2.2.5 *Test report*

The test report shall include the following information:

.1 name of the manufacturer;

.2 date of tests;

.3 chemical composition and corrosion resistant process of steel;

.4 test results according to 2.2.2 and 2.2.3; and

.5 judgement according to 2.2.4.

第 39/2015 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》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二零零六年十二月八日透過第MSC.222（82）號決議通過了《2000年國際高速船安全規則》（2000年HSC規則）的修正案，該修正案自二零零八年七月一日起適用於澳門特別行政區；

基於此，行政長官根據澳門特別行政區第3/1999號法律第六條第一款的規定，命令公佈包含上指修正案的第MSC.222（82）號決議的中文及英文文本。

二零一五年四月二十一日發佈。

行政長官　崔世安

Aviso do Chefe do Executivo n.º 39/2015

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, tal como emendada, na Região Administrativa Especial de Macau a partir de 20 de Dezembro de 1999;

Considerando igualmente que, em 8 de Dezembro de 2006, o Comité de Segurança Marítima da Organização Marítima Internacional, através da resolução MSC.222(82), adoptou as emendas ao Código Internacional de Segurança para as Embarcações de Alta Velocidade, 2000 (Código HSC 2000), e que tais emendas são aplicáveis na Região Administrativa Especial de Macau desde 1 de Julho de 2008;

O Chefe do Executivo manda publicar, nos termos do n.º 1 do artigo 6.º da Lei n.º 3/1999 da Região Administrativa Especial de Macau, a resolução MSC. 222(82), que contém as referidas emendas, nos seus textos em línguas chinesa e inglesa.

Promulgado em 21 de Abril de 2015.

O Chefe do Executivo, *Chui Sai On*.

第 MSC.222（82）號決議

（2006 年 12 月 8 日通過）

《2000 年國際高速船安全規則》（2000 年 HSC 規則）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 28（b）條，

注意到海上安全委員會以第 MSC.97（73）號決議通過了《2000 年國際高速船安全規則》（以下簡稱《2000 HSC 規則》），該規則已通過 1974 年國際海上人命安全公約（SOLAS）（以下簡稱為《公約》）第 X 章成為強制性規定，

還注意到《公約》關於《2000 HSC 規則》修正程序的第 VIII（b）條和第 X/1.2 條，

考慮到本委員會在其 82 次會議上審議了建議的並按照《公約》第 VIII（b）（i）條散發的對《2000 HSC 規則》的修正案，

1. **通過**，根據《公約》第 VIII（b）（iv）條，對《2000 年國際高速船安全規則》的修正案，該修正案正文見本決議附件；

2. **決定**，根據《公約》第 VIII（b）（iv）（2）（bb）條，該修正案將於 2008 年 1 月 1 日被認為已被接受，除非在此日期之前，超過三分之一的《公約》締約政府，或其商船隊總噸位之和不低於世界商船隊總噸位 50%的締約政府提出反對本修正案；

3. **請**各締約政府注意，根據《公約》第 VIII（b）（vii）（2）條，在各締約政府按照上述第 2 款接受修正案後，修正案將於 2008 年 7 月 1 日生效；

4. **請求**秘書長，按照《公約》第 VIII（b）（v）條，將證明無誤的本決議及其附件包括的修正案文本發送至本公約各締約政府；

5. **進一步請求**秘書長將本決議及其附件文本發送至非《公約》當事國的本組織成員。

附件

《2000 年國際高速船安全規則》（2000 年 HSC 規則）的修正案

第 1 章

綜述和要求

1 將現有 1.2 節文字重新編號為 1.2.1，並新增 1.2.2 段如下：

“1.2.2 在所有高速船上，用於本規則適用的船上新安裝的結構、機械、電氣裝置和設備的材料中禁止使用石棉材料，但下列除外：

.1 葉片式壓縮機和旋轉式葉片真空泵上使用的葉片；

.2 高溫（超過 350℃）或高壓（超過 7 x 10^6 Pa）下有失火、腐蝕或產生毒性危險的液體循環用水密連接件和襯料；和

.3 抗溫超過 1,000℃的柔軟和易彎曲的隔熱裝置。”

2 在 1.3.4.1 段中，“營運航速”替換為“最大航速的 90%”。

3 在 1.3.4.2 段中，“營運航速”替換為“最大航速的 90%”。

4 在 1.4.16 段中，在“航行設備”之後插入“（13.2 至 13.7 段中所述設備的主要顯示裝置和控制裝置）”字樣。

5 在 1.4.29 段中，在“烹飪或”與“加熱裝置”間插入“食品”字樣。

6 將現有 1.4.35 段替換如下：

“1.4.35 *機器處所*：係指設有用於主推進或總輸出功率為 110kW 以上的內燃機、發電機、燃油裝置、主要電機的處所和類似處所，以及通往這些處所的圍壁通道。”

7 將現有 1.4.44 段刪除，並將現有 1.4.32 至 1.4.43 段分別重新編號為 1.4.33 至 1.4.44 段，並插入新的 1.4.32 段如下：

“1.4.32 *IMDG* 規則：係指公約第 VII 章所定義的《國際海運危險貨物規則》。”

8 在 1.4.53 段末尾，插入新的一句如下：

“無烹調設備的此類處所內可以有：

.1 自動咖啡機、烤麵包機、洗碗機、微波爐、開水壺以及類似用具，每一用具的最大功率為 5kW；和

.2 電加熱烹調盤以及食品保溫加熱盤，每一用具的最大功率為 2kW，且表面溫度不得超過 150℃。”

9 在 1.4.54 段中，將“平均值”和後面的內容替換如下：

“在規定的時間內跨零波浪數量中三分之一的最大波高的平均值。”

10 在 1.8.1 段末尾，插入下列文字：

“所有高速船均應隨船攜帶按本章規定簽發的所有證書或其核准的副本。除非船旗國為 1988 SOLAS 議定書的締約國，否則應在船上顯著和易到達處張貼每份此類證書的副本。”

11 在 1.9.1 段中，將第 2 句刪除，並插入新的 1.9.1.1 段如下：

“1.9.1.1 只要是非商業載客或載貨的營運，所有船舶可進行轉航而無需有效的《高速船營運許可證》。就本規定而言，轉航包括船舶交付航行，即從造船廠碼頭航行至基地港口，以及航程改變，即改變基地港和/或航線。超出本規則規定限制的轉航可在符合下列條件下進行：

.1 開航前，船上應具備有效的《高速船安全證書》或類似證明；

.2 為確保船舶安全完成轉航，營運人已制訂了航行安全計劃，包括所有臨時起居安排和 18.1.3 段中所列的相關事項；

.3 已向船長提供了進行安全轉航所必需的資料和信息；和

.4 已進行了為安全轉航所作的佈置，並使主管機關滿意。”

12 在現有 1.9.6 段後新增 1.9.7 段如下：

“1.9.7 在確定將船舶最壞預計工況和營運限制納入《營運許可證》時，主管機關應考慮附件 12 中的所有參數。所設定的限制應確保能符合這些因素。”

13 在 1.15.1 中，將“4 年”改為“6 年”。

第 2 章
浮力，穩性與分艙

14 將現有 2.1.3 段中的.1 小段替換如下：

“.1 *向下進水點*：係指使允許水流通過水密/風雨密結構的任何尺寸的開口（如開敞的窗），但其中不包括那些平時按相關標準保持關閉的水密/風雨密開口，除在應急情況下臨時打開以用於人員出入，或用於移動式艙底潛水泵的工作所需外（如，結構中所設置的與其具有類似強度和風雨密完整性的非開啟窗）。”

15 將現有 2.1.3 段中的.2 至.6 重新編號為.3 至.7，並在.1 小段後插入新的.2 小段如下：

“.2 *其他地方*：如用於圍檻和圍板時，2.2.7 和 2.2.8 段中所述的高度適用於所有位於該基準面或在該基準面以下的風雨密和水密圍閉結構。”

16 插入下列新的 2.1.5 段如下，並將現有 2.1.5 和 2.1.6 段重新編號為 2.1.6 和 2.1.7 段：

“2.1.5 必須首先通過與相關船型的實船試驗或模型試驗聯繫，證明數學模擬的充分性。可使用數學模擬協助設制其後進行的實際試驗中更臨界的情景。”

17 在 2.1.7 段末尾插入下列文字：

“如進行計算，應首先證明這些計算正確代表了船舶營運限制內的動力特性。”

18 將 2.2.9.3 段中的第 3 句及其之後的句子替換如下：

“在無人操縱的機器處所，與機器運行有關的主、輔海水進水孔和排水孔應：

.1 在 2.6.6 至 2.6.10 段規定的破損後，至少位於在最深進水水線以上相當於最壞預計工況時的有義波高 50%的高度；或

.2 可從操縱室進行操縱。”

19 將 2.3.4 段中的表 2.3.4 替換如下：

“表 2.3.4－附件 7 和附件 8 應用於單體船和多體船

GM_T	最大 GZ 角	
	≤25°	>25°
≤3m	附件 7 或附件 8	附件 8
＞3m	附件 7	附件 7 或附件 8

”

20 在 2.3.4 段中，“表中”後出現的 B_{WL}，A_{WP} 和 ∇ 的定義均予刪除，並代之以插入的定義“GZ = 復原力臂”

21 在 2.4.2 段中，將“第 18 章”改為“第 17 和第 18 章”字樣。

22 在 2.6.5 段中，在現有.4 段後插入新的.5 段：

“.5 就本段而言，裝滿泡沫塑料或浮力模件的空艙，或無透氣系統的任何處所，均應視為空艙，條件是此類泡沫塑料或浮力模件完全符合 2.6.4 段的要求。”

23 在 2.6.6 中，將最後一句刪除。

24 在 2.6.7 段中，“破損（複數）”改為“破損（單數）”。

25 在 2.6.7 段的 2.6.7.3 小段後新增下列內容：

“本段所述的破損應假定為平行六面體形狀。當此應用於圖 2.6.7a 時，長度中點處的舯內表面應與對應橫向貫穿範圍（如圖 2.6.7a 所示）的表面相切；否則，應至少可觸及 2 處位置。

舷側破損時，在設計水線處的橫向貫穿長度不得大於 $0.2\nabla^{1/3}$，但如 2.6.7.2 段中規定了更小長度者例外。參見圖 2.6.7b 和 c。

對多體船而言，可認為船舶周圍在任意剖面均僅由最外層的船體外表面圍成的船殼表面。

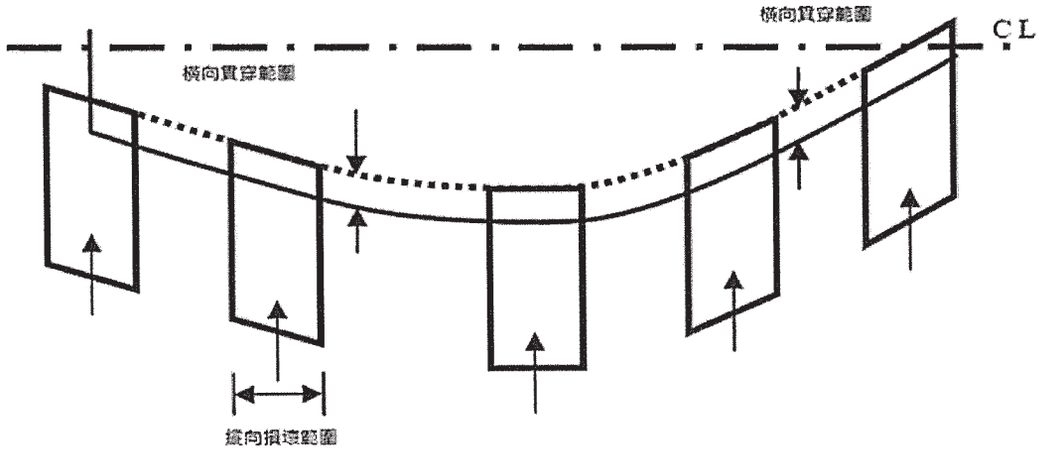


圖 2.6.7a

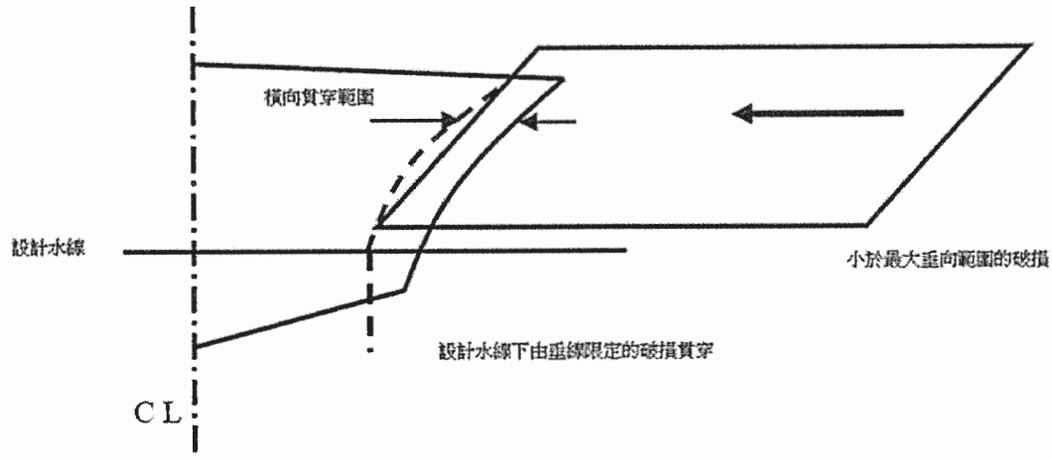


圖 2.6.7b

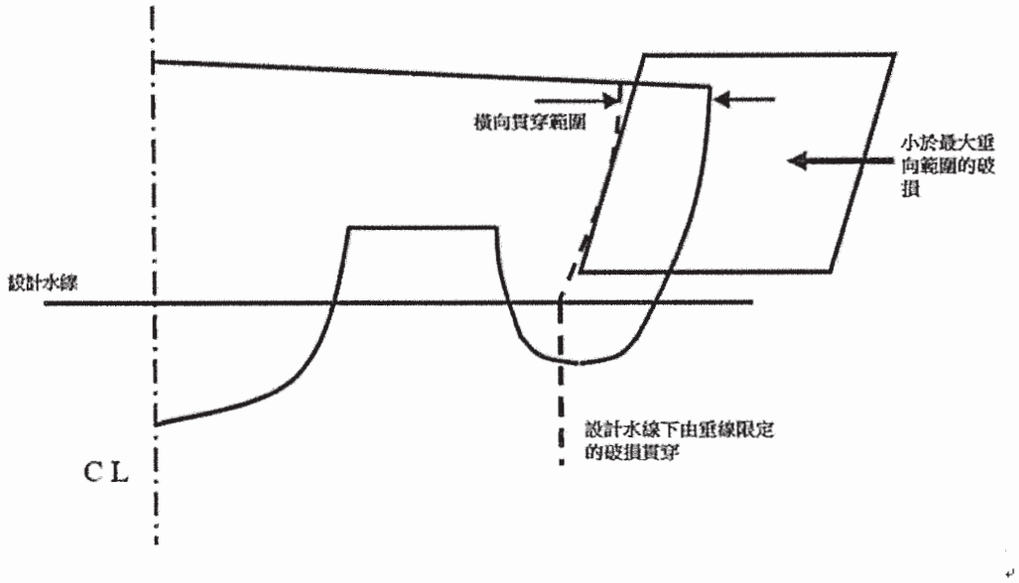


圖 2.6.7c”

26 將現有 2.6.8 至 2.6.12 段重新編號為 2.6.9 至 2.6.13 段，並在現有 2.6.7 段之後插入新的 2.6.8 段如下：

“2.6.8 *艏艉破損範圍*

2.6.8.1 下列破損範圍應適用於艏艉，如圖 2.6.8 所示：

.1 在艏端，對 4.4.1 中定義的區域 A_{bow} 的破損，其後端界限為一橫向垂直平面，條件是該區域從高速船水密包絡的最前端向後延伸不超過 2.6.7.1 段定義的距離；和

.2 在艉端，對橫向垂直平面之後區域的破損，該平面從船體水密包絡的最後端向前的距離為 $0.2\nabla^{1/3}$。

2.6.8.2 2.6.6 段中有關更小範圍破損的規定仍適用此類破損。

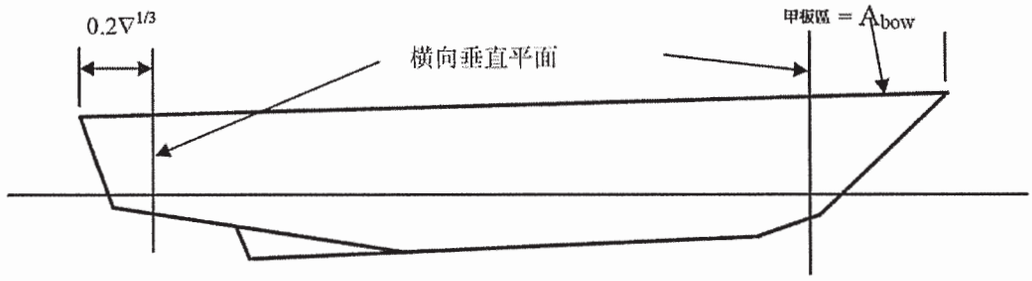


圖 2.6.8”

27 在 2.6.9.1.1.1 段中，將“營運航速”替換為“最大航速的 90%”。

28 在 2.6.9.1.2 段中，在定義“T”末尾插入下列文字：

“，條件是諸如單板尾鰭或完整的金屬附屬體等結構應視為非浮體，並因此排除在外。”

29 在現有 2.6.9.2.2 段之後插入新的 2.6.9.2.3 段如下：

“2.6.9.2.3 橫向平面破損形狀應假定為長方形，如圖 2.6.9.2 所示。應按圖 2.6.9.2 假定破損為在定義的縱向範圍內的一系列剖面；在整個縱向範圍內，破損圍長的中點與中心線距離保持一個固定距離。

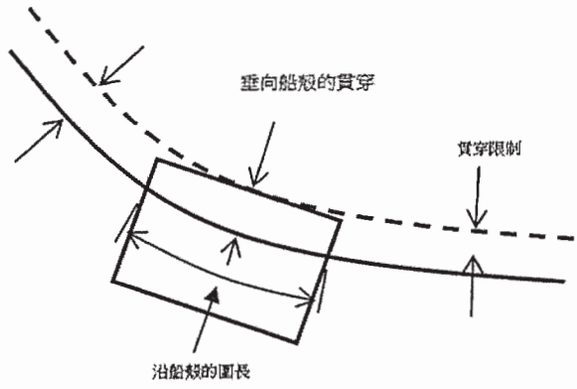


圖 2.6.9.2”

30 在 2.6.10.1 段中，在“船體”後插入“設計水線以下”。

31 在 2.6.10.2 段中的現有.3 小段之後插入新的.4 小段如下：

“.4 位於船殼平面以及橫向平面上的破損形狀均應假定為長方形，如圖 2.6.9.2 所示。”

32 將現有 2.7.2 至 2.7.8 段重新編號為 2.7.3 至 2.7.9 段，並在現有 2.7.1 段之後插入新的 2.7.2 段如下：

“2.7.2 對所有高速船，如因其重心高度（VCG 或 KG）小於橫穩性高度（GM_T）的三分之一，而無法進行精確的傾斜試驗時，主管機關可接受以詳細的計算取代傾斜試驗，對 KG 進行估算。此時，應進行排水量檢查，以確認計算的空船特性（包括 LCG）。如測得的空船排水量和 LCG 分別在估算值的 2%和 1%範圍內，則該空船特性可予接受。”

33 在 2.7.7 段的末尾插入新的句子如下：

“對兩棲氣墊船，可結合甲板基準面板，使用吃水儀確定吃水。”

34 在 2.10 段中，在現有.6 小段之後插入新的.7 至.10 小段如下：

“.7 對假定座位上的乘客，應認為其垂向重心與其坐姿對應，而其他乘客站立。

.8 有集合站的甲板處，每層甲板上的乘客人數應產生最大的橫傾力矩。其餘乘客應假定位於鄰近集合站的甲板處，並假定每層甲板的人數和傾斜力矩的組合產生最大的靜橫傾角。

.9 除非是制訂的撤離程序的必要部分，否則不應假定乘客能到達露天甲板或非正常地聚在高速船的首端或尾端。

.10 如在有乘客的處所內設有座位，應假定每個座位一個乘客；對被安排至甲板其餘區域（如合適，可包括梯道）的乘客，應假定每平方米容納 4 人。”

35 在現有 2.12.2 段之後插入新的 2.12.3 段：

“2.12.3 應通過試驗重量產生相同的橫傾力矩的試驗或模型試驗，驗證按上述 2.10 段或按一個確定的航行橫風壓所估算的乘客橫傾力矩的影響。如安全告示（見 8.4.1 和 18.7 段）特別要求乘客在整個航程中應留在座位上，則可忽略乘客移動對高速船的影響。”

第 4 章

艙室佈置與脫險措施

36 在 4.3.4 段中，將“營運航速的三分之二”改為“最大航速的 60%”。

37 在 4.3.7 段中，將“營運航速”改為“最大航速的 90%”。

38 在 4.4.1 段中，將“營運航速”改為“最大航速的 90%”。

39 在表 4.4.2 中的設計等級 2 項下：

.1 將現有 1.1 段替換如下：

“1.1 帶有保護性變形和填充物的椅子靠背。”；和

.2 在 1.4 段末尾插入“除非按此方向和佈置進行了不繫安全帶的滿意試驗”字樣。

40 在 4.4.5 段末尾插入新的句子如下：

“公共處所內設置的椅子靠手和靠背可作為扶手。”

41 在 4.6.1 段中，將“3g”改為“3”。

42 在 4.7.10 段中，將第 2 句替換如下：

“應設有清晰的標誌，包括防火控制圖位置，以引導船外救助人員實施救助。”

43 在 4.7.12 段的末尾新增如下內容：

“如可能，一個處所內的應急撤離門應位於該處所內的相對兩端。如應急撤離門位於處所的同一端，則這些門之間的距離應大於該處所的最大長度。”

44 在 4.7.13 段的末尾新增如下內容：

“本段要求不適用於過道（座位組隔離區的前後過道）或相鄰兩排座位間的處所。但是，過道寬度和座位坡度應使高速船符合 4.8 段的要求。”

45 將現有 4.7.14 至 4.7.16 段重新編號為 4.7.15 至 4.7.17 段，並插入新的 4.7.14 如下：

“4.7.14 用於存放機動車輛的特種處所應設有通往一個安全脫險通道的走道，走道寬度至少為 600mm。”

46 在 4.7.17 段的末尾增加新句如下：

“機器處所至少一條脫險通道應由一部通往一扇門或艙口（但不應是水平齊面艙口）的梯子組成，或由位於該處所低處的一扇門組成，通過該門通往設有安全脫險通道的鄰近艙室。”

47 在現有 4.7.17 段之後插入新的 4.7.18 段如下：

“4.7.18 對偶爾有船員進入的處所可僅設一個脫險通道，但其應獨立於水密門。”

48 在 4.8.1 段的末尾增加新句如下：

“確定撤離時間時，應認為所有脫險通道是可使用的。同時，也無需考慮脫險通道的尺度，以及因其他一個或多個脫險通道失效或無法使用時而出現的額外人員數。”

49 將現有 4.8.10 和 4.8.11 段重新編號為 4.8.11 和 4.8.12 段，並插入新的 4.8.10 段如下：

“4.8.10 如主管機關對按 4.8.1 至 4.8.9 段確定的撤離時間的精確估算感到滿意，則其可允許人員不通過 MES 或等效撤離裝置進行降落的撤離演示，條件是登上救生艇筏所需的時間可由如下確定：

.1 從設備型式認可試驗中獲得的數據並根據本組織制定的導則確定的因數對其進行增加；或

.2 通過有限人數的試驗推斷出的時間。”

第 6 章
錨泊、拖曳與繫泊

50 在現有 6.1.3 段之後插入新的 6.1.4 段如下：

“6.1.4 任何操作工況下（直至錨鏈或繫纜的破斷強度），繫柱或帶纜樁上的負荷不應對船體造成破壞而使水密完整性受損。應基於相關鋼纜或拖索，規定最小破斷強度負荷，要求至少有 20% 的負荷餘量。”

第 7 章
消防

51 在 7.3.1.2 段中，將第一行破折號後的“1.4.4”改為“1.4.5”。

52 在 7.3.1.3 段中，將第一行破折號後的“1.4.5”改為“1.4.6”。

53 在 7.3.1.4 段中，將“定義見 1.4.15 段”改為“定義見 1.4.16 段”。

54 將現有 7.3.2 段重新編號為 7.3.3 段，並插入新的 7.3.2 如下：

“7.3.2 下列附加標準應適用於 7.3.1 段所述的處所分類：

.1 如部分艙壁將一個處所分為二個（或更多）的較小區域以形成圍閉處所，則按表 7.4-1 和 7.4-2，這些處所須由艙壁和甲板作相應圍閉。但如此類處所的分隔艙壁有 30%以上是開敞時，則可認為這些處所為同一處所。

.2 甲板面積小於 2 平方米的艙室可作為其服務的處所的一部分，但條件是該艙室具有通向該處所的通風開口，且不含可能有失火危險的材料或設備。

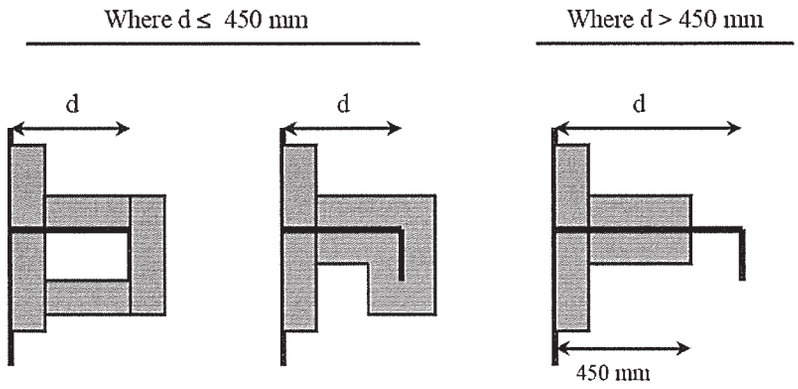
.3 如果一個處所具有 2 個或以上處所的組合特徵，則該分隔的結構防火時間對於相關的處所組合應最長。例如，當應急發電機室所在處所視為控制站（D）和機器處所（A）時，該處所分隔的結構防火時間應取為最高值。”

55 在現有 7.3.3 段後插入新的 7.3.4 至 7.3.6 段，以及相關的圖 7.3.4a、7.3.4b 和 7.3.6 如下：

“7.3.4 為防止在接頭處和終止點發生熱傳遞，對於鋼或鋁合金結構的甲板或艙壁，其隔熱應至少延續至超過接頭處或終止點 450mm 處（見圖 7.3.4a 和 7.3.4b）。

7.3.5 如一個處所由甲板或艙壁分隔，而每一處所的隔熱要求不同時，具有結構防火時間較長的隔熱應在具有結構防火時間較短隔熱的甲板或艙壁上沿處所間邊界以外至少延續 450mm。

7.3.6 如為排水而需在隔熱下部切口，則結構應符合圖 7.3.6 所示的結構細則。”



d = 縱桁扶強材深度

圖 7.3.4a

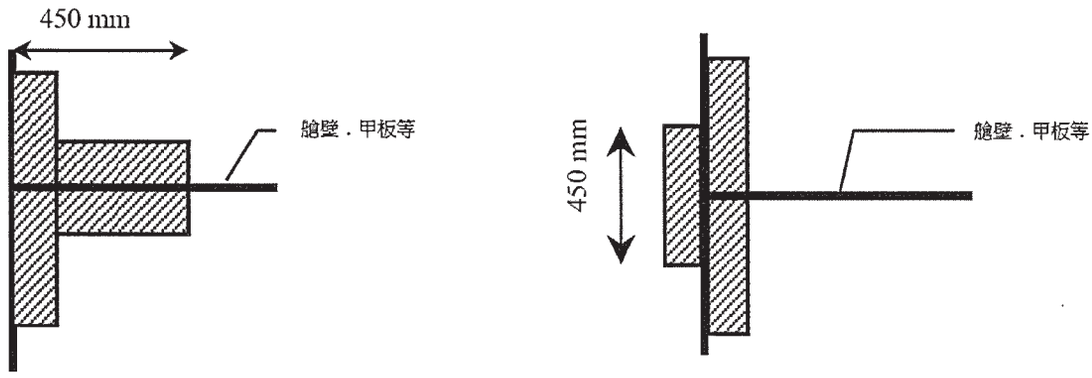


圖7.3.4b

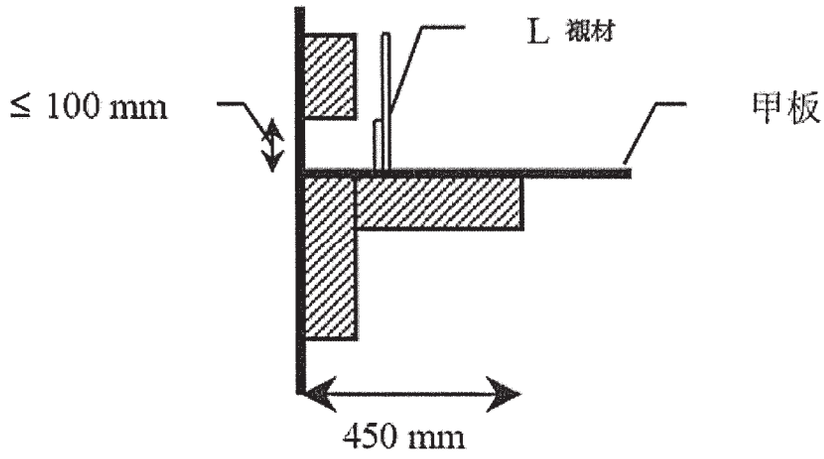


圖 7.3.6 ”

56 在現有 7.4.1.3 段後插入新的 7.4.1.4 段如下：

“7.4.1.4 第 7.4.1.3 段不適用於非高速船主結構的附件，諸如空氣螺旋槳、螺旋槳空氣導管、傳動軸、舵和其他操縱面、支柱、圓材、柔性圍裙等。”

57 在表 7.4-1 和 7.4-2 中，將註 1 替換如下：

“1 對由固定式滅火系統保護的處所內甲板的上一面，不必隔熱。”

58 在 7.4.2.1 段第 2 句中，將“在輕載條件下”改為“在排水狀態的輕載條件下，高速船水線以下至少 300mm”。

59 在 7.4.2.6 段末尾新增下列句子：

“如機器軸貫穿阻火水密分隔，應採取措施確保該分隔所需的水密和阻火完整性不受影響。”

60 在現有 7.4.2.6 段之後插入新的 7.4.2.7 段如下：

“7.4.2.7 進入公共廁所的門上可允許設置通風開口，但開口應位於門的下部，裝有可關閉的不燃材料或阻燃材料製成的格柵，並可從外部進行操作。”

61 在 7.4.3.2 段的末尾新增下列句子：

“此類處所內的隔熱層，可採用金屬板（未開孔），或採用防蒸氣玻璃纖維布在接合處精確密封予以覆蓋。”

62 在 7.4.3.3.1 段中，“家具”後插入“例如桌子、衣櫃、梳粧檯、寫字檯和食品櫃”。

63 在 7.4.3.4 段的段首插入：“根據 7.4.3.5 段規定”字樣。

64 在現有 7.4.3.4 段之後插入新的 7.4.3.5 段，並將現有 7.4.3.5 至 7.4.3.10 段重新編號為 7.4.3.6 至 7.4.3.11 段：

“7.4.3.5 7.4.3.4 段不適用於由認為是不燃性玻璃製成且其表面符合低播焰性要求的分隔、窗和舷窗，或 7.4.3.3 段所規定的項目和材料。”

65 將 7.4.4.1 中的最後一句刪除。

66 在現有 7.4.4.1 段之後新增 7.4.4.2 段如下，並將現有 7.4.4.2 和 7.4.4.3 段重新編號為 7.4.4.3 和 7.4.4.4：

“7.4.4.2 可在僅包含兩層甲板的公共處所的開敞部位安裝梯道，但該梯道應完全位於該公共處所內，且滿足下列條件：

.1 所有各層均用途相同；

.2 處所上下部分間的開口面積至少為該處所上下部分間的甲板面積的 10%；

.3 其設計應使位於該處所內的人員通常都能注意、或易意識到處所內的失火情況或其他危險情況；

.4 處所的兩層均設有足夠的脫險通道，通往鄰近的安全區域或艙室；和

.5 整個處所由噴水器系統一個分支提供保護。”

67 將 7.4.4.4 段中的第 2 句替換如下：

“在僅有單個公共處所的 A 類高速船上，以及處所內具有 40% 或以上的開敞天花板（穿孔型天花板），且其佈置能使天花板後的失火易於發現並被撲滅的其他高速船上，均不要求在公共處所內設有擋風條。”

68 在 7.5.2 段末尾新增下列句子：

“發動機潤滑油沉澱櫃，或安裝在發動機機身上的潤滑油過濾罩，可採用鋁合金材料。”

69 在現有 7.6.1 段的兩句之間插入下列句子：

“其控制位置應有顯著的永久性標誌並易於到達，還應顯示關閉裝置的開、關狀態。”

70 在 7.6.3.2 段中，在“管道下端”後插入“（管道與廚房爐灶罩的接頭）”字樣。

71 在 7.6.3.4 段中，將“關閉裝置”改為“位於上述控制位置的遙控關閉裝置”。

72 在現有 7.6.3.5 段末尾新增下列句子：

“至少應設有一個靠近排氣扇的孔蓋，其他孔蓋位於嚴重積油的部位，如 7.6.3.2 所述的管道下端。”

73 在現有 7.6.4 段末尾新增下列文字：

“擋火閘和擋煙閘的佈置應使其易於接近。如將其置於天花板或襯板後時，應安裝一個標明用於識別該閘的檢修門。該識別標誌還應在所要求的任何遙控裝置上予以標明。”

74 在 7.6.6 段的最後一句前插入下列句子：

“可通過機械釋放裝置或通過故障安全型電氣開關或氣壓釋放裝置（即彈簧支撐等）遙控操作擋火閘和擋煙閘，實現手動關閉。”

75 在 7.7.1 段的第一句後插入下列句子：

“對通常無人的控制站（如應急發電機室），不必安裝手動報警按鈕。”

76 在 7.7.1.1.4 段的第一句末尾，新增“，每個分區中應包括一組失火探測器，以及本段要求的在指示裝置上顯示的手動報警按鈕。”

77 在 7.7.1.1.9 段的第一句中，將“7.11.1”後的文字刪除，並在該段末尾新增下列句子：

“儘管有本段前述規定，但如該處所位於高速船艏或船艉，或這些處所的佈置使其成為各甲板的公用處所（如風機室、廚房和公共處所等），則主管機關可允許同一分區中的探測器服務於一層以上甲板上的處所。”

78 在 7.7.1.1.10 段末尾新增下列句子：

“對於一個具有遙控並可逐一識別每一探測器功能的探火系統，如果覆蓋起居處所、服務處所和控制站的回路（按順序連接各分區探測器的電路，以及將（輸入、輸出值）與指示裝置相連）中不包括有較大失火危險的機器處所，則符合本要求規定。”

79 在 7.7.1.1.14 段中，將“除了”之後的文字替換如下：

“可利用控制板激活下列一項或多項：

.1 尋呼系統；

.2 風機停止；

.3 防火門閉合；

.4 擋火閘和擋煙閘閉合；

.5 噴水器系統。”

80 在 7.7.1.1.15 段中，將引言文字替換如下：

“具有單獨識別所有失火探測器（即具有區域編址識別功能）的探火系統應按如下要求佈置：”

81 在 7.7.1.1.15.1 段末尾新增下列文字：

“任一回路不應兩次通過一個處所。如實際不可行時（如面積較大的公共處所），則對必需第二次通過該處所的回路部分，在安裝時應儘可能地遠離回路的其他部分。”

82 在 7.7.1.1.15.2 段中，在“將會”兩字中間插入“不”。

83 在現有 7.7.1.1.15 段之後插入新的 7.7.1.1.16 段如下：

“車輛裝卸期間，車輛甲板處所的探火系統（不包括手動報警按鈕）可採用定時器關閉。”

84 將 7.7.1.2.3 段中的最後一句替換如下：

“位於頂部的探測器應至少距艙壁 0.5m，但位於走廊、儲藏室和梯道的探測器除外。”

85 在 7.7.3.1 段的第 1 個句子中，在“控制”之前插入“操作間和，如配備，從”字樣。

86 在現有 7.7.3.1 段之後插入新的 7.7.3.2 段如下，並將現有 7.7.3.2 和 7.7.3.3 段重新編號為 7.7.3.3 和 7.7.3.4 段：

“非本規則要求的但安裝於高速船上的額外固定式滅火系統應符合本規則的設計，但固定式氣體滅火系統要求的第二次排放除外”

87 在 7.7.3.3.3 段的第一句後新增下列文字：

“管路可穿過起居處所，只要其厚度足夠，且安裝後進行了壓頭不小於 $5N/mm^2$ 的壓力試驗驗證其密性。此外，穿過起居處所的管路應僅使用焊接進行連接，並不得在此類處所內裝有泄水孔或其他開口。管路不應穿過冷藏處所。”

88 在 7.7.3.3.5 段末尾新增下列句子：

“受保護處所的空氣進口或排氣口應能從該處所的外部予以關閉。”

89 在 7.7.3.3.6 段末尾新增下列文字：

“對應於經壓縮空氣瓶轉換成自由空氣容積後增加的機器處所總容積。可選擇的方法是，只要其直接排向大氣中，就可在每一壓縮空氣瓶上接裝一個帶安全閥的排放管。”

90 在 7.7.3.3.7 段第一句中的“工作或”後插入“人員可能會進入（如滾裝處所）及其便於出入的門或艙口或”字樣。第二句中的“操作”改為“自動操作（如通過打開釋放箱門）”。

91 在 7.7.3.3.10 段末尾新增下列文字：

“如分隔符合表 7.4-1 和 7.4-2 的相應要求，或分隔為氣密鋼結構時，處所被視為隔開。”

92 在 7.7.3.3.12 段末尾新增下列文字：

“而不必將容器完全從其固定位置移開。”

93 將現有 7.7.3.3.14 段替換如下：

“7.7.3.3.14 如滅火介質儲存在被保護處所外，其所儲存的艙室應位於一個安全且易於到達的位置。就應用表 7.4-1 和 7.4-2 而言，此類儲存室應視為控制站。下列要求適用於存放固定式氣體滅火系統的滅火介質的儲藏室：

.1 儲存室不得用於其他用途；

.2 如儲存處所位於甲板下，則該處所不得位於開敞甲板下第一層甲板以下，且可通過梯道或梯子從開敞甲板直接進入；

.3 處所須進行有效的通風。位於甲板以下的處所或未設有從開敞甲板進入通道的處所，均應安裝設計為從處所底部排出廢氣的機械通風系統，並應具有每小時至少 6 次換氣的能力；和

.4 通道門應向外開啟，構成所述儲存室和鄰近圍閉處所間限界面的艙壁和甲板，包括門和其他開口關閉裝置，應保持氣密。”

94 在 7.7.4 段末尾新增下列文字：

“每具手提式滅火器須：

.1 總重不應超過 23kg；

.2 如係乾粉或二氧化碳，容量應為 5kg；

.3 如係泡沫，容量應為 9*l*；

.4 每年檢查一次；

.5 應有標明上次檢查日期的標示；

.6 應每 10 年進行一次液壓試驗（瓶和推劑瓶）；

.7 如係二氧化碳，不應存放在起居處所內；

.8 如位於控制站及其他裝有對高速船安全所必需的電氣或電子設備或裝置的處所內時，其滅火介質應為非導電或對這些設備和裝置無害；

.9 應即可使用並位於易於可見的位置，以便在發生火災時能快捷和方便的拿到；

.10 應位於不因天氣、振動或其他外部因素而影響其使用性能的位置；和

.11 應有表明是否使用過的標識。”

95 在 7.7.5.1 段中，“獨立驅動泵”改為“由獨立電源供電的泵”。

96 在 7.7.5.3 段的最後一句前插入下列句子：

“消防總管應有排水功能，並安裝閥門，以使消防總管的支管部分在總管用於非消防目的時能予以隔離。”

97 在 7.7.5.4 段末尾新增下列文字：

“在靠近每一機器處所的入口處外部應設有一個消防栓。”

98 在 7.7.5.5 段中，將“耐腐蝕材料”後的文字改為：

“消防水帶的長度應：

.1 至少 10m；

.2 在機器處所內不超過 15m；和

.3 在其他處所和開敞甲板處不超過 20m。”

99 在 7.8.1.1 段的段首插入“根據 7.8.1.2 規定”，並刪除第 2 句。

100 在現有 7.8.1.1 段之後新增 7.8.1.2 段如下，並將現有 7.8.1.2 和 7.8.1.3 段重新編號為 7.8.1.3 和 7.8.1.4 段：

“7.8.1.2 如對特種處所或滾裝處所，包括開敞式滾裝處所的車輛甲板有隔熱要求，則僅需在下一面進行隔熱。只要車輛甲板不是高速船主承載結構一部分或支撐部分，並已採取相關措施確保船舶安全（包括滅火能力、耐火分隔完整性和撤離措施）不受這些內部甲板部分或全部坍塌的影響，則完全位於滾裝處所內的這些車輛甲板可允許免於結構防火要求。”

101 將 7.8.2 段的第 1 段改為 7.8.2.1 段，並在 7.8.2.1 段後插入下列文字：

“7.8.2.2 該系統的泵應能保持：

.1 對 A 類高速船，當任一台泵組出現故障時，仍維持規定的施放總量的一半；和

.2 對 B 類高速船，當任一台泵組出現故障時，仍維持規定的施放總量。

7.8.2.3 固定式滅火系統應滿足下列要求：

.1 閥箱上應設有壓力錶，且其每個閥門均應標識其保護的區域；

.2 應在設有閥門的艙室內張貼裝置的維護和操作須知；和

.3 管系上應裝設足夠數量的泄水閥。”

102 在 7.8.4.1 段末尾新增下列文字：

“，包括 L 形金屬管在內的水霧槍，該管長肢長約 2m，並能與消防水帶連接；短肢長約 250mm，裝有一個固定水霧噴槍或能與一個噴水槍連接。”

103 在 7.8.4.3 段末尾新增下列文字：

“除符合 7.7.4 段的要求外，滅火器還應適合 A 類和 B 類火災，並具有 12kg 或等效的乾粉滅火劑。”

104 將 7.8.6 段重新編號為 7.8.6.1 段，並將第一句中的“排水孔應如此安裝”改為“泵和排水裝置應能防止水的積聚。為此目的而安裝的排水孔應按規定如此佈置。”

105 在現有 7.8.6.1 段後插入新的 7.8.6.2 段如下：

“7.8.6.2 對按 7.8.6.1 段規定安裝的排水孔和艙底水泵：

.1 排水系統的水量應考慮到水霧系統的泵和所需的消防水槍數量；

.2 排水系統的排量應不小於上述.1 規定排量的 125%；和

.3 應確保污水阱具有足夠的容量，並應佈置在兩舷側，其在每一水密艙內相互間的距離不應超過 40m。”

106 在 7.8.7.1 段中，將第一句之後的文字替換如下：

“安裝在甲板或平台以上超過 450mm 高度的電氣設備，應由符合經本組織認可的國際標準的防進水罩殼加以保護。但如為高速船安全所必需而在甲板或平台上低於 450mm 高度安裝電氣設備和佈線時，只要該電氣設備符合經本組織認可的國際標準的合格防爆型，則可安裝這些設備和佈線。

107 將現有 7.8.7.2 段替換如下：

“7.8.7.2 如電氣設備安裝在排氣通風導管內，其應為合格防爆型設備。安裝的設備和佈線應根據本組織認可的國際標準適合使用，任何排氣導管的出口應位於安全位置，並考慮到其他可能的着火源。”

108 在 7.10.1.2 段中的“水霧槍”之後插入“符合 7.8.4.1 段的要求”字樣。

109 在 7.10.2 段中，將“或個人配備應儲存於”改為“和個人配備應儲存於固定佈置並標有永久清晰標誌的位置處”。

110 在 7.10.3.1.2 段中，將文字“和手套”刪除。

111 在 7.10.3.1.4 段中，將“型”改為“符合本組織認可標準的合格防爆型”。

112 在 7.10.3.1.5 段末尾新增“具有高壓絕緣斧柄的”字樣。

113 將 7.10.3.2 和 7.10.3.2.1 段刪除，將 7.10.3.2.2 段重新編號為 7.10.3.2，並在“呼吸器”前插入“認可型”字樣。

114 將重新編號的 7.10.3.2 段的第二句替換如下：

“每一所要求的裝備均應分別配備 2 個適用的備用充氣器。”

115 在 7.10.3.3 段中，將“足夠長度”改為“約 30m 長度”字樣，並在末尾新增一句如下：

“救生繩應進行 5 分鐘的 3.5kN 靜載荷試驗。”

116 在 7.11.1.3 段末尾新增“在較大失火危險區域結構防火時間內”字樣。

117 在 7.13.1 段的第一句後插入下句：

“在一層甲板上開敞的梯道應視為該開敞處所的一部分，並應受到任何用於該處所的噴水器系統的保護。”

118 在 7.13.3 段中，將“營運航速”替換為“最大航速的 90%”。

119 將現有 7.17.2.2 段的.2 小段替換如下：

“.2 專門建造的集裝箱高速船以及擬在貨物集裝箱和可移動罐櫃內裝運危險貨物的貨物處所。就此而言，專門建造的集裝箱處所係指安裝有用於堆放和繫固集裝箱的箱格導軌的貨物處所；”

120 在 7.17.2.3 段中，在“滾裝處所”後插入“，包括特種處所”。

121 在 7.17.3 段末尾新增下句：

“就本節而言，“在甲板上”應指在露天甲板上的處所。”

122 將 7.17.3.1.2 段中的“供應”改為“按最大的指定貨物處所同時供應 7.17.3.1.3 段規定的裝置和”，並在第一句後插入下句：

“主消防泵的總容量（不包括應急消防泵的容量，如配備，）應滿足本要求。”

123 在現有 7.17.3.1.3 段中：

.1 將第一句中的文字“應配備”刪除，並將其重新插入句首單詞“裝置”之後；

.2 將文字“大量水”改為“按貨物處所水平面積計不小於 5*l*/min/m^2 的水量”字樣；和

.3 在“排水和泵系佈置”後插入“符合 7.8.6 段要求和”字樣。

124 在 7.17.3.1.4 段末尾新增下句：

“也可由符合《公約》第 II-2/10.4.1.1.2 條要求的高倍泡沫系統替代。”

125 在現有 7.17.3.1.4 段後新增 7.17.3.1.5 和 7.17.3.1.6 段如下：

“7.17.3.1.5 為滿足 7.17.3.1.1 至 7.17.3.1.4 段的要求，可採用經主管機關根據本組織制定的標準批准的水霧系統，但條件是按 7.17.3.1.2 段規定，在最大的貨物處所內規定用於消防的水量可同時滿足水霧系統加 4 支消防水槍用水量的需要。

7.17.3.1.6 除 7.7.5.5 段的要求外，裝運危險貨物的高速船還應配備三個符合 7.7.5.6 段要求的消防水帶和水槍。”

126 在 7.17.3.2 段的第一句中的“圍閉貨物處所”後新增“或車輛甲板”。

127 在 7.17.3.4.2 段的第一句後插入“排氣扇應為無火花型。”字樣，並將最後一句替換如下：

“在進氣和出氣口應安裝合適的尺寸不大於 13mm x 13mm 的金屬網，以防止異物進入罩內。”

128 將現有 7.17.3.4.3 段重新編號為 7.17.3.4.4 段；表 7.17-2 中的引用編號作相關修正；並新增 7.17.3.4.3 如下：

“7.17.3.4.3 如未以氣密艙壁或甲板將鄰近處所隔離，須將鄰近處所按作為貨物處所本身適用通風要求。”

129 在現有 7.17.3.4.4 段後新增 7.17.3.4.5 段如下：

“7.17.3.4.5 開頂式集裝箱高速船，僅需對貨艙下部進行動力通風，為此要求安裝專門的通風管道。通風率應根據露天甲板下的空艙容積至少為每小時 2 次。”

130 表 7.17-1 中，在右欄頂部的文字“散裝固體危險貨物”後新增“（包括《2004 年散裝貨物安全操作規則》（BC 規則）的 B 類貨物，但標明“散裝危險材料”的貨物除外）”。

131 表 7.17-1 中，在註 1 第二句末尾增加“每小時”。

132 表 7.17-2 在註 4 中，在“含有”後增加“殘餘”字樣。

133 表 7.17-2 中，在 7.17.3.4.2 參照行，4.2 和 4.3 欄插入註 7 如下，並將現有表 7.17-3 的註 7 至註 11 重新編號為註 8 至註 12：

“7 對含有溶劑萃取殘餘的種籽餅以及 BC 規則之第 4.3 類貨物，應安裝 2 台固定式獨立風扇。但如在裝載前和航行時，對移動風扇進行了繫固安裝（如予以固定），則也可採用此類風扇。通風系統應符合 7.17.3.4.1 和 7.17.3.4.2 段的規定。通風時，應不會將任何逸出的氣體吹向甲板上、下的公共處所或船員起居處所。”

134 表 7.17-3 中，在第 7 和第 8 欄內對“3.1 3.2”和“3.3”的參照均改為“3”，並在“5.2”一欄最後一行和倒數第二行中的“x”後新增註 13 如下：

“根據經修正的 IMDG 規則的規定，禁止在甲板下或在圍閉滾裝處所內積載第 5.2 類的危險貨物。”

135 在 7.17.3.5 段後新增內容如下：

“如下：

.1 如除由機器處所內的泵所服務的系統外還附加用於貨物處所的艙底泵排水系統時，則服務每一貨物處所的系統的排量不應小於 $10m^3/h$。如附加系統為公用系統，則排量無需大於 $25m^3/h$。該系統也無需冗餘。在裝運易燃或有毒液體時，應通過安裝一個盲板法蘭或通過關閉一個可鎖閉的閥門，將機器處所內的艙底管路予以隔離；

.2 如貨物處所艙底排水的佈置為重力排水時，則排水應直接通往舷外或通往位於機器處所外的一個封閉的泄水艙。該泄水艙還須設有通往露天甲板上一個安全位置的透氣管；

.3 含有用於擬裝運易燃或有毒液體貨物處所艙底泵的機器處所外的圍閉處所，應安裝獨立的機械通風裝置，且每小時至少換氣 6 次。該處所內的電氣設備應為合格防爆型。如該處所有從另一圍閉處所進入的通道，則該門應為自閉型；和

.4 如處所滿足與上述貨物處所相同的要求時，僅允許從該貨物處所排水至一個較低處所內的艙底水阱。”

136 在 7.17.3.6.1 段的第一句末尾新增下列文字：

“應考慮所運輸的化學品相關的危險性以及由本組織按類別和物理特性制訂的標準進行選擇。”

137 在 7.17.3.6.2 段末尾新增下句：

“除 7.10.3.2.2 段的要求外，還應為每一所需的裝備配備 2 個適用於呼吸器的備用充氣器。”

138 在 7.17.3.8.2 段中的“泄水和排水裝置應”後插入“符合 7.8.6 段的要求，並在該處所外位於滅火系統控制站附近的位置可操縱該閥門和”字樣。

第 8 章

救生設備與裝置

139 將現有 8.7.6 至 8.7.10 段重新編號為 8.7.7 至 8.7.11 段，並插入新的 8.7.6 段如下：

“8.7.6 如 B 類高速船上裝備有登乘救生艇筏的 MES 時，則應另設有撤離裝置，以使在 MES 失效時，或因 2.6.7.1 段所述的縱向範圍受損而導致 MES 無法使用時，直至並包括在最壞預計工況下，用於乘客和船員撤至船上相同一側的救生艇筏內。”

140 在 8.9.14.2 段中，在“應”字後增加“在按 1.5.1.3 段要求進行年度檢驗時進行一次徹底的檢查”字樣，並將該句剩餘部分刪除。

141 在 8.9.14.3 段中，在“制動器”後增加“在最大下降速度時進行動力試驗。試驗負荷應為救生艇或救助艇不載人時的質量，除非在不超過 5 年的間隔內，應採用等於救生艇或救助艇和其全部人員和設備重量的 1.1 倍的驗證負荷進行此試驗。”字樣並將該句剩餘部分刪除。

第 10 章

輔機系統

142 在 10.2.4.8 段中，將第一句末尾的“注入管”替代為“燃油管和船上泵動力服務的所有注入管”字樣。此外，原“以及閃點低於 43℃的燃油”改為“如無因油氣事故而產生失火或爆炸的危險，並且不應通往船員處所、乘客處所、特種處所、滾裝處所（開敞式滾裝處所除外）、機器處所或類似處所。對閃點低於 43℃的燃油，此類閥門和管路”字樣。

第 11 章

遙控、報警與安全系統

143 在 11.3.3 段的第一句中，將“控制站內”改為“在一個或多個控制站”字樣。

144 在 11.4.1.2 段中，將.4 至.11 小段重新編號為.5 至.12 小段，並在現有.3 段後插入新的.4 段如下：

“.4 設計水線以下的每一水密艙室內的艙底水探測。”

第 13 章

船舶航行系統和設備以及航行數據記錄儀

145 將現有 13.8.2 段重新編號為 13.8.3 段，並插入新的 13.8.2 段如下：

“13.8.2 高速船應安裝 ECDIS 的具體規定如下：

.1 2008 年 7 月 1 日或以後建造的高速船；

.2 2008 年 7 月 1 日以前建造的高速船，應不遲於 2010 年 7 月 1 日。”

第 14 章

無線電通信

146 將現有 14.15.10 段的內容替換如下：

“14.15.10 所有高速船上的衛星 EPIRB 應：

.1 每年進行操作性能的全面測試，特別是檢查工作頻率發射、編碼和登記，檢查間隔規定如下：

.1 對客船，《高速船安全證書》期滿之日的前 3 個月內；和

.2 對貨船，《高速船安全證書》期滿之日前 3 個月內，或《高速船安全證書》周年日的前或後 3 個月內；

測試可在船上進行或在經認可的測試站進行；和

.2 在不超過 5 年的間隔期內，在經認可的岸基檢修站進行檢修。”

第 18 章

營運要求

147 將現有 18.1.3 段的.4 小段的內容替換如下：

“.4 在具有符合本規則要求的功能和設施的基地港作業區域內有規定。”

附件 1

高速船安全證書和設備記錄格式

148 在《高速船安全證書》的設備記錄第.3 節中，在現有的第 15 項後插入新的第 16 項如下，並將現有的第 16 項重新編號為第 17 項。

“16 遠距離識別和追蹤系統”

149 在《高速船安全證書》的設備記錄第.4 節中，將“雙向現場無線電通信 121.5MHz 和 123.1MHz”字樣作為第 7 項。

附件 6

水翼船的穩性

150 在現有引言首段和第 1 段之間插入新的內容如下：

“根據 2.3.1 段的要求，應在所有允許的裝載工況下，對水翼船的穩性進行評估。

本附錄中術語“排水狀態”與本規則 1.4.22 段中定義的“排水狀態”含義相同。

本附錄中術語“翼航狀態”與本規則 1.4.38 段中定義的“非排水狀態”含義相同。”

附件 7

多體船的穩性

151 在 1.4.2 段後新增下句：

“或也可按本規則 2.1.4 段的規定採用其他的評估方法。”

152 在 1.5 段末尾新增下句：

“應採用附件 6 的 1.1.5.3 段中確定 θ_Z 的方法確定由模型試驗或其他數據得出的 θ_r。”

153 在 2.3 段末尾新增“按本附件 1.5 確定的”字樣。

附件 8

單體船的穩性

154 將現有 1.1 段替換如下：

“1.1 應採用《完整穩性規則》3.2 段中的氣象衡準。在應用氣象衡準時，風壓值 P（N/m2）應為：

$$500\{V_w/26\}^2$$

式中，V_w = 相應於最壞預計工況下的風速（m/s）。

應用《完整穩性規則》中 3.2.2.1.2 段的規定時，風引起的橫傾角不應超過 16° 或甲板邊緣浸水角的 80%（取小者）。如果風引起的橫傾角大於 10° 時，按本規則 2.13.1.1 段的規定，甲板表面應提供有效防滑並有適當的踩步支撐點。在應用氣象衡準時，還應考慮評估假定的橫搖角 θ_1 時的個別船具體的橫搖阻尼特點，或也可從模型試驗或實船試驗中通過採用附則 6 的 1.1.5.3 中確定 θ_Z 的方法求得。具有大量增加阻尼特性的船體，如浸沒的舷側船體、堅實的水翼列、或撓性裙板或氣墊密封，橫搖角可能會明顯減小。因此，對此類船，橫搖角應從模型試驗或實船試驗中求得，或如無此類數據時，應取為 15°。”

155 在 2.1.1 段後新增下句：

“範圍應取平衡橫傾角與剩餘復原力臂成負值間的差值或發生累進進水的橫傾角，取小者。”

附件 9

有關運行與安全性能的定義、要求和規定標準

156 將第一段第 2 句中的“原型”改為“第一次”。

157 在 2.1.1、2.1.2、2.1.3 和 3.3.1 段中的“最大營運航速”改為“最大航速的 90%”。

158 在 3.2 段中，句子“最壞預計工況不應超過二種測量的海況中更嚴重的一種的 150%”作為倒數第 2 句插入。

附件 10

乘客與船員座椅的試驗衡準與評估

159 在標題中，將“場所和船員”字樣刪除。

160 在 3.4 段中，“相同強度和剛度”改為“等同強度和剛度”。

161 在 3.6 段中，在“和測量”字樣之後，將“如可能”字樣刪除。

162 在 3.9 段中，在現有.3.2 小段後插入.3.3 至.3.5 小段如下，並將現有.3.3 小段重新編號為.3.6 段：

“.3.3 頸部曲率不超過 88Nm；

.3.4 頸部伸展率不超過 48Nm；

.3.5 作為上述.3.3 和.3.4 的替代，可接受在座墊以上至少 850mm 處設置靠背或頭枕；和”。

163 在現有附件 11 後新增附件 12 如下：

“附件 12

確定高速船操縱限制時應考慮的因素

1 目的和範圍

本附件的目的是列出所有在確定填入“營運許可證書”中“最壞預計工況”（1.4.61 段定義的）及其他“操縱限制”（1.4.41 段定義的）時應予考慮的參數，以便於統一運用本規則。

2 應予考慮的因素

須至少考慮下列因素：

.1 在 1.3.4 段中所述的距避難地的最遠距離。

.2 滿足 1.4.12.1 段要求的救援方法的可用性（僅適用 A 類船）。

.3 在 1.4.61 段中所述的安全操作的最低氣溫（易結冰），能見度和水深。

.4 應用第 2 章和相關附件中有關穩性和浮力要求時的有義波高和最大平均風速。

.5 維持安全航行的限制（尤其是有義波高），考慮 2.1.5 段中所列的已知穩性危險，預定航線上的操縱條件（見 18.1.3.2 段）以及附件 9 中 3.3 段定義的操作中的各種運動。

.6 按第 3 章規定在“臨界設計工況”中的高速船結構安全。

.7 在 8.6.5 段規定的撤離系統和救生艇筏的安全佈放和操作。

.8 按第 17 章和附則 3 和 9 要求進行的航行試驗所確定的安全操作限制，指明按 17.3 段規定的任何重量和重心限制，以及按 17.4 段規定的失效和故障影響。”

RESOLUTION MSC.222(82)
(adopted on 8 December 2006)

AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

THE MARITIME SAFETY COMMITTEE,

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

NOTING resolution MSC.97(73), by which it adopted the International Code of Safety for High-Speed Craft, 2000 (hereinafter referred to as "the 2000 HSC Code"), which has become mandatory under chapter X of the International Convention for the Safety of Life at Sea (SOLAS), 1974, (hereinafter referred to as "the Convention"),

NOTING ALSO article VIII(b) and regulation X/1.2 of the Convention concerning the procedure for amending the 2000 HSC Code,

HAVING CONSIDERED, at its eighty-second session, amendments to the 2000 HSC Code proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the International Code of Safety for High-Speed Craft, 2000, 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 amendments shall be deemed to have been accepted on 1 January 2008 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 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 2008 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 CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

CHAPTER 1 GENERAL COMMENTS AND REQUIREMENTS

1 The existing text of section 1.2 is renumbered as paragraph 1.2.1 and the following paragraph 1.2.2 is added:

"1.2.2 On all craft, new installation of materials containing asbestos used for the structure, machinery, electrical installations and equipment of a craft to which this Code applies shall be prohibited except for:

.1 vanes used in rotary vane compressors and rotary vane vacuum pumps;

.2 watertight joints and linings used for the circulation of fluids when, at high temperature (in excess of 350°C) or pressure (in excess of 7×10^6 Pa), there is a risk of fire, corrosion or toxicity; and

.3 supple and flexible thermal insulation assemblies used for temperatures above 1000°C."

2 In paragraph 1.3.4.1, the words "operational speed" are replaced by the words "90% of maximum speed".

3 In paragraph 1.3.4.2, the words "operational speed" are replaced by the words "90% of maximum speed".

4 In paragraph 1.4.16, the words "(main displays and controls for equipment specified in 13.2 to 13.7)" are inserted after the words "navigating equipment".

5 In paragraph 1.4.29, the word "food" is inserted between the words "cooking or" and "heating".

6 The existing paragraph 1.4.35 is replaced by the following:

"1.4.35 *Machinery spaces* are spaces containing internal combustion engines either used for main propulsion or having an aggregate total power output of more than 110 kW, generators, oil fuel units, major electrical machinery and similar spaces and trunks to such spaces."

7 The existing paragraph 1.4.44 is deleted and the existing paragraphs 1.4.32 to 1.4.43 are renumbered as paragraphs 1.4.33 to 1.4.44, with a new paragraph 1.4.32 being inserted as follows:

"1.4.32 *IMDG Code* means the International Maritime Dangerous Goods (IMDG) Code as defined in chapter VII of the Convention."

8 At end of paragraph 1.4.53, the following new sentence is inserted:

"Such spaces containing no cooking appliances may contain:

.1 coffee automats, toasters, dish washers, microwave ovens, water boilers and similar appliances, each of them with a maximum power of 5 kW; and

.2 electrically heated cooking plates and hot plates for keeping food warm, each of them with a maximum power of 2 kW and a surface temperature not above 150°C."

9 In paragraph 1.4.54, the text after "the average" is replaced by the following:

"crest-to-trough height of the highest one third of the zero-upcrossing waves in a specified period."

10 At end of paragraph 1.8.1, the following text is inserted:

"On all craft, all certificates issued under this chapter, or certified copies thereof, shall be carried on the craft. Except where the flag State is a Party to the 1988 SOLAS Protocol, a copy of each of these certificates shall be posted up in a prominent and accessible place in the craft."

11 In paragraph 1.9.1, the second sentence is deleted and the following new paragraph 1.9.1.1 is inserted:

"1.9.1.1 On all craft, transit voyages may be undertaken without a valid Permit to Operate High-Speed Craft provided the craft is not operating commercially with passengers or cargo onboard. For the purpose of this provision, these transit voyages include delivery voyages, i.e., builder's port to base port, and voyages for repositioning purposes, i.e., change of base port and/or route. Such transit voyages in excess of the limits set out in this Code may be undertaken provided that:

.1 the craft has a valid High-Speed Craft Safety Certificate or similar before the start of such a voyage;

.2 the operator has developed a safety plan for the voyage including any temporary accommodation and all relevant matters listed in 18.1.3 to ensure that the craft is capable of safely completing the transit voyage;

.3 the master of the craft is provided with the materials and information necessary to operate the craft safely during the transit voyage; and

.4 the Administration is satisfied that arrangements have been made for the safe conduct of the voyage."

12 The following new paragraph 1.9.7 is added after the existing paragraph 1.9.6:

"1.9.7 In determining the worst intended conditions and the operational limitations on all craft for insertion in the Permit to Operate, the Administration shall give consideration to all the parameters listed in annex 12. The limitations assigned shall be those that enable compliance with all of these factors."

13 In paragraph 1.15.1, the words "four years" are replaced by the words "six years".

CHAPTER 2
BUOYANCY, STABILITY AND SUBDIVISION

14 The existing text of subparagraph .1 of paragraph 2.1.3 is replaced by the following:

".1 *Downflooding point* means any opening, irrespective of size, that would permit passage of water through a water/weathertight structure (e.g., opening windows), but excludes any opening kept closed to an appropriate standard of water/weathertightness at all times other than when required for access or for operation of portable submersible bilge pumps in an emergency (e.g., non-opening windows of similar strength and weathertight integrity to the structure in which they are installed)."

15 In paragraph 2.1.3, subparagraphs .2 to .6 are renumbered as subparagraphs .3 to .7 and the following new subparagraph .2 is inserted after the existing subparagraph .1:

".2 *Elsewhere* when applied to sill and coaming heights in 2.2.7 and 2.2.8 is taken as applying to all weathertight and watertight closures located on or below the datum."

16 The following new paragraph 2.1.5 is inserted and the existing paragraphs 2.1.5 and 2.1.6 are renumbered as paragraphs 2.1.6 and 2.1.7:

"2.1.5 The adequacy of mathematical simulations must first be demonstrated by correlation with full-scale or model tests for the appropriate type of craft. It may be appropriate to use mathematical simulations to help to identify the more critical scenarios for subsequent physical testing."

17 The following text is inserted at the end of re-numbered paragraph 2.1.7:

"Where calculations are employed, it shall first be shown that they correctly represent dynamic behaviour within the operational limitations of the craft."

18 The third and subsequent sentences of paragraph 2.2.9.3 are replaced by the following:

"In unmanned machinery spaces, main and auxiliary sea inlet and discharge controls in connection with the operation of machinery shall either:

.1 be located at least 50% of the significant wave height corresponding to the worst intended conditions above the deepest flooded waterline following damage specified in 2.6.6 to 2.6.10; or

.2 be operable from the operating compartment."

19 In paragraph 2.3.4, table 2.3.4 is replaced by the following:

"Table 2.3.4 – Application of annexes 7 and 8 to monohull and multihull craft

GM_T	Angle of maximum GZ	
	≤ 25°	> 25°
≤ 3 m	annex 7 or annex 8	annex 8
> 3 m	annex 7	annex 7 or annex 8

"

20 In paragraph 2.3.4, the definitions of B_{WL}, A_{WP} *and* ∇ which appear after "where:" are deleted and the definition "GZ = righting lever" is inserted to replace them.

21 In paragraph 2.4.2, the words "chapter 18" are replaced by the words "chapters 17 and 18".

22 In paragraph 2.6.5, the following new subparagraph .5 is inserted after the existing subparagraph .4:

".5 void spaces filled with foam or modular buoyancy elements or any space without a venting system are considered to be void spaces for the purposes of this paragraph, provided such foam or elements fully comply with 2.6.4."

23 In paragraph 2.6.6, the final sentence is deleted.

24 In paragraph 2.6.7, the word "damages" is replaced by the word "damage".

25 The following new section of text is added in continuation of paragraph 2.6.7 after subparagraph 2.6.7.3:

"The damages described in this paragraph shall be assumed to have the shape of a parallelepiped. Applying this to figure 2.6.7a, the inboard face at its mid-length shall be tangential to, or otherwise touching in a least 2 places, the surface corresponding to the specified transverse extent of penetration, as illustrated in figure 2.6.7a.

Side damage shall not transversely penetrate a greater distance than the extent of $0.2\nabla^{1/3}$ at the design waterline, except where a lesser extent is provided for in 2.6.7.2. Refer to figures 2.6.7b and 2.6.7c.

If considering a multihull, the periphery of the craft is considered to only be the surface of the shell encompassed by the outboard surface of the outermost hull at any given section.

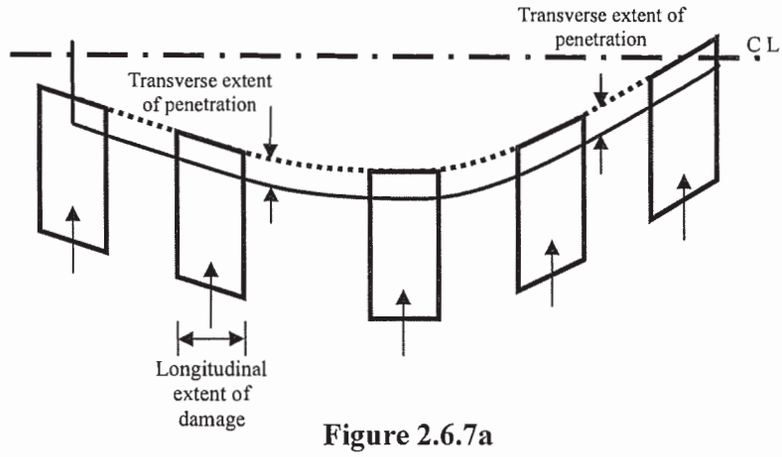


Figure 2.6.7a

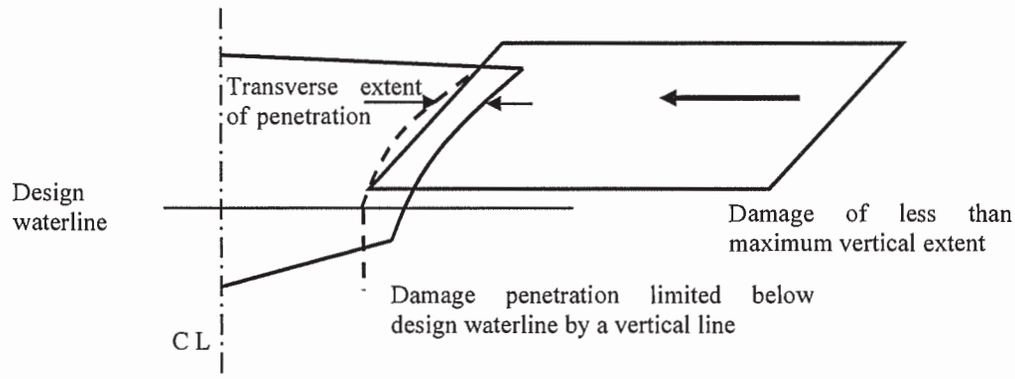


Figure 2.6.7b

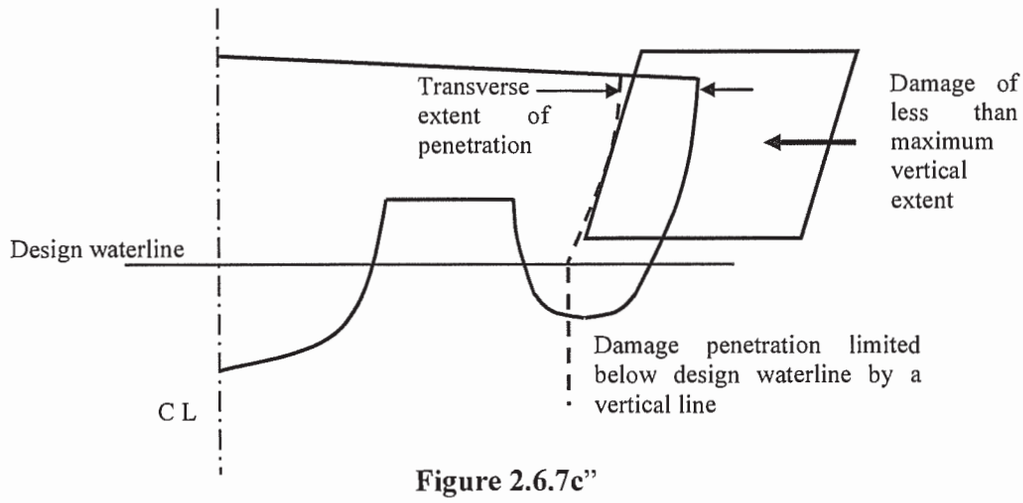


Figure 2.6.7c"

26 Existing paragraphs 2.6.8 to 2.6.12 are renumbered as paragraphs 2.6.9 to 2.6.13 and the following new paragraph 2.6.8 is inserted after the existing paragraph 2.6.7:

"2.6.8 *Extent of bow and stern damage*

2.6.8.1 The following extents of damage are to be applied to bow and stern, as illustrated in figure 2.6.8:

.1 at the fore end, damage to the area defined as A_{bow} in 4.4.1, the aft limit of which being a transverse vertical plane, provided that this area need not extend further aft from the forward extremity of the craft's watertight envelope than the distance defined in 2.6.7.1; and

.2 at the aft end, damage to the area aft of a transverse vertical plane at a distance $0.2\nabla^{1/3}$ forward of the aft extremity of the watertight envelope of the hull.

2.6.8.2 The provisions of 2.6.6 in relation to damage of lesser extent remain applicable to such damage.

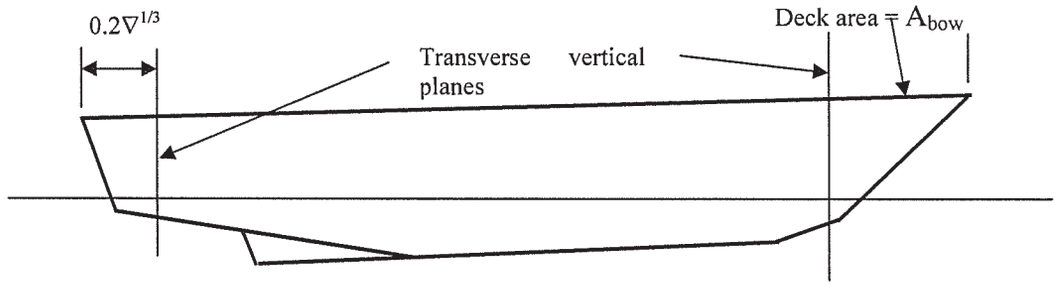


Figure 2.6.8"

27 In re-numbered paragraph 2.6.9.1.1.1, the words "operational speed" are replaced by the words "90% of maximum speed".

28 In re-numbered paragraph 2.6.9.1.2, the following text is inserted at the end of the definition of "T":

", provided that structures such as single plate skegs or solid metal appendages shall be considered to be non-buoyant and thus excluded."

29 The following new paragraph 2.6.9.2.3 is inserted after re-numbered paragraph 2.6.9.2.2:

"2.6.9.2.3 The shape of damage shall be assumed to be rectangular in the transverse plane as illustrated in figure 2.6.9.2 below. Damage is to be assumed at a series of sections within the defined longitudinal extent in accordance with figure 2.6.9.2, the mid-point of the damaged girth being maintained at a constant distance from the centreline throughout that longitudinal extent.

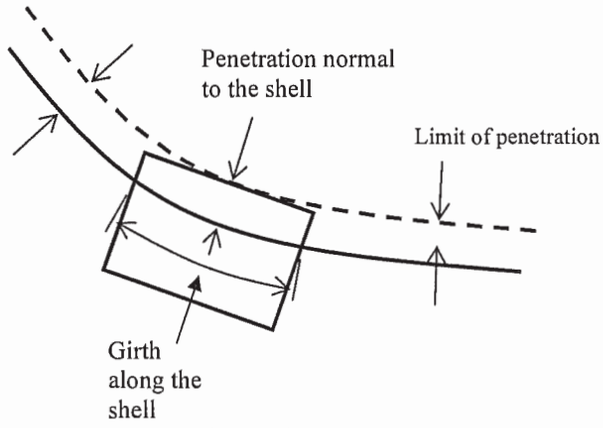


Figure 2.6.9.2"

30 In re-numbered paragraph 2.6.10.1, the words "below the design waterline" are inserted between the words "hull(s)" and "which".

31 In re-numbered paragraph 2.6.10.2, the following new subparagraph .4 is inserted after the existing subparagraph .3:

".4 the shape of damage shall be assumed to be rectangular in the plane of the shell of the craft, and rectangular in the transverse plane as illustrated in figure 2.6.9.2."

32 The existing paragraphs 2.7.2 to 2.7.8 are renumbered as paragraphs 2.7.3 to 2.7.9 and the following new paragraph 2.7.2 is inserted after the existing paragraph 2.7.1:

"2.7.2 On all craft, where an accurate inclining experiment is impractical owing to the height of the centre of gravity (VCG or KG) being less than one third of the transverse metacentric height (GM_T), the Administration may accept estimation of KG by detailed calculation in place of an inclining experiment. In such cases, a displacement check shall be undertaken to confirm the calculated lightship characteristics, including LCG, which may be accepted if the measured lightship displacement and LCG are respectively within 2% and 1% L relative to the estimate."

33 In re-numbered paragraph 2.7.7, the following new sentence is inserted at the end of the paragraph:

"For amphibious air-cushion vehicles this may be achieved by the use of draught gauges in conjunction with deck datum plates."

34 In paragraph 2.10, the following new subparagraphs .7 to .10 are inserted after the existing subparagraph .6:

".7 Passengers assumed to be occupying seats shall be taken as having a vertical centre of gravity corresponding to being seated, with all others standing.

.8 On the decks where assembly stations are located, the number of passengers on each deck shall be that which generates the maximum heeling moment. Any remaining passengers shall be assumed to occupy decks adjacent to those on which the assembly stations are located, and positioned such that the combination of number on each deck and total heeling moment generate the maximum static heel angle.

.9 Passengers shall not be assumed to gain access to the weather deck nor be assumed to crowd abnormally towards either end of the craft unless this is a necessary part of the planned evacuation procedure.

.10 Where there are seats in areas occupied by passengers, one passenger per seat shall be assumed, passengers being assigned to the remaining free areas of the deck (including stairways, if appropriate) at the rate of four per square metre."

35 The following new paragraph 2.12.3 is inserted after the existing paragraph 2.12.2:

"2.12.3 Demonstrating the effect of the passenger heeling moment calculated as given by 2.10 above, or a defined beam wind pressure when at speed, shall be established by conducting a trial or model test with an equivalent heeling moment applied by test weights. Passenger movement may only be neglected on craft where the safety announcement (refer to 8.4.1 and 18.7) expressly requires passengers to remain seated throughout the voyage."

CHAPTER 4
ACCOMMODATION AND ESCAPE MEASURES

36 In paragraph 4.3.4, the words "two thirds of operational speed" are replaced by the words "60% of maximum speed".

37 In paragraph 4.3.7, the words "operational speed" are replaced by the words "90% of maximum speed".

38 In paragraph 4.4.1, the words "operational speed" are replaced by the words "90% of maximum speed".

39 In table 4.4.2, under Design Level 2:

.1 the existing text of paragraph 1.1 is replaced by the following:

"1.1 Seatbacks with protective deformation and padding."; and

.2 the text "unless satisfactorily tested without belts in that orientation and arrangement" is inserted at the end of paragraph 1.4.

40 The following new sentence is inserted at the end of paragraph 4.4.5:

"The armrests and backrests of seats in public spaces may serve as handholds."

41 In paragraph 4.6.1, the reference to "3g" is replaced by the reference to "3".

42 In paragraph 4.7.10, the second sentence is replaced by the following:

"Clear markings, including the location of the fire control plan, shall be provided for the guidance of rescue personnel outside the craft."

43 In paragraph 4.7.12, the following text is added at the end of the paragraph:

"Doors providing escape from a space shall, where possible, be situated at opposite ends of the space. Where the doors providing escape from a space are situated in the same end of the space, the distance between those doors shall be greater than the maximum length of the space."

44 In paragraph 4.7.13, the following text is added at the end of the paragraph:

"Requirements of this paragraph do not apply to aisles (fore-aft passageways separating seating areas) or to spaces between adjacent rows of seats. However, the width of aisles and the seat pitch shall be such as to allow the craft to comply with the provisions of 4.8."

45 The existing paragraphs 4.7.14 to 4.7.16 are renumbered as paragraphs 4.7.15 to 4.7.17 respectively, and the following new paragraph 4.7.14 is inserted:

"4.7.14 Special category spaces used for stowage of motor vehicles shall be provided with walkways having a width of at least 600 mm leading to a safe means of escape."

46 In re-numbered paragraph 4.7.17, the following new sentence is added at the end of the paragraph:

"At least one means of escape from a machinery space shall consist of either a ladder leading to a door or hatch (not being a horizontal flush-hatch) or a door located in the lower part of that space and giving access to an adjacent compartment from which a safe means of escape is provided."

47 The following new paragraph 4.7.18 is inserted after re-numbered paragraph 4.7.17:

"4.7.18 Spaces that are only entered occasionally by crew members may have only one means of escape provided that it is independent of watertight doors."

48 In paragraph 4.8.1, the following new sentence is added at the end of the paragraph:

"In determining the evacuation time, all means of escape are to be considered serviceable and they need not be dimensioned to take into account any additional number of persons that might be diverted from other means of escape if one or more of those other means of escape are lost or rendered unserviceable."

49 The existing paragraphs 4.8.10 and 4.8.11 are renumbered as paragraphs 4.8.11 and 4.8.12 and the following new paragraph 4.8.10 inserted:

"4.8.10 Where the Administration is satisfied that the evacuation time determined in accordance with 4.8.1 to 4.8.9 can thereby be accurately estimated, the Administration may accept an evacuation demonstration in which persons are not required to descend through MES or equivalent means of evacuation, provided the time required to embark into the survival craft can be determined using:

.1 data obtained from the type-approval tests of the equipment, increased by a factor based on the guidelines developed by the Organization; or

.2 time extrapolated from trials using a limited number of participants."

CHAPTER 6
ANCHORING, TOWING AND BERTHING

50 The following new paragraph 6.1.4 is inserted after the existing paragraph 6.1.3:

"6.1.4 Under any operating load up to the breaking strength of the anchor cable or mooring lines, the loads on the bitts, bollards, etc., shall not result in damage to the hull structure that will impair its watertight integrity. A strength margin of at least 20% above the resultant load based on the minimum specified breaking strength of the relevant cable or warp shall be required."

CHAPTER 7
FIRE SAFETY

51 In paragraph 7.3.1.2, in the first bullet point, the reference to "1.4.4" is replaced by the reference to "1.4.5".

52 In paragraph 7.3.1.3, in the first bullet point, the reference to "1.4.5" is replaced by the reference to "1.4.6".

53 In paragraph 7.3.1.4, the words "as defined in 1.4.15" are replaced by the words "as defined in 1.4.16".

54 The existing paragraph 7.3.2 is renumbered as paragraph 7.3.3 and the following new paragraph 7.3.2 is inserted:

"7.3.2 In relation to the classification of spaces in 7.3.1, the following additional criteria shall be applied:

.1 If a space is divided by partial bulkheads into two (or more) smaller areas such that they form enclosed spaces, then the enclosed spaces shall be surrounded by bulkheads and decks in accordance with tables 7.4-1 and 7.4-2, as applicable. However, if the separating bulkheads of such spaces are at least 30% open, then the spaces may be considered as the same space.

.2 Cabinets having a deck area of less than 2 m^2 may be accepted as part of the space they serve, provided they have open ventilation to the space and do not contain any material or equipment that could be a fire risk.

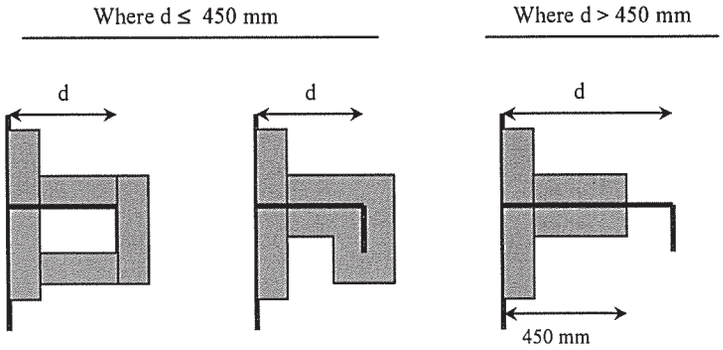
.3 Where a space has the special characteristics of two or more space groupings, the structural fire protection time of the divisions shall be the highest for the space groupings concerned. For example, the structural fire protection time of the divisions of emergency generator rooms shall be of the highest value for the space when the space is considered as being a control station (D) and a machinery space (A)."

55 The following new paragraphs 7.3.4 to 7.3.6 and associated figures 7.3.4a, 7.3.4b and 7.3.6 are inserted after re-numbered paragraph 7.3.3:

"7.3.4 To prevent heat transmission at intersections and terminal points, the insulation of the deck or bulkhead shall be carried past the intersection or terminal point for a distance of at least 450 mm in the case of steel or aluminium structures (refer to figures 7.3.4a and 7.3.4b).

7.3.5 If a space is divided by a deck or bulkhead and the fire insulation required for each space is different, the insulation with the higher structural fire protection time shall continue on the deck or bulkhead with the insulation of the lesser structural fire protection time for a distance of at least 450 mm beyond the boundary between the spaces.

7.3.6 Where the lower part of the fire insulation has to be cut for drainage, the construction shall be in accordance with the structural details shown in figure 7.3.6.



d = depth of stiffener on girder

Figure 7.3.4a

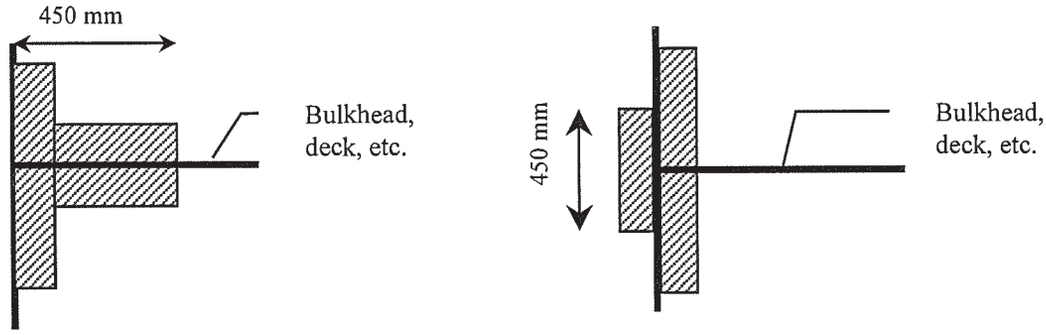


Figure 7.3.4b

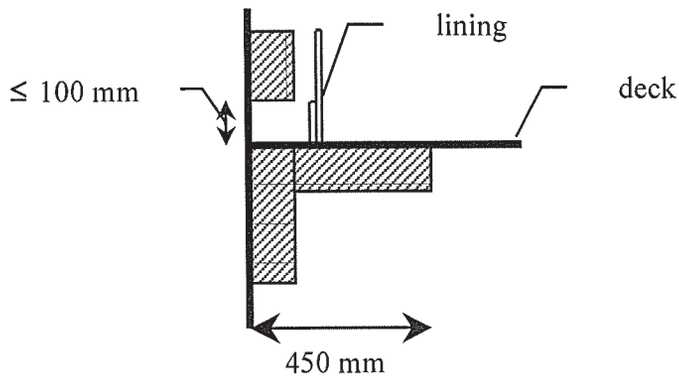


Figure 7.3.6 "

56 The following new paragraph 7.4.1.4 is inserted after the existing paragraph 7.4.1.3:

"7.4.1.4 Paragraph 7.4.1.3 does not apply to appendages such as air propellers, air ducts to propellers, transmission shafts, rudders and other control surfaces, struts, spars, flexible skirts, etc., which do not comprise part of the main structure of the craft."

57 In tables 7.4-1 and 7.4-2, note 1 is replaced by the following:

"1 The upper side of decks within spaces protected by fixed fire-extinguishing systems need not be insulated."

58 In paragraph 7.4.2.1, in the second sentence, the words "at the lightweight condition" are replaced by the words "at least 300 mm below the craft's waterline in the lightweight condition in displacement mode".

59 At the end of paragraph 7.4.2.6, the following new sentence is added:

"Where machinery shafts penetrate fire-resisting watertight divisions, arrangements shall be made to ensure that the required watertight and fire-resisting integrity of the division is not impaired."

60 The following new paragraph 7.4.2.7 is inserted after the existing paragraph 7.4.2.6:

"7.4.2.7 Ventilation openings may be accepted in entrance doors to public toilets, provided they are positioned in the lower portion of the door and fitted with closable grilles made of non-combustible or fire-restricting material and operable from outside the space."

61 At the end of paragraph 7.4.3.2, the following sentence is added:

"The fire insulation in such spaces may be covered by metal sheets (not perforated) or by vapour proof glass cloth sealed at joints."

62 In paragraph 7.4.3.3.1, the words "e.g., desks, wardrobes, dressing tables, bureaux and dressers" are inserted after the words "case furniture".

63 In paragraph 7.4.3.4, the words "Subject to 7.4.3.5" are inserted at the beginning of the paragraph.

64 The following new paragraph 7.4.3.5 is inserted after the existing paragraph 7.4.3.4 and the existing paragraphs 7.4.3.5 to 7.4.3.10 are renumbered as paragraphs 7.4.3.6 to 7.4.3.11:

"7.4.3.5 Paragraph 7.4.3.4 does not apply to partitions, windows and sidescuttles made of glass which are deemed to be non-combustible and to comply with the requirements for low-flame spread surfaces or to items and materials referred to in 7.4.3.3."

65 The last sentence of paragraph 7.4.4.1 is deleted.

66 The following new paragraph 7.4.4.2 is added after the existing paragraph 7.4.4.1 and the existing paragraphs 7.4.4.2 and 7.4.4.3 are renumbered as paragraphs 7.4.4.3 and 7.4.4.4:

"7.4.4.2 Open stairways may be fitted in public spaces consisting of only two decks, provided the stairways lie wholly within such public spaces and the following conditions are met:

.1 all levels are used for the same purpose;

.2 the area of the opening between the lower and upper parts of the space is at least 10% of the deck area between the upper and lower parts of the space;

.3 the design is such that persons within the space should be generally aware, or could easily be made aware of, a developing fire or other hazardous situation located within that space;

.4 sufficient means of escape are provided from both levels of the space directly leading to an adjacent safe area or compartment; and

.5 the whole space is served by one section of the sprinkler system."

67 The second sentence of re-numbered paragraph 7.4.4.4 is replaced by the following:

"Draught stops are not required in public spaces of category A craft having only one public space and on other craft in spaces with open ceilings (perforated ceilings) where the opening is 40% or more and the ceiling is arranged in such a way that a fire behind the ceiling can be easily seen and extinguished."

68 The following sentence is added at the end of paragraph 7.5.2:

"The use of aluminium in lubricating oil sump tanks for engines, or in lubricating oil filter housings fitted integral with the engines, is accepted."

69 In paragraph 7.6.1, the following sentence is inserted between the two existing sentences:

"The controls shall be easily accessible as well as prominently and permanently marked and shall indicate whether the shut-off is open or closed."

70 In paragraph 7.6.3.2, the words "(the junction between the duct and the galley range hood)" are inserted after the words "lower end of the duct".

71 In paragraph 7.6.3.4, the word "means" is replaced by the words "a remote means located with the above controls".

72 The following sentence is added at the end of the existing paragraph 7.6.3.5:

"At minimum, one hatch shall be provided close to the exhaust fan and others located in areas of high grease accumulation such as the lower end of the duct as referred to in 7.6.3.2."

73 The following text is added at the end of the existing paragraph 7.6.4:

"Fire and smoke dampers shall be arranged so as to be readily accessible. Where placed behind ceilings or linings, they shall be provided with an inspection door marked to identify the damper. Such identification shall also be placed on any required remote controls."

74 In paragraph 7.6.6, the following sentence is inserted before the last sentence:

"Manual closing may be achieved by mechanical means of release or by remote operation of the fire or smoke damper by means of a fail-safe electrical switch or pneumatic release (i.e. spring-loaded, etc.)."

75 In paragraph 7.7.1, the following sentence is inserted after the first sentence:

"Control stations not normally occupied (e.g., emergency generator rooms) need not be provided with manually operated call points."

76 In paragraph 7.7.1.1.4, the words ", each of which shall comprise a group of fire detectors and manually operated call points as displayed at the indicating unit(s) required by this paragraph" are added at the end of the first sentence.

77 In paragraph 7.7.1.1.9, in the first sentence, the text after "7.11.1" is deleted and a new sentence is added at the end of the paragraph as follows:

"Notwithstanding the preceding requirements of this paragraph, the Administration may accept that the same section of detectors can serve spaces on more than one deck if such spaces are located in the fore or aft end of the craft or they are so arranged that they constitute common spaces on different decks (e.g., fan rooms, galleys, public spaces, etc.)."

78 The following sentence is added at the end of paragraph 7.7.1.1.10:

"In the case of a fire detection system with remotely and individually identifiable fire detectors, this requirement is met if no machinery spaces of a major fire hazard are included in a loop (electrical circuit linking detectors of various sections in a sequence and connected (input and output) to the indicating unit(s)) covering accommodation spaces, service spaces and control stations."

79 In paragraph 7.7.1.1.14, the text following the words "except that" is replaced by the following:

"the control panel may be used to activate one or more of the following:

.1 paging system;

.2 fan stops;

.3 closure of fire doors;

.4 closure of fire and smoke dampers; and

.5 sprinkler system."

80 In paragraph 7.7.1.1.15, the text of the chapeau is replaced by the following:

"Fire detection systems in which all fire detectors are individually identifiable (i.e., having zone address identification capability) shall be so arranged that:"

81 In paragraph 7.7.1.1.15.1, the following words are added at the end of the paragraph:

"and no loop shall pass through a space twice. When this is not practical (e.g., for large public spaces), the part of the loop which by necessity passes through the space for a second time shall be installed at the maximum possible distance from the other parts of the loop."

82 In paragraph 7.7.1.1.15.2, the word "not" is inserted between the words "shall" and "render".

83 The following new paragraph 7.7.1.1.16 is inserted after the existing paragraph 7.7.1.1.15:

"The fire detection system in vehicle deck spaces, excluding manual call points, may be switched off with a timer during loading/unloading of vehicles."

84 The last sentence of paragraph 7.7.1.2.3 is replaced by the following:

"Detectors which are located in the overhead shall be a minimum distance of 0.5 m away from bulkheads, except in corridors, lockers and stairways."

85 In the first sentence of paragraph 7.7.3.1, the words "operating compartment and, where provided, from a" are inserted between the words "the" and "control".

86 The following new paragraph 7.7.3.2 is inserted after the existing paragraph 7.7.3.1 and the existing paragraphs 7.7.3.2 and 7.7.3.3 are renumbered as paragraphs 7.7.3.3 and 7.7.3.4:

"Additional fixed fire-extinguishing systems not required by the Code, but fitted to the craft are to meet the design requirements of this Code, except for the second discharge required for fixed gas fire-extinguishing systems."

87 In re-numbered paragraph 7.7.3.3.3, the following text is added after the first sentence:

"Pipelines may pass through accommodation spaces, provided they are of substantial thickness and their tightness is verified with a pressure test, after their installation, at a pressure head not less than 5 N/mm^2. In addition, pipelines passing through accommodation areas shall only be joined by welding and shall not be fitted with drains or other openings within such spaces. Pipelines shall not pass through refrigerated spaces."

88 The following sentence is added at the end of re-numbered paragraph 7.7.3.3.5:

"Openings that may admit air to, or allow gas to escape from, a protected space shall be capable of being closed from outside the protected space."

89 The following text is added at the end of re-numbered paragraph 7.7.3.3.6:

"corresponding to the gross volume of the machinery space being increased by the volume of air receivers converted to free air volume. Alternatively, a discharge pipe connected to a safety valve may be fitted to each air receiver, provided it leads directly to the open air."

90 In re-numbered paragraph 7.7.3.3.7, the words "which personnel can be expected to enter (e.g., ro-ro spaces) and where their access is facilitated by doors or hatches or" are inserted after the words "work or" in the first sentence; and in the second sentence, the word "operate" is replaced by the words "automatically operate (e.g., by opening of the release cabinet door)".

91 The following text is added at the end of re-numbered paragraph 7.7.3.3.10:

"Spaces are considered as separated where divisions comply with tables 7.4-1 and 7.4-2, as appropriate, or the divisions are gastight and of steel or equivalent materials."

92 The following text is added at the end of re-numbered paragraph 7.7.3.3.12:

"without moving the containers completely from their fixing position."

93 re-numbered paragraph 7.7.3.3.14 is replaced by the following:

"7.7.3.3.14 When the fire-extinguishing medium is stored outside a protected space, it shall be stored in a room which shall be situated in a safe and readily accessible location. For the purpose of the application of tables 7.4-1 and 7.4-2, such storage rooms shall be treated as control stations. For the storage rooms for fire-extinguishing media of fixed gas fire-extinguishing systems, the following apply:

.1 the storage room shall not be used for any other purposes;

.2 if the storage space is located below deck, it shall be located no more than one deck below the open deck and shall be directly accessible by a stairway or ladder from the open deck;

.3 spaces shall be effectively ventilated. Spaces which are located below deck or spaces where access from the open deck is not provided, shall be fitted with a mechanical ventilation system designed to take exhaust air from the bottom of the space and shall be sized to provide at least 6 air changes per hour; and

.4 access doors shall open outwards, and bulkheads and decks including doors and other means of closing any opening therein, which form the boundaries between such rooms and adjacent enclosed spaces shall be gastight."

94 The following text is added at the end of paragraph 7.7.4:

"Each portable fire extinguisher shall:

.1 not exceed 23 kg in total mass;

.2 have a capacity of at least 5 kg if of powder or carbon dioxide type;

.3 have a capacity of at least 9 *l* if of foam type;

.4 be examined annually;

.5 be provided with a sign indicating the date when was last examined;

.6 be hydraulic-pressure tested (cylinders and propellant bottles) every 10 years;

.7 not be placed in accommodation spaces if of carbon dioxide type;

.8 if located in control stations and other spaces containing electrical or electronic equipment or appliances necessary for the safety of the craft, be provided with extinguishing media which are neither electrically conductive nor harmful to the equipment and appliances;

.9 be ready for use and located in easily visible places such that it can be reached quickly and easily at any time in the event of a fire;

.10 be located such that its serviceability is not impaired by the weather, vibration or other external factors; and

.11 be provided with a device to identify whether it has been used."

95 In paragraph 7.7.5.1, the words "independently driven pumps" are replaced by the words "pumps powered by independent sources of power".

96 The following sentence is inserted before the last sentence of paragraph 7.7.5.3:

"The fire main shall be capable of being drained and shall be fitted with valves arranged so that fire main branches can be isolated when the main is used for purposes other than fire-fighting."

97 The following text is added at the end of paragraph 7.7.5.4:

"One hydrant shall be located in the vicinity of and outside each entrance to a machinery space."

98 In paragraph 7.7.5.5, the text after the words "non-perishable material" is replaced by the following:

"Fire hoses shall have a length of:

.1 at least 10 m;

.2 not more than 15 m in machinery spaces; and

.3 not more than 20 m for other spaces and open decks."

99 In paragraph 7.8.1.1, the words "Subject to 7.8.1.2" are inserted at the beginning and the second sentence is deleted.

100 The following new paragraph 7.8.1.2 is added after the existing paragraph 7.8.1.1 and the existing paragraphs 7.8.1.2 and 7.8.1.3 are renumbered as paragraphs 7.8.1.3 and 7.8.1.4:

"7.8.1.2 The vehicle deck of a special category space or a ro-ro space, including an open ro-ro space, need only be insulated on the underside if required. Vehicle decks located totally within ro-ro spaces may be accepted without structural fire protection, provided these decks are not part of, or do not provide support to, the craft's main load-carrying structure and provided satisfactory measures are taken to ensure that the safety of the craft, including fire-fighting abilities, integrity of fire resisting divisions and means of evacuation, is not affected by a partial or total collapse of these internal decks."

101 Paragraph 7.8.2 is renumbered 7.8.2.1 and the following text is inserted after paragraph 7.8.2.1:

"7.8.2.2 The pumps of the system shall be capable of maintaining:

.1 half the total required application rate with any one pump unit out of function, for category A craft; and

.2 the total required application rate with any one pump unit out of function, for category B craft.

7.8.2.3 Fixed fire-extinguishing systems shall fulfil the following requirements:

.1 the valve manifold shall be provided with a pressure gauge, and each of the valves shall be marked to identify the protected areas;

.2 instructions for maintenance and operation of the installation shall be set up in the room where the valves are located; and

.3 the piping system shall be provided with a sufficient number of drainage valves."

102 The following text is added at the end of paragraph 7.8.4.1:

", which shall consist of a metal L-shaped pipe, the long limb being approximately 2 m in length and capable of being fitted to a fire hose, and the short limb being approximately 250 mm in length and fitted with a fixed water fog nozzle or capable of being fitted with a water spray nozzle;"

103 The following text is added at the end of paragraph 7.8.4.3:

"In addition to complying with 7.7.4, fire extinguishers shall be suitable for A and B class fires and have a capacity of 12 kg dry powder or equivalent."

104 Paragraph 7.8.6 is renumbered as paragraph 7.8.6.1 and the words "scuppers shall be fitted so" in the first sentence are replaced by the words "pumping and drainage arrangements shall be such as to prevent such accumulation. Scuppers fitted for this purpose shall be so arranged".

105 The following new paragraph 7.8.6.2 is inserted after re-numbered paragraph 7.8.6.1:

"7.8.6.2 In respect of scuppers and drainage pumps fitted in accordance with 7.8.6.1:

.1 the amount of water for which drainage is provided shall take into account the capacity of both the water spraying system pumps and required number of fire hose nozzles;

.2 the drainage system shall have a capacity of not less than 125% of the capacity specified in .1 above; and

.3 bilge wells shall be of sufficient holding capacity and shall be arranged at the side shell of the ship at a distance from each other of not more than 40 m in each watertight compartment."

106 In paragraph 7.8.7.1, the text after the first sentence is replaced by the following:

"Electrical equipment installed more than 450 mm above the deck or platform shall be of a type enclosed and protected by an enclosure having an ingress protection based on an international standard acceptable to the Organization. However, if the installation electrical equipment and wiring less than 450 mm above the deck or platform is necessary for the safe operation of the craft, such electrical equipment and wiring may be installed provided that the equipment is certified "safe type" based on an international standard acceptable to the Organization. "

107 The existing text of paragraph 7.8.7.2 is replaced by the following:

"7.8.7.2 If installed in an exhaust ventilation duct, electrical equipment shall be certified "safe type". The equipment and wiring, if fitted, shall be suitable for use based on standards acceptable to the Organization and the outlet from any exhaust duct shall be sited in a safe position, having regard to other possible sources of ignition."

108 In paragraph 7.10.1.2, the words "complying with the requirements of 7.8.4.1" are inserted after the words "water fog applicator".

109 In paragraph 7.10.2, the words "or sets of personal equipment shall be so stored as" are replaced by the words "and sets of personal equipment shall be stored in permanently and clearly marked locations arranged so as".

110 In paragraph 7.10.3.1.2, the words "and gloves" are deleted.

111 In paragraph 7.10.3.1.4, the word "type" is replaced by the words "explosion-proof type certified to a standard acceptable to the Organization".

112 The words "having a handle provided with high-voltage insulation" are added at the end of paragraph 7.10.3.1.5.

113 Paragraphs 7.10.3.2 and 7.10.3.2.1 are deleted, the remaining paragraph 7.10.3.2.2 is renumbered as 7.10.3.2 and the words "of an approved type" are inserted after the words "breathing apparatus".

114 The second sentence of the renumbered paragraph 7.10.3.2 is replaced by the following:

"Two spare charges suitable for use with the apparatus shall be provided for each required apparatus."

115 In paragraph 7.10.3.3, the words "sufficient length" are replaced by the words "approximately 30 m in length" and the following new sentence is added at the end:

"The lifeline shall be subjected to a test by static load of 3.5 kN for 5 min."

116 In paragraph 7.11.1.3, the words "within the structural fire protection time for areas of major fire hazard." are added at the end.

117 In paragraph 7.13.1, the following sentence is inserted after the first sentence:

"A stairway open at one deck shall be considered part of the space to which it is open and consequently shall be protected by any sprinkler system provided for that space."

118 In paragraph 7.13.3, the words "operational speed" are replaced by the words "90% of maximum speed".

119 The existing text of subparagraph .2 of paragraph 7.17.2.2 is replaced by the following:

".2 purpose-built container craft and cargo spaces intended for the carriage of dangerous goods in freight containers and portable tanks. In this regard, a purpose-built container space is a cargo space fitted with cell guides for stowage and securing containers;"

120 In paragraph 7.17.2.3, the words ", including special category spaces," are inserted after the words "ro-ro spaces".

121 The following text is added at the end of paragraph 7.17.3:

"For the purpose of this section, "on deck" shall be taken to mean spaces on the weather deck."

122 In paragraph 7.17.3.1.2, the word "supplying" is replaced by the words "simultaneously supplying the arrangements required by 7.17.3.1.3 for the largest designated cargo space and the" and the following sentence is inserted after the first sentence:

"This requirement shall be met by the total capacity of the main fire pump(s) not including the capacity of the emergency fire pump, if fitted."

123 In paragraph 7.17.3.1.3:

.1 the words "shall be provided" are deleted from the end of the first sentence and are re-inserted after the first word "Means";

.2 the words "copious quantities of water" are replaced by the words "with water at not less than 5 *l*/min/m^2 of the horizontal area of cargo spaces"; and

.3 the words "meet the requirements of 7.8.6 and" are inserted after the words "drainage and pumping arrangements shall".

124 The following sentence is added at the end of paragraph 7.17.3.1.4:

"Substitution by a high expansion foam system complying with regulation II-2/10.4.1.1.2 of the Convention is also acceptable."

125 The following new paragraphs 7.17.3.1.5 and 7.17.3.1.6 are added after existing paragraph 7.17.3.1.4:

"7.17.3.1.5 The requirements of 7.17.3.1.1 to 7.17.3.1.4 may be fulfilled by a water spray system approved by the Administration based on the standards developed by the Organization, provided that the amount of water required for fire-fighting purposes in the largest cargo space allows simultaneous use of the water spray system plus four jets of water from hose nozzles in accordance with 7.17.3.1.2.

7.17.3.1.6 Craft carrying dangerous goods shall be provided with three fire hoses and nozzles complying with 7.7.5.6 in addition to those required by 7.7.5.5."

126 In the first sentence of paragraph 7.17.3.2, the words "or vehicle decks" are added after the words "enclosed cargo spaces".

127 In paragraph 7.17.3.4.2, the sentence "Exhaust fans shall be of non-sparking type." is inserted after the first sentence and the text of the last sentence is replaced by the following:

"Suitable wire mesh guards having a mesh size not exceeding 13 mm x 13 mm shall be fitted over inlet and outlet ventilation openings to prevent foreign objects from entering into the casing."

128 Existing paragraph 7.17.3.4.3 is renumbered as paragraph 7.17.3.4.4; the relevant reference in table 7.17-2 is amended; and the following new paragraph 7.17.3.4.3 is inserted:

"7.17.3.4.3 If adjacent spaces are not separated from cargo spaces by gastight bulkheads or decks, ventilation requirements shall apply to the adjacent spaces as for the cargo space itself."

129 The following new paragraph 7.17.3.4.5 is added after re-numbered paragraph 7.17.3.4.4:

"7.17.3.4.5 For open-top container craft, power ventilation is required only for the lower part of the cargo hold for which purpose-built ducting is required. The ventilation rate shall be at least two air changes per hour based on the empty hold volume below the weather deck."

130 In table 7.17-1, the words "(includes cargoes of group B of the Code of Safe Practice for Solid Bulk Cargoes, 2004, except for cargoes denoted Materials Hazardous in Bulk)" are added to the words "Solid dangerous goods in bulk" at the head of the right-hand column.

131 In table 7.17-1, the words "per hour" are added at the end of the second sentence of note 1.

132 In table 7.17-2, note 4, the words "residues of" are added after the word "containing".

133 In table 7.17-2, the following note 7 is inserted with references from row 7.17.3.4.2, columns 4.2 and 4.3, and the existing notes 7 to 11 to table 7.17-3 together with their references in that table are renumbered as notes 8 to 12:

"7 For seedcake containing residues of solvent extraction and cargoes of BC Code Class 4.3, two separate fans shall be permanently fitted unless portable type fans have been adapted for being securely fitted (e.g., fixed) prior to loading and during the voyage. The ventilation system shall comply with the provisions of 7.17.3.4.1 and 7.17.3.4.2. Ventilation shall be such that any escaping gases cannot reach public spaces or crew accommodation on or under deck."

134 In table 7.17-3, in the seventh and eighth columns, the references to "3.1 3.2" and "3.3" are replaced by the reference to "3" and the following new note 13 is added to "x" in column "5.2", last and penultimate lines:

"Under the provisions of the IMDG Code, stowage of class 5.2 dangerous goods under deck or in enclosed ro-ro spaces is prohibited."

135 At the end of the existing paragraph 7.17.3.5, the following new text is added:

"as follows:

.1 if the bilge drainage system for cargo spaces is additional to the system served by pumps in the machinery space, the capacity of the system shall be not less than than 10 m^3/h per cargo space served. If the additional system is a common system, the capacity need not exceed 25 m^3/h. The additional bilge system need not be arranged with redundancy. Whenever flammable or toxic liquids are carried, the bilge line into the machinery space shall be isolated either by fitting a blank flange or by a closed lockable valve;

.2 if bilge drainage of cargo spaces is arranged by gravity drainage, the drainage shall be either lead directly overboard or to a closed drain tank located outside the machinery spaces. The tank shall be provided with vent pipe to a safe location on the open deck;

.3 enclosed spaces outside machinery spaces containing bilge pumps serving cargo spaces intended for carriage of flammable or toxic liquids shall be fitted with separate mechanical ventilation giving at least six air changes per hour. Electrical equipment in the space shall be of certified safe type. If the space has access from another enclosed space, the door shall be self-closing; and

.4 drainage from a cargo space into bilge wells in a lower space is only permitted if that space satisfies the same requirements as the cargo space above."

136 The following text is added at the end of the first sentence of paragraph 7.17.3.6.1:

"and shall be selected taking into account the hazards associated with the chemicals being transported and the standards developed by the Organization according to the class and physical state."

137 The following new sentence is added at the end of paragraph 7.17.3.6.2:

"In addition to the requirements of 7.10.3.2.2, two spare charges suitable for use with the breathing apparatus shall be provided for each required apparatus."

138 In paragraph 7.17.3.8.2, the words "meet the requirements of 7.8.6, have valves operable from outside the space at a position in the vicinity of the extinguishing system controls and" are inserted after the words "drainage and pumping arrangements shall".

CHAPTER 8
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

139 Existing paragraphs 8.7.6 to 8.7.10 are renumbered as paragraphs 8.7.7 to 8.7.11 and the following new paragraph 8.7.6 is inserted:

"8.7.6 Where an MES is provided for embarkation into survival craft on a category B craft, an alternative means of evacuating passengers and crew into survival craft on the same side of the craft in conditions up to and including the worst intended conditions is to be provided for use if the MES is lost or rendered unserviceable in the event of damage of longitudinal extent specified in 2.6.7.1."

140 In paragraph 8.9.14.2, after the word "shall", the words "be subject to a thorough examination at the annual surveys required by paragraph 1.5.1.3" are added and the remainder of the sentence is deleted.

141 In paragraph 8.9.14.3, after the word "brake", the words "at maximum lowering speed. The load to be applied shall be the mass of the survival craft or rescue boat without persons on board, except that, at intervals not exceeding five years, the test shall be carried out with a proof load equal to 1.1 times the weight of the survival craft or rescue boat and its full complement of persons and equipment." are added and the remainder of the sentence is deleted.

CHAPTER 10
AUXILIARY SYSTEMS

142 In paragraph 10.2.4.8, the words "the filling pipes" at the end of the first sentence are replaced by the words "bunkering pipes and any filling pipes served by on-board pumps"; and the words "and, for fuel of flashpoint less than 43°C," are replaced by the words "where there is no risk of fire or explosion from the emergence of oils and vapour, shall not lead into crew spaces, passenger spaces, special category spaces, ro-ro spaces (other than open ro-ro spaces), machinery spaces or similar spaces. For fuel of flashpoint less than 43°C such valves and pipes".

CHAPTER 11
REMOTE CONTROL, ALARM AND SAFETY SYSTEMS

143 In paragraph 11.3.3, in the first sentence, the words "in a station" are replaced by the words "at one or more stations".

144 In paragraph 11.4.1.2, subparagraphs .4 to .11 are renumbered as subparagraphs .5 to .12 and the following new subparagraph .4 is inserted after the existing subparagraph .3:

".4 detection of bilge water in each watertight compartment below the design waterline;"

CHAPTER 13
SHIPBORNE NAVIGATIONAL SYSTEMS AND EQUIPMENT AND VOYAGE DATA RECORDERS

145 The existing paragraph 13.8.2 is renumbered as paragraph 13.8.3 and the following new paragraph 13.8.2 is inserted:

"13.8.2 High-speed craft shall be fitted with an ECDIS as follows:

.1 craft constructed on or after 1 July 2008;

.2 craft constructed before 1 July 2008, not later than 1 July 2010."

CHAPTER 14
RADIOCOMMUNICATIONS

146 The existing text of paragraph 14.15.10 is replaced by the following:

"14.15.10 Satellite EPIRBs on all craft shall be:

.1 annually tested for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals as specified below:

.1 on passenger craft, within 3 months before the expiry date of the High-Speed Craft Safety Certificate; and

.2 on cargo craft, within 3 months before the expiry date, or 3 months before or after the anniversary date, of the High-Speed Craft Safety Certificate;

The test may be conducted on board the craft or at an approved testing station; and

.2 subject to maintenance at intervals not exceeding five years, to be performed at an approved shore-based maintenance facility."

CHAPTER 18
OPERATIONAL REQUIREMENTS

147 The existing text of subparagraph .4 of paragraph 18.1.3. is replaced by the following:

".4 provision in the area of operation of a base port having functions and facilities in accordance with the requirements of this Code;"

ANNEX 1
FORM OF HIGH–SPEED CRAFT SAFETY CERTIFICATE AND RECORD OF EQUIPMENT

148 In the Record of Equipment for High-Speed Craft Safety Certificate, in section 3, the following new item 16 is inserted after the existing item 15 and the existing item 16 is renumbered as 17.

"16 Long-range identification and tracking system"

149 In the Record of Equipment for High-Speed Craft Safety Certificate, section 4, the words "Two-way on-scene radiocommunications 121.5 MHz & 123.1 MHz" are inserted as item 7.

ANNEX 6
STABILITY OF HYDROFOIL CRAFT

150 In the chapeau paragraph, the following new paragraphs are inserted after the existing introductory paragraph and prior to paragraph 1:

"As required by 2.3.1, the stability of hydrofoil craft shall be assessed under all permitted conditions of loading.

The term "hull-borne mode" has the same meaning as "displacement mode" defined in 1.4.22 of the Code.

The term "foil-borne mode" has the same meaning as "non-displacement mode" defined in 1.4.38 of the Code."

ANNEX 7
STABILITY OF MULTIHULL CRAFT

151 At the end of paragraph 1.4.2, the following sentence is added:

"Alternatively, another method of assessment may be employed, as provided for in 2.1.4 of this Code."

152 At the end of paragraph 1.5, the following sentence is added:

"The determination of θ_r using model test or other data shall be made using the method for determining θ_Z in 1.1.5.3 of annex 6."

153 At the end of paragraph 2.3, the words ", as determined in 1.5 of this annex" are added.

ANNEX 8
STABILITY OF MONOHULL CRAFT

154 The existing text of paragraph 1.1 is replaced by the following:

"1.1 The weather criterion contained in paragraph 3.2 of the Intact Stability Code shall apply. In applying the weather criterion, the value of wind pressure P (N/m2) shall be taken as:

$$500\{V_w/26\}^2$$

where V_w = wind speed (m/s) corresponding to the worst intended conditions.

The angle of heel due to wind, in applying paragraph 3.2.2.1.2 of the Intact Stability Code, shall not exceed 16° or 80% of the angle of deck-edge immersion (whichever is less). Where the angle of heel due to wind exceeds 10°, efficient non-slip deck surfaces and suitable holding points shall be provided, in accordance with 2.13.1.1 of this Code. In applying the weather criterion, account shall also be taken of the roll damping characteristics of individual craft in assessing the assumed roll angle θ_1, which may alternatively be derived from model or full scale tests using the method for determining θ_z in 1.1.5.3 of annex 6. Hulls with features which greatly increase damping, such as immersed sidehulls, substantial arrays of foils, or flexible skirts or seals, are likely to experience significantly smaller magnitudes of roll angle. For such craft, therefore, the roll angle shall be derived from model or full scale tests or, in the absence of such data, shall be taken as 15°."

155 The following new sentence is added at the end of paragraph 2.1.1:

"The range shall be taken as the difference between the equilibrium heel angle and the heel angle at which the residual righting lever subsequently becomes negative or the angle at which progressive flooding occurs, whichever is less."

ANNEX 9
DEFINITIONS, REQUIREMENTS AND COMPLIANCE CRITERIA RELATED TO OPERATIONAL AND SAFETY PERFORMANCE

156 In the second sentence of the first paragraph, the word "prototype" is replaced by the word "first".

157 In paragraphs 2.1.1, 2.1.2, 2.1.3 and 3.3.1, the words "maximum operational speed" are replaced by the words "90% of maximum speed".

158 In paragraph 3.2, the sentence "The worst intended conditions shall not exceed 150% of the more severe of the two measured sea conditions" is inserted as the penultimate sentence.

ANNEX 10
CRITERIA FOR TESTING AND EVALUATION OF REVENUE AND CREW SEATS

159 In the title, the words "REVENUE AND CREW" are deleted.

160 In paragraph 3.4, the words "same strength and stiffness" are replaced by the words "equivalent strength and stiffness".

161 In paragraph 3.6, after the words "and measurement," the words "if possible" are deleted.

162 In paragraph 3.9, the following subparagraphs .3.3 to .3.5 are inserted after the existing subparagraph .3.2 and the existing subparagraph .3.3 is renumbered as subparagraph .3.6:

".3.3 neck flexion does not exceed 88 Nm;

.3.4 neck extension does not exceed 48 Nm;

.3.5 in lieu of the requirements of .3.3 and .3.4 above, a seatback or headrest of at least 850 mm above the seat cushion is acceptable; and".

163 The following new annex 12 is added after the existing annex 11:

"ANNEX 12

FACTORS TO BE CONSIDERED IN DETERMINING CRAFT OPERATING LIMITATIONS

1 Purpose and scope

The purpose of this annex is to identify the parameters to which consideration should be given when determining the worst intended conditions (defined in 1.4.61) and other operational limitations (defined in 1.4.41) for insertion into the Permit to Operate, in order to facilitate consistent application of the Code.

2 Factors to be considered

As a minimum, the following factors shall be considered:

.1 The maximum distance from refuge implied by 1.3.4.

.2 The availability of rescue resources to comply with 1.4.12.1 (category A craft only).

.3 Minimum air temperature (susceptibility to icing), visibility and depth of water for safe operation as addressed by 1.4.61.

.4 The significant wave height and maximum mean wind speed used when applying the requirements for stability and buoyancy in chapter 2 and associated annexes.

.5 The safe seakeeping limitations (especially significant wave height) considering the known stability hazards listed in 2.1.5, the operating conditions on the intended route (see 18.1.3.2) and the motions experienced during operation defined in 3.3 of annex 9.

.6 The structural safety of the craft in critical design conditions according to chapter 3.

.7 The safe deployment and operation of evacuation systems and survival craft as required by 8.6.5.

.8 The safe handling limitations determined in accordance with the sea trials required by chapter 17 and annexes 3 and 9, identifying any limitations on weight and centre-of-gravity position according to 17.3, and the effects of failures and malfunctions according to 17.4."