(ii) * in accordance with loading conditions verified remotely using an approved means .....; or

(iii) * in accordance with a loading condition which lies within an approved range of conditions defined in the approved loading manual referred to in (i) above; or

(iv) * in accordance with a loading condition verified using approved critical KG/GM data defined in the approved loading manual referred to in (i) above;

.3* in accordance with the loading limitations appended to this Certificate.

Where it is required to load the ship other than in accordance with the above instruction, then the necessary calculations to justify the proposed loading conditions shall be communicated to the certifying Administration who may authorize in writing the adoption of the proposed loading condition.

---

* Delete as appropriate."

第 17/2018 號行政長官公告

鑑於中華人民共和國是國際海事組織的會員國及《1974年國際海上人命安全公約》（下稱“《1974年安全公約》”）的締約國；

國際海事組織海上安全委員會分別於二零一四年五月二十二日和十一月二十一日在其第九十三屆和第九十四屆會議上，透過第MSC.365（93）號及第MSC.380（94）號決議通過了經修正的《1974年安全公約》修正案，該修正案分別於二零一六年一月一日及二零一六年七月一日在國際法律秩序上生效，包括對中華人民共和國及澳門特別行政區生效；

基於此，行政長官根據第3/1999號法律《法規的公佈與格式》第五條（一）項和第六條第一款的規定，命令公佈海上安全委員會分別於二零一四年五月二十二日及二零一四年十一月二十一日通過的、包含上指經修正的《1974年安全公約》修正案的第MSC.365（93）號及第MSC.380（94）號決議的中文及英文正式文本。

《1974年安全公約》已透過第79/83號政府命令公佈於一九九九年十二月六日第四十九期《澳門政府公報》第一組副刊。

二零一八年三月十五日發佈。

行政長官　崔世安

Aviso do Chefe do Executivo n.º 17/2018

Considerando que a República Popular da China é um Estado-Membro da Organização Marítima Internacional (OMI) e um Estado Contratante da Convenção Internacional para a Salvaguarda da Vida Humana no Mar de 1974 (daqui em diante designada por «Convenção SOLAS 1974»);

Considerando igualmente que, em 22 de Maio e em 21 de Novembro de 2014, respectivamente, nas suas 93.ª e 94.ª sessões, o Comité de Segurança Marítima da Organização Marítima Internacional, através das suas resoluções MSC.365(93) e MSC.380(94), adoptou emendas à Convenção SOLAS 1974, tal como emendada, e que tais emendas entraram em vigor na ordem jurídica internacional, incluindo a República Popular da China e a sua Região Administrativa Especial de Macau, respectivamente, em 1 de Janeiro de 2016 e em 1 de Julho de 2016;

O Chefe do Executivo manda publicar, nos termos da alínea 1) do artigo 5.º e do n.º 1 do artigo 6.º da Lei n.º 3/1999 (Publicação e formulário dos diplomas) a Resolução MSC.365(93) e a Resolução MSC.380(94) do Comité de Segurança Marítima adoptadas, respectivamente, em 22 de Maio de 2014 e em 21 de Novembro de 2014, que contêm as referidas emendas à Convenção SOLAS 1974, tal como emendada, nos seus textos autênticos em línguas chinesa e inglesa.

A Convenção SOLAS 1974 encontra-se publicada, através do Decreto do Governo n.º 79/83, no Suplemento do *Boletim Oficial de Macau* n.º 49, I Série, de 6 de Dezembro de 1999.

Promulgado em 15 de Março de 2018.

O Chefe do Executivo, *Chui Sai On*.

第MSC.365（93）號決議

2014年5月22日通過

經修正的《1974年國際海上人命安全公約》修正案

海上安全委員會，

憶及《國際海事組織公約》關於本委員會職能的第二十八條第（二）款，

還憶及《1974年國際海上人命安全公約》（《安全公約》）（以下稱"該公約"）關於該公約附則除第I章規定外的適用修正程序的第VIII（b）條，

在其第九十三屆會議上，**審議了**按照該公約第VIII（b）（i）條提出和分發的該公約修正案，

1. 按照該公約第VIII（b）（iv）條，**通過**該公約的修正案，其文本載於本決議之附件；

2. 按照該公約第VIII（b）（vi）（2）（bb）條，**決定**所述修正案將在2015年7月1日視為已被接受，除非在此日期之前，有三分之一以上的該公約締約國政府或其合計商船隊佔世界商船總噸位不少於50%的締約國政府表示其反對該修正案；

3. **請**《安全公約》締約國政府注意，按照該公約第VIII（b）（vii）（2）條，該修正案在按照上述第2段被接受後，將於2016年1月1日生效；

4. **要求**秘書長遵照該公約第VIII（b）（v）條，將本決議及其附件中的修正案文本的核證無誤副本分發給該公約的所有締約國政府；

5. **還要求**秘書長將本決議及其附件的副本分發給非該公約締約國政府的本組織會員。

附件

經修正的《1974年國際海上人命安全公約》修正案

第II－1章

構造－結構、分艙與穩性、機電設備

C部分

機電設備

第29條－操舵裝置

1 在第3.2款之後，增加下列新的條文：

“如船舶在海試期間，以最深航行吃水並以主機最大持續轉速及最大設計螺距相應的航速前進時，證明符合該要求不切實際，則該船舶無論何時建造均可通過下列方法之一證明符合該要求：

.1 船舶在海試期間，以主機最大持續轉速及最大設計螺距相應的航速前進時呈平浮狀態，且舵完全浸沒；或

.2 如海試期間無法實現舵完全浸沒，則須採取在所建議的海試載荷條件下的舵葉浸沒面積計算出適當的前進速度。所計算出的前進速度，其結果須使作用於主操舵裝置的力及力矩至少與測試中的船舶在以最深航行吃水並以主機最大持續轉速及最大設

計螺距相應的航速前進時同樣大；或

.3 在海試載荷條件下的舵力和力矩業經可靠預測並推算至滿載荷條件。船速須與主機的最大持續轉速和螺旋槳的最大設計螺距相應；”

2 刪去第4.2款結尾的“和（and）”一詞，並增加下列新的條文：

“如船舶在海試期間，以最深航行吃水並以主機最大持續轉速及最大設計螺距相應航速的一半或7節（以較大者為準）前進時，證明符合該要求不切實際，則該船舶無論何時建造（包括2009年1月1日之前建造的船舶）均可通過下列方法之一證明符合該要求：

.1 船舶在海試期間，以主機最大持續轉速及最大設計螺距相應航速的一半或7節（以較大者為準）前進時處於正浮狀態，且舵完全浸沒；或

.2 如海試期間無法實現舵完全浸沒，則須採取在所建議的海試載荷條件下的舵葉浸沒面積計算出適當的前進速度。所計算出的前進速度，其結果須使作用於主操舵裝置的力及力矩至少與測試中的船舶在以最深航行吃水並以主機最大持續轉速及最大設計螺距相應航速的一半或7節（以較大者為準）前進時同樣大；或

.3 在海試載荷條件下的舵力和力矩業經可靠預測並推算至滿載荷條件；和”

第II－2章

構造－防火、探火和滅火

A部分

總則

第1條－適用範圍

3 在第2.5款之後，增加下列新的三款：

“2.6 在2016年1月1日之前建造的、包括2012年7月1日之前建造的那些車輛運輸船須符合經第MSC.365（93）號決議通過的第20－1條第2.2款的要求。

2.7 在2016年1月1日之前建造的、包括2012年7月1日之前建造的那些液貨船須符合第16.3.3（第16.3.3.3條除外）的要求。

2.8 第4.5.5.1.1和4.5.5.1.3條適用於在2002年1月1日或之後但在2016年1月1日之前建造的船舶，而第4.5.5.2.1條適用於在2016年1月1日之前建造的所有船舶。

第3條－定義

4 在53款後加入下列新的三款：

“54 *擋火閘*係指，為實施經第MSC.365（93）號決議通過的、可能經修正的第9.7條，在通風導管上安裝的一種裝置，其正常情況下保持開啟使氣流進入導管，而在火災時關閉，以阻隔導管流通而抑制火焰通行。在使用上述定義時，可結

合下列術語：

.1 *自動擋火閘*係指因遭受火災而能自行關閉的擋火閘；

.2 *手動擋火閘*係指擬由船員在擋火閘處手動開啟或關閉的擋火閘；和

.3 *遙控操作擋火閘*係指由船員通過離受控閘一定距離處的操縱裝置關閉的擋火閘。

55 *擋煙閘*係指，為實施經第MSC.365（93）號決議通過的、可能經修正的第9.7條，在通風導管上安裝的一種裝置，其在正常情況下保持開啟使氣流進入導管，而在失火時關閉，以阻隔導管流通而抑制煙和熱氣的通行。不能預期擋煙閘有助於被通風導管穿透的防火分隔的完整性。在使用上述定義時，可結合下列術語：

.1 *自動擋煙閘*係指暴露於煙或熱氣而自行關閉的擋煙閘；

.2 *手動擋煙閘*係指擬由船員在擋煙閘處手動開啟或關閉的擋煙閘；和

.3 *遙控操作擋煙閘*係指由船員通過離受控閘一定距離處的操縱裝置關閉擋煙閘。

56 *車輛運輸船*係指具有為載運空的小汽車和卡車作為貨物而設計的多層甲板滾裝處所的貨船。”

B部分

防火與防爆

第4條－引燃的可能性

5 以下列替代第5.5款：

“5.5 隋性氣體系統

5.5.1 適用範圍

5.5.1.1 對於在2002年7月1日或之後但在2016年1月1日之前建造的20,000載重噸及以上的液貨船，其液貨艙須通過一個符合經第MSC.98（73）號決議通過的《消防安全系統規則》要求的固定式惰性氣體系統獲得保護，但主管機關可接受第5.5.4款中所述的其他等效系統或安排。

5.5.1.2 對於在2016年1月1日或之後建造的8,000載重噸及以上的液貨船，在載運第1.6.1或1.6.2條中所述的貨物時，其液貨艙須通過一個符合《消防安全系統規則》要求的固定惰性氣體系統獲得保護，但主管機關可接受第5.5.4款中所述的其他等效系統或安排。

5.5.1.3 在貨艙清洗工序中使用原油來清洗的液貨船須裝有符合《消防安全系統規則》的惰性氣體系統和固定式洗艙機。但安裝在2002年7月1日或之後但在2016年1月1日之前建造的液貨船上的惰性氣體系統須符合經第MSC.98（73）號決議通過的《消防安全系統規則》。

5.5.1.4 要求安裝惰性氣體系統的液貨船須符合以下規定：

.1 雙層殼處所須裝有供應惰性氣體的適當連接管；

.2 如這些處所被接至一個固定安裝的惰性氣體分配系統上，須採取措施防止碳氫化合物氣體從貨油艙通過該系統進入雙層殼處所；及

.3 如此類處所未被接至固定安裝的惰性氣體分配系統上，須採取適當措施允許其與惰性氣體主管相連接。

5.5.2 化學品船和氣體運輸船的惰性氣體系統

5.5.2.1 《消防安全系統規則》中關於惰性氣體系統的要求不必適用於在2016年1月1日之前建造的化學品船（包括2012年7月1日之前建造的那些船）及所有氣體運輸船：

.1 如載運第1.6.1條所述貨物，只要符合主管機關根據本組織制訂的導則規定的化學品船惰性氣體系統的要求；或

.2 如載運原油或石油產品以外的易燃貨物，例如《國際散化規則》第17和18章中所列貨物，只要用於裝載這些貨物的液貨艙容積不超過3,000m^3，洗艙機單支水槍的能力不超過17.5m^3/h，且任一時刻在一個貨艙內所用的幾個洗艙機的總噴出量不超過110m^3/h。

5.5.3 惰性氣體系統的一般要求

5.5.3.1 惰性氣體系統須能對空艙進行惰化、驅氣和除氣，並

使貨艙內的空氣維持所要求的含氧量。

5.5.3.2 安裝有固定式惰性氣體系統的液貨船須配備封閉式液位測量系統。

5.5.4 對等效系統的要求

5.5.4.1 主管機關考慮到船舶的佈置和設備，可根據第I/5條和第5.5.4.3款接受其他固定式裝置。

5.5.4.2 對於在2016年1月1日或之後建造的8,000載重噸及以上但小於20,000載重噸的液貨船，主管機關可根據第I/5條和第5.5.4.3款同意用其他等效保護的佈置或措施來代替第5.5.4.1款中所要求的固定式裝置。

5.5.4.3 等效系統或佈置須：

.1 在正常壓載航行的整個航程中以及必要的艙內作業期間，能防止爆炸性混合物在完整的液貨艙內產生危險的積聚；以及

.2 如此設計以致該系統本身產生靜電而着火的危險性降至最低程度。”

C部分

抑制火

第9條－遏制火勢

6 以下列條文替代第7款：

“7 通風系統

（本款適用於2016年1月1日或之後建造的船舶。）

7.1 總則

7.1.1 通風導管（包括單層及雙層壁導管）須由鋼或等效材料製成，但用於連接風扇至空調室內導管的、不超過600mm的短節柔性波紋管除外。除第7.1.6款中明文規定者外，用於導管的構造包括絕緣體的任何其他材料亦須是不可燃材料。但一般長度不超過2m且有效截面積不超過0.02m^{2}的短節導管，如滿足下列條件，則不必用鋼或等效材料製成：

.1 導管須用不可燃材料製成，其內外表面具有低播焰性膜，且在每種情況下，其所用厚度的表面的熱值不超過45MJ/m^2；

.2 導管只用在通風裝置的末端；且

.3 導管不要敷設在沿導管的方向距“A”或“B”級分隔（包括連續“B”級天花板）上的開口小於600mm之處。

7.1.2 以下佈置須根據《耐火試驗程序規則》進行試驗：

.1 擋火閘，包括其相關操作裝置；但對廚房爐灶排氣導管中位於導管下端的擋火閘不要求進行試驗，該擋火閘必須是鋼制的並能阻止導管中的氣流；和

.2 慣穿“A”級分隔的導管。但是，如鋼套管通過

鉚接或螺紋接頭或焊接直接與通風導管連接，則不要求進行試驗。

7.1.3 擋火閘須易於接近。如擋火閘位於天花板或襯板的後面，這些天花板或襯板須設有一個檢查口，在檢查口上須標明擋火閘的識別號。擋火閘識別號還須標示在所設的任何遙控裝置上。

7.1.4 通風導管須設有檢查和清潔口。檢查和清潔口的位置須靠近擋火閘。

7.1.5 通風系統的主要進氣口和出氣口須能從通風處所的外部關閉。關閉裝置須易於到達，以及有顯著和永久性標誌，並須指明關閉裝置的操作位置。

7.1.6 法蘭式通風導管接頭中的易燃墊片不准用於“A”或“B”級分隔上開口的600mm範圍內和要求為“A”級結構的導管上。

7.1.7 除第4.1.2.1和4.2.3款准許者外，在兩個圍蔽處所之間不得設通風開口或空氣平衡導管。

---

* *有效橫截面積*這一術語，即使對預絕緣導管而言，係指根據導管本身的內尺寸而不是絕緣體所計算出來的面積。

7.2 導管的佈置

7.2.1 A類機器處所、車輛處所、滾裝處所、廚房、特種處所和貨物處所的通風系統一般須相互分開並與用於其他處所的通風系統分開。但小於4,000總噸的貨船和載客不超過36人

的客船的廚房通風系統不必與其他通風系統完全分開，而是可以利用服務於其他處所的通風裝置通過其分開的通風導管通風。在此情況下，在廚房通風導管靠近通風裝置處須裝設自動擋火閘。

7.2.2 A類機器處所、廚房、車輛處所、滾裝處所或特種處所的通風導管不得穿過起居處所、服務處所或控制站，但其符合第7.2.4款者除外。

7.2.3 起居處所、服務處所或控制站的通風導管不得穿過A類機器處所、廚房、車輛處所、滾裝處所或特種處所，除非其符合第7.2.4款。

7.2.4 第7.2.2和7.2.3款准許的導管須為：

.1.1. 鋼製成，對導管有效橫截面積小於0.075m^2者，管壁厚度至少為3mm；對導管有效橫截面積在0.075m^2和0.45m^2之間者，管壁厚度至少為4mm；以及對導管有效橫截面積大於0.45m^2者，管壁厚度至少為5mm；

.1.2. 有適當的支撐和加強；

.1.3. 在靠近導管貫穿界面處設有自動擋火閘，及

.1.4. 從其服務處所的邊界到每個擋火閘以外至少5m處按“A-60”級標準隔熱；

或

.2.1 按第7.2.4.1.1和7.2.4.1.2款為鋼製成；及

.2.2 在其穿過的所有處所均按“A-60”級標準隔熱，但貫穿第2.2.3.2.2款中所界定的第（9）或（10）類處所的導管除外。

7.2.5 就第7.2.4.1.4和7.2.4.2.2款而言，導管的整個橫截外表面均須隔熱。對於指定處所之外部但鄰近該處所、並與其共用一個或多個表面的導管，須視為貫穿該指定處所，並須對其共用表面進行隔熱，其隔熱範圍至超過導管450mm處。

7.2.6 如通風導管必須通過主豎區分隔，應在分隔鄰近處裝設自動擋火閘。該擋火閘還須能從分隔的每一側均可手動關閉。其控制位置應易於到達，並清晰、顯著地標出。分隔與擋火閘之間的導管須按第7.2.4.1.1和7.2.4.1.2款由鋼製成，並至少按與其貫穿的分隔同等的耐火完整性進行隔熱。擋火閘須至少在分隔的一側裝設可視指示牌，指明擋火閘的操作位置。

7.3 **擋火閘和導管貫穿的細節**

7.3.1 穿過“A”級分隔的導管須滿足下列要求：

.1 如有效橫截面積等於或小於0.02m^2的薄壁導管穿過“A”級分隔，開口須裝設厚度至少為3mm和長度至少為200mm的鋼套管，該套管分佈艙壁兩側長度各100mm為宜，或者如穿過甲板，則全部敷設在所穿過甲板的底側；

.2 如有效橫截面積大於0.02m^2但不超過0.075m^2的通風導管穿過“A”級分隔，開口應襯有鋼套管。導管和套管的厚度應至少為3mm，長度至

少為900mm。在穿過艙壁時，此長度須分佈艙壁兩側各450mm為宜。這些導管或其所襯套管須設有耐火隔熱材料。該隔熱材料至少須具有與導管穿過的分隔同等的耐火完整性；和

.3 穿過“A”級分隔的有效橫截面積超過0.075m^{2}的所有導管均須裝設自動擋火閘。每個擋火閘均須靠近所貫穿的分隔，擋火閘和所貫穿分隔之間的導管須按第7.2.4.2.1和7.2.4.2.2款由鋼製成。擋火閘須自動工作，但也能從分隔的兩側手動關閉。擋火閘須裝有可視指示牌，指明擋火閘的操作位置。但是，如導管穿過被“A”級分隔包圍的處所而又不用於這些處所，只要這些導管具有與其所穿過的分隔同等的耐火完整性，則不要求設置擋火閘。有效橫截面積超過0.075m^{2}的導管須不得為避免安裝本規定所要求的擋火閘而在“A”級分隔的貫穿處分成較小的導管穿過分隔後再重組為原有的導管。

7.3.2 穿過“B”級艙壁且有效橫截面積超過0.02m^{2}的通風導管須襯有長度為900mm的鋼板套管，該套管分佈艙壁兩側各450mm為宜，但在此長度範圍內為鋼質導管者除外。

7.3.3 所有擋火閘均須能手動操作。擋火閘須通過直接的機械方式開啟，或者，作為替代方式，通過電力、液壓或氣壓操作進行關閉。所有擋火閘均須從分隔的兩側手動操作。自動擋火閘（包括能遙控操作的擋火閘）須設有故障保護裝置，即便

在火災中失去電力、液壓或氣壓動力，仍可關閉擋火閘。遙控操作的擋火閘須能於擋火閘處被手動重新開啟。

7.4 載客超過36人的客船的通風系統

7.4.1 除第7.1、7.2和7.3節的要求外，載客超過36人的客船的通風系統還須滿足下列要求。

7.4.2 通風機的分佈，一般須使通往各處所的導管保持在同一主豎區內。

7.4.3 梯道圍蔽須由獨立的風機和不服務於通風系統中任何其他處所的導管系統（排氣和供氣）來通風。

7.4.4 服務於1個以上甲板間起居處所、服務處所或者控制站的導管，無論其橫截面大小，須在靠近此類處所的每一甲板的貫穿處裝設自動擋煙閘，且亦須從其上方的受保護甲板處能將其手動關閉。如在一個主豎區內通風機通過分開的導管服務於1個以上的甲板間處所，而每個導管專門服務於單個甲板間處所，則須在每個導管靠近通風機處裝設手動操作的擋煙閘。

7.4.5 對垂直導管須在必要時按表9.1和9.2的要求進行隔熱。對導管在其所服務處所和所計及的處所之間的甲板處須適當地按要求進行隔熱。

7.5 廚房爐灶的排氣導管

7.5.1 *對載客超過36人的客船的要求*

7.5.1.1 除滿足第7.1、7.2和7.3節的要求外，廚房爐灶的排氣導管還須按第7.2.4.2.1和7.2.4.2.2款建造並在其穿過的起居處

所、服務處所或控制站處按“A-60”級標準進行隔熱。這些導管還須裝設：

.1 一個易於拆下清洗的集油器，但另裝有經認可的油垢清除裝置者除外；

.2 一個位於導管和廚房爐灶罩接頭處導管下端的自動和遙控操作的擋火閘，此外，還須在導管上端靠近其出口處裝設1個遙控操作的擋火閘；

.3 用於導管內部滅火的固定式滅火裝置；

.4 用於關閉排氣風機和送風機、用於操作第7.5.1.1.2款所述的擋火閘和用於操作滅火系統的遙控裝置，這些遙控裝置須裝設在廚房外接近廚房入口的位置。如所安裝的排氣系統具有若干分支，則須在上述控制處裝設一個遙控裝置，以在滅火劑釋放進入該系統前關閉通向同一主排氣導管的所有支管；和

.5 適當分佈的檢查和清潔口，其中一個設在靠近排氣風機及另一個裝在油垢堆積處的下端。

7.5.1.2 安裝在開敞甲板上的烹飪設備的爐灶排氣導管，如其穿過起居處所或含有可燃材料的處所，須酌情遵守第7.5.1.1款的規定。

7.5.2 ***對載客不超過36人的貨船和客船的要求***

如廚房爐灶的排氣導管穿過起居處所或含有可燃材

料的處所，該排氣導管須按第7.2.4.1.1和7.2.4.1.2款建造。每一排氣導管均須裝設：

.1 一個易於拆下清洗的集油器；

.2 一個位於導管和廚房爐灶罩接頭處導管下端的自動和遙控操作的擋火閘，此外，還須在導管上端靠近其出口處裝設1個遙控操作的擋火閘；

.3 可在廚房內操作的排氣風機和送風機關閉裝置；和

.4 用於導管內部滅火的固定式滅火裝置。

7.6 服務於設有內燃機的A類機器處所的排風機房

7.6.1 如排風機房僅服務於1個鄰近的機器處所，且在排風機房和機器處所之間無防火分隔，服務於機器處所的一個或多個通風導管的關閉裝置須設在排風機房和機器處所外。

7.6.2 如排風機房服務於機器處所以及其他處所，且通過“A-0”級分隔與機器處所隔開（包括貫穿處），用於機器處所的1個或多個通風導管的關閉裝置可設在排風機房內。

7.7 載客超過36人客船的洗衣房的通風系統

第2.2.3.2.2款中所界定的（13）類處所的洗衣房和烘乾間的排氣導管須裝設：

.1 易於拆下用於清洗的過濾器；

.2 一個位於導管下端的自動和遙控操作的擋火閘；

.3 用於關閉處所內的排氣風機和送風機和用於操作第7.7.2款所述的擋火閘的遙控裝置；和

.4 在適當位置的檢查和清潔口。”

第10條－滅火

7 以下列條文替代第1款：

“**1 目的**

1.1 本條旨在抑制火災並迅速將其撲滅在火源處，但第1.2款除外。為此，須滿足下列功能要求：

.1 須安裝固定式滅火系統，並充分考慮到受保護處所火勢擴大的可能；以及

.2 滅火器材須隨時可用。

1.2 對於在2016年1月1日或之後建造的、設計在露天甲板或其上方載運集裝箱的船舶的敞口集裝箱貨艙和甲板上集裝箱裝載區域，須設有防火裝置以將火災抑制在火源處所或區域，並冷卻鄰近區域以防止火災蔓延和結構損壞。”

8 在第2.1.3款中，在“但”與“貨船”之間加上“除第7.3.2款所列船舶以外的”字樣。

9 在第2.2.4.1.2款中，在“任何貨船”之前加上“除第7.3.2款所列船舶以外的”字樣。

10 在第7.2款之後，增加下列新的一款：

“7.3 *在2016年1月1日或之後建造的、按設計在露天甲板或*

其上方載運集裝箱的船舶的消防

7.3.1 除第1和2款所要求的設備和裝置外，船舶還須至少配備一具水霧槍。

7.3.1.1 水霧槍須包括一個帶有穿刺噴嘴的管子，當連接至消防總管時能刺穿集裝箱壁並在密閉空間（集裝箱等）內產生水霧。

7.3.2 按設計在露天甲板或其上方載運五層或五層以上集裝箱的船舶，除第7.3.1款要求外，還須配備移動消防水炮如下：

.1 船寬不超過30m的船舶：至少2具移動消防水炮

.2 船寬為30m或以上的船舶：至少4具移動消防水炮

7.3.2.1 移動消防水炮、所有必要的軟管、配件和要求的固定硬體須存放在貨物處所區域之外且在貨物處所內發生火災時不會被阻隔的位置以供隨時使用。

7.3.2.2 須配備有足夠數量的消防栓以使：

.1 所有配備的移動消防水炮可同時在每一集裝箱箱跨的首尾處產生有效的水障；

.2 可以第2.1.6款所要求的壓力提供第2.1.5.1款所要求的兩股水柱；和

.3 每具所要求的移動消防水炮可由不同的消防栓供水，其壓力足以達到甲板上最高一層集裝箱。

7.3.2.3 如消防泵的排量和消防總管直徑足以同時供應各移

動消防水炮及從消防水龍帶產生兩股具所要求壓力值的水柱，則移動消防水炮可由消防總管供水。如載運危險貨物，則只要適用於甲板貨物區域，消防泵的排量和消防總管直徑還須遵守第19.3.1.5條的要求。

7.3.2.4 在船上進行初次檢驗時，須對每具移動消防水炮的運行性能進行試驗，並使主管機關滿意。試驗須驗證：

.1 移動消防水炮能安全地固定在船體結構上，以保證安全有效地運行；和

.2 所有要求的水炮和消防水龍帶的噴水器同時運行時，移動消防水炮的水柱可達到最高一層集裝箱。”

D部分－脫險

第13條－脫險通道

11 在第4.1.4款之後，增加下列新的兩款：

“4.1.5 *斜梯與梯道*

對於2016年1月1日或之後建造的船舶，在機器處所內為符合第4.1.1款要求而裝設的、有開放踏板的、作為脫險通道的一部分或者通向脫險通道但並不位於受保護圍蔽內的所有斜梯/梯道均應由鋼製成。此類梯子/梯道的底面須裝設鋼質護板，如此供逃生人員用於防護來自下方的高溫和火焰。

4.1.6 *機器處所內的主工作間脫險通道*

對於2016年1月1日或之後建造的船舶，在機器處所內的主工作間須設有2條脫險通道，其中至少1條脫險路線須提供通往機器處所外部安全位置的連續防火遮蔽。”

12 在第4.2.3款之後，增加下列新的三款：

“4.2.4 *斜梯與梯道*

對於2016年1月1日或之後建造的船舶，機器處所內為符合第4.2.1款要求而裝設的、有開放踏板的、作為脫險通道的一部分或者通向脫險通道但並不位於受保護圍蔽內的所有斜梯/梯道均須由鋼製成。此類梯子/梯道的底面須裝設鋼質護板，如此供逃生人員用於防護來自下方的高溫和火焰。

4.2.5 *“A”類機器處所內機器控制室的脫險通道*

對於2016年1月1日或之後建造的船舶，在機器處所內的機器控制室須設有2條脫險通道，其中至少1條脫險路線須提供通往機器處所外部安全位置的連續防火遮敝。

4.2.6 *“A”類機器處所內主工作間的脫險通道*

對於2016年1月1日或之後建造的船舶，在機器處所內的主工作間須設有2條脫險通道，其中至少1條脫險路線須提供通往機器處所外部安全位置的連續防火遮蔽。”

E部分－操作性要求

第16條－操作

13 在第3.2款之後，加上下列新的一款：

“**3.3 惰性氣體系統操作**

3.3.1 按照第4.5.5.1條所要求的液貨船惰性氣體系統須如此操作以使液貨艙內的空氣不可燃並保持不可燃，但要求除氣的此類液貨艙除外。

3.3.2 儘管有上述規定，對於化學品液貨船，可在液貨艙裝載之後、但在卸載開始之前施用惰性氣體，且須繼續施用，直至該液貨艙內所有易燃蒸氣在除氣作業前均已驅除。就本條而言，只有氮氣可作為惰性氣體。

3.3.3 儘管有第1.2.2.2條規定，本款的規定僅適用於2016年1月1日或之後建造的液貨船。如惰性氣體中氧氣含量按體積計超過5%，須立即採取行動提高氣體質量。如氣體質量沒有提高，須暫停液貨艙中正在輸送惰性氣體的所有操作，以避免將空氣引入液貨艙中。如裝設氣體調節閥，須將其關閉，且將不合格的氣體排到空氣中。

3.3.4 如惰性氣體系統不能達到第16.3.3.1款的要求，並業經評估認為進行修理不切實際，則需惰化的液貨艙的貨物卸載和清潔僅須在採用合適應急程序後再繼續進行，且考慮到本組織制定的導則。”

G部分－特殊要求

第20條－車輛處所、特種處所和滾裝處所的保護

14 在第3.1.4.2款中，用“9.7.2.4.1.1和9.7.2.4.1.2”替代“9.7.2.1.1和9.7.2.1.2”編號。

第20-1條－對作為貨物載運其油箱內有壓縮氫氣或天然氣作為自身動力燃料的機動車輛的車輛運輸船的要求

15 在第20條之後，加入下列新的第20-1條：

“**第20-1條－對作為貨物載運其油箱內有壓縮氫氣或壓縮天然氣作為自身動力燃料的機動車輛的車輛運輸船的要求**

1 目的

本條的目的是為其車輛和滾裝處所擬作為貨物載運其油箱內有壓縮氫氣或壓縮天然氣作為自身動力燃料的機動車輛的車輛運輸船達到本章的消防安全目標而規定附加安全措施。

2 適用範圍

2.1 除酌情符合第20條的要求外，對於在2016年1月1日或之後建造的、擬作為貨物載運其油箱內有壓縮氫氣或天然氣作為自身動力燃料的機動車輛的車輛運輸船，其車輛處所還須符合本條第3至5款的要求。

2.2 除酌情符合第20條的要求外，對於在2016年1月1日之前建造的車輛運輸船（包括2012年7月1日之前建造的車輛運輸船）還須符合本條第5款的要求。

3 對擬作為貨物載運其油箱內有壓縮天然氣作為自身動力燃料的機動車輛的處所的要求

3.1 電氣設備和電線

所有的電氣設備和電線均須為可在易爆的甲烷和空氣混合物的環境中使用的合格防爆類型。

3.2 通風佈置

3.2.1 安裝在任何通風導管上的電氣設備和電線須為可在易爆的甲烷和空氣混合物的環境中使用的合格防爆類型。

3.2.2 風機須能避免甲烷和空氣混合物着火的可能性。通風口的進出口處須設有合適的金屬絲網護罩。

3.3 其他着火源

不准使用可能構成甲烷和空氣混合物着火源的其他設備。

4 對擬作為貨物載運其油箱內有壓縮氫氣作為自身動力燃料的機動車輛的處所的要求

4.1 電氣設備和電線

所有的電氣設備和電線均須為可在易爆的氫氣和空氣混合物的環境中使用的合格防爆類型。

4.2 通風佈置

4.2.1 安裝在任何通風導管上的電氣設備和電線須為可在易爆的氫氣和空氣混合物的環境中使用的合格防爆類型。並考慮到其他可能的着火源，任何排氣導管的出口須設在一個安全的位置。

4.2.2 風機須設計成能避免氫氣和空氣混合物着火的可能性。通風口的進出口處須設有適當的金屬絲網護罩。

4.3 其他着火源

不准使用可能構成氫氣和空氣混合物着火源的其他設備。

5. 探測

如車輛運輸船作為貨物載運其油箱內有壓縮氫氣或壓縮天然氣作為自身動力燃料的一台或多台機動車輛，須至少配備二個移動氣體探測器。此種探測器須適合於探測氣體燃料，且須為可在易爆氣體和空氣混合物的環境中使用的合格防爆類型。”

RESOLUTION MSC.365(93)
(adopted on 22 May 2014)

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

THE MARITIME SAFETY COMMITTEE,

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

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

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

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

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2015, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

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

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

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

ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

CHAPTER II-1
CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

Part C
Machinery installations

Regulation 29 – Steering gear

1 At the end of paragraph 3.2, the following new text is added:

"where it is impractical to demonstrate compliance with this requirement during sea trials with the ship at its deepest seagoing draught and running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch, ships regardless of date of construction may demonstrate compliance with this requirement by one of the following methods:

.1 during sea trials the ship is at even keel and the rudder fully submerged whilst running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch; or

.2 where full rudder immersion during sea trials cannot be achieved, an appropriate ahead speed shall be calculated using the submerged rudder blade area in the proposed sea trial loading condition. The calculated ahead speed shall result in a force and torque applied to the main steering gear which is at least as great as if it was being tested with the ship at its deepest seagoing draught and running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch; or

.3 the rudder force and torque at the sea trial loading condition have been reliably predicted and extrapolated to the full load condition. The speed of the ship shall correspond to the number of maximum continuous revolutions of the main engine and maximum design pitch of the propeller;"

2 The word "and" at the end of paragraph 4.2 is deleted and the following new text is added:

"where it is impractical to demonstrate compliance with this requirement during sea trials with the ship at its deepest seagoing draught and running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater, ships regardless of date of construction, including those constructed before 1 January 2009, may demonstrate compliance with this requirement by one of the following methods:

.1 during sea trials the ship is at even keel and the rudder fully submerged whilst running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater; or

.2 where full rudder immersion during sea trials cannot be achieved, an appropriate ahead speed shall be calculated using the submerged rudder blade area in the proposed sea trial loading condition. The calculated ahead speed shall result in a force and torque applied to the auxiliary steering gear which is at least as great as if it was being tested with the ship at its deepest seagoing draught and running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater; or

.3 the rudder force and torque at the sea trial loading condition have been reliably predicted and extrapolated to the full load condition; and"

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

Part A
General

Regulation 1 – Application

3 The following three new paragraphs are added after paragraph 2.5:

"2.6 Vehicle carriers constructed before 1 January 2016, including those constructed before 1 July 2012, shall comply with paragraph 2.2 of regulation 20-1, as adopted by resolution MSC.365(93).

2.7 Tankers constructed before 1 January 2016, including those constructed before 1 July 2012, shall comply with regulation 16.3.3 except 16.3.3.3.

2.8 Regulations 4.5.5.1.1 and 4.5.5.1.3 apply to ships constructed on or after 1 January 2002 but before 1 January 2016, and regulation 4.5.5.2.1 applies to all ships constructed before 1 January 2016."

Regulation 3 – Definitions

4 The following three new paragraphs are added after paragraph 53:

"54 *Fire damper* is, for the purpose of implementing regulation 9.7 adopted by resolution MSC.365(93), as may be amended, a device installed in a ventilation duct, which under normal conditions remains open allowing flow in the duct, and is closed during a fire, preventing the flow in the duct to restrict the passage of fire. In using the above definition the following terms may be associated:

.1 *automatic fire damper* is a fire damper that closes independently in response to exposure to fire products;

.2 *manual fire damper* is a fire damper that is intended to be opened or closed by the crew by hand at the damper itself; and

.3 *remotely operated fire damper* is a fire damper that is closed by the crew through a control located at a distance away from the controlled damper.

55 *Smoke damper* is, for the purpose of implementing regulation 9.7 adopted by resolution MSC.365(93), as may be amended, a device installed in a ventilation duct, which under normal conditions remains open allowing flow in the duct, and is closed during a fire, preventing the flow in the duct to restrict the passage of smoke and hot gases. A smoke damper is not expected to contribute to the integrity of a fire rated division penetrated by a ventilation duct. In using the above definition the following terms may be associated:

.1 *automatic smoke damper* is a smoke damper that closes independently in response to exposure to smoke or hot gases;

.2 *manual smoke damper* is a smoke damper intended to be opened or closed by the crew by hand at the damper itself; and

.3 *remotely operated smoke damper* is a smoke damper that is closed by the crew through a control located at a distance away from the controlled damper.

56 *Vehicle carrier* means a cargo ship with multi deck ro-ro spaces designed for the carriage of empty cars and trucks as cargo."

Part B
Prevention of fire and explosion

Regulation 4 – Probability of ignition

5 Paragraph 5.5 is replaced with the following:

"5.5 Inert gas systems

5.5.1 Application

5.5.1.1 For tankers of 20,000 tonnes deadweight and upwards constructed on or after 1 July 2002 but before 1 January 2016, the protection of the cargo tanks shall be achieved by a fixed inert gas system in accordance with the requirements of the Fire Safety Systems Code, as adopted by resolution MSC.98(73), except that the Administration may accept other equivalent systems or arrangements, as described in paragraph 5.5.4.

5.5.1.2 For tankers of 8,000 tonnes deadweight and upwards constructed on or after 1 January 2016 when carrying cargoes described in regulation 1.6.1 or 1.6.2, the protection of the cargo tanks shall be achieved by a fixed inert gas system in accordance with the requirements of the Fire Safety Systems Code, except that the Administration may accept other equivalent systems or arrangements, as described in paragraph 5.5.4.

5.5.1.3 Tankers operating with a cargo tank cleaning procedure using crude oil washing shall be fitted with an inert gas system complying with the Fire Safety Systems Code and with fixed tank washing machines. However, inert gas systems fitted on tankers constructed on or after 1 July 2002 but before 1 January 2016 shall comply with the Fire Safety Systems Code, as adopted by resolution MSC.98(73).

5.5.1.4 Tankers required to be fitted with inert gas systems shall comply with the following provisions:

.1 double-hull spaces shall be fitted with suitable connections for the supply of inert gas;

.2 where hull spaces are connected to a permanently fitted inert gas distribution system, means shall be provided to prevent hydrocarbon gases from the cargo tanks entering the double hull spaces through the system; and

.3 where such spaces are not permanently connected to an inert gas distribution system, appropriate means shall be provided to allow connection to the inert gas main.

5.5.2 Inert gas systems of chemical tankers and gas carriers

5.5.2.1 The requirements for inert gas systems contained in the Fire Safety Systems Code need not be applied to chemical tankers constructed before 1 January 2016, including those constructed before 1 July 2012, and all gas carriers:

.1 when carrying cargoes described in regulation 1.6.1, provided that they comply with the requirements for inert gas systems on chemical tankers established by the Administration, based on the guidelines developed by the Organization; or

.2 when carrying flammable cargoes other than crude oil or petroleum products such as cargoes listed in chapters 17 and 18 of the International Bulk Chemical Code, provided that the capacity of tanks used for their carriage does not exceed 3,000 m^3 and the individual nozzle capacities of tank washing machines do not exceed 17.5 m^3/h and the total combined throughput from the number of machines in use in a cargo tank at any one time does not exceed 110 m^3/h.

5.5.3 General requirements for inert gas systems

5.5.3.1 The inert gas system shall be capable of inerting, purging and gas-freeing empty tanks and maintaining the atmosphere in cargo tanks with the required oxygen content.

5.5.3.2 Tankers fitted with a fixed inert gas system shall be provided with a closed ullage system.

5.5.4 Requirements for equivalent systems

5.5.4.1 The Administration may, after having given consideration to the ship's arrangement and equipment, accept other fixed installations, in accordance with regulation I/5 and paragraph 5.5.4.3.

5.5.4.2 For tankers of 8,000 tonnes deadweight and upwards but less than 20,000 tonnes deadweight constructed on or after 1 January 2016, in lieu of fixed installations as required by paragraph 5.5.4.1, the Administration may accept other equivalent arrangements or means of protection in accordance with regulation I/5 and paragraph 5.5.4.3.

5.5.4.3 Equivalent systems or arrangements shall:

.1 be capable of preventing dangerous accumulations of explosive mixtures in intact cargo tanks during normal service throughout the ballast voyage and necessary in-tank operations; and

.2 be so designed as to minimize the risk of ignition from the generation of static electricity by the system itself."

Part C
Suppression of fire

Regulation 9 – Containment of fire

6 Paragraph 7 is replaced with the following:

"**7 Ventilation systems**

(This paragraph applies to ships constructed on or after 1 January 2016)

7.1 General

7.1.1 Ventilation ducts, including single and double wall ducts, shall be of steel or equivalent material except flexible bellows of short length not exceeding 600 mm used for connecting fans to the ducting in air-conditioning rooms. Unless expressly provided otherwise in paragraph 7.1.6, any other material used in the construction of ducts, including insulation, shall also be non-combustible. However, short ducts, not generally exceeding 2 m in length and with a free cross-sectional area not exceeding 0.02 m^2, need not be of steel or equivalent material, subject to the following conditions:

.1 the ducts shall be made of non-combustible material, which may be faced internally and externally with membranes having low flame-spread characteristics and, in each case, a calorific value not exceeding 45 MJ/m^2 of their surface area for the thickness used;

.2 the ducts are only used at the end of the ventilation device; and

.3 the ducts are not situated less than 600 mm, measured along the duct, from an opening in an "A" or "B" class division, including continuous "B" class ceiling.

7.1.2 The following arrangements shall be tested in accordance with the Fire Test Procedures Code:

.1 fire dampers, including their relevant means of operation, however, the testing is not required for dampers located at the lower end of the duct in exhaust ducts for galley ranges, which must be of steel and capable of stopping the draught in the duct; and

.2 duct penetrations through "A" class divisions. However, the test is not required where steel sleeves are directly joined to ventilation ducts by means of riveted or screwed connections or by welding.

7.1.3 Fire dampers shall be easily accessible. Where they are placed behind ceilings or linings, these ceilings or linings shall be provided with an inspection hatch on which the identification number of the fire damper is marked. The fire damper identification number shall also be marked on any remote controls provided.

7.1.4 Ventilation ducts shall be provided with hatches for inspection and cleaning. The hatches shall be located near the fire dampers.

7.1.5 The main inlets and outlets of 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 the operating position of the closing device.

7.1.6 Combustible gaskets in flanged ventilation duct connections are not permitted within 600 mm of openings in "A" or "B" class divisions and in ducts required to be of "A" class construction.

7.1.7 Ventilation openings or air balance ducts between two enclosed spaces shall not be provided except as permitted by paragraphs 4.1.2.1 and 4.2.3.

---

* The term *free cross-sectional area* means, even in the case of a pre-insulated duct, the area calculated on the basis of the inner dimensions of the duct itself and not the insulation.

7.2 Arrangement of ducts

7.2.1 The ventilation systems for machinery spaces of category A, vehicle spaces, ro-ro spaces, galleys, special category spaces and cargo spaces shall, in general, be separated from each other and from the ventilation systems serving other spaces. However, the galley ventilation systems on cargo ships of less than 4,000 gross tonnage and in passenger ships carrying not more than 36 passengers need not be completely separated from other ventilation systems, but may be served by separate ducts from a ventilation unit serving other spaces. In such a case, an automatic fire damper shall be fitted in the galley ventilation duct near the ventilation unit.

7.2.2 Ducts provided for the ventilation of machinery spaces of category A, galleys, vehicle spaces, ro-ro spaces or special category spaces shall not pass through accommodation spaces, service spaces, or control stations unless they comply with paragraph 7.2.4.

7.2.3 Ducts provided for the ventilation of accommodation spaces, service spaces or control stations shall not pass through machinery spaces of category A, galleys, vehicle spaces, ro-ro spaces or special category spaces unless they comply with paragraph 7.2.4.

7.2.4 As permitted by paragraphs 7.2.2 and 7.2.3 ducts shall be either:

.1.1 constructed of steel having a thickness of at least 3 mm for ducts with a free cross-sectional area of less than 0.075 m^2, at least 4 mm for ducts with a free cross-sectional area of

between 0.075 m^2 and 0.45 m^2, and at least 5 mm for ducts with a free cross-sectional area of over 0.45 m^2;

.1.2 suitably supported and stiffened;

.1.3 fitted with automatic fire dampers close to the boundaries penetrated; and

.1.4 insulated to "A-60" class standard from the boundaries of the spaces they serve to a point at least 5 m beyond each fire damper;

or

.2.1 constructed of steel in accordance with paragraphs 7.2.4.1.1 and 7.2.4.1.2; and

.2.2 insulated to "A-60" class standard throughout the spaces they pass through, except for ducts that pass through spaces of category (9) or (10) as defined in paragraph 2.2.3.2.2.

7.2.5 For the purposes of paragraphs 7.2.4.1.4 and 7.2.4.2.2, ducts shall be insulated over their entire cross-sectional external surface. Ducts that are outside but adjacent to the specified space, and share one or more surfaces with it, shall be considered to pass through the specified space, and shall be insulated over the surface they share with the space for a distance of 450 mm past the duct.

7.2.6 Where it is necessary that a ventilation duct passes through a main vertical zone division, an automatic fire damper shall be fitted adjacent to the division. The damper shall also be capable of being manually closed from each side of the division. The control location shall be readily accessible and be clearly and prominently marked. The duct between the division and the damper shall be constructed of steel in accordance with paragraphs 7.2.4.1.1 and 7.2.4.1.2 and insulated to at least the same fire integrity as the division penetrated. The damper shall be fitted on at least one side of the division with a visible indicator showing the operating position of the damper.

7.3 Details of fire dampers and duct penetrations

7.3.1 Ducts passing through "A" class divisions shall meet the following requirements:

.1 where a thin plated duct with a free cross sectional area equal to, or less than, 0.02 m^2 passes through "A" class divisions, the opening shall be fitted with a steel sheet sleeve having a thickness of at least 3 mm and a length of at least 200 mm, divided preferably into 100 mm on each side of a bulkhead or, in the case of a deck, wholly laid on the lower side of the decks penetrated;

.2 where ventilation ducts with a free cross-sectional area exceeding 0.02 m^2, but not more than 0.075 m^2, pass through "A" class divisions, the openings shall be lined with steel sheet sleeves. The ducts and sleeves shall have a thickness of at least 3 mm and a length of at least 900 mm. When passing through bulkheads, this length shall be divided preferably into 450 mm on each side of the bulkhead. These ducts, or sleeves lining such ducts, shall be provided with fire insulation.

The insulation shall have at least the same fire integrity as the division through which the duct passes; and

.3 automatic fire dampers shall be fitted in all ducts with a free cross-sectional area exceeding 0.075 m^2 that pass through "A" class divisions. Each damper shall be fitted close to the division penetrated and the duct between the damper and the division penetrated shall be constructed of steel in accordance with paragraphs 7.2.4.2.1 and 7.2.4.2.2. The fire damper shall operate automatically, but shall also be capable of being closed manually from both sides of the division. The damper shall be fitted with a visible indicator which shows the operating position of the damper. Fire dampers are not required, however, where ducts pass through spaces surrounded by "A" class divisions, without serving those spaces, provided those ducts have the same fire integrity as the divisions which they penetrate. A duct of cross-sectional area exceeding 0.075 m^2 shall not be divided into smaller ducts at the penetration of an "A" class division and then recombined into the original duct once through the division to avoid installing the damper required by this provision.

7.3.2 Ventilation ducts with a free cross-sectional area exceeding 0.02 m^2 passing through "B" class bulkheads shall be lined with steel sheet sleeves of 900 mm in length, divided preferably into 450 mm on each side of the bulkheads unless the duct is of steel for this length.

7.3.3 All fire dampers shall be capable of manual operation. The dampers shall have a direct mechanical means of release or, alternatively, be closed by electrical, hydraulic, or pneumatic operation. All dampers shall be manually operable from both sides of the division. Automatic fire dampers, including those capable of remote operation, shall have a failsafe mechanism that will close the damper in a fire even upon loss of electrical power or hydraulic or pneumatic pressure loss. Remotely operated fire dampers shall be capable of being reopened manually at the damper.

7.4 Ventilation systems for passenger ships carrying more than 36 passengers

7.4.1 In addition to the requirements in sections 7.1, 7.2 and 7.3, the ventilation system of a passenger ship carrying more than 36 passengers shall also meet the following requirements.

7.4.2 In general, the ventilation fans shall be so arranged that the ducts reaching the various spaces remain within a main vertical zone.

7.4.3 Stairway enclosures shall be served by an independent ventilation fan and duct system (exhaust and supply) which shall not serve any other spaces in the ventilation systems.

7.4.4 A duct, irrespective of its cross-section, serving more than one 'tween-deck accommodation space, service space or control station, shall be fitted, near the penetration of each deck of such spaces, with an automatic smoke damper that shall also be capable of being closed manually from the protected deck above the damper. Where a fan serves more than one 'tween-deck space through separate ducts within a main vertical zone, each dedicated to a single 'tween-deck space, each duct shall be provided with a manually operated smoke damper fitted close to the fan.

7.4.5 Vertical ducts shall, if necessary, be insulated as required by tables 9.1 and 9.2. Ducts shall be insulated as required for decks between the space they serve and the space being considered, as applicable.

7.5 Exhaust ducts from galley ranges

7.5.1 *Requirements for passenger ships carrying more than 36 passengers*

7.5.1.1 In addition to the requirements in sections 7.1, 7.2 and 7.3, exhaust ducts from galley ranges shall be constructed in accordance with paragraphs 7.2.4.2.1 and 7.2.4.2.2 and insulated to "A-60" class standard throughout accommodation spaces, service spaces, or control stations they pass through. They shall also be fitted with:

.1 a grease trap readily removable for cleaning unless an alternative approved grease removal system is fitted;

.2 a fire damper located in the lower end of the duct at the junction between the duct and the galley range hood which is automatically and remotely operated and, in addition, a remotely operated fire damper located in the upper end of the duct close to the outlet of the duct;

.3 a fixed means for extinguishing a fire within the duct;

.4 remote-control arrangements for shutting off the exhaust fans and supply fans, for operating the fire dampers mentioned in paragraph 7.5.1.1.2 and for operating the fire-extinguishing system, which shall be placed in a position outside the galley close to the entrance to the galley. Where a multi-branch system is installed, a remote means located with the above controls shall be provided to close all branches exhausting through the same main duct before an extinguishing medium is released into the system; and

.5 suitably located hatches for inspection and cleaning, including one provided close to the exhaust fan and one fitted in the lower end where grease accumulates.

7.5.1.2 Exhaust ducts from ranges for cooking equipment installed on open decks shall conform to paragraph 7.5.1.1, as applicable, when passing through accommodation spaces or spaces containing combustible materials.

7.5.2 *Requirements for cargo ships and passenger ships carrying not more than 36 passengers*

When passing through accommodation spaces or spaces containing combustible materials, the exhaust ducts from galley ranges shall be constructed in accordance with paragraphs 7.2.4.1.1 and 7.2.4.1.2. Each exhaust duct shall be fitted with:

.1 a grease trap readily removable for cleaning;

.2 an automatically and remotely operated fire damper located in the lower end of the duct at the junction between the duct and the galley range hood and, in addition, a remotely operated fire damper in the upper end of the duct close to the outlet of the duct;

.3 arrangements, operable from within the galley, for shutting off the exhaust and supply fans; and

.4 fixed means for extinguishing a fire within the duct.

7.6 Ventilation rooms serving machinery spaces of category A containing internal combustion machinery

7.6.1 Where a ventilation room serves only such an adjacent machinery space and there is no fire division between the ventilation room and the machinery space, the means for closing the ventilation duct or ducts serving the machinery space shall be located outside of the ventilation room and machinery space.

7.6.2 Where a ventilation room serves such a machinery space as well as other spaces and is separated from the machinery space by a "A-0" class division, including penetrations, the means for closing the ventilation duct or ducts for the machinery space can be located in the ventilation room.

7.7 Ventilation systems for laundries in passenger ships carrying more than 36 passengers

Exhaust ducts from laundries and drying rooms of category (13) spaces as defined in paragraph 2.2.3.2.2 shall be fitted with:

.1 filters readily removable for cleaning purposes;

.2 a fire damper located in the lower end of the duct which is automatically and remotely operated;

.3 remote-control arrangements for shutting off the exhaust fans and supply fans from within the space and for operating the fire damper mentioned in paragraph 7.7.2; and

.4 suitably located hatches for inspection and cleaning."

Regulation 10 – Firefighting

7 Paragraph 1 is replaced with the following:

"**1 Purpose**

1.1 The purpose of this regulation is to suppress and swiftly extinguish a fire in the space of origin, except for paragraph 1.2. For this purpose, the following functional requirements shall be met:

.1 fixed fire-extinguishing systems shall be installed having due regard to the fire growth potential of the protected spaces; and

.2 fire-extinguishing appliances shall be readily available.

1.2 For open-top container holds and on deck container stowage areas on ships designed to carry containers on or above the weather deck, constructed on or after 1 January 2016, fire protection arrangements shall be provided for the purpose of containing a fire in the space or area of origin and cooling adjacent areas to prevent fire spread and structural damage."

8 In paragraph 2.1.3, the words ", other than those included in paragraph 7.3.2," are added between the words "cargo ships" and "the diameter".

9 In paragraph 2.2.4.1.2, the words ", other than those included in paragraph 7.3.2," are added between the words "cargo ship" and "need".

10 The following new paragraph is added after paragraph 7.2:

"7.3 *Firefighting for ships constructed on or after 1 January 2016 designed to carry containers on or above the weather deck*

7.3.1 Ships shall carry, in addition to the equipment and arrangements required by paragraphs 1 and 2, at least one water mist lance.

7.3.1.1 The water mist lance shall consist of a tube with a piercing nozzle which is capable of penetrating a container wall and producing water mist inside a confined space (container, etc.) when connected to the fire main.

7.3.2 Ships designed to carry five or more tiers of containers on or above the weather deck shall carry, in addition to the requirements of paragraph 7.3.1, mobile water monitors as follows:

.1 ships with breadth less than 30 m: at least two mobile water monitors; or

.2 ships with breadth of 30 m or more: at least four mobile water monitors.

7.3.2.1 The mobile water monitors, all necessary hoses, fittings and required fixing hardware shall be kept ready for use in a location outside the cargo space area not likely to be cut off in the event of a fire in the cargo spaces.

7.3.2.2 A sufficient number of fire hydrants shall be provided such that:

.1 all provided mobile water monitors can be operated simultaneously for creating effective water barriers forward and aft of each container bay;

.2 the two jets of water required by paragraph 2.1.5.1 can be supplied at the pressure required by paragraph 2.1.6; and

.3 each of the required mobile water monitors can be supplied by separate hydrants at the pressure necessary to reach the top tier of containers on deck.

7.3.2.3 The mobile water monitors may be supplied by the fire main, provided the capacity of fire pumps and fire main diameter are adequate to simultaneously operate the mobile water monitors and two jets of water from fire hoses at the required pressure values. If carrying dangerous goods, the capacity of fire pumps and fire main diameter shall also comply with regulation 19.3.1.5, as far as applicable to on-deck cargo areas.

7.3.2.4 The operational performance of each mobile water monitor shall be tested during initial survey on board the ship to the satisfaction of the Administration. The test shall verify that:

.1 the mobile water monitor can be securely fixed to the ship structure ensuring safe and effective operation; and

.2 the mobile water monitor jet reaches the top tier of containers with all required monitors and water jets from fire hoses operated simultaneously."

Part D
Escape

Regulation 13 – Means of escape

11 The following two new paragraphs are added after paragraph 4.1.4:

"*4.1.5 Inclined ladders and stairways*

For ships constructed on or after 1 January 2016, all inclined ladders/stairways fitted to comply with paragraph 4.1.1 with open treads in machinery spaces being part of or providing access to escape routes but not located within a protected enclosure shall be made of steel. Such ladders/stairways shall be fitted with steel shields attached to their undersides, such as to provide escaping personnel protection against heat and flame from beneath.

4.1.6 Escape from main workshops within machinery spaces

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the main workshop within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space."

12 The following three new paragraphs are added after paragraph 4.2.3:

"*4.2.4 Inclined ladders and stairways*

For ships constructed on or after 1 January 2016, all inclined ladders/stairways fitted to comply with paragraph 4.2.1 with open treads in machinery spaces being part of or providing access to escape routes but not located within a protected enclosure shall be made of steel. Such ladders/stairways shall be fitted with steel shields attached to their undersides, such as to provide escaping personnel protection against heat and flame from beneath.

4.2.5 Escape from machinery control rooms in machinery spaces of category "A"

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the machinery control room located within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space.

4.2.6 Escape from main workshops in machinery spaces of category "A"

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the main workshop within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space."

Part E
Operational requirements

Regulation 16 – Operations

13 The following new paragraph is added after paragraph 3.2:

"**3.3 Operation of inert gas system**

3.3.1 The inert gas system for tankers required in accordance with regulation 4.5.5.1 shall be so operated as to render and maintain the atmosphere of the cargo tanks non-flammable, except when such tanks are required to be gas-free.

3.3.2 Notwithstanding the above, for chemical tankers, the application of inert gas, may take place after the cargo tank has been loaded, but before commencement of unloading and shall continue to be applied until that cargo tank has been purged of all flammable vapours before gas-freeing. Only nitrogen is acceptable as inert gas under this provision.

3.3.3 Notwithstanding regulation 1.2.2.2, the provisions of this paragraph shall only apply to tankers constructed on or after 1 January 2016. If the oxygen content of the inert gas exceeds 5% by volume, immediate action shall be taken to improve the gas quality. Unless the quality of the gas improves, all operations in those cargo tanks to which inert gas is being supplied shall be suspended so as to avoid air being drawn into the cargo tanks, the gas regulating valve, if fitted, shall be closed and the off-specification gas shall be vented to atmosphere.

3.3.4 In the event that the inert gas system is unable to meet the requirement in paragraph 16.3.3.1 and it has been assessed that it is impractical to effect a repair, then cargo discharge and cleaning of those cargo tanks requiring inerting shall only be resumed when suitable emergency procedures have been followed, taking into account guidelines developed by the Organization."

Part G
Special requirements

Regulation 20 – Protection of vehicle, special category and ro-ro spaces

14 In paragraph 3.1.4.2, the words "9.7.2.1.1 and 9.7.2.1.2" are replaced with "9.7.2.4.1.1 and 9.7.2.4.1.2".

New regulation 20-1 – Requirements for vehicle carriers carrying motor vehicles with compressed hydrogen or natural gas in their tanks for their own propulsion as cargo

15 The following new regulation 20-1 is added after regulation 20:

"**Regulation 20-1 – Requirements for vehicle carriers carrying motor vehicles with compressed hydrogen or natural gas in their tanks for their own propulsion as cargo**

1 Purpose

The purpose of this regulation is to provide additional safety measures in order to address the fire safety objectives of this chapter for vehicle carriers with vehicle and ro-ro spaces intended for carriage of motor vehicles with compressed hydrogen or compressed natural gas in their tanks for their own propulsion as cargo.

2 Application

2.1 In addition to complying with the requirements of regulation 20, as appropriate, vehicle spaces of vehicle carriers constructed on or after 1 January 2016 intended for the carriage of motor vehicles with compressed hydrogen or compressed natural gas in their tanks for their own propulsion as cargo shall comply with the requirements in paragraphs 3 to 5 of this regulation.

2.2 In addition to complying with the requirements of regulation 20, as appropriate, vehicle carriers constructed before 1 January 2016, including those constructed before 1 July 2012, shall comply with the requirements in paragraph 5 of this regulation.

3 Requirements for spaces intended for carriage of motor vehicles with compressed natural gas in their tanks for their own propulsion as cargo

3.1 Electrical equipment and wiring

All electrical equipment and wiring shall be of a certified safe type for use in an explosive methane and air mixture.

3.2 Ventilation arrangement

3.2.1 Electrical equipment and wiring, if installed in any ventilation duct, shall be of a certified safe type for use in explosive methane and air mixtures.

3.2.2 The fans shall be such as to avoid the possibility of ignition of methane and air mixtures. Suitable wire mesh guards shall be fitted over inlet and outlet ventilation openings.

3.3 Other ignition sources

Other equipment which may constitute a source of ignition of methane and air mixtures shall not be permitted.

4 Requirements for spaces intended for carriage of motor vehicles with compressed hydrogen in their tanks for their own propulsion as cargo

4.1 Electrical equipment and wiring

All electrical equipment and wiring shall be of a certified safe type for use in an explosive hydrogen and air mixture.

4.2 Ventilation arrangement

4.2.1 Electrical equipment and wiring, if installed in any ventilation duct, shall be of a certified safe type for use in explosive hydrogen and air mixtures and the outlet from any exhaust duct shall be sited in a safe position, having regard to other possible sources of ignition.

4.2.2 The fans shall be designed such as to avoid the possibility of ignition of hydrogen and air mixtures. Suitable wire mesh guards shall be fitted over inlet and outlet ventilation openings.

4.3 Other ignition sources

Other equipment which may constitute a source of ignition of hydrogen and air mixtures shall not be permitted.

5 Detection

When a vehicle carrier carries as cargo one or more motor vehicles with either compressed hydrogen or compressed natural gas in their tanks for their own propulsion, at least two portable gas detectors shall be provided. Such detectors shall be suitable for the detection of the gas fuel and be of a certified safe type for use in the explosive gas and air mixture."

第MSC.380（94）決議

（2014年11月21日通過）

經修正的《1974年國際海上人命安全公約》（《安全公約》）的修正案

海上安全委員會，

憶及《國際海事組織公約》關於本委員會職能的第二十八條第（二）款，

還憶及《1974 年國際海上人命安全公約》（《安全公約》）（“本公約”）關於本公約附則（除第 I 章條款外）的適用修正程序的第 VIII（b）（vi）（2）條，

在其第 94 屆會議上，**審議了**按照本公約第 VIII（b）（i）條建議和分發的本公約修正案，

1 按照本公約第 VIII（b）（iv）條規定，**通過**本公約的修正案，其文本載於本決議附件；

2 按照本公約第 VIII（b）（vi）（2）（bb）條，**決定**該修正案將在 2016 年 1 月 1 日視為已被接受，除非在此日期之前，有三分之一以上的本公約締約國政府或其商船隊總和佔世界商船總噸數不少於50%的締約國政府通知本組織秘書長其反對該修正案；

3 **請**《安全公約》締約國政府注意，按照本公約第VIII（b）（vii）（2）條，該修正案將在按上述第2段被接受後，於2016年7月1日生效；

4 **要求**秘書長為本公約第VIII（b）（v）條之目的，將本決議及其附件中的修正案文本的核證無誤副本分發給所有本公約締約國政府；

5 **還要求**秘書長將本決議及其附件的副本分發給非本公約締約國的本組織會員國。

附件

經修正的《1974年國際海上人命安全公約》

（《安全公約》）的修正案

第II-2章

構造-防火、探火和滅火

C部分

抑制火

第10條－滅火

1 現有5.2的標題替換為如下：

“5.2 裝有內燃機的A類機器處所”

第VI章

貨物和燃油運輸

A部分

總則

第2條－貨物資料

2 在現有第3款之後新增第4至6款如下：

“4 對於集裝箱裝運的貨物，符合本條第2.1款的總質量應經託運人以下列方式之一予以驗證，但在從事第III/3條界定的短程國際航行的滾裝船上裝卸的、以底盤車或拖車載運的集裝箱除外：

.1 使用經校準和認證的設備對裝貨集裝箱稱重；或

.2 對所有包裝件和貨品進行稱重，包括貨盤、貨墊和其他裝入集裝箱的繫固材料的質量，並使用完成集裝箱包裝所在國主管當局批准的經認證方法，將集裝箱皮質量與前述各項質量之和相加。

5 集裝箱託運人須確保運輸單證中已載明經驗證的總質量。運輸單證須：

.1 由經託運人正式授權的人員簽字；和

.2 應船長或其代表的要求，提前足夠時間提交給船長或其代表及提交給碼頭代表，以用於編製船舶積載圖。

6 如果裝貨集裝箱的運輸單證上沒有提供經驗證的總質量，且船長或其代表及碼頭代表尚未收到該裝貨集裝箱經核實的總質量，該裝貨集裝箱不得裝載上船。”

第XI-1章

加強海上安全的特別措施

3 在現有第6條後新增第7條如下：

“第7條－圍蔽處所的氣體測試儀

第I章所適用的每艘船舶應配備適當的便攜式氣體測試儀。這些測試儀須至少能在進入圍蔽處所前測量氧氣、可燃氣體或蒸氣、硫化氫和一氧化碳的濃度。按其他要求配備的測試儀可滿足本條要求。須為所有這些測試儀提供合適的校準設備。

附錄

證書

貨船安全設備記錄（格式C）

貨船安全設備記錄（格式E）

4 貨船安全設備記錄（格式C）和貨船安全設備記錄（格式E）的第2節由下列替代：

"**2** ***救生設備明細表***

1 救生設備可供使用的總人數		
	左舷	右舷
2 吊架降落式救生艇的總數	……	……
2.1 吊架降落式救生艇可載總人數	……	……
2.2 自行扶正部分封閉救生艇的數量（第III/43條）	……	……
2.3 全封閉救生艇的數量（第III/31條和《救生設備規則》第4.6節）	……	……
2.4 自備空氣補給系統的救生艇的數量（第III/31條和《救生設備規則》第4.8節）	……	……
2.5 耐火救生艇的數量（第III/31條和《救生設備規則》第4.9節）	……	……
	……	……
2.6 其他救生艇	……	……
2.6.1 數量	……	……
2.6.2 型式		
3 自由降落救生艇的總數	……	
3.1 自由降落救生艇可載總人數	……	
3.2 全封閉救生艇的數量（第III/31條和《救生設備規則》第4.7節）	……	
3.3 自備空氣補給系統的救生艇的數量（第III/31		

條和《救生設備規則》第4.8節）	……
3.4 耐火救生艇的數量（第III/31條和《救生設備規則》第4.9節）	
4 機動救生艇的數量（包括在上述2和3救生艇總數內）	……
4.1 裝備有探照燈的救生艇的數量	……
5 救助艇的數量	……
5.1 包括在上述2和3救生艇總數內的艇的數量	……
6 救生筏	……
6.1 需設置認可降落裝置的救生筏	……
6.1.1 救生筏的數量	……
6.1.2 救生筏可載人數	……
6.2 不需設置認可降落裝置的救生筏	……
6.2.1 救生筏的數量	……
6.2.2 救生筏可載人數	……
6.3 第III/31.1.4條要求的救生筏數量	……
7 救生圈的數量	……
8 救生衣的數量	……
9 救生服	……
9.1 總數	……
9.2 符合救生衣要求的救生服的數量	……
10 抗暴露服的數量	……
11 救生設備中使用的無線電裝置	……
11.1 搜救定位裝置的數量	……
11.1.1雷達搜救應答器（SART）	……
11.1.2自動識別系統搜救應答器（AIS-SART）	……
11.2 雙向甚高頻無線電話設備的數量	……
	……

”

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

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

THE MARITIME SAFETY COMMITTEE,

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

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

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

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

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

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

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

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

ANNEX

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

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

Part C
Suppression of fire

Regulation 10 – Fire fighting

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

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

CHAPTER VI
CARRIAGE OF CARGOES AND OIL FUELS

Part A
General Provisions

Regulation 2 – Cargo information

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

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

.1 weighing the packed container using calibrated and certified equipment; or

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

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

.1 signed by a person duly authorized by the shipper; and

.2 submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan.

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

CHAPTER XI-1
SPECIAL MEASURES TO ENHANCE MARITIME SAFETY

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

"**Regulation 7 – Atmosphere testing instrument for enclosed spaces**

Every ship to which chapter I applies shall carry an appropriate portable atmosphere testing instrument or instruments. As a minimum, these shall be capable of measuring concentrations of oxygen, flammable gases or vapours, hydrogen sulphide and carbon monoxide prior to entry into enclosed spaces. Instruments carried under other requirements may satisfy this regulation. Suitable means shall be provided for the calibration of all such instruments.

APPENDIX

CERTIFICATES

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

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

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

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

2 ***Details of life-saving appliances*** (continued)

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

"

二零一八年三月十五日於行政長官辦公室

辦公室代主任　盧麗卿

Gabinete do Chefe do Executivo, aos 15 de Março de 2018. — A Chefe do Gabinete, substituta, *Lo Lai Heng.*

政 府 總 部 輔 助 部 門

批 示 摘 錄

透過行政長官辦公室主任二零一八年二月七日批示：

根據第12/2015號法律第四條第二款、第三款及按照第14/2009號法律第十三條第一款（二）項及第二款（四）項的規定，以附註形式修改下列人員在政府總部輔助部門擔任職務合同的第三條款如下所列，自下述日期起生效。

長期行政任用合同

韋志炎，自二零一八年三月一日晉階至第二職階一等技術員，薪俸點420點。

不具期限的行政任用合同

何玉風，自二零一八年三月八日晉階至第八職階勤雜人員，薪俸點200點。

二零一八年三月十四日於行政長官辦公室

辦公室代主任　盧麗卿

SERVIÇOS DE APOIO DA SEDE DO GOVERNO

Extracto de despacho

Por despachos da chefe do Gabinete do Chefe do Executivo, de 7 de Fevereiro de 2018:

O pessoal abaixo identificado — alterada, por averbamento, a cláusula 3.ª dos seus contratos para o exercício de funções nos SASG, nos termos do artigo 4.º, n.os 2 e 3, da Lei n.º 12/2015, conjugado com o artigo 13.º, n.os 1, alínea *2*), e 2, alínea *4*), da Lei n.º 14/2009, conforme a seguir discriminado, a partir das datas a seguir indicadas:

Contrato administrativo de provimento de longa duração

— Wai Chi Im, progride para técnico de 1.ª classe, 2.º escalão, índice 420, a partir de 1 de Março de 2018.

Contrato administrativo de provimento sem termo

— Ho Iok Fong, progride para auxiliar, 8.º escalão, índice 200, a partir de 8 de Março de 2018.

Gabinete do Chefe do Executivo, aos 14 de Março de 2018. — A Chefe do Gabinete, substituta, *Lo Lai Heng.*