

## ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, AS AMENDEDCHAPTER II-1  
CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY,  
MACHINERY AND ELECTRICAL INSTALLATIONSPART A-1  
STRUCTURE OF SHIPS**Regulation 3-6- Access to and within spaces in the cargo area of oil tankers and bulk carriers**

- 1 The title of the regulation is replaced by the following:  
  
“Access to and within spaces in, and forward of, the cargo area of oil tankers and bulk carriers”
- 2 In paragraph 1.1, the date “1 January 2005” is replaced with “1 January 2006”.
- 3 In paragraph 2.1, in the first sentence, the words “within the cargo area” and “a permanent” are deleted.
- 4 In paragraph 3.1, in the second sentence, the words “or to foreward ballast tanks” are inserted between the words “bottom spaces” and “may be from a pump-room”.
- 5 In paragraph 4.1, in the second sentence, the words “in the cargo area” are deleted.

**第 95/2015 號行政長官公告**

中華人民共和國於一九九九年十二月十三日以照會通知聯合國秘書長，經修訂的《1974年國際海上人命安全公約》（下稱“公約”）自一九九九年十二月二十日起適用於澳門特別行政區；

國際海事組織海上安全委員會於二零零四年十二月九日透過第MSC.170(79)號決議通過了經修正的公約修正案，該修正案自二零零六年七月一日起適用於澳門特別行政區；

基於此，行政長官根據第3/1999號法律《法規的公佈與格式》第六條第一款的規定，命令公佈包含上指修正案的MSC.170(79)號決議的中文及英文文本。

二零一五年七月二日發佈。

行政長官 崔世安

**Aviso do Chefe do Executivo n.º 95/2015**

Considerando que a República Popular da China, por nota datada de 13 de Dezembro de 1999, notificou o Secretário-Geral das Nações Unidas sobre a aplicação da Convenção Internacional para a Salvaguarda da Vida Humana no Mar de 1974, adiante designada por Convenção, tal como emendada, na Região Administrativa Especial de Macau a partir de 20 de Dezembro de 1999;

Considerando igualmente que, em 9 de Dezembro de 2004, o Comité de Segurança Marítima da Organização Marítima Internacional, através da resolução MSC.170(79), adoptou emendas à Convenção, tal como emendada, e que tais emendas são aplicáveis na Região Administrativa Especial de Macau desde 1 de Julho de 2006;

O Chefe do Executivo manda publicar, nos termos do n.º 1 do artigo 6.º da Lei n.º 3/1999 (Publicação e formulário dos diplomas), a resolução MSC.170(79), que contém as referidas emendas, nos seus textos em línguas chinesa e inglesa.

Promulgado em 2 de Julho de 2015.

O Chefe do Executivo, *Chui Sai On*.

## 第 MSC.170 (79) 號決議

(2004 年 12 月 9 日通過)

### 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 28 (b) 條，

還憶及《1994 年國際海上人命安全 (SOLAS) 公約》(以下簡稱“公約”)關於適用於除第 I 章以外的附則的修正程序的第 VIII (b) 條，

在其第七十九屆會議上審議了根據公約第 VIII (b) (i) 條建議並散發的公約修正案，

1. 根據公約第 VIII (b) (iv) 條，通過了公約的修正案，正文列於本決議之附件；
2. 決定，根據公約第 VIII (b) (vi) (2) (bb) 條，上述修正案將於 2006 年 1 月 1 日視為已被接受，除非在該日期以前，有超過三分之一的締約國政府或者合計商船總噸位佔世界商船總噸位不少於 50% 的締約國政府通知其反對修正案；
3. 提請公約締約國政府注意，根據公約第 VIII (b) (vii) (2) 條，修正案在根據上文第 2 段被接受後，將於 2006 年 7 月 1 日生效；

4. 要求秘書長根據公約第 VIII (b) (v) 條，將本決議及其所附修正案正文的核證無誤副本轉送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轉送所有非公約締約國政府的本組織成員。

## 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

##### 第 2 條—定義

1 在現有第 13 款後新增第 14 款如下：

“14 散貨船係指第 XII/1.1 條定義的散貨船。”

##### 第 18 條—客船和貨船水密門、舷窗等的構造和初始測試

2 該條第 2 款由下文代替：

“2 在客船和貨船上，應分別使用艙壁甲板或乾舷甲板高度的水頭壓力檢測水密門。如果因可能會破壞隔熱層或裝備件沒有對個別的門進行檢測，可用至少相應於目標位置所要求的水頭的試驗壓力對門的每種類型或尺寸進行原型壓力試驗來代替對個別門的檢測。原型壓力試驗應在門安裝前進行。船上裝門的安裝的方法和程序應與原型試驗相一致。如果在船上安裝，應對每個門檢查艙壁、門框和門之間的就位。”

##### 第 45 條—觸電、電氣火災及其他電氣災害的預防

3 在標題後增加以下文字：

“(本條第 10 和 11 款適用於 2007 年 1 月 1 日後建造的船舶)”。

4 現有第 10 款由下文代替：

“10 電氣設備不得安裝在任何可能聚集易燃混合物的處所，例如，主要用於儲存蓄電池的艙室、油漆間、乙炔儲備間或類似處所，除非主管機關認為，這些設備：

- .1 為作業所必需；
- .2 屬於不會點燃有關混合物的類型；
- .3 對相關處所是合適的；和
- .4 經適當證明在可能遇到的塵土、蒸汽或氣體中使用是安全的。”

5 在現有的第 10 款之後增加新的第 11 款如下：

“11 在液貨船上，電氣設備、電纜和電線不得安裝在危險位置，除非它符合不低於本組織接受的標準”。但是，對於該標準未涵蓋的位置，不符合該標準的電氣設備、電纜和電線可安裝在危險位置，但要經過主管機關認同的風險評估，以確保其具備等效的安全水準。”

6 將現有第 11 款重新編號為第 12 款。

### 第 III 章

#### 救生設備與安排

#### 第 31 條—救生筏和救助艇

7 在現有第 1.7 款後增加新的第 1.8 款如下：

“1.8 儘管有第 1.1 款的要求，第 IX 章第 1.6 條定義的於 2006 年 7 月 1 日或以後建造的散貨船應符合第 1.2 款的要求。”

## 第 V 章

### 航行安全

#### 第 19 條—船載航行系統和設備的配備要求

8 在第 2.5 款，現有第.1 項的文字由以下內容代替：

“.1 一台陀螺羅經或其他裝置，以通過船載的非磁設備確定和顯示船舶航向，可由舵工在主操舵位置能清楚識讀。這些裝置還應將航向信息發送到第 2.3.2、2.4 和 2.5.5 款所述的設備中；”

#### 第 20 條—航程數據記錄儀

9 在現有第 1 款之後增加新的第 2 款如下：

“2 為了協助事故調查，貨船在從事國際航行時，應按下列要求裝配一台 VDR，它可以是一台簡化的航程數據記錄儀 (S-VDR)：

- .1 2002 年 7 月 1 日之前建造的 20,000 總噸及以上的貨船，應於 2006 年 7 月 1 日後的首次計劃塢修時，但不得晚於 2009 年 7 月 1 日；
- .2 2002 年 7 月 1 日之前建造的 3,000 總噸及以上但小於 20,000 總噸的貨船，應於 2007 年 7 月 1 日後的首次塢修時，但不得晚於 2010 年 7 月 1 日；和

- .3 如果貨船在 .1 和 .2 項規定的實施日期後二年內永久退役，主管機關可以對貨船免除適用上述 .1 和 .2 項的要求。”

- 10 將現有的第 2 款重新編號為第 3 款。

## 第 VII 章

### 危險品運輸

#### 第 10 條—對化學品船的要求

- 11 在本條第 1 款中刪除下面一句：

“就本條而言，規則的要求應作為強制性要求。”

## 第 XII 章

### 散貨船附加安全措施

- 12 第 XII 章的現有內容由下文代替：

#### “第 1 條

#### 定義

就本章而言：

- 1 散貨船係指主要用於散裝運輸乾貨的船舶，包括諸如礦石船和多用途船等船型。

- 2 單舷側結構的散貨船係指一艘第 1 款定義的散貨船，該船中：

- .1 貨艙的任何部分均以舷側船殼板為界；或

- .2 如果一個或多個貨艙是以雙層殼板為界，則 2000 年 1 月 1 日以前建造的散貨船貨艙寬度小於 760 mm，2000 年 1 月 1 日或以後但在 2006 年 7 月 1 日以前建造的散貨船貨艙寬度小於 1,000 mm，該距離從垂直於舷側船殼板量得。

在包括多用途船在內的此類船舶中，貨艙的任何部分均以舷側船殼板為界。

3 *雙層殼結構的散貨船*係指一艘第 1 款中所定義的散貨船，該船內所有貨艙均以雙層殼板為界，而非第 2.2 款中所定義情況。

4 *雙層殼*係指每條船的舷側以舷側船殼板和連接到雙層底和甲板的縱向艙壁構成的一種船舶結構。如果安裝了底邊艙和頂邊艙，它們可為雙層殼結構的組成部分。

5 散貨船的*長度*係指現行的《國際載重線公約》所定義的長度。

6 *固體散貨*係指除液體或氣體以外的直接裝入船舶貨物處所而無須利用任何中介形式圍控的由細粒、顆粒或較大塊材料組成的貨物，其成分一般較均勻。

7 *散貨船橫艙壁和雙層底強度標準*係指於 1997 年 11 月 27 日召開的《1974 年國際海上人命安全公約》締約國政府大會以第 4 號決議通過的“評估前部兩個貨艙間橫向槽型水密艙壁構件尺寸和評估第一貨艙許可載貨量的標準”，該標準可由本組織修正，但這些修正案須按照本公約關於適用於除第 I 章外的附則的修正程序的第 VIII 條予以通過、生效和實施。



- 8 建造的散貨船係指安放龍骨或處於類似建造階段的散貨船。
- 9 類似建造階段係指在該階段：
- .1 可辨認出某一具體船舶建造開始；和
  - .2 該船已經開始的裝配量至少為 50 噸，或為所有結構材料估算重量的 1%，以較小者為準。
- 10 散貨船的寬度（B）係指現行的《國際載重線公約》所定義的寬度。

## 第 2 條

### 適用範圍

散貨船除須滿足其他章節的適用要求外，還須滿足本章的要求。

## 第 3 條

### 實施時間表

1999 年 7 月 1 日以前建造的適用第 4 條或第 6 條的散貨船，應根據下列時間表符合第 XI-1 章第 2 條要求的加強檢驗計劃有關條款的規定：

- .1 在 1999 年 7 月 1 日船齡為 20 年或以上的散貨船，第一次期間檢驗之日或 1999 年 7 月 1 日之後的第一次定期檢驗，取早者；
- .2 在 1999 年 7 月 1 日船齡為 15 年或以上但不滿 20 年的散貨船，在 1999 年 7 月 1 日以後第 1 次定期檢驗之日，但不應晚於 2002 年 7 月 1 日；和

- .3 在 1999 年 7 月 1 日船齡不足 15 年的散貨船，在其船齡達到 15 年之日以後的第 1 次定期檢驗之日，但不應晚於船齡滿 17 年之日。

#### 第 4 條

##### 適用於散貨船的破艙穩性要求

- 1 1999 年 7 月 1 日或以後建造的長度為 150 m 及以上、設計為載運密度為  $1,000 \text{ kg/m}^3$  及以上固體散裝貨物的單舷側散貨船，當裝載至夏季載重線時，應能在所有裝載狀態下承受住任一貨艙進水，並能在第 4 款所規定的令人滿意的平衡狀態下保持漂浮。
- 2 2006 年 7 月 1 日或以後建造的長度為 150 m 及以上、縱向艙壁位於船舷內側與勘劃的夏季載重線上的中線呈直角的方向上 B/5 或 11.5 m 處(以小者為準)以內，設計為載運密度為  $1,000 \text{ kg/m}^3$  及以上固體散裝貨物的雙舷側散貨船，當裝載至夏季載重線時，應能在所有裝載狀態下承受住任一貨艙進水，並能在第 4 款所規定的令人滿意的平衡狀態下保持漂浮。
- 3 1999 年 7 月 1 日以前建造的長度為 150 m 及以上、載運密度為  $1,780 \text{ kg/m}^3$  及以上固體散裝貨物的單舷側散貨船，當裝載至夏季載重線時，應能在所有裝載狀態下承受住船艙貨艙進水，並能在第 4 款所規定的令人滿意的平衡狀態下保持漂浮。應按照第 3 條規定的實施時間表符合此要求。
- 4 按照第 7 款的規定，進水後的平衡狀態應滿足經 A.514(13) 號大會決議修正的 A.320 (IX) 號大會決議附件中的“等效於

《1966 年國際載重線公約》第 27 條的條款”所規定的平衡狀態。假定的進水只需考慮貨艙處所進水至該進水狀態中船外的水位。載貨艙的滲透率假定為 0.9，空艙的滲透率假定為 0.95，除非將進水艙內貨物所佔體積的滲透率取為該貨物的實際滲透率，而貨艙其餘空間的滲透率按 0.95 計算。

5 1999 年 7 月 1 日以前建造的並已按照 1966 年 4 月 5 日通過的《1966 年國際載重線公約》第 27(7) 條勘劃為減小乾舷的散貨船，可視為滿足本條第 3 款的要求。

6 按照經 A.514(13) 號大會決議修正的 A.320(IX) 號大會決議通過的等效於《1966 年國際載重線公約》第 27 條的條款第(8) 段規定被勘劃為減小乾舷的散貨船，可視為滿足本條相應第 1 款或第 2 款的要求。

7 按照《1966 年國際載重線公約》1988 年議定書附錄 B 中第 27(8) 條的規定被勘劃為減小乾舷的散貨船，進水後的平衡狀態應符合該議定書的有關規定。

## 第 5 條

### 散貨船的結構強度

1 1999 年 7 月 1 日或以後建造的長度為 150 m 及以上、設計為載運密度為  $1,000 \text{ kg/m}^3$  及以上的固體散裝貨物的單舷側散貨船，應能在所有裝載和壓載狀態下承受住任一貨艙進水至進水狀態中船舶外的水位，還應考慮到貨艙進水而產生的動力效應，並應注意到本組織通過的建議。

2 2006年7月1日或以後建造的長度為150 m及以上、縱向艙壁位於船舷內側與勘劃的夏季載重線上的中線呈直角的方向上B/5或11.5 m處(以小者為準)以內，設計為載運密度為1,000 kg/m<sup>3</sup>及以上的固體散裝貨物的雙舷側散貨船，應符合第1款的結構強度要求。

## 第6條

### 散貨船的結構要求和其他要求

1 1999年7月1日以前建造的長度為150 m及以上、載運密度為1,780 kg/m<sup>3</sup>及以上的固體散裝貨物的單舷側散貨船，應根據第3條規定的實施時間表，符合下列要求：

- .1 船艙兩個貨艙之間的橫向水密艙壁和船艙貨艙的雙層底應有足夠的強度承受船艙貨艙進水，還應考慮到貨艙進水所產生的動力效應，應符合散貨船艙壁和雙層底的強度標準。就本條而言，散貨船艙壁和雙層底的強度標準應被視為強制性要求。
- .2 為滿足第1.1款的要求，在考慮加強橫向水密艙壁和雙層底的必要性和範圍時，可考慮以下限制性措施：
  - .1 貨艙之間總載重量分佈的限制；和
  - .2 最大載重量的限制。
- .3 對於為了滿足第1.1款的要求而採用上述第1.2.1和第1.2.2款中的一種或兩種限制性措施的散貨船，在裝載密度為1,780 kg/m<sup>3</sup>及以上的固體散裝貨物時，都應遵守這些限制性措施。

2 2006 年 7 月 1 日或以後建造的長度為 150 m 及以上的雙舷側散貨船，應遵守下列要求：

- .1 雙層殼的主要加強結構不應置於貨艙處所內。
- .2 按照下列規定，垂直於舷殼板測量的任何橫斷面的外殼板與內殼板之間的距離均不應小於 1,000 mm。雙層殼結構應根據第 II-1 章第 3-6 條及其所述的《技術規定》的要求留有檢驗通道。
  - .1 在橫向拉杆、橫骨架的上端和下端墊板或縱向骨架的端部托架的方向上不必保留下間隙。
  - .2 沿着諸如管線或垂直梯的障礙物通過雙層殼處所的暢通出入裝置的最小寬度不應小於 600 mm。
  - .3 如果是橫向構成的內殼和/或外殼，骨架內表面間的最小間隙不應小於 600 mm。
  - .4 如果是縱向構成的內殼和/或外殼，骨架內表面間的最小間隙不應小於 800 mm。在貨艙長度的平行部分之外，如果為結構外形所必需的，此間隙可以減小，但無論如何不應小於 600 mm。
  - .5 上述提及的最小間隙應是連接內殼和外殼上骨架內表面假定線之間量得的最短距離。

3 2006 年 7 月 1 日或以後建造的長度為 150 m 及以上的散貨船上佈置的雙層殼處所和專用海水壓載艙應根據第 II-1 章第 3-2 條的要求並根據本組織將通過的塗層性能標準塗上塗層。

- 4 雙層殼處所不應用於載運貨物，頂邊艙（如果安裝）除外。
- 5 2006年7月1日或以後建造的長度為150 m及以上，載運密度為 $1,000 \text{ kg/m}^3$ 及以上的固體散裝貨物的散貨船：
  - .1 貨艙的結構應使所有預期貨物能夠通過標準的裝卸設備和裝卸程序進行裝卸而不損害或影響結構的安全；
  - .2 應保證舷側結構和船體結構其他部分的有效連續性；以及
  - .3 貨物區域的結構應保證在一個加強構件失效後不會導致那些可能會導致整個加強框架垮掉的其他構造部件立即隨之失效。

## 第 7 條

### 散貨船的檢驗和維護

- 1 1999年7月1日以前建造的長度為150 m及以上、船齡為10年及以上的單舷側散貨船，除非滿意地通過了以下某一項檢驗，不得載運密度為 $1,780 \text{ kg/m}^3$ 及以上的固體散裝貨物：
  - .1 根據第 XI-1 章第 2 條要求的“檢驗期間加強檢驗計劃”而進行的定期檢驗，或
  - .2 對所有貨艙進行了第 XI-1 章第 2 條要求的“檢驗期間加強檢驗計劃”中對定期檢驗所要求的相同範圍的檢驗。
- 2 散貨船應符合第 II-1 章第 3-1 條以及本組織以海安會第 MSC.169 (79) 號決議通過的“散貨船艙口蓋船東檢查和維護標

準”規定的維護要求。該標準可由本組織修訂，但必須按照本公約第 VIII 條關於適用於除第 1 章外的附則的修正程序的規定予以通過、生效和實施。

## 第 8 條

### 關於滿足散貨船要求的信息

- 1 第 VI 章第 7.2 條要求的小冊子應由主管機關簽署或代其簽署，以表明符合本章第 4、第 5、第 6 和第 7 條（如適用）。
- 2 根據第 6 條和第 14 條的要求對散貨船載運密度為 1,780 kg/m<sup>3</sup> 及以上的固體散裝貨物所採取的任何限制性措施，應在第 1 款所述小冊子中予以明確和記錄。
- 3 對於適用第 2 款的散貨船，應在舷側船中的左右兩舷永久性地打上一個實心的等邊三角形標誌，其邊長為 500 mm，其頂點在甲板線以下 300 mm，並漆成與船體顏色形成反差的顏色。

## 第 9 條

### 對因貨艙結構設計原因而不能滿足第 4.3 條的散貨船的要求

對 1999 年 7 月 1 日以前建造的在第 4.3 條適用範圍之內的散貨船，如因構造的水密橫向艙壁數量不足而無法滿足該條的要求，主管機關可放寬其執行第 4.3 條和第 6 條的要求，條件是它們應滿足下列要求：

- .1 對於船艙貨艙，第 XI-1 章第 2 條要求的在“檢驗期間加強檢查計劃”中規定的年度檢驗的檢查應由對貨艙期間檢驗所規定的檢查取代；

- .2 在所有貨艙或貨物傳送通道（如適合時）內安裝經主管機關或經其認可的組織根據第 XI-1 章第 1 條的規定批准的污水穿高水位警報器，並能在駕駛室發出聲光警報；和
- .3 提供了特定貨艙進水情形的詳細資料。該資料應附有《國際安全管理規則》（ISM）第 8 節規定的關於疏散準備的詳細須知，並作為船員培訓和演習的基礎。

## 第 10 條

### 固體散貨密度的申報

- 1 在長度為 150 m 及以上的散貨船裝載散貨之前，托運人除應根據第 VI 章第 2 條的要求提供貨物資料外，還應申報貨物的密度。
- 2 對適用第 6 條的散貨船，除非其已滿足本章中適用於載運密度為  $1,780 \text{ kg/m}^3$  及以上的固體散貨的所有要求，否則，所申報的密度在  $1,250 \text{ kg/m}^3$  至  $1,780 \text{ kg/m}^3$  之間的任何貨物，其密度均應由經認證的檢測機構核實。

## 第 11 條

### 裝載儀

（除另有規定外，本條適用於任何時候建造的散貨船）

- 1 長度為 150 m 及以上的散貨船應裝配能提供船體梁的剪力和彎矩資料的裝載儀，並應考慮到本組織通過的建議案。



2 1999 年 7 月 1 日以前建造的長度為 150 m 及以上的散貨船，應在不晚於 1999 年 7 月 1 日之後船舶進行的第一次期間檢驗或定期檢驗之日滿足第 1 款的要求。

3 在 2006 年 7 月 1 日或以後建造的長度小於 150 m 的散貨船，應裝配能提供船舶完整狀態中穩性資料的裝載儀。計算機軟件關於穩性的計算應得到主管機關的批准，並應提供用於測試經批准的穩性資料的標準條件。

## 第 12 條

### 貨艙、壓載和乾處所進水警報

(本條適用於任何時候建造的散貨船)

1 散貨船應裝配水位探測器如下：

- .1 在每一貨艙中，一個水位探測器在任一貨艙水位達到高於內底 0.5 m 高度時能發出聲光警報，另一水位探測器應在水位高度小於貨艙深度 15% 但不超過 2 m 之處時發出警報。在適用第 9.2 條的散貨船上，需要安裝僅帶後警報的探測器。水位探測器應安裝在貨艙的後端。對於被用作水壓載的貨艙，可安裝警報過載裝置。可視警報裝置應明顯地區分出每一貨艙中探測到的兩個不同水位；
- .2 在第 II-1 章第 11 條要求的防撞艙壁前的任一壓載艙中，當艙內液體未超過艙容 10% 時能發出聲光警報。可安裝警報過載裝置，當該艙被使用時，該裝置即被啟動；和

- .3 在非錨鏈艙的任何乾處所或留空處所，其向船艙貨艙前伸出的任何部分，當水位高於甲板 0.1 m 時，應能發出聲光警報。在容量不超過船舶最大排水量 0.1% 的封閉處所，不必配備這樣的警報裝置。
- 2 第 1 款中規定的聲光警報裝置應安裝在駕駛台。
- 3 2004 年 7 月 1 日以前建造的散貨船應不晚於 2004 年 7 月 1 日之後進行的船舶年度、期間或換新檢驗之日符合本條的要求，取最早者。

### 第 13 條

#### 泵系的有效性

(本條適用於任何時候建造的散貨船)

- 1 在散貨船上，排泵防撞艙壁前部和乾處所底部壓載艙的設施，伸向船艙貨艙前部的任一部分均應能從易於接近的封閉處所被操作，控制裝置的位置從駕駛台或推進機器控制的位置可以接近，而無須橫越露天乾舷或上層建築甲板。如果服務於這種艙或底部的管道穿透防撞艙壁，可接受採用遙控啟動裝置操作閥門，代替第 II-1 章第 11.4 條規定的閥門控制，但這種控制閥的位置應符合本條要求。
- 2 2004 年 7 月 1 日以前建造的散貨船應不晚於 2004 年 7 月 1 日以後船舶進行第一期間檢驗或換新檢驗之日符合本條的要求，但無論如何不得晚於 2007 年 7 月 1 日。

## 第 14 條

### 空艙航行限制

長度為 150 m 及以上、載運密度為  $1,780 \text{ kg/m}^3$  及以上的固體散裝貨物的單舷側散貨船，如果不滿足第 5.1 條以及本組織以海安會第 MSC.168 (79) 號決議通過的“單舷側散貨船舷側結構標準和準則”（該標準規定可由本組織修訂，但必須按照本公約第 VIII 條關於適用於除第 1 章外的附則的修正程序的規定予以通過、生效和實施）中規定的能承受住任何一艙進水的要求，當船齡達到 10 年以後，若任一貨艙的裝載量少於滿載狀態下貨艙最大裝載量的 10% 時不得航行。本條適用的滿載狀態為等於或大於船舶勘定乾舷載重量的 90%。”

## 附錄

### 證書

#### 客船安全證書格式

13 在以“本證書有效期至”開始的一節與以“簽發於”開始的一節之間增加以下新的一節：

“本證書所依據之檢驗的完成日期為.....。”

日/月/年

#### 貨船構造安全證書格式

14 在以“本證書有效期至”開始的一節與以“簽發於”開始的一節之間增加以下新的一節：

“本證書所依據之檢驗的完成日期為.....。”

日/月/年

#### 貨船設備安全證書格式

15 在以“本證書有效期至”開始的一節與以“簽發於”開始的一節之間增加以下新的一節：

“本證書所依據之檢驗的完成日期為.....。”

日/月/年

#### 貨船設備安全證書的設備記錄（格式 E）

16 將現有的第 3 節修改如下：

“3 導航系統和設備細目

項目	實際提供
1.1 標準磁羅經*	.....
1.2 備用磁羅經*	.....
1.3 電羅經*	.....
1.4 電羅經航向複示器*	.....
1.5 電羅經方位複示器*	.....
1.6 航向或航程控制系統*	.....
1.7 啞羅經或羅經方位儀*	.....
1.8 航向和方位修正儀*	.....
1.9 航向發射儀 (THD)*	.....
2.1 海圖/電子海圖顯示和信息系統 (ECDIS)**	.....
2.2 ECDIS 後備安排	.....
2.3 航海出版物	.....
2.4 電子航海出版物的後備安排	.....
3.1 全球衛星導航系統/岸上無線電導航系統接收機***	.....
3.2 9GHz 雷達*	.....
3.3 第二套雷達 (3GHz/9GHz)**)*	.....
3.4 自動雷達標繪儀 (ARPA)*	.....
3.5 自動跟踪儀*	.....
3.6 第二套自動跟踪儀*	.....
3.7 電子標繪儀*	.....
4 自動識別系統 (AIS)	.....
5.1 航行數據記錄儀 (VDR)**	.....
5.2 簡化航行數據記錄儀 (S-VDR)**	.....
6.1 (水中) 速度和距離測量儀*	.....
6.2 (船舶向前和垂直於縱軸方向對岸) 速度和距離測量儀*	.....
6.3 回聲測探儀*	.....
7.1 舵、推進器、推力、縱搖和操作模式顯示器*	.....
7.2 旋回速率指示器*	.....
8 聲響接收系統*	.....
9 通向應急操舵位置的電話*	.....
10 日光信號燈*	.....
11 雷達反射器*	.....
12 國際信號規則	.....
13 IAMSAR 手冊, 第 III 卷	.....

\* 根據第 V 章第 19 條的規定, 可允許符合此要求的替代裝置。如果是其他裝置, 則應寫明。

\*\* 不適用者刪去。

### 貨船無線電安全證書格式

17 在以“本證書有效期至”開始的一節與以“簽發於”開始的一節之間增加以下新的一節：

“本證書所依據之檢驗的完成日期為.....。”

日/月/年

### 核動力客輪安全證書的格式

18 將現有證書的格式用下文代替：

#### “核動力客輪安全證書

本證書應由設備記錄加以補充（PNUC 格式）

（公章）

（國家）

對於<sup>一次</sup>~~短途~~<sup>1</sup>國際航行

根據《經 1988 年議定書修訂的〈1974 年國際海上人命安全公約〉》的規定，

經\_\_\_\_\_政府授權，

（國家全稱）

由\_\_\_\_\_簽發。

（授權的個人或組織全稱）

### 船舶細節<sup>2</sup>

<sup>1</sup> 適當刪除。

<sup>2</sup> 船舶的細節也可水平置於方框內。

- 船名 .....
- 船舶編號或呼號 .....
- 船籍港 .....
- 總噸位 .....
- 准予該船舶運營的海域（第 IV 章第 2 條） .....
- 國際海事組織編號 .....
- 安放龍骨或船舶處於類似建造階段的日期，或重大改裝或改建或改造工作的日期 .....

**茲證明：**

- 1 該船已按照公約第 VIII 章第 9 條的要求進行了檢驗。
- 2 該船作為核動力船舶符合公約第 VIII 章的所有要求並符合認可的安全評估要求；和：

2.1 該船在以下方面符合公約的要求：

- .1 結構、主機和輔機、鍋爐和其它壓力容器；包括核動力推動裝置以及防撞結構；
- .2 水密分艙佈置和細節；
- .3 下列分艙載重線：

勘劃分艙載重線並標記在船側中間（第 II-1/13 條）	乾舷	適用於包括下列替代處所在內的載客處所
C.1	.....	.....
C.2	.....	.....
C.3	.....	.....

2.2 該船在結構防火、消防安全系統和設備及防火控制圖方面符合公

約的要求；

2.3 該船符合公約關於防止系統和設備輻射的要求；

2.4 該船按公約的要求配備了救生設施、救生艇、救生筏和救助艇設備；

2.5 該船按照公約要求配備了救生設備中適用的拋纜設備和無線電裝置；

2.6 該船符合公約有關無線電設備的要求；

2.7 救生設備使用的無線電設備的功能符合公約要求；

2.8 該船符合公約有關船載導航設備、引水員登乘裝置和航行出版物方面要求；

2.9 該船按照本公約和現行《國際海上避碰規則》的要求配備了航行燈、號型及發出聲響信號和遇險信號的裝置；

2.10 該船在所有其他各個方面均符合公約的有關要求。

本證書有效期至 .....

本證書所依據之檢驗的完成日期： .....

(日/月/年)

簽發於 .....

(證書簽發地)

簽發日期.....

(證書簽發地)

(授權簽發證書的官員簽字)



(主管當局的公章或印章) ”

19 在《核動力客船安全證書格式》後增加下述《核動力客船安全證書設備記錄》如下：

“核動力客船安全證書設備記錄 (PNUC 格式)

此記錄應永久地附在核動力客船安全證書之後

符合《經 1988 年議定書修訂的〈1974 年國際海上人命安全公約〉》規定的設備記錄

1 船舶細節

船名 .....  
船舶編號或呼號 .....  
核准的載客數 .....  
有資格操作無線電設備的最低人數 .....

2 救生設備細目

1	配備救生設施的總人數 .....		
		左舷	右舷
2	救生艇總數	.....	.....
2.1	救生艇可容納的總人數	.....	.....
2.2	部分封閉救生艇的數量 (第 III/21 條和救生設備規則第 4.5 節)	.....	.....
2.3	全封閉救生艇的數量 (第 III/21 條和救生設備規則第 4.6 節)	.....	.....
2.4	其他救生艇	.....	.....
2.5.1	數量	.....	.....
2.5.2	類型	.....	.....

3	上述救生艇總數中機動救生艇數量	.....
3.1	裝有探照燈的救生艇數量	.....

4	救助艇的數量	.....
4.1	上述救生艇總數中舢舨的數量	.....
5	救生筏	
5.1	要求有認可型降落裝置的救生筏	
5.1.1	救生筏數量	.....
5.1.2	可容納的總人數	.....
5.2	不要求有認可型降落裝置的救生筏	
5.2.1	救生筏數量	.....
5.2.2	可容納的總人數	.....
6	浮力器具	
6.1	器具的數量	.....
6.2	可支持的人員總數	.....
7	救生圈數量	.....
8	救生衣數量	
9	浸水服	.....
9.1	總數	.....
9.2	符合救生衣要求的浸水服數量	.....
10	保溫服數量 <sup>1</sup>	.....
11	用於救生設備的無線電裝置	.....
11.1	雷達應答器數量	.....
11.2	雙向甚高頻無線電話數量	.....

### 3 無線電設備的細目

項目	實際配置數
1 主系統	
1.1 甚高頻無線電裝置	
1.1.1 數字選擇呼叫編碼器	.....
1.1.2 數字選擇呼叫值班接收機	.....
1.1.3 無線電話	.....
1.2 中頻無線電裝置	
1.2.1 數字選擇呼叫編碼器	.....
1.2.2 數字選擇呼叫值班接收機	.....
1.2.3 無線電話	.....

<sup>1</sup> 不包括救生設備規則第 4.1.5.1.24，4.4.8.31 和 5.1.2.213 段要求的。

1.3	中頻/高頻無線電裝置	
1.3.1	數字選擇呼叫編碼器	.....
1.3.2	數字選擇呼叫值班接收機	.....
1.3.3	無線電話	.....
1.3.4	直接打印無線電報機	.....
1.4	國際海事衛星船舶地球站	.....
2	輔助警報設備	.....
3	海上安全信號接收裝置	
3.1	航行警告電傳接收機	.....
3.2	增強群呼接收機	.....
3.3	高頻直接打印電報接收機	.....
4	衛星應急無線電示位標	
4.1	極軌道搜救衛星系統	.....
4.2	國際海事衛星系統	.....
5	甚高頻應急無線電示位標	.....
6	船舶雷達應答器	.....

4 保證無線電設施有效性所採用的方法（見第 IV/15.6 和 IV/15.7 條）

- 4.1 備用設備.....
- 4.2 岸基維護.....
- 4.3 海上維護能力.....

5 航行系統和設備細目

項目	實際配備
1.1 標準磁羅經 <sup>2</sup>	.....
1.2 備用磁羅經 <sup>2</sup>	.....
1.3 電羅經 <sup>2</sup>	.....
1.4 電羅經航向複示器 <sup>2</sup>	.....
1.5 電羅經方位複示器 <sup>2</sup>	.....
1.6 航向或航程控制系統 <sup>2</sup>	.....
1.7 啞羅經或羅經方位儀 <sup>2</sup>	.....
1.8 航向和方位修正儀	.....
1.9 航向發射儀 (THD) <sup>2</sup>	.....
2.1 海圖/電子海圖顯示和信息系統 (ECDIS) <sup>3</sup>	.....
2.2 ECDIS 的後備安排	.....
2.3 航海出版物	.....
2.4 電子航海出版物的後備安排	.....
3.1 全球衛星導航系統/岸上無線電導航系統接收機 <sup>2,3</sup>	.....
3.2 9GHz 雷達 <sup>2</sup>	.....
3.3 第二套雷達(3GHz/9GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4 自動雷達標繪儀 (ARPA) <sup>2</sup>	.....
3.5 自動跟踪儀 <sup>2</sup>	.....
3.6 第二套自動跟踪儀 <sup>2</sup>	.....
3.7 電子標繪儀 <sup>2</sup>	.....
4 自動識別系統 (AIS)	.....
5 航程數據記錄儀 (VDR)	.....
6.1 (水中) 速度和距離測量儀 <sup>2</sup>	.....
6.2 (船舶向前和垂直龍骨方向對岸) 速度和距離測量儀 <sup>2</sup>	.....
7 回聲測深儀 <sup>2</sup>	.....
8.1 舵、推進器、推力、縱搖和操作模式顯示器 <sup>2</sup>	.....
8.2 旋回率指示器 <sup>2</sup>	.....
9 聲響接收系統 <sup>2</sup>	.....

<sup>2</sup> 不適用者刪去。

<sup>3</sup> 根據 V/19 條，允許使用滿足此要求的替代方式。如果使用了其他方式，應具體列明。

項目	實際配備
10 通向應急操舵位置的電話 <sup>2</sup>	.....
11 日光信號燈 <sup>2</sup>	.....
12 雷達反射器 <sup>2</sup>	.....
13 國際信號規則	.....
14 IAMSAR 手冊第 III 卷	.....

茲證明本記錄全部正確無誤。

簽發於 .....

(簽發地點)

.....

.....

(簽發日期)

(簽發記錄的正式授權官員的簽名)

(發證單位蓋章或印章) ”

### 核動力貨船安全證書格式

20 將現有證書格式用下文代替：

#### “核動力貨船安全證書

本證書應由設備記錄加以補充（CNUC 格式）

（官方印鑒）

（國家）

根據《經 1988 年議定書修訂的 1974 年國際海上人命安全公約》  
的規定，

經\_\_\_\_\_政府授權，

（國家名稱）

由\_\_\_\_\_簽發。

（授權的人或組織）

#### 船舶細節<sup>1</sup>

船名 .....

船舶編號或呼號 .....

船籍港 .....

載重噸 .....

總噸位（米制噸）<sup>2</sup> .....

船舶長度（第 III/3.12 條） .....

船舶的核准運行的海區（第 IV/2 條） .....

國際海事組織編號 .....

#### 船舶類型<sup>3</sup>

<sup>1</sup> 船舶細節也可水平置於方框內。

<sup>2</sup> 只適用油船、化學品船和氣體船。

<sup>3</sup> 不適用者刪去。

散貨船

油船

化學品船

氣體運輸船

以上類型以外的船舶

安放龍骨或處於相同建造階段的日期，或如果合適，開始進行重大改建或改裝的日期.....

**茲證明：**

- 1 該船已按公約第 VIII 章第 9 條的要求進行過檢驗。
- 2 該船作為核動力船舶，符合公約第 VIII 章的所有要求並符合為該船所認可的安全評估要求；並且
  - 2.1 第 I/10 條（為符合第 VIII/9 條所適用者）所定義的結構、機械和設備，包括核動力推進裝置以及防撞結構令人滿意，船舶符合公約第 II-1 章和第 II-2 章的有關要求（除消防安全系統和設備及消防控制圖以外的要求）；
  - 2.2 該船符合公約關於消防安全系統和設備及消防控制圖的要求；
  - 2.3 配備的救生設備和救生艇、救生筏和救助艇設備均符合公約的要求；
  - 2.4 該船按照公約的要求配備了救生設備使用的拋繩設備和無線電裝置；
  - 2.5 該船符合公約關於無線電裝置的要求；
  - 2.6 救生設備使用的無線電裝置的功能符合公約的要求；

- 2.7 該船符合公約關於船載導航設備、引水員登乘裝置和航海出版物的要求；
- 2.8 該船按照公約和現行的《國際避碰規則》的要求配備了航行燈、號型和發送聲響信號和遇險信號的裝置；
- 2.9 在所有其他方面，船舶符合所適用的有關要求。

本證書有效期至 .....

本證書依據完成檢驗的日期 .....

(年/月/日)

簽發於 .....

(證書簽發地點)

.....

.....

(證書簽發日期)

(簽發證書的授權官員的簽字)

(簽發當局的鋼印或公章) ”



21 在核動力貨船安全證書格式後增加核動力貨船安全證書的下列設備記錄：

“核動力貨船安全證書的設備記錄（CNUC 格式）

本記錄應永久地附於《核動力貨船安全證書》之後

符合《經 1988 年議定書修訂的〈1974 年國際海上人命安全公約〉》  
要求的設備記錄

1 船舶細節

船名 .....

船舶編號或呼號 .....

有資格操作無線電設備的最低人數 .....

2 救生設備細目

1 配備救生設備的總人數	.....	
	左舷	右舷
2 救生艇總數	.....	.....
2.1 救生艇可容納的總人數	.....	.....
2.2 全封閉救生艇的數量（第 III/31 條和救生設備規則第 4.6 節）	.....	.....
2.3 半封閉式自動扶正救生艇的數量（第 III/31 條和救生設備規則第 4.8 節）	.....	.....
2.4 耐火救生艇的數量（第 III/31 條和救生設備規則第 4.9 節）	.....	.....
2.5 其他救生艇	.....	.....
2.5.1 數量	.....	.....
2.5.2 類型	.....	.....
2.6 自由降落式救生艇的數量	.....	.....
2.6.1 全封閉（第 III/31 條和救生設備規則第 4.7 節）	.....	.....
2.6.2 半封閉（第 III/31 條和救生設備規則第 4.8 節）	.....	.....
2.6.3 耐火（第 III/31 條和救生設備規則第 4.9 節）	.....	.....

3	上述救生艇總數中機動救生艇數量	.....
3.1	裝有探照燈的救生艇數量	.....
4	救助艇的數量	.....
4.1	上述救生艇總數中舢舨的數量	.....
5	救生筏	.....
5.1	要求有認可型降落裝置的救生筏	.....
5.1.1	救生筏數量	.....
5.1.2	救生筏可容納的總人數	.....
5.2	不要求有認可型降落裝置的救生筏	.....
5.2.1	救生筏數量	.....
5.2.2	救生筏可容納的總人數	.....
5.3	第 III/31.1.4 條所要求的救生筏數量	.....
6	救生圈數量	.....
7	救生衣數量	.....
8	浸水服	.....
8.1	總數	.....
8.2	符合救生衣要求的浸水服數量	.....
9	保溫服數量 <sup>1</sup>	.....
10	用於救生設備的無線電裝置	.....
10.1	雷達應答器數量	.....
10.2	雙向甚高頻無線電話數量	.....

### 3 無線電設備的細目

項目		實際配置數
1	主系統	
1.1	甚高頻無線電裝置	
1.1.1	數字選擇呼叫編碼器	.....
1.1.2	數字選擇呼叫值班接收機	.....
1.1.3	無線電話	.....
1.2	中頻無線電裝置	
1.2.1	數字選擇呼叫編碼器	.....
1.2.2	數字選擇呼叫值班接收機	.....
1.2.3	無線電話	.....
1.3	中頻/高頻無線電裝置	

<sup>1</sup> 不包括救生設備規則第 4.1.5.1.24、4.1.8.31 和 5.1.2.2.13 段的要求。

1.3.1	數字選擇呼叫編碼器	.....
1.3.2	數字選擇呼叫值班接收機	.....
1.3.3	無線電話	.....
1.3.4	直接打印無線電報機	.....
1.4	國際海事衛星船舶地球站	.....
2	輔助警報設備	
3	海上安全信號接收裝置	
3.1	航行警告電傳接收機	.....
3.2	增強群呼接收機	.....
3.3	高頻直接打印電報接收機	.....
4	衛星應急無線電示位標	
4.1	極軌道搜救衛星系統	.....
4.2	國際海事衛星系統	.....
5	甚高頻應急無線電示位標	.....
6	船舶雷達應答器	.....

#### 4 保證無線電設施有效性所採用的方法（見第 IV/15.6 和 IV/15.7 條）

4.1 備用設備.....

4.2 岸基維護.....

4.3 海上維護能力.....

#### 5 航行系統和設備細目

	項目	實際配備
1.1	標準磁羅經 <sup>2</sup>	.....
1.2	備用磁羅經 <sup>2</sup>	.....
1.3	電羅經 <sup>2</sup>	.....
1.4	電羅經航向複示器 <sup>2</sup>	.....
1.5	電羅經方位複示器 <sup>2</sup>	.....
1.6	航向或航程控制系統 <sup>2</sup>	.....
1.7	啞羅經或羅經方位儀 <sup>2</sup>	.....

<sup>2</sup> 根據第 V/19 條，允許使用滿足此要求的替代方式。如果使用了其他方式，應具體列明。

1.8	航向和方位修正儀	.....
1.9	航向發射儀 (THD) <sup>2</sup>	.....
2.1	海圖/電子海圖顯示和信息系統 (ECDIS) <sup>3</sup>	.....
2.2	ECDIS 的後備安排	.....
2.3	航海出版物	.....
2.4	電子航海出版物的後備安排	.....
3.1	全球衛星導航系統/岸上無線電導航系統接收機 <sup>2,3</sup>	.....
3.2	9GHz 雷達 <sup>2</sup>	.....
3.3	第二套雷達 (3GHz/9GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4	自動雷達標繪儀 (ARPA) <sup>2</sup>	.....
3.5	自動跟踪儀 <sup>2</sup>	.....
3.6	第二套自動跟踪儀 <sup>2</sup>	.....
3.7	電子標繪儀 <sup>2</sup>	.....
4	自動識別系統 (AIS)	.....
5.1	航行數據記錄儀 (VDR) <sup>3</sup>	.....
5.2	簡化航行數據記錄儀 (VDR) <sup>3</sup>	.....
6.1	(水中) 速度和距離測量儀 <sup>2</sup>	.....
6.2	(船舶向前和垂直龍骨方向對岸) 速度和距離測量儀 <sup>2</sup>	.....
6.3	回聲測深儀 <sup>2</sup>	.....
7.1	舵、推進器、推力、縱搖和操作模式指示器 <sup>2</sup>	.....
7.2	旋回率指示器 <sup>2</sup>	.....
8	聲響接收系統 <sup>2</sup>	.....
9	通向應急操舵位置的電話 <sup>2</sup>	.....
10	日光信號燈 <sup>2</sup>	.....
11	雷達反射器 <sup>2</sup>	.....
12	國際信號規則	.....
13	IAMSAR 手冊第 III 卷	.....

茲證明本記錄全部正確無誤。

簽發於 .....

( 簽發地點 )

.....

.....

( 簽發日期 )

( 簽發記錄的正式授權官員的簽名 )

( 發證單位蓋章或印章 ) ”

<sup>3</sup> 不適用者刪去。

**RESOLUTION MSC.170(79)**  
**(adopted on 9 December 2004)**

**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 FURTHER 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 the provisions of chapter I thereof,

HAVING CONSIDERED, at its seventy-ninth 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 2006, 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 July 2006 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. FURTHER 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, 1974, AS AMENDED

## CHAPTER II-1

CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY, MACHINERY  
AND ELECTRICAL INSTALLATIONS**Regulation 2 - Definitions**

1 The following new paragraph 14 is added after existing paragraph 13:

“14 *Bulk carrier* means a bulk carrier as defined in regulation XII/1.1.”

**Regulation 18 – Construction and initial tests of watertight doors, sidescuttles, etc., in passenger ships and cargo ships**

2 Paragraph 2 of the regulation is replaced by the following:

“2 In passenger ships and cargo ships watertight doors shall be tested by water pressure to a head up to the bulkhead deck or freeboard deck respectively. Where testing of individual doors is not carried out because of possible damage to insulation or outfitting items, testing of individual doors may be replaced by a prototype pressure test of each type and size of door with a test pressure corresponding at least to the head required for the intended location. The prototype test shall be carried out before the door is fitted. The installation method and procedure for fitting the door on board shall correspond to that of the prototype test. When fitted on board, each door shall be checked for proper seating between the bulkhead, the frame and the door.”

**Regulation 45 - Precautions against shock, fire and other hazards of electrical origin**

3 After the heading the following words are added:

“(Paragraphs 10 and 11 of this regulation apply to ships constructed on or after 1 January 2007)”.

4 Existing paragraph 10 is replaced by the following:

“10 No electrical equipment shall be installed in any space where flammable mixtures are liable to collect, e.g. in compartments assigned principally to accumulator batteries, in paint lockers, acetylene stores or similar spaces, unless the Administration is satisfied that such equipment is:

- .1 essential for operational purposes;
- .2 of a type which will not ignite the mixture concerned;
- .3 appropriate to the space concerned; and

- .4 appropriately certified for safe usage in the dusts, vapours or gases likely to be encountered.”
- 5 The following new paragraph 11 is added after paragraph 10, as amended:
- “11 In tankers, electrical equipment, cables and wiring shall not be installed in hazardous locations unless it conforms with standards not inferior to those acceptable to the Organization. However, for locations not covered by such standards, electrical equipment, cables and wiring which do not conform to the standards may be installed in hazardous locations based on a risk assessment to the satisfaction of the Administration, to ensure that an equivalent level of safety is assured.”
- 6 Existing paragraph 11 is renumbered as paragraph 12.

### CHAPTER III

#### LIFE-SAVING APPLIANCES AND ARRANGEMENTS

##### **Regulation 31 - Survival craft and rescue boats**

- 7 The following new paragraph 1.8 is added after existing paragraph 1.7:
- “1.8 Notwithstanding the requirements of paragraph 1.1, bulk carriers as defined in regulation IX/1.6 constructed on or after 1 July 2006 shall comply with the requirements of paragraph 1.2.”

### CHAPTER V

#### SAFETY OF NAVIGATION

##### **Regulation 19 – Carriage requirements for shipborne navigational systems and equipment**

- 8 In paragraph 2.5, the existing text of subparagraph .1 is replaced by the following:
- “.1 a gyro compass, or other means, to determine and display their heading by shipborne non-magnetic means, being clearly readable by the helmsman at the main steering position. These means shall also transmit heading information for input to the equipment referred in paragraphs 2.3.2, 2.4 and 2.5.5;”

##### **Regulation 20 – Voyage data recorders**

- 9 The following new paragraph 2 is added after existing paragraph 1:
- “2 To assist in casualty investigations, cargo ships, when engaged on international voyages, shall be fitted with a VDR which may be a simplified voyage data recorder (S-VDR) as follows:
- .1 in the case of cargo ships of 20,000 gross tonnage and upwards constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2009;

- .2 in the case of cargo ships of 3,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2007 but not later than 1 July 2010; and
- .3 Administrations may exempt cargo ships from the application of the requirements of subparagraphs .1 and .2 when such ships will be taken permanently out of service within two years after the implementation date specified in subparagraphs .1 and .2 above.”

10 Existing paragraph 2 is renumbered as paragraph 3.

## CHAPTER VII

### CARRIAGE OF DANGEROUS GOODS

#### Regulation 10 – Requirements for chemical tankers

11 The following sentence is deleted from paragraph 1 of the regulation:

“For the purpose of this regulation, the requirements of the Code shall be treated as mandatory.”

## CHAPTER XII

### ADDITIONAL SAFETY MEASURES FOR BULK CARRIERS

12 The existing text of chapter XII is replaced by the following:

#### “Regulation 1

##### Definitions

For the purpose of this chapter:

1 *Bulk carrier* means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers and combination carriers.

2 *Bulk carrier of single-side skin construction* means a bulk carrier as defined in paragraph 1, in which:

- .1 any part of a cargo hold is bounded by the side shell; or
- .2 one or more cargo holds are bounded by a double-side skin, the width of which is less than 760 mm in bulk carriers constructed before 1 January 2000 and less than 1,000 mm in bulk carriers constructed on or after 1 January 2000 but before 1 July 2006, the distance being measured perpendicular to the side shell.

Such ships include combination carriers in which any part of a cargo hold is bounded by the side shell.



3 *Bulk carrier of double-side skin construction* means a bulk carrier as defined in paragraph 1, in which all cargo holds are bounded by a double-side skin, other than as defined in paragraph 2.2.

4 *Double-side skin* means a configuration where each ship side is constructed by the side shell and a longitudinal bulkhead connecting the double bottom and the deck. Hopper side tanks and top-side tanks may, where fitted, be integral parts of the double-side skin configuration.

5 *Length* of a bulk carrier means the length as defined in the International Convention on Load Lines in force.

6 *Solid bulk cargo* means any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is loaded directly into the cargo spaces of a ship without any intermediate form of containment.

7 *Bulk carrier bulkhead and double bottom strength standards* means “Standards for the evaluation of scantlings of the transverse watertight vertically corrugated bulkhead between the two foremost cargo holds and for the evaluation of allowable hold loading of the foremost cargo hold” adopted by resolution 4 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on 27 November 1997, as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I.

8 *Bulk carriers constructed* means bulk carriers the keels of which are laid or which are at a similar stage of construction.

9 *A similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.

10 *Breadth (B)* of a bulk carrier means the breadth as defined in the International Convention on Load Lines in force.

## **Regulation 2**

### **Application**

Bulk carriers shall comply with the requirements of this chapter in addition to the applicable requirements of other chapters.

### Regulation 3

#### Implementation schedule

Bulk carriers constructed before 1 July 1999 to which regulations 4 or 6 apply shall comply with the provisions of such regulations according to the following schedule, with reference to the enhanced programme of inspections required by regulation XI-1/2:

- .1 bulk carriers, which are 20 years of age and over on 1 July 1999, by the date of the first intermediate survey or the first periodical survey after 1 July 1999, whichever comes first;
- .2 bulk carriers, which are 15 years of age and over but less than 20 years of age on 1 July 1999, by the date of the first periodical survey after 1 July 1999, but not later than 1 July 2002; and
- .3 bulk carriers, which are less than 15 years of age on 1 July 1999, by the date of the first periodical survey after the date on which the ship reaches 15 years of age, but not later than the date on which the ship reaches 17 years of age.

### Regulation 4

#### Damage stability requirements applicable to bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, designed to carry solid bulk cargoes having a density of 1,000 kg/m<sup>3</sup> and above, constructed on or after 1 July 1999, shall, when loaded to the summer load line, be able to withstand flooding of any one cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4.

2 Bulk carriers of 150 m in length and upwards of double-side skin construction in which any part of longitudinal bulkhead is located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned summer load line, designed to carry solid bulk cargoes having a density of 1,000 kg/m<sup>3</sup> and above, constructed on or after 1 July 2006, shall, when loaded to the summer load line, be able to withstand flooding of any one cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4.

3 Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above, constructed before 1 July 1999 shall, when loaded to the summer load line, be able to withstand flooding of the foremost cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4. This requirement shall be complied with in accordance with the implementation schedule specified in regulation 3.

4 Subject to the provisions of paragraph 7, the condition of equilibrium after flooding shall satisfy the condition of equilibrium laid down in the annex to resolution A.320(IX) - Regulation equivalent to regulation 27 of the International Convention on Load Lines, 1966, as amended by resolution A.514(13). The assumed flooding need only take into account flooding of the cargo hold space to the water level outside the ship in that flooded condition. The permeability of a loaded hold shall be assumed as 0.9 and the permeability of an empty hold shall be assumed as 0.95, unless a permeability relevant to a particular cargo is assumed for the volume of a flooded hold occupied by cargo and a permeability of 0.95 is assumed for the remaining empty volume of the hold.

5 Bulk carriers constructed before 1 July 1999, which have been assigned a reduced freeboard in compliance with regulation 27(7) of the International Convention on Load Lines, 1966, as adopted on 5 April 1966, may be considered as complying with paragraph 3 of this regulation.

6 Bulk carriers which have been assigned a reduced freeboard in compliance with the provisions of paragraph (8) of the regulation equivalent to regulation 27 of the International Convention on Load Lines, 1966, adopted by resolution A.320(IX), as amended by resolution A.514(13), may be considered as complying with paragraphs 1 or 2, as appropriate.

7 On bulk carriers which have been assigned reduced freeboard in compliance with the provisions of regulation 27(8) of Annex B of the Protocol of 1988 relating to the International Convention on Load Lines, 1966, the condition of equilibrium after flooding shall satisfy the relevant provisions of that Protocol.

## **Regulation 5**

### **Structural strength of bulk carriers**

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, designed to carry solid bulk cargoes having a density of 1,000 kg/m<sup>3</sup> and above, constructed on or after 1 July 1999, shall have sufficient strength to withstand flooding of any one cargo hold to the water level outside the ship in that flooded condition in all loading and ballast conditions, taking also into account dynamic effects resulting from the presence of water in the hold, and taking into account the recommendations adopted by the Organization.

2 Bulk carriers of 150 m in length and upwards of double-side skin construction, in which any part of longitudinal bulkhead is located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned summer load line, designed to carry bulk cargoes having a density of 1,000 kg/m<sup>3</sup> and above, constructed on or after 1 July 2006, shall comply with the structural strength provisions of paragraph 1.

## Regulation 6

### Structural and other requirements for bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above, constructed before 1 July 1999, shall comply with the following requirements in accordance with the implementation schedule specified in regulation 3:

- .1 The transverse watertight bulkhead between the two foremost cargo holds and the double bottom of the foremost cargo hold shall have sufficient strength to withstand flooding of the foremost cargo hold, taking also into account dynamic effects resulting from the presence of water in the hold, in compliance with the Bulk carrier bulkhead and double bottom strength standards. For the purpose of this regulation, the Bulk carrier bulkhead and double bottom strength standards shall be treated as mandatory.
- .2 In considering the need for, and the extent of, strengthening of the transverse watertight bulkhead or double bottom to meet the requirements of 1.1, the following restrictions may be taken into account:
  - .1 restrictions on the distribution of the total cargo weight between the cargo holds; and
  - .2 restrictions on the maximum deadweight.
- .3 For bulk carriers using either of, or both, the restrictions given in 1.2.1 and 1.2.2 above for the purpose of fulfilling the requirements of 1.1, these restrictions shall be complied with whenever solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above are carried.

2 Bulk carriers of 150 m in length and upwards constructed on or after 1 July 2006, shall comply in all areas with double-side skin construction with the following requirements:

- .1 Primary stiffening structures of the double-side skin shall not be placed inside the cargo hold space.
- .2 Subject to the provisions below, the distance between the outer shell and the inner shell at any transverse section shall not be less than 1,000 mm measured perpendicular to the side shell. The double-side skin construction shall be such as to allow access for inspection as provided in regulation II-1/3-6 and the Technical Provisions referring thereto.
  - .1 The clearances below need not be maintained in way of cross ties, upper and lower end brackets of transverse framing or end brackets of longitudinal framing.
  - .2 The minimum width of the clear passage through the double-side skin space in way of obstructions such as piping or vertical ladders shall not be less than 600 mm.

- .3 Where the inner and/or outer skins are transversely framed, the minimum clearance between the inner surfaces of the frames shall not be less than 600 mm.
- .4 Where the inner and outer skins are longitudinally framed, the minimum clearance between the inner surfaces of the frames shall not be less than 800 mm. Outside the parallel part of the cargo hold length this clearance may be reduced where necessitated by the structural configuration, but shall in no case be less than 600 mm.
- .5 The minimum clearance referred to above shall be the shortest distance measured between assumed lines connecting the inner surfaces of the frames on the inner and outer skins.

3 Double-side skin spaces and dedicated seawater ballast tanks arranged in bulk carriers of 150 m in length and upwards constructed on or after 1 July 2006 shall be coated in accordance with the requirements of regulation II-1/3-2 and also based on the Performance standards for coatings to be adopted by the Organization.

4 The double-side skin spaces, with the exception of top-side wing tanks, if fitted, shall not be used for the carriage of cargo.

5 In bulk carriers of 150 m in length and upwards, carrying solid bulk cargoes having a density of 1,000 kg/m<sup>3</sup> and above, constructed on or after 1 July 2006:

- .1 the structure of cargo holds shall be such that all contemplated cargoes can be loaded and discharged by standard loading/discharge equipment and procedures without damage which may compromise the safety of the structure;
- .2 effective continuity between the side shell structure and the rest of the hull structure shall be assured; and
- .3 the structure of cargo areas shall be such that single failure of one stiffening structural member will not lead to immediate consequential failure of other structural items potentially leading to the collapse of the entire stiffened panels.

## **Regulation 7**

### **Survey and maintenance of bulk carriers**

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, constructed before 1 July 1999, of 10 years of age and over, shall not carry solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above unless they have satisfactorily undergone either:

- .1 a periodical survey, in accordance with the enhanced programme of inspections during surveys required by regulation XI-1/2; or

- .2 a survey of all cargo holds to the same extent as required for periodical surveys in the enhanced programme of inspections during surveys required by regulation XI-1/2.

2 Bulk carriers shall comply with the maintenance requirements provided in regulation II-1/3-1 and the Standards for owners' inspection and maintenance of bulk carrier hatch covers, adopted by the Organization by resolution MSC.169(79), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I.

## **Regulation 8**

### **Information on compliance with requirements for bulk carriers**

1 The booklet required by regulation VI/7.2 shall be endorsed by the Administration, or on its behalf, to indicate that regulations 4, 5, 6 and 7, as appropriate, are complied with.

2 Any restrictions imposed on the carriage of solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above in accordance with the requirements of regulations 6 and 14 shall be identified and recorded in the booklet referred to in paragraph 1.

3 A bulk carrier to which paragraph 2 applies shall be permanently marked on the side shell at midships, port and starboard, with a solid equilateral triangle, having sides of 500 mm and its apex 300 mm below the deck line, and painted a contrasting colour to that of the hull.

## **Regulation 9**

### **Requirements for bulk carriers not being capable of complying with regulation 4.3 due to the design configuration of their cargo holds**

For bulk carriers constructed before 1 July 1999 being within the application limits of regulation 4.3, which have been constructed with an insufficient number of transverse watertight bulkheads to satisfy that regulation, the Administration may allow relaxation from the application of regulations 4.3 and 6, on condition that they shall comply with the following requirements:

- .1 for the foremost cargo hold, the inspections prescribed for the annual survey in the enhanced programme of inspections during surveys required by regulation XI-1/2 shall be replaced by the inspections prescribed therein for the intermediate survey of cargo holds;
- .2 are provided with bilge well high water level alarms in all cargo holds, or in cargo conveyor tunnels, as appropriate, giving an audible and visual alarm on the navigation bridge, as approved by the Administration or an organization recognized by it in accordance with the provisions of regulation XI-1/1; and

- .3 are provided with detailed information on specific cargo hold flooding scenarios. This information shall be accompanied by detailed instructions on evacuation preparedness under the provisions of section 8 of the International Safety Management (ISM) Code and be used as the basis for crew training and drills.

## **Regulation 10**

### **Solid bulk cargo density declaration**

1 Prior to loading bulk cargo on bulk carriers of 150 m in length and upwards, the shipper shall declare the density of the cargo, in addition to providing the cargo information required by regulation VI/2.

2 For bulk carriers to which regulation 6 applies, unless such bulk carriers comply with all relevant requirements of this chapter applicable to the carriage of solid bulk cargoes having a density of 1,780 kg/m<sup>3</sup> and above, any cargo declared to have a density within the range 1,250 kg/m<sup>3</sup> to 1,780 kg/m<sup>3</sup> shall have its density verified by an accredited testing organization.

## **Regulation 11**

### **Loading instrument**

(Unless provided otherwise, this regulation applies to bulk carriers regardless of their date of construction)

1 Bulk carriers of 150 m in length and upwards shall be fitted with a loading instrument capable of providing information on hull girder shear forces and bending moments, taking into account the recommendation adopted by the Organization.

2 Bulk carriers of 150 m in length and upwards constructed before 1 July 1999 shall comply with the requirements of paragraph 1 not later than the date of the first intermediate or periodical survey of the ship to be carried out after 1 July 1999.

3 Bulk carriers of less than 150 m in length constructed on or after 1 July 2006 shall be fitted with a loading instrument capable of providing information on the ship's stability in the intact condition. The computer software shall be approved for stability calculations by the Administration and shall be provided with standard conditions for testing purposes relating to the approved stability information.

## **Regulation 12**

### **Hold, ballast and dry space water ingress alarms**

(This regulation applies to bulk carriers regardless of their date of construction)

1 Bulk carriers shall be fitted with water level detectors:

- .1 in each cargo hold, giving audible and visual alarms, one when the water level above the inner bottom in any hold reaches a height of 0.5 m and another at a height not less than 15% of the depth of the cargo hold but not more than 2 m. On bulk carriers to which regulation 9.2 applies, detectors with only the latter alarm need be installed. The water level detectors shall be fitted in the aft end of the cargo holds. For cargo holds which are used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different water levels detected in each hold;
  - .2 in any ballast tank forward of the collision bulkhead required by regulation II-1/11, giving an audible and visual alarm when the liquid in the tank reaches a level not exceeding 10% of the tank capacity. An alarm overriding device may be installed to be activated when the tank is in use; and
  - .3 in any dry or void space other than a chain cable locker, any part of which extends forward of the foremost cargo hold, giving an audible and visual alarm at a water level of 0.1 m above the deck. Such alarms need not be provided in enclosed spaces the volume of which does not exceed 0.1% of the ship's maximum displacement volume.
- 2 The audible and visual alarms specified in paragraph 1 shall be located on the navigation bridge.
- 3 Bulk carriers constructed before 1 July 2004 shall comply with the requirements of this regulation not later than the date of the annual, intermediate or renewal survey of the ship to be carried out after 1 July 2004, whichever comes first.

### **Regulation 13**

#### **Availability of pumping systems**

(This regulation applies to bulk carriers regardless of their date of construction)

1 On bulk carriers, the means for draining and pumping ballast tanks forward of the collision bulkhead and bilges of dry spaces any part of which extends forward of the foremost cargo hold shall be capable of being brought into operation from a readily accessible enclosed space, the location of which is accessible from the navigation bridge or propulsion machinery control position without traversing exposed freeboard or superstructure decks. Where pipes serving such tanks or bilges pierce the collision bulkhead, valve operation by means of remotely operated actuators may be accepted, as an alternative to the valve control specified in regulation II-1/11.4, provided that the location of such valve controls complies with this regulation.

2 Bulk carriers constructed before 1 July 2004 shall comply with the requirements of this regulation not later than the date of the first intermediate or renewal survey of the ship to be carried out after 1 July 2004, but in no case later than 1 July 2007.



## Regulation 14

### Restrictions from sailing with any hold empty

Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying cargoes having a density of 1,780 kg/m<sup>3</sup> and above, if not meeting the requirements for withstanding flooding of any one cargo hold as specified in regulation 5.1 and the Standards and criteria for side structures of bulk carriers of single-side skin construction, adopted by the Organization by resolution MSC.168(79), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I, shall not sail with any hold loaded to less than 10% of the hold's maximum allowable cargo weight when in the full load condition, after reaching 10 years of age. The applicable full load condition for this regulation is a load equal to or greater than 90% of the ship's deadweight at the relevant assigned freeboard.”

**APPENDIX**

**CERTIFICATES**

**Form of Safety Certificate for Passenger Ships**

13 The following new section is inserted between the section commencing with the words “This certificate is valid until” and the section commencing with the words “Issued at”:

“Completion date of the survey on which this certificate is based:.....”  
(dd/mm/yyyy)

**Form of Safety Construction Certificate for Cargo Ships**

14 The following new section is inserted between the section commencing with the words “This certificate is valid until” and the section commencing with the words “Issued at”:

“Completion date of the survey on which this certificate is based:.....”  
(dd/mm/yyyy)

**Form of Safety Equipment Certificate for Cargo Ships**

15 The following new section is inserted between the section commencing with the words “This certificate is valid until” and the section commencing with the words “Issued at”:

“Completion date of the survey on which this certificate is based:.....”  
(dd/mm/yyyy)

**Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E)**

16 Existing section 3 is replaced by the following:

**“3 Details of navigational systems and equipment**

Item	Actual provision
1.1 Standard magnetic compass*	.....
1.2 Spare magnetic compass*	.....
1.3 Gyro compass*	.....
1.4 Gyro compass heading repeater*	.....
1.5 Gyro compass bearing repeater*	.....
1.6 Heading or track control system*	.....
1.7 Pelorus or compass bearing device*	.....
1.8 Means of correcting heading and bearings	.....
1.9 Transmitting heading device (THD)*	.....

2.1	Nautical charts/Electronic chart display and information system (ECDIS)**	.....
2.2	Back up arrangements for ECDIS	.....
2.3	Nautical publications	.....
2.4	Back up arrangements for electronic nautical publications	.....
3.1	Receiver for a global navigation satellite system/ terrestrial radionavigation system* **	.....
3.2	9 GHz radar*	.....
3.3	Second radar (3 GHz/ 9 GHz**)*	.....
3.4	Automatic radar plotting aid (ARPA)*	.....
3.5	Automatic tracking aid*	.....
3.6	Second automatic tracking aid*	.....
3.7	Electronic plotting aid*	.....
4	Automatic identification system (AIS)	.....
5.1	Voyage data recorder (VDR)**	.....
5.2	Simplified voyage data recorder (S-VDR)**	.....
6.1	Speed and distance measuring device (through the water)*	.....
6.2	Speed and distance measuring device (over the ground in the forward and athwartship direction)*	.....
6.3	Echo sounding device*	.....
7.1	Rudder, propeller, thrust, pitch and operational mode indicator*	.....
7.2	Rate of turn indicator*	.....
8	Sound reception system*	.....
9	Telephone to emergency steering position*	.....
10	Daylight signalling lamp*	.....
11	Radar reflector*	.....
12	International Code of Signals	.....
13	IAMSAR Manual, Volume III	.....

\* Alternative means of meeting this requirement are permitted under regulation V/19. In case of other means, they shall be specified.

\*\* Delete as appropriate.”

**Form of Safety Radio Certificate for Cargo Ships**

17 The following new section is inserted between the section commencing with the words “This certificate is valid until” and the section commencing with the words “Issued at”:

“Completion date of the survey on which this certificate is based:.....”  
(dd/mm/yyyy)

**Form of Safety Certificate for Nuclear Passenger Ships**

18 The existing form of the certificate is replaced by the following:

**“NUCLEAR PASSENGER SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment (Form PNUC)

(Official seal)

(State)

for an<sup>1</sup> international voyage  
a short

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE  
AT SEA, 1974 as modified by the Protocol of 1988 relating thereto

under the authority of the Government of

\_\_\_\_\_  
(name of the State)

by

\_\_\_\_\_  
(person or organization authorized)

<sup>1</sup> Delete as appropriate.

*Particulars of ship<sup>2</sup>*

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Sea areas in which ship is certified to operate (regulation IV/2) .....

IMO Number .....

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced .....

**THIS IS TO CERTIFY:**

1 That the ship has been surveyed in accordance with the requirements of regulation VIII/9 of the Convention.

2 That the ship, being a nuclear ship, complied with all the requirements of chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship; and that:

2.1 the ship complied with the requirements of the Convention as regards:

- .1 the structure, main and auxiliary machinery, boilers and other pressure vessels, including the nuclear propulsion plant and the collision protective structure;
- .2 the watertight subdivision arrangements and details;
- .3 the following subdivision load lines:

Subdivision load lines assigned and marked on the ship's side amidships (regulation II-1/13)	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
C.1	.....	.....
C.2	.....	.....
C.3	.....	.....

2.2 the ship complied with the requirements of the Convention as regards structural fire protection, fire safety systems and appliances and fire control plans;

2.3 the ship complied with the requirements of the Convention as regards radiation protection systems and equipment;

<sup>2</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.



19 The following Record of Equipment for the Nuclear Passenger Ship Safety Certificate is added after the form of the Nuclear Passenger Ship Safety Certificate:

**“RECORD OF EQUIPMENT FOR THE NUCLEAR PASSENGER SHIP SAFETY CERTIFICATE (FORM PNUC)**

This Record shall be permanently attached to the Nuclear Passenger Ship Safety Certificate

RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS MODIFIED BY THE PROTOCOL OF 1988 RELATING THERETO

**1 Particulars of ship**

Name of ship .....

Distinctive number or letters .....

Number of passengers for which certified .....

Minimum number of persons with required qualifications to operate the radio installations .....

**2 Details of life-saving appliances**

1	Total number of persons for which life-saving appliances are provided .....		
2	Total number of lifeboats	Port side	Starboard side
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of partially enclosed lifeboats (regulation III/21 and LSA Code, section 4.5)	.....	.....
2.3	Number of totally enclosed lifeboats (regulation III/21 and LSA Code, section 4.6)	.....	.....
2.4	Other lifeboats		
2.5.1	Number	.....	.....
2.5.2	Type	.....	.....

3	Number of motor lifeboats included in the total lifeboats shown above	.....
3.1	Number of lifeboats fitted with searchlights	.....
4	Number of rescue boats	.....
4.1	Number of boats which are included in the total lifeboats shown above	.....
5	Liferafts	
5.1	Those for which approved launching appliances are required	
5.1.1	Number of liferafts	.....
5.1.2	Number of persons accommodated by them	.....
5.2	Those for which approved launching appliances are not required	
5.2.1	Number of liferafts	.....
5.2.2	Number of persons accommodated by them	.....
6	Buoyant apparatus	
6.1	Number of apparatus	.....
6.2	Number of persons capable of being supported	.....
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 thermal protective aids <sup>1</sup>	.....
11	Radio installations used in life-saving appliances	.....
11.1	Number of radar transponders	.....
11.2	Number of two-way VHF radiotelephone apparatus	.....

<sup>1</sup> Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.213.



### 3 Details of radio facilities

Item	Actual provision
1 Primary systems	
1.1 VHF radio installation	
1.1.1 DSC encoder	.....
1.1.2 DSC watch receiver	.....
1.1.3 Radiotelephony	.....
1.2 MF radio installation	
1.2.1 DSC encoder	.....
1.2.2 DSC watch receiver	.....
1.2.3 Radiotelephony	.....
1.3 MF/HF radio installation	
1.3.1 DSC encoder	.....
1.3.2 DSC watch receiver	.....
1.3.3 Radiotelephony	.....
1.3.4 Direct-printing radiotelegraphy	.....
1.4 INMARSAT ship earth station	.....
2 Secondary means of alerting	.....
3 Facilities for reception of marine safety information	
3.1 NAVTEX receiver	.....
3.2 EGC receiver	.....
3.3 HF direct-printing radiotelegraph receiver	.....
4 Satellite EPIRB	
4.1 COSPAS-SARSAT	.....
4.2 INMARSAT	.....
5 VHF EPIRB	.....
6 Ship's radar transponder	.....

### 4 Methods used to ensure availability of radio facilities (regulations IV/15.6 and 15.7)

4.1 Duplication of equipment .....
4.2 Shore-based maintenance .....
4.3 At-sea maintenance capability .....

**5 Details of navigation systems and equipment**

		Actual provision
1.1	Standard magnetic compass <sup>2</sup>	.....
1.2	Spare magnetic compass <sup>2</sup>	.....
1.3	Gyro compass <sup>2</sup>	.....
1.4	Gyro compass heading repeater <sup>2</sup>	.....
1.5	Gyro compass bearing repeater <sup>2</sup>	.....
1.6	Heading or track control system <sup>2</sup>	.....
1.7	Pelorus or compass bearing device <sup>2</sup>	.....
1.8	Means of correcting heading and bearings	.....
1.9	Transmitting heading device (THD) <sup>2</sup>	.....
2.1	Nautical charts/Electronic chart display and information system (ECDIS) <sup>3</sup>	.....
2.2	Back up arrangements for ECDIS	.....
2.3	Nautical publications	.....
2.4	Back up arrangements for electronic nautical publications	.....
3.1	Receiver for a global navigation satellite system/terrestrial radio navigation system <sup>2, 3</sup>	.....
3.2	9 GHz radar <sup>2</sup>	.....
3.3	Second radar (3 GHz/9 GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4	Automatic radar plotting aid (ARPA) <sup>2</sup>	.....
3.5	Automatic tracking aid <sup>2</sup>	.....
3.6	Second automatic tracking aid <sup>2</sup>	.....
3.7	Electronic plotting aid <sup>2</sup>	.....
4	Automatic identification system (AIS)	.....
5	Voyage data recorder (VDR)	.....
6.1	Speed and distance measuring device (through the water) <sup>2</sup>	.....
6.2	Speed and distance measuring device (over the ground in the forward and athwartship direction) <sup>2</sup>	.....
7	Echo sounding device <sup>2</sup>	.....

<sup>2</sup> Alternative means of meeting this requirement are permitted under regulation V/19. In case of other means, they shall be specified.

<sup>3</sup> Delete as appropriate.

	Actual provision
8.1 Rudder, propeller, thrust, pitch and operational mode indicator <sup>2</sup>	.....
8.2 Rate of turn indicator <sup>2</sup>	.....
9 Sound reception system <sup>2</sup>	.....
10 Telephone to emergency steering position <sup>2</sup>	.....
11 Daylight signalling lamp <sup>2</sup>	.....
12 Radar reflector <sup>2</sup>	.....
13 International Code of Signals	.....
14 IAMSAR Manual, Volume III	.....

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at .....  
*(Place of issue of the Record)*

.....  
*(Date of issue)*

.....  
*(Signature of duly authorized official issuing the Record)*

*(Seal or stamp of the issuing authority, as appropriate)*

**Form of Safety Certificate for Nuclear Cargo Ships**

20 The existing form of the certificate is replaced by the following:

**“NUCLEAR CARGO SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment (Form CNUC)

*(Official seal)*

*(State)*

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE  
AT SEA, 1974 as modified by the Protocol of 1988 relating thereto

under the authority of the Government of

\_\_\_\_\_

*(name of the State)*

by

\_\_\_\_\_

*(person or organization authorized)*

***Particulars of ship<sup>1</sup>***

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Deadweight of ship (metric tons)<sup>2</sup> .....

Length of ship (regulation III/3.12) .....

<sup>1</sup> Alternatively the particulars of the ship may be placed horizontally in boxes.

<sup>2</sup> For oil tankers, chemical tankers and gas carriers only.

Sea areas in which ship is certified to operate (regulation IV/2) .....

IMO Number.....

Type of ship<sup>3</sup>

- Bulk carrier
- Oil tanker
- Chemical tanker
- Gas carrier
- Cargo ship other than any of the above

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for an alteration or modification of a major character was commenced .....

**THIS IS TO CERTIFY:**

- 1 That the ship has been surveyed in accordance with the requirements of regulation VIII/9 of the Convention.
- 2 That the ship, being a nuclear ship, complied with all the requirements of chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship; and that:
  - 2.1 the condition of the structure, machinery and equipment as defined in regulation I/10 (as applicable to comply with regulation VIII/9), including the nuclear propulsion plant and the collision protective structure, was satisfactory and the ship complied with the relevant requirements of chapter II-1 and chapter II-2 of the Convention (other than those relating to fire safety systems and appliances and fire control plans);
  - 2.2 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans;
  - 2.3 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
  - 2.4 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;
  - 2.5 the ship complied with the requirements of the Convention as regards radio installations;
  - 2.6 the functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;
  - 2.7 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;
  - 2.8 the ship was provided with lights, shapes, means of making sound signals and distress signals in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;

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<sup>3</sup> Delete as appropriate.

2.9 in all other respects the ship complied with the relevant requirements of the regulations, so far as these requirements apply thereto.

This certificate is valid until .....

Completion date of the survey on which this certificate is based .....  
*dd/mm/yyyy*

Issued at .....  
*(Place of issue of certificate)*

.....  
*(Date of issue)*

.....  
*(Signature of authorized official issuing the certificate)*

*(Seal or stamp of the issuing authority, as appropriate)*

21 The following Record of Equipment for the Nuclear Cargo Ship Safety Certificate is added after the form of the Nuclear Cargo Ship Safety Certificate:

**“RECORD OF EQUIPMENT FOR THE NUCLEAR CARGO SHIP SAFETY  
CERTIFICATE (FORM CNUC)**

This Record shall be permanently attached to the  
Nuclear Cargo Ship Safety Certificate

**RECORD OF EQUIPMENT FOR COMPLIANCE WITH  
THE INTERNATIONAL CONVENTION FOR THE SAFETY  
OF LIFE AT SEA, 1974, AS MODIFIED BY THE PROTOCOL  
OF 1988 RELATING THERETO**

**1 Particulars of ship**

Name of ship .....

Distinctive number or letters .....

Minimum number of persons with required qualifications  
to operate the radio installations .....

**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 lifeboats	.....	.....
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of totally enclosed lifeboats (regulation III/31 and LSA Code, section 4.6)	.....	.....
2.3	Number of self-righting partially enclosed lifeboats (regulation III/31 and LSA Code, section 4.8)	.....	.....
2.4	Number of fire-protected lifeboats (regulation III/31 and LSA Code, section 4.9)	.....	.....
2.5	Other lifeboats		
2.5.1	Number	.....	.....
2.5.2	Type	.....	.....
2.6	Number of free-fall life-boats	.....	.....
2.6.1	Totally enclosed (regulation III/31 and LSA Code, section 4.7)	.....	.....
2.6.2	Self-contained (regulation III/31 and LSA Code, section 4.8)	.....	.....
2.6.3	Fire-protected (regulation III/31 and LSA Code, section 4.9)	.....	.....

3	Number of motor lifeboats included in the total lifeboats shown above	.....
3.1	Number of lifeboats fitted with searchlights	.....
4	Number of rescue boats	.....
4.1	Number of boats which are included in the total lifeboats shown above	.....
5	Liferafts	
5.1	Those for which approved launching appliances are required	
5.1.1	Number of liferafts	.....
5.1.2	Number of persons accommodated by them	.....
5.2	Those for which approved launching appliances are not required	
5.2.1	Number of liferafts	.....
5.2.2	Number of persons accommodated by them	.....
5.3	Number of liferafts required by regulation III/31.1.4	.....
6	Number of lifebuoys	.....
7	Number of lifejackets	
8	Immersion suits	.....
8.1	Total number	.....
8.2	Number of suits complying with the requirements for lifejackets	.....
9	Number of thermal protective aids <sup>1</sup>	.....
10	Radio installations used in life-saving appliances	.....
10.1	Number of radar transponders	.....
10.2	Number of two-way VHF radiotelephone apparatus	.....

<sup>1</sup> Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.1.8.31 and 5.1.2.2.13.



### 3 Details of radio facilities

Item	Actual provision
1 Primary systems	
1.1 VHF radio installation	
1.1.1 DSC encoder	.....
1.1.2 DSC watch receiver	.....
1.1.3 Radiotelephony	.....
1.2 MF radio installation	
1.2.1 DSC encoder	.....
1.2.2 DSC watch receiver	.....
1.2.3 Radiotelephony	.....
1.3 MF/HF radio installation	
1.3.1 DSC encoder	.....
1.3.2 DSC watch receiver	.....
1.3.3 Radiotelephony	.....
1.3.4 Direct-printing radiotelegraphy	.....
1.4 INMARSAT ship earth station	.....
2 Secondary means of alerting	
3 Facilities for reception of marine safety information	
3.1 NAVTEX receiver	.....
3.2 EGC receiver	.....
3.3 HF direct-printing radiotelegraph receiver	.....
4 Satellite EPIRB	
4.1 COSPAS-SARSAT	.....
4.2 INMARSAT	.....
5 VHF EPIRB	.....
6 Ship's radar transponder	.....

### 4 Methods used to ensure availability of radio facilities (regulations IV/15.6 and 15.7)

- 4.1 Duplication of equipment .....
- 4.2 Shore-based maintenance .....
- 4.3 At-sea maintenance capability .....

**5 Details of navigation systems and equipment**

	Actual provision
1.1 Standard magnetic compass <sup>2</sup>	.....
1.2 Spare magnetic compass <sup>2</sup>	.....
1.3 Gyro compass <sup>2</sup>	.....
1.4 Gyro compass heading repeater <sup>2</sup>	.....
1.5 Gyro compass bearing repeater <sup>2</sup>	.....
1.6 Heading or track control system <sup>2</sup>	.....
1.7 Pelorus or compass bearing device <sup>2</sup>	.....
1.8 Means of correcting heading and bearings	.....
1.9 Transmitting heading device (THD) <sup>2</sup>	.....
2.1 Nautical charts/Electronic chart display and information system (ECDIS) <sup>3</sup>	.....
2.2 Back up arrangements for ECDIS	.....
2.3 Nautical publications	.....
2.4 Back up arrangements for electronic nautical publications	.....
3.1 Receiver for a global navigation satellite system/terrestrial radio navigation system <sup>2,3</sup>	.....
3.2 9 GHz radar <sup>2</sup>	.....
3.3 Second radar (3 GHz/9 GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4 Automatic radar plotting aid (ARPA) <sup>2</sup>	.....
3.5 Automatic tracking aid <sup>2</sup>	.....
3.6 Second automatic tracking aid <sup>2</sup>	.....
3.7 Electronic plotting aid <sup>2</sup>	.....
4 Automatic identification system (AIS)	.....
5.1 Voyage data recorder (VDR) <sup>3</sup>	.....
5.2 Simplified voyage data recorder (S-VDR) <sup>3</sup>	.....
6.1 Speed and distance measuring device (through the water) <sup>2</sup>	.....
6.2 Speed and distance measuring device (over the ground in the forward and athwartship direction) <sup>2</sup>	.....
6.3 Echo sounding device <sup>2</sup>	.....
7.1 Rudder, propeller, thrust, pitch and operational mode indicator <sup>2</sup>	.....
7.2 Rate of turn indicator <sup>2</sup>	.....
8 Sound reception system <sup>2</sup>	.....
9 Telephone to emergency steering position <sup>2</sup>	.....
10 Daylight signalling lamp <sup>2</sup>	.....
11 Radar reflector <sup>2</sup>	.....
12 International Code of Signals	.....
13 IAMSAR Manual, Volume III	.....

<sup>2</sup> Alternative means of meeting this requirement are permitted under regulation V/19. In case of other means, they shall be specified.

<sup>3</sup> Delete as appropriate.

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at .....  
(Place of issue of the Record)

.....  
(Date of issue)

.....  
(Signature of duly authorized  
official issuing the Record)

(Seal or stamp of the issuing authority, as appropriate)"

### 第 96/2015 號行政長官公告

中華人民共和國於一九九九年十二月十三日以照會通知聯合國秘書長，經修訂的《1974年國際海上人命安全公約》（下稱“公約”）自一九九九年十二月二十日起適用於澳門特別行政區；

國際海事組織海上安全委員會於二零零七年十月十二日透過第MSC.239(83)號決議通過了經修正的公約的修正案，該修正案自二零零九年七月一日起適用於澳門特別行政區；

基於此，行政長官根據第3/1999號法律《法規的公佈與格式》第六條第一款的規定，命令公佈包含上指修正案的MSC.239(83)號決議的中文及英文文本。

二零一五年七月二日發佈。

行政長官 崔世安

### Aviso do Chefe do Executivo n.º 96/2015

Considerando que a República Popular da China, por nota datada de 13 de Dezembro de 1999, notificou o Secretário-Geral das Nações Unidas sobre a aplicação da Convenção Internacional para a Salvaguarda da Vida Humana no Mar de 1974, adiante designada por Convenção, tal como emendada, na Região Administrativa Especial de Macau a partir de 20 de Dezembro de 1999;

Considerando igualmente que, em 12 de Outubro de 2007, o Comité de Segurança Marítima da Organização Marítima Internacional, através da resolução MSC.239(83), adoptou emendas à Convenção, tal como emendada, e que tais emendas são aplicáveis na Região Administrativa Especial de Macau desde 1 de Julho de 2009;

O Chefe do Executivo manda publicar, nos termos do n.º 1 do artigo 6.º da Lei n.º 3/1999 (Publicação e formulário dos diplomas), a resolução MSC.239(83), que contém as referidas emendas, nos seus textos em línguas chinesa e inglesa.

Promulgado em 2 de Julho de 2015.

O Chefe do Executivo, *Chui Sai On*