HKFOAC Paper No. 4/2024

Hong Kong Fleet Operation Advisory Committee

Adaptation of Laws – Technical Standards

Purpose

The purpose of this paper is to seek members' views on the proposed amendments to the subsidiary legislation of the Merchant Shipping (Safety) Ordinance (Cap. 369) and the Merchant Shipping (Seafarers) Ordinance (Cap.478), regarding the proposed adaptations of the obsolete technical standards in those legislation.

Background

2. MD is now reviewing the maritime legislation which are being regulated by MD in the adaptation of laws exercise led by the Department of Justice. Apart from those proposed repeals or replacements by more appropriate wordings that would not affect the normal operation of the Hong Kong registered ships and seafarer matters, the exercise also involves the review of the relevant code of practices and other obsolete technical standards as appeared in the maritime legislation. Those technical standards are mainly in the areas of fire-fighting equipment, product fire test, side scuttle glass, metallic materials test, safety signs, personal protective equipment, sound level meters, etc.

3. According to the expression in the relevant maritime legislation when assigning a particular standard for compliance, it usually provides wordings, such as "or other equivalent standard acceptable to the Director" so as to provide flexibility as far as practicable in coping with standards other than the assigned one due to technical development of the industry or the evolvement of standards.

4. Our policy intent is to keep the intact of our existing regime in relation to technical standards. Subject to the legal advice in this amendment exercise, MD will continue to provide similar provision to allow the Director of Marine to accept other equivalent standards which serve the same purpose of the assigned standards in the legislation.

The Proposal

5. The following legislation will be amended to replace the existing technical standards therein by the relevant international standards:

(a) Merchant Shipping (Safety) (Anchors and Chain Cables) Regulations (Cap. 369Q);
(b) Merchant Shipping (Safety) (Cargo Ship Construction and Survey) (Ships Built Before 1 September 1984) Regulations (Cap. 369R);
(c) Merchant Shipping (Safety) (Cargo Ship Construction and Survey) (Ships Built On or After 1 September 1984) Regulations (Cap. 369S);
(d) Merchant Shipping (Safety) (Fire Protection) (Ships Built Before 25 May 1980) Regulations (Cap. 369W);
(e) Merchant Shipping (Safety) (Fire Appliances) (Ships Built On or After 25 May 1980 but Before 1 September 1984) Regulations (Cap. 369X);
(f) Merchant Shipping (Safety) (Fire Protection) (Ships Built On or After 1 September 1984) Regulations (Cap. 369Y);
(g) Merchant Shipping (Safety) (Passenger Ship Construction) (Ships Built Before 1 September 1984) Regulations (Cap. 369AL);
(h) Merchant Shipping (Safety) (Passenger Ship Construction and Survey) (Ships Built On Or After 1 September 1984) Regulations (Cap. 369AM);
(i) Merchant Shipping (Safety) (Protective Clothing and Equipment) Regulations (Cap. 369AO);
(j) Merchant Shipping (Seafarers) (Safe Movement on Board Ship) Regulation (Cap. 478G); and
(k) Merchant Shipping (Seafarers) (Code of Safe Working Practices) Regulation (Cap.478M).

6. The list of the existing standards along with their relevant legislation and the corresponding equivalent standards or replacements proposed to be adapted in this exercise are tabulated in the Annex to this paper.

Consultation

7. Members' comments on, if any, and endorsement of the proposal including the proposed replacement standards in the Annex are hereby sought.

Marine Department
Multi-lateral Policy Division
September 2024

Annex

Adaptation of Technical Standards in the Subsidiary Legislation of Cap. 369 and Cap. 478

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
Merchant Shipping (Safety) (Anchors and Chain Cables) Regulations (Cap. 369Q)	1. Regulation 4(2) of Cap. 369Q – "British Standards Specification No. 131: 1959, Part 2 (Methods for notched bar tests. The Charpy V-notch impact test), issued by the British Standards Institution."	"British Standards Specification No. 131: 1959, Part 2" has been withdrawn by the British Standards Institution (BSI) on 22-09-2023. It is proposed to be replaced by "ISO 148-2:2016 (Metallic materials —Charpy pendulum impact test Part 2: Verification of testing machines), issued by the International Organization for Standardization."
Merchant Shipping (Safety) (Cargo Ship Construction and Survey) (Ships Built Before 1 September 1984) Regulations (Cap. 369R)	2. Regulation 1(2) of Cap.369R– ""non-combustible material" (非可能燃燒物料) means a material…tested in accordance with British Standard 476: Part 4: 1970"	For "non-combustible material", it is proposed to replace "British Standard 476: Part 4: 1970" by "ISO 1182:2020 issued by the International Organization for Standardization"
	3. Section 1(a) of Schedule 3 of Cap.369R – "regulations for the Electrical Equipment of Ships issued by the United Kingdom Institution of Electrical Engineers and dated September 1961"; Section 1(b) of Schedule 3 of Cap.369R – "regulations for the Electrical and Electronic Equipment of Ships, 5th edition (1972) and the Recommended Practice…, as amended in 1974 and 1977, issued by the United Kingdom Institution of Electrical Engineers";	By making reference to the footnotes to SOLAS Chapter II-1 Part D "Electrical Installation" "Reg. 40 - General" and "Reg. 45 - Precautions against shock, fire and other hazards of electrical origin", it is suggested to repeal the content after the subject heading of Schedule 3 and insert the following: - "Electrical equipment and installations referred to in regulations 5 and 10 shall comply with the following standards, except to the extent that those requirements are inconsistent with the said regulations. (i) The standards published by the International Electrotechnical Commission and, in particular,

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	Section 1(c) of Schedule 3 of Cap.369R – "Electrical and Electronic Equipment of Ships, 5th edition (1972)", "Recommended Practice for the implementation of the regulations for the Electrical and Electronic Equipment of Ships 1972, as amended in 1974, 1977 and 1982", "regulations for the Electrical and Electronic Equipment of Ships, 5th edition (1972)"; Section (2) of Schedule 3 of Cap369R– "The European Economic Communities Council Directive 79/196/EEC of 6 February 1979 and 76/117/EEC of December 1975"; Section (3) of Schedule 3 of Cap.369R– "United Kingdom Institution of Electrical Engineers and dated 1961 and to the 1972 Institution of Electrical Engineers Recommended Practice 1972 as amended in 1974 and 1977 and to a British Standards Institution standard"; Section (4) of Schedule 3 of Cap.369R– "Electrical and Electronic Equipment of Mobile and Fixed Offshore Installations published by the United Kingdom Institution of Electrical Engineers, first edition 1983".	publication IEC 60092, Electrical Installations in Ships; (ii) The standards published by the International Electrotechnical Commission, and in particular IEC 60092-502:1999 Electrical installations in ships – Tankers; or (iii) Any other standard approved by the Director as being equivalent thereto."

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
Merchant Shipping (Safety) (Cargo Ship Construction and Survey) (Ships Built On or After 1 September 1984) Regulations (Cap. 369S)	4. Regulation 1(2) of Cap. 369S – "noise level (噪音聲級) means 'A' weighted sound pressure … in the British Standards specification number BS5969:1981"	"British Standards specification number BS 5969:1981" in the definition of "noise level" is suggested to be replaced by "IEC 61672 series of the International Electrotechnical Commission".
	5. Reg. 28(4) of Cap. 369S – "Every entrance to a machinery space …with a warning notice comprising a symbol complying with British Standards Institution specification number BS 5378:1980".	The BS 5378-1:1980 has been withdrawn by BSI. It specified the system of safety colours and signs for giving information for use in prevention of accidents, for warning of health hazards and certain emergencies. It is suggested to replace "British Standards Institution specification number BS 5378:1980" by "ISO 7010:2019 issued by the International Organization for Standardization"
	6. Section 2 of Schedule 3 of Cap. 369S – "United Kingdom publication entitled "The Code of Practice for Noise Levels in Ships" published by Her Majesty's Stationery Office"	The Her Majesty's Stationery Office (HMSO) Code of Practice ("the Code") issued in 1978 applies to UK registered new ships of over 24.4 meters in length excluding private pleasure craft and fishing vessels. The primary aims of the Code are to limit maximum noise levels and to reduce exposure to noise in order to protect seafarers but the content is considered outdated. As there are two noise codes issued by IMO and they share the same purpose of the Code to limit maximum noise levels on ships. It is suggested to replace "United Kingdom publication entitled "The Code of Practice for Noise Levels in Ships" published by Her Majesty's Stationery Office" by the following: - "IMO Assembly Resolution A.468(XII) - "Code on Noise Levels on Board Ships" adopted on 19

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		November 1981" applies to ships built on or after 1 September 1984 of 1,600 GT and over. For ships which meet the conditions as prescribed in SOLAS Chapter II-1, Regulations 3-12.1.1, 3-12.1.2 or 3.12.1.3, they are required to comply with the IMO Resolution MSC. 339(71) and SOLAS Chapter II-1, Regulations 3-12.3 and 3-12.4."
Merchant Shipping (Safety) (Fire Protection) (Ships Built Before 25 May 1980) Regulations (Cap. 369W)	7. Regulation 62(4) of Cap. 369W – "British Standards Institution", "BS 138 : 1984", "BS 1382 : 1948", "BS 740 : Part 1 : 1948", "BS 740 : Part 2 : 1952", "BS 3326 : 1960", "BS 3465 : 1962", "BS 5423"	The British Standards mentioned in Reg. 62(4) of Cap. 369W are all outdated. According to IMO Assembly Resolution A.951(23) and the ISO website on the latest version of the corresponding ISO standards, MD proposes to replace all the mentioned BS by "ISO 7165: 2017 – Fire fighting - Portable fire extinguishers — Performance and construction". The A.951(23) is mentioned in the footnote of Para. 3 – Portable fire extinguishers of Reg. 10 – Fire fighting of Part C "Suppression of Fire" of SOLAS Chapter II-2 and footnote of para. 2 of Chapter 4 of the FSS Code. <u>The following is the proposed amendment to Regulation 62(4) of Cap. 369W:</u> "(4) Portable fire extinguishers provided in compliance with these regulations shall, subject to the limitations of sub-regulations (2) and (3), be constructed in accordance with the standard of the "ISO 7165: 2017 – Fire fighting - Portable fire extinguishers — Performance and construction" issued by the International Organization for Standardization or other equivalent standard

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		acceptable to the Director."
	8. Schedule 4(1) of Cap. 369W – "British Standards Institution", "BS 401: 1931, BS 1287: 1946, BS 1288: 1946, or BS 5045 Part 1, (which supersedes those specifications), or BS 5396: 1976"; Schedule 4(5) of Cap.369W– "British Standards Institution Number BS 3326: 1960, or BS 5423: 1980 (which supersedes that specifications)"	Schedule 4 is for non-portable carbon dioxide fire extinguishers. The mentioned British Standards in Schedule 4(1) are outdated. The outdated "BS 5396: 1976" is for the 'Specification for seamless steel CO2 containers for fixed fire-fighting installations on ships'. For those mentioned in Schedule 4(5), the "BS 3326: 1960 – Portable Carbon Dioxide Extinguisher" has been superseded and the "BS 5423: 1980 – Specification for portable fire extinguishers" has been withdrawn by BSI. MD proposes to replace those mentioned British Standards under Schedule 4(1) by "ISO 11601:2017 or ISO 3500:2005", and for those under Schedule 4(5) also by the "ISO 11601:2017" as it provides the outside marking requirement as stipulated in Schedule 4(5). The following is the proposed amendment to Schedule 4(1) and (5): "4(1) Every carbon dioxide fire extinguisher, other than a portable fire extinguisher, shall be provided with cylinders constructed in accordance with the ISO 11601:2017, or ISO 3500:2005 issued by the International Organization for Standardization, or other equivalent standards acceptable to the Director.

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		4(5) The outside of the extinguisher shall be clearly and permanently marked in accordance with the ISO 11601:2017, or other equivalent standards acceptable to the Director."
	9. Schedule 5(3)(a) of Cap. 369W – "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Departments"	Suggest replacing "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Departments" by "The latest European Standard EN 137". This is the industrial standard of BA set being used by Fire Service Department of Hong Kong SAR Government.
Merchant Shipping (Safety) (Fire Appliances) (Ships Built On or After 25 May 1980 but Before 1 September 1984) Regulations (Cap. 369X)	10. Regulation 69(5) of Cap. 369X – "British Standard BS 5423:1977"	The mentioned British Standard BS 5423:1977 has been withdrawn by BSI. MD proposes to replace it by "ISO 7165: 2017 – Fire fighting - Portable fire extinguishers — Performance and construction".
	11. Schedule 2(2) of Cap. 369X – "British Standards Institution specification number B.S. 5045: Part 1: 1976"; Schedule 2(11) –"Section Five of the British Standards Institution specification number B.S. 5423:1977"	Schedule 2 of Cap. 369X is for non-portable foam fire extinguishers. The "B.S. 5045: Part 1: 1976" is for "Transportable gas containers. Specification for seamless steel gas containers" that has been withdrawn by BSI. It is proposed to replace "British Standards Institution specification number B.S. 5045: Part 1: 1976" in Schedule 2(2) by "ISO 11114 series, Gas cylinders". For Schedule 2(11), "Section Five of the British Standards Institution specification number B.S. 5423:1977" is proposed to be replaced by "ISO 7165: 2017".

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	12. Schedule 3(1) of Cap. 369X – "British Standards Institution specification number B.S. 5396:1976"; Schedule 3(5) of Cap.369X– "Section Seven of the British Standards Institution specification number B.S. 5423:1977"	Schedule 3 of Cap. 369X is for non-portable carbon dioxide fire extinguishers. The outdated "BS 5396: 1976" is for the 'Specification for seamless steel CO2 containers for fixed fire-fighting installations on ships'. The two mentioned BS have been withdrawn by BSI. MD proposes to replace the mentioned British Standards under Schedule 3(1) by "ISO 11601:2017 or ISO 3500:2005", and for Schedule 3(5) by "ISO 7165:2017".
	13. Schedule 4(2) of Cap. 369X – "British Standards Institution specification number B.S. 5045: Part 1: 1976"; Schedule 4(11) of Cap.369X– "Section Five of the British Standards Institution specification number B.S. 5423:1977".	Schedule 4 of Cap. 369X is for non-portable dry powder fire extinguishers. The BS 5045: Part 1: 1976 is for "Transportable gas containers. Specification for seamless steel gas containers" that has been withdrawn by BSI. The BS 5423:1977 is for "Specification for portable fire extinguishers" that has also been withdrawn by BSI. It is proposed to replace "British Standards Institution specification number B.S. 5045: Part 1: 1976" in Schedule 4(2) by "ISO 11114 series, Gas cylinders". For Schedule 4(11), "Section Five of the British Standards Institution specification number B.S. 5423:1977" is proposed to be replaced by "ISO 7165: 2017".

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	14. Schedule 5(2)(a) of Cap. 369X – "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Department U.K."	Suggest replacing "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Department U.K." with "The latest European Standard EN 137". This is the industrial standard of BA set being used by Fire Service Department of Hong Kong SAR Government.
Merchant Shipping (Safety) (Fire Protection) (Ships Built On or After 1 September 1984) Regulations (Cap. 369Y)	15. Regulation 1(3) of Cap. 369Y –"British Standard Specification 476: Part 4: 1970" in the definition of "non-combustible material";	The "British Standard 476: Part 4: 1970" is proposed to be replaced by "ISO 1182:2020 issued by the International Organization for Standardization".
	"Type B performance of British Standard 5867: Part 2: 1980" in the definition of "rooms containing furniture and furnishings of restricted fire risk" under (c)(i);	The "British Standard 5867: Part 2: 1980" is for "Fabrics for curtains, drapes and window blinds – Part 2: Flammability requirements – Specification". Para. 2 of the Part 7 of Annex 1 of the mandatory FTP Code provides the relevant IMO fire test procedures, i.e. IMO Resolution A.471(XII) as amended by Resolution A.563(14). It is suggested to replace "Type B performance of British Standard 5867: Part 2: 1980" by "the IMO Resolution A.471(XII) as amended by Resolution A.563(14)".
	"British Standard 476: Part 7: 1971" in the definition of "surface spread of flame"	"British Standard 476: Part 7: 1971" has been withdrawn. It is suggested to be replaced by IMO Resolution MSC 61(67) and A.653(16). The definition of "surface spread of flame" is to be replaced by the following:- "Acceptable Surface flammability means it meets the requirements as specified in IMO Resolution MSC 61(67) (FTP Code) and A.653(16)". The phrase "such that a surface spread of flame of Class 1 (or 2) will not be exceeded" to be amended as

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		"are of acceptable surface flammability".
	16. Regulation 67(5) of Cap. 369Y – "British Standard BS 5423:1980"	The mentioned BS 5423:1980 has been withdrawn by BSI. It is proposed to be replaced by "ISO 7165: 2017 – Fire fighting - Portable fire extinguishers — Performance and construction".
	17. Section (2) of Schedule 2 of Cap. 369Y – "British Standards Institution specification number BS 5045: Part 1: 1982"; Section (11) of Schedule 2 of Cap.369Y–" Section Five of the British Standards Institution specification number BS 5423: 1980"	Schedule 2 of Cap. 369Y is for non-portable foam fire extinguishers. The "BS 5045: Part 1: 1982" is for "Transportable gas containers Specification for seamless steel gas containers above 0.5 litre water capacity" that has been superseded. It is proposed to replace "British Standards Institution specification number BS 5045: Part 1: 1982" in Schedule 2(2) by "ISO 11114 series, Gas cylinders". For Schedule 2(11), "Section Five of the British Standards Institution specification number B.S. 5423:1980" is proposed to be replaced by "ISO 7165: 2017".
	18. Section (1) of Schedule 3 of Cap. 369Y – "British Standards Institution specification number BS 5396: 1976"; Section (5) of Schedule 3 of Cap.369Y– "Section Seven of the British Standards Institution specification number BS 5423: 1980"	Schedule 3 of Cap. 369Y is for non-portable carbon dioxide fire extinguishers. The outdated "BS 5396: 1976" is for the 'Specification for seamless steel CO2 containers for fixed fire-fighting installations on ships'. The two mentioned BS have been withdrawn by BSI. MD proposes to replace the mentioned British Standards "BS 5396: 1976" under Schedule 3(1) by "ISO 11601:2017" or ISO 3500:2005", and to replace "Section Seven of the British Standards Institution specification number BS 5423: 1980" in Schedule

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		3(5) by "ISO 7165:2017".
	19. Section (2) of Schedule 4 of Cap. 369Y – "British Standards Institution specification number BS 5045: Part 1: 1982"; Section (11) of Schedule 4 of Cap.369Y– "Section Fie of the British Standards Institution Specification Number BS 5423:1980"	Schedule 4 of Cap. 369Y is for non-portable dry powder fire extinguishers. The BS 5045: Part 1: 1982 is for "Transportable gas containers Specification for seamless steel gas containers above 0.5 litre water capacity" and the BS 5423:1980 is for "Specification for portable fire extinguishers" that have been superseded. It is proposed to replace "British Standards Institution specification number B.S. 5045: Part 1: 1982" in Schedule 4(2) by "ISO 11114 series, Gas cylinders". For Schedule 4(11), "Section Five of the British Standards Institution specification number B.S. 5423:1980" is proposed to be replaced by "ISO 7165: 2017".
	20. Section (2)(a) of Schedule 5 of Cap. 369Y – "United Kingdom Health and Safety Executive", "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Department"	Suggest replacing "Joint Testing Memorandum of the Health and Safety Executive, the Department of Transport and the Home Department" by "The latest European Standard EN 137". This is the industrial standard of BA set being used by Fire Service Department of Hong Kong SAR Government. The proposed amendments to section (2)(a) of Schedule 5 of Cap. 369Y are as follows: - "s.(2)(a) - Every self-contained breathing apparatus provided in compliance with these regulations shall be of the open circuit compressed air type and shall comply with the latest European Standard EN 137 of a type which has a Certificate of Assurance issued by

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		the local authority or recognized organization."
Merchant Shipping (Safety) (Passenger Ship Construction) (Ships Built Before 1 September 1984) Regulations (Cap. 369AL)	21. Regulation 1(2) of Cap. 369AL - "British Standard Specification 476: Part 4: 1970" in the definition of "non-combustible material"; "Type B performance of British Standard 5867: Part 2" in (c) of the definition of "rooms containing furniture and furnishings of restricted fire risk"; "British Standard 476: Part 7: 1971" in the definition of "surface spread of flame" The phrase "such that a Class 1 (or 2) surface spread of flame will not be exceeded" appears in Regs. 1(2), 61(1)(a), 61(2)(a)(iii) & (iv), 66A(1)(a), (b)(iii) & (iv), 77(1)(a) &(2)(a)(iii) & (iv), 101B(1)(a)* & (b)(iii)&(iv)*	British Standard 476: Part 7: 1971 has been withdrawn. It is suggested to be replaced by "IMO Resolution MSC 61(67) and A.653(16)". It is suggested to replace "Type B performance of British Standard 5867: Part 2" by "the IMO Resolution A.471(XII) as amended by Resolution A.563(14)" The definition of surface spread of flame is to be replaced by the following:- "Acceptable Surface flammability means it meets the requirements as specified in IMO Resolution MSC 61(67) (FTP Code) and A.653(16)". The phrase "such that a Class 1 (or 2) surface spread of flame will not be exceeded" to be amended as "are of acceptable surface flammability" *proposed to be deleted in this exercise.
	22. Regulation 50(2) of Cap. 369AL – "I.E.E. Regulations for the Electrical Equipment of Ships", & "Regulations"	"I.E.E. Regulations for the Electrical Equipment of Ships" is suggested to be replaced by "IEC 60092 of the International Electrotechnical Commission". The IEC 60092 series includes international standards for electrical installations in sea-going ships, incorporating good practice and coordinating, as far as possible, existing rules. These standards form a code of practical interpretation and amplification of the

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		requirements of the International Convention for the Safety of Life at Sea. Reg.50(2) of Cap. 369AL is suggested to be amended as follows: - "(2) In every such ship, the electrical equipment and installations (including any electrical means of propulsion) shall be such that the ship and all persons on board are protected against electrical hazards and shall conform with the relevant provisions of the IEC 60092 except in so far as such standards are inconsistent with this Part."
Merchant Shipping (Safety) (Passenger Ship Construction and Survey) (Ships Built On Or After 1 September 1984) Regulations (Cap. 369AM)	23. Regulation 1(2) of Cap. 369AM - "British Standards specification number BS 5969:1981" in the definition of "noise level"; Regulation 1(2) of Cap.369AM –"British Standard specification 476: Part 4: 1970" in the definition of "non-combustible material"	"British Standards specification number BS 5969:1981" in the definition of "noise level" is suggested to be replaced by "IEC 61672 series of the International Electrotechnical Commission". British Standard specification 476: Part 4: 1970" in the definition of "non-combustible material" is to be replaced by "ISO 1182:2020 issued by the International Organization for Standardization".
	24. Regulation 20(3)(a) of Cap. 369AM – "British Standards specification (BS MA 24: October 1974)"	BS MA 24: 1974 "Specification for ships\'s side scuttles" has been superseded. It is suggested to replace "British Standards specification (BS MA 24: October 1974)" by "ISO 1751: 2012 issued by the International Organization for Standardization".
	25. Regulation 21(1) of Cap. 369AM – "British Standards specification Numbers BS MA 24:	BS MA 24: October 1974 "Specification for ship's side scuttles" has been superseded. BS MA 25: October 1973 "Specification for ship's

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	October 1974, BS MA 25: October 1973 as amended by AMD 2060 Amendment Slip No. 1, published 30 July 1976 to BS MA 25 1973"	windows" is still in force which specifies requirements for design, dimensions, construction scantling, glazing, testing and installation of non-opening and opening windows for ships. It also specifies thickness of toughened safety glasses for use in respective tier positions in both passenger and non-passenger ships. The relevant ISO standard for replacing the BS MA 25 as amended is the ISO 21005:2018. Regulation 21(1) of Cap. 369AM is suggested to be amended as: - "Sidescuttles, windows, gangway ports, … and to the intended service of the ship. All sidescuttles and windows shall be to ISO 1751:2012 and ISO 21005:2018, or an equivalent standard acceptable to the Director."
	26. Regulation 71(4) of Cap. 369AM – "British Standards Institution specification number BS 5378:1980"	The BS 5378-1:1980 has been withdrawn by BSI. It specified the system of safety colours and signs for giving information for use in prevention of accidents, for warning of health hazards and certain emergencies. The BS 5378-2:1982 and BS 5378-3:1982 - specification for additional signs to those given in BS 5378: Part 1 have been superseded. The relevant ISO standards is ISO 7010:2019. It is suggested to replace "British Standards Institution specification number BS 5378:1980" by "ISO 7010:2019 issued by the International Organization for Standardization".

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	27. Section 2 of Schedule 5 of Cap. 369AM – "The Code of Practice for Noise Levels in Ships" published by Her Majesty's Stationery Office (published 1978)"	It is suggested to replace it by "IMO Assembly Resolution A.468(XII) - "Code on Noise Levels on Board Ships" adopted on 19 November 1981"
Merchant Shipping (Safety) (Protective Clothing and Equipment) Regulations (Cap. 369AO)	28. Item 1 of the Table under Schedule of Cap.369AO – "BS 5240 Part 1: 1987 (30 January 1987)"	BS 5240-1:1987 "Industrial safety helmets Specification for construction and performance" has been superseded. The "BS 5240 Part 1: 1987 (30 January 1987)" under item 1 of the Table under Schedule of Cap.369AO is suggested to be replaced by "ISO 3873-1977".
	29. Item 2 of the Table under Schedule of Cap.369AO – "BS 4033: 1966 (30 June 1966)"	BS 4033:1966 "Specification for industrial scalp protectors (light duty)" has been superseded. This item is considered outdated and to be deleted.
	30. Item 3 of the Table under Schedule of Cap.369AO – "section 10 and Appendix 3 of the Code of Practice issued by the Department of Trade entitled "Noise Levels in Ships" published on 21 January 1978"	The Code will be replaced by "IMO Assembly Resolution A.468(XII) - "Code on Noise Levels on Board Ships" adopted on 19 November 1981".
	31. Item 4 of the Table under Schedule of Cap.369AO – "BS 1542: 1982 (31 December 1982)"; BS 2092: 1987 (23 December 1987);	"BS 1542: 1982 (31 December 1982) - Specification for equipment for eye, face and neck protection against non-ionizing radiation arising during welding and similar operations" has been superseded. It is suggested to be replaced by "ISO 16321 series". "BS 2092: 1987 (23 December 1987) -Specification for eye-protectors for industrial and non-industrial uses" has been superseded. It is suggested to be replaced by "ISO 18526 series".

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
	BS 679: 1959 (10 December 1959); and BS 2653: 1955 (29 December 1955)"	"BS 679:1959 – Specification for filters for use during welding and similar industrial operations" has been withdrawn by BSI. This item is considered outdated and suggested to be deleted. "BS 2653: 1955 – Specification for protective clothing for welders" has been superseded. It is suggested to be replaced by "ISO 11611:2024".
	32. Item 5 of the Table under Schedule of Cap.369AO – "BS 2092: 1987 (23 December 1987)"	"BS 2092: 1987 (23 December 1987) -Specification for eye-protectors for industrial and non-industrial uses" has been superseded. It is suggested to be replaced by "ISO 18526 series".
	33. Note of item 6 of the Table under Schedule of Cap.369AO – "The items, except those covered by BS 6016, should be maintained to BS 4275: 1974 (16 April 1974)"; 6(a): "at least 10 conforming to BS 6016: 1980 (31 December 1980)" and "at least 10 conforming to BS 2091: 1969 (10 June 1969)"; 6(b): "least 20 conforming to BS 2091: 1969 (10 June 1969)";	Item 6 is for any process involving working in an atmosphere which is likely to be hazardous to health. It was noted that both BS 6016 and BS 4275: 1974 (16 April 1974) have been superseded. It is suggested to replace "BS 6016" by "EN 149:2001+A1:2009" and "BS 4275:1974" by "EN 529:2005" respectively. 6(a): Both standards of BS 6016: 1980 (31 December 1980)" and BS 2091: 1969 (10 June 1969)" have been superseded. It is suggested to replace "BS 6016:1980 (31 December 1980)" and "BS 2091:1969 (10 June 1969)" by "EN 149:2001+A1:2009" and "EN 14387:2021" respectively.6(b): It is suggested to replace "BS 2091:1960 (10 June 1969)" by "EN 14387:2021". 6(c): "at least 400 conforming to BS 2091: 1969 (10 June 1969)" - It is suggested to replace "BS 2091:1960" by "EN 14387:2021".

<table>
<tr><th>Regulation</th><th>Concerned Provisions and Standards</th><th>Explanation and Replacement Standards</th></tr>
<tr><td></td><td>6(c): “at least 400 conforming to BS 2091: 1969 (10 June 1969)”;

6(d): “at least 20 conforming to BS 4558: 1970 (17 March 1970)” and “at least 20 conforming to BS 4771: 1971 (26 October 1971)”;

6(e): “at least 1,000 conforming to BS 4555: 1970 (17 March 1970)”;

6(f): “BS 4667: 1974 Parts 2 and 3 (7 June 1974) and Part 4 (30 November 1982)”, “Section 3.6.3 of Part 2 of the standard and has nominal protection factor of at least 2,000”, “at least 2,000 and incorporates an emergency self-contained supply for escape purposes as permitted by Section 6 of Part 4 of the standard.”, “BS 4667: Part 2: 1974—specification for open circuit breathing apparatus and BS 4667: Part 3: 1974” and “BS 4667: Part 3: 1974—specification for compressed air line breathing apparatus and BS 4667: Part 4: 1982”</td><td>6(d): Both BS 4558: 1970 (17 March 1970) and BS 4771: 1971 (26 October 1971) have been superseded. It is suggested to replace “BS 4558: 1970 (17 March 1970)” and “BS 4771: 1971 (26 October 1971)” by “ISO/TS 16973:2016” and “ISO/TS 16975-1:2016” respectively.
6(e) BS 4555: 1970 (17 March 1970) standard has been withdrawn by BSI. It is suggested to replace it by “EN 143:2021”.

6(f) “BS 4667: 1974” has been withdrawn. The content in the 2nd and the 3rd columns is to be repealed in view of the outdated standard, and to be replaced by below the new columns:
<table>
<tr><th>2nd column</th><th>3rd column</th></tr>
<tr><td>Breathing apparatus conforming to the following EN / ISO standards</td><td></td></tr>
<tr><td>(i) self-contained breathing apparatus of the open circuit compressed air type or</td><td>EN 137:2006 Respiratory protective devices – Self-contained open-circuit compressed air breathing apparatus with full face mask – Requirements, testing, marking</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Regulation</th><th>Concerned Provisions and Standards</th><th colspan="2">Explanation and Replacement Standards</th></tr>
<tr><td rowspan="3"></td><td rowspan="1"></td><td>(ii) self-contained open-circuit compressed air breathing apparatus incorporating a hood for escape</td><td>EN 1146:2006 Respiratory protective devices. Self-contained open-circuit compressed air breathing apparatus incorporating a hood for escape. Requirements, testing, marking</td></tr>
<tr><td></td><td>(iii) Emergency escape breathing devices (EEBD)</td><td>ISO 23269-1:2008 Ships and marine technology — Breathing apparatus for ships — Part 1: Emergency escape breathing devices (EEBD) for shipboard use</td></tr>
<tr><td>34. Item 8 of the Table under Schedule of Cap.369AO – “BS 1651: 1986 (30 April 1986)”</td><td colspan="2">“BS 1651: 1986” has been withdrawn. It is suggested to be replaced by “ISO 21420:2020/Amd.1:2020”.</td></tr>
<tr><td>35. Item 9 of the Table under Schedule of Cap.369AO – “BS 1870: 1979 Part 1 (30 August 1979) or BS 1870: 1976 Part 2 (30 June 1976) or BS 1870: 1981 Part 3 (30 November 1981) or BS 4972: 1973 (2 November 1973)”</td><td colspan="2">All the mentioned BS standards have been withdrawn. It is suggested to replace them by “ISO 20345:2021– Personal protective equipment – Safety footwear or ISO 20346:2021 – Personal protective equipment – Protective footwear whichever is appropriate.”</td></tr>
</table>

<table>
<tr><th>Regulation</th><th>Concerned Provisions and Standards</th><th>Explanation and Replacement Standards</th></tr>
<tr><td></td><td>36. Item 10 of the Table under Schedule of Cap.369AO – “Safety belt or harness and associated lanyard to BS 1397:1979 (31 August 1979)”</td><td>BS 1397:1979 has been withdrawn. It is suggested to replace it by “ISO 10333-6:2004 – Personal fall-arrest systems – Part 6: System Performance tests”.</td></tr>
<tr><td></td><td>37. Item 11 of the Table under Schedule of Cap.369AO – “BS 3595: 1981 (31 July 1981)” and “a Department of Transport approved lifejacket” and “British Marine Industries Federation Standard 1988 published on 21 March 1988”</td><td>BS 3595: 1981 has been withdrawn. It is suggested to replace it by “ISO 12402 series – Personal flotation devices”. “ISO 12402-3” is for inflatable lifejacket. “EN 14144:2004” is for the lifebuoys. It is also suggested to repeal the content in the 2nd an 3rd columns and insert with the following:

<table><tr><th>2nd column</th><th>3rd column</th></tr><tr><td>Lifebuoys as specified in Section 2.1 of Chapter II Personal Life-saving appliances of the International Life-Saving Appliance (LSA) Code, as amended. The lifebuoys are to conform to “EN 14144:2004”.</td><td>Lifebuoys – Requirements, tests</td></tr><tr><td>Lifejackets as specified in Section 2.2 of Chapter II</td><td>Personal flotation devices</td></tr></table></td></tr>
</table>

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
		Personal Life-saving appliances of the International Life-Saving Appliance (LSA) Code, as amended. The lifejackets and the inflatable lifejackets are to conform to "ISO 12402 series" and the "ISO 12402-3" respectively.
	38. Item 12 of the Table under Schedule of Cap.369AO – "BS 697: 1986 (30 April 1986)" and "BS 921: 1976 (31 March 1976)"	Both of the standards have been withdrawn. It is suggested to replace "BS 697: 1986 (30 April 1986)" and "BS 921: 1976 (31 March 1976)" by "IEC 60903:2014 -Live working -Electrical insulating gloves" and "IEC 61111:2009 – Live working – Electrical insulating matting" respectively.
Merchant Shipping (Seafarers) (Safe Movement on Board Ship) Regulation (Cap. 478G)	39. Section 7 of Cap. 478G – "BS 5378 Part I"	The BS 5378 Part I has been withdrawn by BSI. It specified the system of safety colours and signs for giving information for use in prevention of accidents, for warning of health hazards and certain emergencies. It is suggested to replace "BS 5378 Part I" by "ISO 7010:2019 issued by the International Organization for Standardization".

Regulation	Concerned Provisions and Standards	Explanation and Replacement Standards
Merchant Shipping (Seafarers) (Code of Safe Working Practices) Regulation (Cap.478M)	40. Section 2 of Cap.478M – "the United Kingdom Department of Transport publication entitled "Code of Safe Working Practices for Merchant Seamen", published in 1991 by Her Majesty's Stationery Office" in the interpretation of the Code.	It is proposed to edit the Code but the Chapter numbering and main content of the Code to be maintained, as well as to amend the definition of "Code" in Cap.369M to the effect that Code means the publication entitled "Code of Safe Working Practices for Merchant Seafarers" issued by the Director of Marine, as in force from time to time. The revised Code together with its Chinese version will be updated from time to time and published on the website of the Marine Department for download free of charge.