~~

-----end-----

SC 280. Angle of down-flooding (ϕ_f) / Angle at which an opening incapable of being closed weathertight (θ_v)

(June 2016)

(Rev.1 June 2022)

{~~Interpretation of 2008 IS Code, International Grain Code, and SOLAS/Ch.II-1-Reg.7-2~~}

2008 IS Code & International Grain Code read as follows:

ϕ_f is an angle of heel at which openings in the hull, superstructures or deckhouses which cannot be closed weathertight immerse.

~~{2008 IS Code & International Grain Code}~~

SOLAS II-1/7-2 reads as follows:

θ_v is the angle, in any stage of flooding, where the righting lever becomes negative, or the angle at which an opening incapable of being closed weathertight becomes submerged.

~~{SOLAS/Ch.II-1-Reg.7-2}~~

Interpretation

In applying ϕ_f or θ_v , openings which cannot be or are incapable of being closed weathertight include ventilators (complying with ILLC 19(4)) that for operational reasons have to remain open to supply air to the engine room or emergency generator room or closed ro-ro and vehicle spaces (if the same is considered buoyant in the stability calculation or protecting openings leading below) for the effective operation of the ship.

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2017.
2. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.
3. Rev.1 is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2023.

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SC 296. Noise level limit in workshops onboard ships

(May 2022)

Interpretation of paragraph 4.2.1 of Res. MSC.337(91), Code on Noise Levels on Board Ships

The part of paragraph 4.2.1 reads as follows:

4.2 Noise level limits

Limits for noise levels (dB(A)) are specified for various spaces as follows:

Designation of rooms and spaces	Ship size	
	1.600 up to 10,000 GT	≥ 10.000 GT

4.2.1 Work spaces (see 5.1)

Workshops other than those forming part of machinery spaces	85	85
-------------------------------------------------------------	----	----

Interpretation

For the purposes of applying the provisions of MSC.337(91) “Code on Noise Levels On Board Ships”, “Workshops other than those forming part of machinery spaces” are enclosed workshops that are separated from the engine room with bulkheads, which may include access doors of the equivalent acoustic insulating properties as the bulkhead. Workbenches and workstations located inside the machinery space are not to be considered as “workshops other than those forming part of machinery spaces”.

The noise level limit for workshops that are forming part of machinery space is as for the machinery space 110 dB(A).

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2023.
2. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.

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