

# TRACTATENBLAD

VAN HET

KONINKRIJK DER NEDERLANDEN

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JAARGANG 1998 Nr. 155

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A. TITEL

*Internationaal Verdrag voor de beveiliging van mensenlevens op zee,  
1974, met bijlage;  
Londen, 1 november 1974*

B. TEKST

De Engelse en de Franse tekst van Verdrag en Bijlage zijn geplaatst in *Trb.* 1976, 157.

Voor correcties van de Bijlage zie *Trb.* 1985, 155.

Voor wijzigingen van de Bijlage zie *Trb.* 1983, 32, rubriek J van *Trb.* 1983, 173, van *Trb.* 1985, 155, van *Trb.* 1989, 42 en 98, van *Trb.* 1992, 24, van *Trb.* 1994, 19, van *Trb.* 1996, 18, 128 en 257, van *Trb.* 1997, 226 en rubriek J hieronder.

C. VERTALING

Zie *Trb.* 1977, 77, *Trb.* 1983, 32 en rubriek J van *Trb.* 1983, 173, de rubrieken C en J van *Trb.* 1985, 155, rubriek J van *Trb.* 1989, 42 en 98, van *Trb.* 1992, 24 en 173, van *Trb.* 1994, 19 en 134, van *Trb.* 1995, 236, van *Trb.* 1996, 18 en 128, van *Trb.* 1996, 340 en rubriek J hieronder.

D. PARLEMENT

Zie *Trb.* 1979, 128, *Trb.* 1994, 19, *Trb.* 1995, 236 en *Trb.* 1996, 340.

Bij brieven van 24 oktober 1997 zijn de respectievelijk, in *Trb.* 1996, 257 en 340 afgedrukte resolutie van 16 mei 1995 en in *Trb.* 1997, 226 afgedrukte resolutie van 29 november 1995, medegedeeld aan de Eerste en de Tweede Kamer van de Staten-Generaal en aan de Staten van de Nederlandse Antillen en aan de Staten van Aruba.

E. BEKRACHTIGING

Zie *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173, *Trb.* 1985, 155, *Trb.* 1994, 134 en *Trb.* 1995, 236.

F. TOETREDING

Zie *Trb.* 1976, 157, *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173, *Trb.* 1985, 155, *Trb.* 1986, 51, *Trb.* 1989, 42 en 98, *Trb.* 1992, 24 en 173, *Trb.* 1994, 19 en 134, *Trb.* 1995, 236 en *Trb.* 1996, 257.

Behalve de aldaar genoemde hebben nog de volgende Staten in overeenstemming met artikel IX, letter b, van het Verdrag een akte van toetreding bij de Secretaris-Generaal van de Internationale Maritieme Organisatie nedergelegd:

|                        |                  |
|------------------------|------------------|
| Azerbeidzjan . . . . . | 1 juli 1997      |
| Mauritanië . . . . .   | 24 november 1997 |
| Guyana . . . . .       | 10 december 1997 |

G. INWERKINGTREDING

Zie *Trb.* 1979, 128.

H. TOEPASSELIJKVERKLARING

Zie *Trb.* 1983, 32, *Trb.* 1985, 155, *Trb.* 1989, 42 en *Trb.* 1992, 24.

De Regering van het Verenigd Koninkrijk van Groot-Brittannië en Noord-Ierland heeft in verband met het weer uitoefenen van de soevereiniteit over Hong Kong door de Volksrepubliek China vanaf 1 juli 1997 aan de depositaris medegedeeld dat het Verenigd Koninkrijk ten aanzien van Hong Kong tot 1 juli 1997 internationale verantwoordelijkheid draagt en dat na die datum deze verantwoordelijkheid ophoudt te bestaan.

De Regering van de Volksrepubliek China heeft aan de depositaris medegedeeld dat de Volksrepubliek China met ingang van 1 juli 1997 het Verdrag toepasselijk verklaart op Hong Kong (Special Administrative Region).

J. GEGEVENS

Zie *Trb.* 1976, 157, *Trb.* 1977, 77, *Trb.* 1979, 128, *Trb.* 1983, 32 en 173, *Trb.* 1985, 155, *Trb.* 1986, 51, *Trb.* 1989, 42 en 98, *Trb.* 1992, 24 en 173, *Trb.* 1994, 19 en 134, *Trb.* 1995, 236, *Trb.* 1996, 18, 128, 257 en 340 en *Trb.* 1997, 226.

**Wijzigingen**

*Resolutie MSC.31(63) van 23 mei 1994*

De wijzigingen zijn aanvaard op 1 januari 1998 en zullen op 1 juli 1998 in werking treden.

*Resolutie 1 van 24 mei 1994*

De wijzigingen zijn aanvaard op 1 januari 1998 en zullen op 1 juli 1998 in werking treden.

*Resolutie 1 van 29 november 1995 (zie Trb. 1997, 226 voor de Engelse tekst)*

De vertaling in het Nederlands van Resolutie 1 van 29 november 1995 luidt als volgt:

**Resolutie 1 van de Conferentie van Verdragsluitende Regeringen die Partij zijn bij het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974, aangenomen op 29 november 1995**

**Aanneming van wijzigingen van de Bijlage bij het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974**

De Conferentie,

Herinnerend aan artikel VIII(c) van het Verdrag voor de beveiliging van mensenlevens op zee, 1974 (hierna te noemen „het Verdrag”) betreffende de procedure voor wijziging van het Verdrag door middel van een conferentie van de Verdragsluitende Regeringen,

Gelet op resolutie A.596(15), aangenomen door de Vergadering van de Internationale Maritieme Organisatie (IMO), betreffende de veiligheid van ro/ro schepen,

Voorts gelet op resoluties MSC.11(55), MSC.12(56), MSC.24(60), MSC.26(60) en MSC.27(61), waarbij door de Maritieme Veiligheidscommissie van de IMO wijzigingen van het Verdrag zijn aangenomen gericht op de vergroting van de veiligheid van nieuwe en bestaande ro/ro passagiersschepen, naar gelang van toepassing,

Uitdrukking gevend aan haar bezorgdheid over het feit dat, sinds de aanneming van genoemde wijzigingen, een aantal ro/ro passagiersschepen betrokken is geweest bij ongelukken, waarvan één veel mensenlevens heeft geëist,

Erkennend de dringende noodzaak van verdere verbetering van de veiligheidsnormen betreffende alle aspecten van ontwerp, uitrusting en exploitatie van ro/ro passagiersschepen ter voorkoming van herhaling van dergelijke ongelukken,

Na bestudering van wijzigingen van de Bijlage bij het Verdrag, voorgesteld en toegezonden aan alle Leden van de Internationale Maritieme Organisatie en aan alle Verdragsluitende Regeringen die Partij zijn bij het Verdrag,

1. Neemt, overeenkomstig artikel VIII(c)(ii) van het Verdrag, de wijzigingen van de Bijlage bij het Verdrag aan, waarvan de tekst is vervat in de Bijlage bij deze Resolutie;

2. Bepaalt, in overeenstemming met artikel VIII(b)(vi)(2)(bb) van het Verdrag, dat de wijzigingen worden geacht te zijn aanvaard op 1 januari 1997, tenzij vóór die datum meer dan een derde van de Verdragsluitende Regeringen die Partij zijn bij het Verdrag, of de Verdragsluitende Regeringen waarvan de gezamenlijke koopvaardijvloeden ten minste vijftig procent van de brutotonnage van de wereldkoopvaardijvloot vormen, hun bezwaren tegen de wijzigingen kenbaar hebben gemaakt;

3. Nodigt de Verdragsluitende Regeringen uit er nota van te nemen dat, in overeenstemming met artikel VIII(b)(vii)(2) van het Verdrag, de wijzigingen na hun aanvaarding in overeenstemming met punt 2 hierboven, in werking treden op 1 juli 1997.

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### Bijlage

#### Wijzigingen van de Bijlage bij het Internationaal Verdrag voor de beveiliging van mensenlevens op zee, 1974

##### HOOFDSTUK II-1

##### CONSTRUCTIE - WATERDICHTE INDELING EN STABILITEIT, MACHINE-INSTALLATIES EN ELEKTRISCHE INSTALLATIES

###### Voorschrift 1

###### *Toepassing*

1. In paragraaf 3.2 wordt de verwijzing naar „voorschrift 8.9” vervangen door „voorschrift 8-1”

###### Voorschrift 2

###### *Begripsomschrijvingen*

2. Na de bestaande paragraaf 12 wordt de volgende nieuwe paragraaf 13 toegevoegd:

„13 ‚ro-ro passagiersschip’ betekent een ro-ro passagiersschip met ro-ro laadruimten of ruimten van bijzondere aard zoals omschreven in voorschrift II-2/3.”

###### Voorschrift 8

###### *Stabiliteit van passagiersschepen in beschadigde toestand*

3. In de tekst tussen aanhalingstekens volgend op de titel wordt de verwijzing naar „paragraaf 9” vervangen door „voorschrift 8-1”.

4. De bestaande paragraaf 2.3.5 wordt geschrapt.
5. De volgende nieuwe zin wordt toegevoegd na de bestaande eerste zin van paragraaf 7.4:  
„Het vaststellen van de stabiliteit van het schip geschiedt altijd door middel van berekening”.
6. De bestaande paragraaf 9 wordt geschrapt.
7. De volgende nieuwe voorschriften 8-1 en 8-2 worden toegevoegd na het bestaande voorschrift 8:

„Voorschrift 8-1

*Stabiliteit van ro-ro passagiersschepen in beschadigde toestand*

Ro-ro passagiersschepen gebouwd voor 1 juli 1997 moeten uiterlijk op de datum van het eerste periodieke onderzoek na de hieronder voorgeschreven datum voldoen aan de bepalingen van voorschrift 8, zoals gewijzigd door resolutie MSC.12(56), overeenkomstig de A/Amax-waarde zoals omschreven in de bijlage van de „Calculation procedure to assess the survivability characteristics of existing ro-ro passenger ships when using a simplified method based upon resolution A.265(VIII)”, ontwikkeld door de Maritieme Veiligheidscommissie tijdens haar negenenvijftigste zitting in juni 1991 (MSC/Circ.574):

| A/Amax-waarde                     | Datum van naleving |
|-----------------------------------|--------------------|
| minder dan 85%                    | 1 oktober 1998     |
| 85% of meer maar minder dan 90%   | 1 oktober 2000     |
| 90% of meer maar minder dan 95%   | 1 oktober 2002     |
| 95% of meer maar minder dan 97,5% | 1 oktober 2004     |
| 97,5% of meer                     | 1 oktober 2005     |

Voorschrift 8-2

*Bijzondere eisen voor ro-ro passagiersschepen waarmee 400 personen of meer worden vervoerd*

Onverminderd de bepalingen van de voorschriften 8 en 8-1:

- .1 moeten ro-ro passagiersschepen gebouwd op of na 1 juli 1997 waarmee 400 personen of meer mogen worden vervoerd voldoen aan de bepalingen van paragraaf 2.3 van voorschrift 8, ervan uitgaande dat de schade is ontstaan op enig punt binnen de lengte (L) van het schip; en
- .2 moeten ro-ro passagiersschepen gebouwd vóór 1 juli 1997 waarmee 400 personen of meer mogen worden vervoerd niet later voldoen aan de bepalingen van subparagraaf .1 dan de datum van het eerste periodieke onderzoek na de in subparagraaf .2.1.

.2.2 of .2.3 genoemde datum van naleving, naar gelang van welke datum het laatst is:

|  |                    |
|--|--------------------|
| .2.1 A/Amax-waarde                                   | Datum van naleving |
| minder dan 85%                                       | 1 oktober 1998     |
| 85% of meer maar minder dan 90%                      | 1 oktober 2000     |
| 90% of meer maar minder dan 95%                      | 1 oktober 2002     |
| 95% of meer maar minder dan 97,5%                    | 1 oktober 2004     |
| 97,5% of meer  | 1 oktober 2010     |
| .2.2 Aantal personen dat mag worden vervoerd         |                    |
| 1500 of meer   | 1 oktober 2002     |
| 1000 of meer maar minder dan 1500                    | 1 oktober 2006     |
| 600 of meer maar minder dan 1000                     | 1 oktober 2008     |
| 400 of meer maar minder dan 600                      | 1 oktober 2010     |
| .2.3 Leeftijd van het schip gelijk aan of groter dan | 20 jaar,           |

waarbij de leeftijd van het schip betekent de tijd gerekend vanaf de datum waarop de kiel is gelegd of de datum waarop het zich in een vergelijkbaar bouwstadium bevond of vanaf de datum waarop het schip was omgebouwd tot een ro-ro passagiersschip.”

#### Voorschrift 10

*Piekschotten, schotten welke het voortstuwingsgedeelte begrenzen, astunnels, enz. op passagiersschepen*

8. De bestaande tekst van de paragrafen 3 en 4 wordt vervangen door de volgende tekst:

- „3. Indien het schip een lange bovenbouw op het voorschip heeft, moet het voorpiekschot of aanvaringsschot doorlopen tot het volgende doorlopende dek boven het schottendek en aldaar dicht zijn tegen weer en wind. De voortzetting van het schot moet zodanig worden aangebracht dat de mogelijkheid wordt uitgesloten dat de boegdeur hieraan schade veroorzaakt ingeval van schade aan of losraken van een boegdeur.
4. De in paragraaf 3 verlangde voortzetting behoeft niet onmiddellijk boven het eronder geplaatste schot te worden aangebracht, mits alle onderdelen van deze voortzetting niet zijn aangebracht vóór de voorste begrenzing bedoeld in paragraaf 1 of paragraaf 2. Echter, op schepen die zijn gebouwd vóór 1 juli 1997:
  - .1 waarbij een hellende oprit deel uitmaakt van de voortzetting, mag het gedeelte van de voortzetting dat zich op meer dan 2,3 m boven het schottendek bevindt, niet verder doorlopen

- dan 1m vóór de in paragraaf 1 of paragraaf 2 bedoelde voorste begrenzingen; en
- .2 waarbij de bestaande oprit niet voldoet aan de vereisten voor de aanvaarding als een voortzetting van het aanvaringsschot en de positie van de helling verhindert dat deze voortzetting wordt geplaatst binnen de in paragraaf 1 of paragraaf 2 genoemde begrenzingen, mag de voortzetting worden geplaatst binnen een beperkte afstand achter de in paragraaf 1 of paragraaf 2 bedoelde achterste begrenzing. De begrensde afstand achter mag niet meer bedragen dan nodig is om te garanderen dat er geen problemen kunnen ontstaan met de oprit. De voortzetting naar het aanvaringsschot moet naar voren openen en moet voldoen aan de vereisten van paragraaf 3 en moet zodanig worden aangebracht dat de mogelijkheid wordt uitgesloten dat de oprit hieraan schade veroorzaakt ingeval van schade aan of losraken van de oprit.
5. Opritten die niet voldoen aan de bovenstaande vereisten worden niet beschouwd als voortzetting van het aanvaringsschot.
6. Op schepen gebouwd vóór 1 juli 1997 zijn de vereisten van de paragrafen 3 en 4 uiterlijk van toepassing op de datum van het eerste periodieke onderzoek na 1 juli 1997”.
9. De bestaande paragrafen 5 en 6 worden vernummerd tot paragrafen 7 en 8.

#### Voorschrift 15

##### *Openingen in waterdichte schotten van passagiersschepen*

10. De volgende nieuwe paragraaf 6.5 wordt toegevoegd na de bestaande paragraaf 6.4:
- „6.5. Op schepen gebouwd vóór 1 februari 1992 moeten deuren die niet voldoen aan de vereisten van paragraaf 6.1 tot en met 6.4 vóór de aanvang van de reis worden gesloten en gedurende de vaart gesloten worden gehouden; het tijdstip van het openen van deze deuren in een haven en van het sluiten ervan voordat het schip de haven verlaat, moet in het logboek worden genoteerd.”

#### Voorschrift 19

##### *Constructie en eerste beproeving van waterdichte dekken, kokers, enz. op passagiersschepen en vrachtschepen*

11. De volgende nieuwe paragrafen 2, 3 en 4 worden toegevoegd na de bestaande paragraaf 1:
- „2. Indien een ventilatieschacht die door een constructie loopt het schottendek doorkruist, moet de schacht in staat zijn de waterdruk in de schacht te weerstaan, na rekening te hebben gehouden met

de maximum toegestane hellingshoek gedurende de verschillende stadia van vollopen, in overeenstemming met voorschrift 8.5.

3. Indien een schacht die het schottendek doorkruist zich geheel of ten dele op het belangrijkste ro-ro dek bevindt, moet de schacht in staat zijn de druk te weerstaan die wordt veroorzaakt door interne verplaatsing (klotsen) van ingesloten water op het ro-ro dek.

4. Op schepen gebouwd vóór 1 juli 1997 zijn de vereisten van paragraaf 2 uiterlijk van toepassing op de datum van het eerste periodieke onderzoek na 1 juli 1997.”

12. De bestaande paragraaf 2 wordt vernummerd tot paragraaf 5.

#### Voorschrift 20

##### *Waterdichtheid van passagiersschepen boven de indompelingsgrenslijn*

13. De volgende nieuwe paragraaf 3 wordt toegevoegd na de bestaande paragraaf 2:

„3. Op passagiersschepen gebouwd op of na 1 juli 1997, moeten de open uiteinden van luchtpijpen die eindigen in een bovenbouw zich ten minste 1 m boven de waterlijn bevinden wanneer het schip onder een hoek van 15° slagzij maakt, of de maximum hellingshoek gedurende tussenliggende stadia van vollopen, zoals vastgesteld door middel van directe berekening, naar gelang van welk het grootst is. Luchtpijpen komend van tanks anders dan olietanks mogen ook eindigen in de zijkant van de bovenbouw. De bepalingen van deze paragraaf doen geen afbreuk aan de bepalingen van het van kracht zijnde Internationaal Verdrag inzake de lastlijnen.”

14. De bestaande paragrafen 3 en 4 worden vernummerd tot paragrafen 4 en 5.

15. De volgende nieuwe voorschriften 20-2 tot en met 20-4 worden toegevoegd na voorschrift 20-1:

#### „Voorschrift 20-2

##### *Waterdichtheid tussen het ro-ro dek (schottendek) en de daaronder gelegen ruimten*

1. Op ro-ro passagiersschepen gebouwd op of na 1 juli 1997:
  - .1 moeten, onverminderd de bepalingen van de subparagrafen .2 en .3, alle toegangen die naar ruimten onder het schottendek leiden een laagste punt hebben dat ten minste 2,5 m boven het schottendek ligt;
  - .2 moeten, indien voertuigopritten aanwezig zijn voor de toegang tot ruimten onder het schottendek, de openingen hiervan water-



- dicht kunnen worden gesloten ter voorkoming van het binnendringen van water daaronder en te zijn voorzien van een alarm- en meldingssysteem ten behoeve van de brug;
- .3 kan de Administratie de plaatsing van bijzondere toegangen tot de ruimten beneden het schottendek toestaan, mits deze essentieel zijn voor de bedrijfsvoering van het schip, bijvoorbeeld voor de verplaatsing van machines en proviand, en mits deze toegangen waterdicht zijn en zijn voorzien van een alarm- en meldingssysteem ten behoeve van de brug;
  - .4 moeten de in subparagrafen .2 en .3 genoemde toegangen gesloten zijn voordat het schip de aanlegplaats verlaat en gesloten te blijven totdat het schip op de volgende aanlegplaats ligt;
  - .5 moet de kapitein ervoor zorg dragen dat er een doeltreffend toezicht- en rapportagesysteem wordt ingesteld voor het sluiten en openen van de in de subparagrafen .2 en .3 bedoelde toegangen; en
  - .6 moet de kapitein, voordat het schip de aanlegplaats verlaat, ervoor zorg dragen dat, overeenkomstig voorschrift 25, een aantekening in het logboek wordt gemaakt van het tijdstip waarop de in de subparagrafen .2 en .3 bedoelde toegangen voor het laatst zijn gesloten.
2. Op ro-ro passagiersschepen gebouwd vóór 1 juli 1997:
- .1 moeten alle toegangen van het ro-ro dek naar ruimten onder het schottendek waterdicht worden gemaakt en moet de brug worden uitgerust met middelen die aangeven of de toegang open of gesloten is;
  - .2 moeten al deze toegangen worden gesloten voordat het schip de aanlegplaats verlaat en gesloten te blijven totdat het schip op de volgende aanlegplaats ligt;
  - .3 kan de Administratie, onverminderd de eisen van subparagraaf 2, toestaan dat sommige toegangen gedurende de reis slechts geopend zijn voor de tijdsduur die voor de doorgang nodig is en, indien noodzakelijk, voor de activiteiten die essentieel zijn voor de bedrijfsvoering van het schip; en
  - .4 moeten de vereisten van subparagraaf .1 worden nageleefd uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1997.

#### Voorschrift 20-3

##### *Toegang tot het ro-ro dek*

Op alle ro-ro passagiersschepen moet de kapitein of de aangewezen officier ervoor zorg dragen dat zonder de uitdrukkelijke toestemming van de kapitein of de aangewezen officier, geen enkele passagier een gesloten ro-ro dek mag betreden wanneer het schip varende is.

## Voorschrift 20-4

*Het sluiten van schotten op het ro-ro dek*

1. Alle dwars- of langsschotten die als doeltreffend worden beschouwd voor het tegenhouden van het zeewater dat zich op het ro-ro dek bevindt, moeten zijn geplaatst en vastgezet voordat het schip de aanlegplaats verlaat en op hun plaats en vastgezet blijven totdat het schip op de volgende aanlegplaats ligt.
2. Onverminderd de bepalingen van paragraaf 1, kan de Administratie toestaan dat sommige toegangen in deze schotten gedurende de reis geopend zijn voor de tijdsduur die voor de doorgang nodig is en, indien noodzakelijk, voor de activiteiten die essentieel zijn voor de bedrijfsvoering van het schip.”

## Voorschrift 23-2

*Waterdichtheid van de romp en de bovenbouw, voorkoming van en documenten voor het gebruik bij beschadiging*

16. De bestaande tekst van voorschrift 23-2 wordt vervangen door de volgende tekst:

„(Dit voorschrift is van toepassing op alle ro-ro passagiersschepen, met dien verstande dat voor schepen gebouwd vóór 1 juli 1997 paragraaf 2 uiterlijk van toepassing is op de datum van het eerste periodieke onderzoek na 1 juli 1997)

1. Op de brug moeten aanwijsinstrumenten zijn aangebracht voor alle deuren in de huidbeplating, laaddeuren en andere sluitvoorzieningen die, indien zij zijn opengelaten of niet behoorlijk zijn vastgezet, naar de mening van de Administratie zouden kunnen leiden tot het vollopen van een ruimte van bijzondere aard of een ro-ro laadruimte. Het systeem van aanwijsinstrumenten moet van een volkomen betrouwbaar ontwerp zijn en in werking treden door middel van een visueel alarm als de deur niet volledig gesloten is of als een van de vastzetvoorzieningen niet geplaatst en volledig gesloten is en door middel van een hoorbaar alarm als de deur of sluitvoorzieningen opengaan of de vastzetvoorzieningen losgaan. Het aanwijsinstrumentenbord op de brug moet zijn uitgerust met een modusseleectiefunctie „haven/zeereis” die zodanig is dat een hoorbaar alarm op de brug afgaat als het schip de haven verlaat met niet gesloten boegdeuren, binnendeuren, hekprits of andere deuren in de huidbeplating die niet zijn gesloten of een andere sluitvoorziening die zich niet in de juiste stand bevindt. De energievoorziening voor het systeem van aanwijsinstrumenten moet onafhankelijk zijn van de energievoorziening voor het bedienen en vastzetten van de deuren.

De door de Administratie goedgekeurde systemen van aanwijsinstrumenten die zijn aangebracht op schepen gebouwd vóór 1 juli 1997 behoeven niet te worden aangepast.

2. Er moet een bewakingssysteem met behulp van televisie en een systeem voor ontdekking van binnendringend water zijn aangebracht, die de brug en de machinebedieningsplaats een aanwijzing verschaffen van binnendringend water door deuren in de boeg of de achtersteven of andere deuren in de huidbeplating, dat zou kunnen leiden tot het vollopen van ruimten van bijzondere aard of ro-ro laadruimten.
3. Op ruimten van bijzondere aard en ro-ro ruimten moet permanent toezicht worden gehouden door een rondedienst of op andere doeltreffende wijze, zoals toezicht met behulp van televisie, zodat bewegingen van de voertuigen bij slecht weer en ongeoorloofde toegang van passagiers tot deze ruimten kan worden waargenomen terwijl het schip varende is.
4. Schriftelijk vastgelegde gebruiksaanwijzingen voor het sluiten en vastzetten van alle deuren in de huidbeplating, laaddeuren en andere sluitvoorzieningen die, indien deze open zouden worden gelaten of niet behoorlijk zouden worden vastgezet, volgens de Administratie zouden kunnen leiden tot het vollopen van een ruimte van bijzondere aard of van een ro-ro laadruimte, moeten aan boord van het schip aanwezig zijn en op een geschikte plaats worden opgehangen."

#### Voorschrift 45

*Voorzorgsmaatregelen tegen gevaar van aanraken van onder spanning staande delen, tegen brand en andere gevaren van elektrische oorsprong*

17. De volgende nieuwe zin wordt toegevoegd na de bestaande eerste zin van paragraaf 5.3:

„Op ro-ro passagiersschepen moet de bekabeling voor noodalarmeren en voor scheepsomroepsystemen die op of na 1 juli 1998 zijn geïnstalleerd, worden goedgekeurd door de Administratie, rekening houdend met de aanbevelingen van de Organisatie.”

#### HOOFDSTUK II-2

#### CONSTRUCTIE - BESCHERMING TEGEN, ALSMEDE OPSPOREN EN BLUSSEN VAN BRAND

##### Voorschrift 3

##### *Omschrijving*

18. De volgende nieuwe paragraaf 34 wordt toegevoegd na de bestaande paragraaf 33:

„34. Ro-ro passagiersschip: een passagiersschip met ro-ro laadruimten of ruimten van bijzondere aard zoals omschreven in dit voorschrift.”

19. Het volgende nieuwe voorschrift 28-1 wordt toegevoegd na het bestaande voorschrift 28:

„Voorschrift 28-1

*Ontsnappingsroutes op ro-ro passagiersschepen*

1. Vereisten van toepassing op alle ro-ro passagiersschepen

1.1. Deze paragraaf is van toepassing op alle ro-ro passagiersschepen. Voor schepen gebouwd vóór 1 juli 1997 zijn de vereisten van het voorschrift uiterlijk van toepassing op de datum van het eerste periodieke onderzoek na 1 juli 1997.

1.2. In alle gangen van de ontsnappingsroute moeten leuning en andere middelen voor houvast worden bevestigd zodat zo veel mogelijk een continu houvast beschikbaar is naar de verzamelplaatsen en inschepingsplaatsen. Deze leuning en andere middelen moeten aan weerszijden worden bevestigd in langsgangen breder dan 1,8 m en in dwarsgangen breder dan 1 m. Bijzondere aandacht moet worden besteed aan de mogelijkheid portalen, atriëns en andere grote open ruimten langs ontsnappingsroutes te doorkruisen. De leuning en andere middelen voor houvast moeten zo sterk zijn dat zij een verdeelde horizontale kracht van 750 N/m uitgeoefend in de richting van het midden van de gang of ruimte kunnen weerstaan, en een verdeelde verticale kracht van 750 N/m uitgeoefend naar beneden. Beide krachten hoeven niet gelijktijdig uitgeoefend te kunnen worden.

1.3. Ontsnappingsroutes mogen niet worden belemmerd door meubels of andere obstakels. Met uitzondering van tafels en stoelen die weggehaald kunnen worden om een open ruimte te creëren, moeten kasten en andere zware meubels in openbare ruimten en langs ontsnappingsroutes worden vastgezet ter voorkoming van schuiven bij rollen of overhellen van het schip. Vloerbedekking moet eveneens worden vastgezet. Wanneer het schip varende is, moeten de ontsnappingsroutes vrij worden gehouden van obstakels zoals schoonmaakwagens, beddegoed, bagage en dozen.

1.4. Ontsnappingsroutes moeten worden verschaft vanaf elke normaliter gebruikte ruimte op het schip tot aan een verzamelplaats. Deze ontsnappingsroutes moeten zodanig worden aangelegd dat de kortste weg wordt verschaft naar de verzamelplaats, en moet worden gemarkeerd met symbolen overeenkomstig de aanbevelingen van de Organisatie.

1.5. Daar waar afgesloten ruimten grenzen aan een open dek, moeten, voor zover praktisch uitvoerbaar, openingen van de gesloten ruimte naar het open dek kunnen worden gebruikt als nooduitgang.

1.6. De dekken moeten opeenvolgend worden genummerd, te begin-

nen met ,1' op de tank top of het laagste dek. Deze nummers moeten duidelijk worden weergegeven onderaan de trappen en in liftportalen. De dekken mogen ook een naam hebben, maar het deknummer moet altijd worden getoond naast de naam.

1.7. Eenvoudige plattegronden met de aanduiding ,u bevindt zich hier', voorzien van met pijlen aangeduide ontsnappingsroutes, moeten duidelijk zichtbaar aan de binnenzijde van elke hutdeur en in openbare ruimten worden opgehangen. Op de plattegrond moeten de ontsnappingsrichtingen worden aangegeven en de plattegrond moet overeenkomstig de positie hiervan op het schip worden bevestigd.

1.8. Hutdeuren moeten van binnenuit zonder sleutel te openen zijn. Ook moeten alle deuren langs een ontsnappingsroute in de ontsnappingsrichting zonder sleutel te openen zijn.

2. Vereisten van toepassing op ro-ro passagiersschepen gebouwd op of na 1 juli 1997

2.1. De onderste 0,5 m van schotten en andere scheidingen die een verticale wand vormen langs ontsnappingsroutes moeten in staat zijn een belasting van 750 N/m te weerstaan zodat deze kunnen worden gebruikt als loopoppervlak wanneer het schip sterk overhelt.

2.2. De ontsnappingsroute van hutten naar trappenhuizen moet zo direct mogelijk zijn, met een zo gering mogelijk aantal veranderingen van richting. Het mag niet nodig zijn van de ene zijde van het schip naar de andere te gaan om een ontsnappingsroute te bereiken. Het mag niet nodig zijn meer dan twee dekken omhoog of naar beneden te gaan om vanaf ongeacht welke passagiersruimte een verzamelplaats of open dek te bereiken.

2.3. Buiten moeten routes zijn aangelegd van de in paragraaf 2.2. genoemde open dekken naar de inschepingsplaatsen van de reddingboten en -vlotten.

3. Vereisten van toepassing op ro-ro passagiersschepen gebouwd op of na 1 juli 1999

Bij ro-ro passagiersschepen die op of na 1 juli 1999 zijn gebouwd moeten de ontsnappingsroutes in een vroeg stadium van het ontwerp worden geëvalueerd door middel een evacuatie-analyse. De analyse moet worden gebruikt ter vaststelling en, voor zover praktisch uitvoerbaar, ter wegneming van opstoppingen die bij het verlaten van het schip zouden kunnen ontstaan door de normale stroom van passagiers en bemanningsleden langs de ontsnappingsroutes, met inbegrip van de mogelijkheid dat bemanningsleden zich op deze routes in een richting tegengesteld aan die van de passagiers moeten begeven. Daarnaast moet deze analyse om aan te tonen dat bij de ontsnappingsvoorzieningen voldoende rekening wordt gehouden met de mogelijkheid dat bepaalde ontsnappingsroutes, verzamelplaatsen, inschepingsplaatsen of reddingboten als gevolg van een ongeluk niet bruikbaar zijn.”

## Voorschrift 37

*Bescherming van ruimten van bijzondere aard*

20. De bestaande paragraaf 2.1 wordt vernummerd tot paragraaf 2.1.1.
21. De volgende nieuwe paragraaf 2.1.2 wordt toegevoegd na de vernummerde paragraaf 2.1.1:
- „2.1.2. Lozingen
- 2.1.2.1. Op alle ro-ro passagiersschepen moeten de lozingskleppen van de spuijpen, voorzien van directe sluitvoorzieningen die bedienbaar zijn vanaf een positie boven het schottendeck in overeenstemming met de vereisten van het van kracht zijnde Internationale Verdrag inzake de lastlijnen, geopend blijven zolang het schip zich op zee bevindt.
- 2.1.2.2. Elke bediening van de in paragraaf 2.1.2.1 bedoelde kleppen moet worden vermeld in het logboek.”

## HOOFDSTUK III

## REDDINGMIDDELEN EN -VOORZIENINGEN

## Voorschrift 3

*Begripsomschrijvingen*

22. De volgende nieuwe paragraaf 19 wordt toegevoegd na de bestaande paragraaf 18:
- „19. Ro-ro passagiersschip, een passagiersschip met ro-ro laadruimten of ruimten van bijzondere aard zoals omschreven in voorschrift II-2/3.”

## Voorschrift 6

*Communicatie*

23. De volgende nieuwe paragraaf 5 wordt toegevoegd na de bestaande paragraaf 4:
- „5. Scheepsomroepsystemen op passagiersschepen
- 5.1. In aanvulling op de vereisten van voorschrift II-2/40.5 of voorschrift II-2/41-2, afhankelijk van het geval, en die van paragraaf 4.2, moeten alle passagiersschepen worden uitgerust met een scheepsomroepsysteem. Met betrekking tot schepen gebouwd vóór 1 juli 1997, zijn de vereisten van de paragrafen 5.2, 5.3 en 5.5, onverminderd de bepalingen van paragraaf 5.6, uiterlijk van toepassing op de datum van het eerste periodieke onderzoek na 1 juli 1997.
- 5.2. Het scheepsomroepsysteem moet bestaan uit een volledig

netwerk van luidsprekers waarmee gelijktijdig boodschappen kunnen worden verspreid in alle ruimten waar bemanningsleden of passagiers, of beiden, normaliter aanwezig zijn, en op verzamelplaatsen. Met het scheepsomroepsysteem moeten vanaf de brug en vanaf alle andere plaatsen aan boord die de Administratie nodig acht boodschappen kunnen worden verspreid.

5.3. Het scheepsomroepsysteem moet worden beschermd tegen onbevoegd gebruik en duidelijk hoorbaar zijn boven de in alle in paragraaf 5.2. bedoelde ruimten heersende geluiden, en moet zijn voorzien van een overnamefunctie die kan worden bediend vanaf een plaats op de brug of op elke andere plaats aan boord die de Administratie nodig acht, zodat alle noodberichten worden verspreid indien een van de luidsprekers in de desbetreffende ruimten uitgeschakeld is, het volume ervan laag staat of indien het scheepsomroepsysteem voor andere doeleinden wordt gebruikt.

5.4. Op passagiersschepen gebouwd op of na 1 juli 1997:

- .1 moet het scheepsomroepsysteem ten minste twee circuits hebben die over hun gehele lengte voldoende gescheiden zijn, alsmede twee aparte en onafhankelijke versterkers; en
- .2 moeten het scheepsomroepsysteem en de functioneringsnormen daarvan goedgekeurd zijn door de Administratie, met inachtneming van de door de Organisatie aangenomen aanbevelingen.

5.5. Het scheepsomroepsysteem moet zijn aangesloten op de noodenergiebron.

5.6. Op schepen gebouwd vóór 1 juli 1997 die reeds zijn uitgerust met een door de Administratie goedgekeurd scheepsomroepsysteem dat in hoofdlijnen voldoet aan de in de paragrafen 5.2, 5.3 en 5.5 bedoelde systemen, behoeft het systeem niet te worden aangepast.”

24. De volgende nieuwe voorschriften 24-1 tot en met 24-4 worden toegevoegd na het bestaande voorschrift 24:

„Voorschrift 24-1

*Vereisten voor ro-ro passagiersschepen*

1. Dit voorschrift is van toepassing op alle ro-ro passagiersschepen. Ro-ro passagiersschepen gebouwd:

- .1 op of na 1 juli 1998 moeten voldoen aan de vereisten van de paragrafen 2.3, 2.4, 3.1, 3.2, 3.3, 4 en 5;
- .2 op of na 1 juli 1986 en vóór 1 juli 1998 moeten uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1998 voldoen aan de vereisten van paragraaf 5 en uiterlijk op de datum van het eerste periodiek onderzoek na 1 juli 2000 aan de vereisten van paragraaf 2.3, 2.4, 3 en 4; en

3. vóór 1 juli 1986 moeten uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1998 voldoen aan de bepalingen van paragraaf 5 en uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 2000 aan de bepalingen van de paragrafen 2.1, 2.2, 2.3, 2.4, 3 en 4.

## 2. Reddingvlotten

2.1. De reddingvlotten op ro-ro passagiersschepen moeten worden bediend door middel van systemen voor evacuatie op zee die voldoen aan voorschrift 48.5 of door tewaterlatingsmiddelen die voldoen aan voorschrift 48.6, die gelijkmatig aan elke zijde van het schip zijn verdeeld.

2.2. Alle reddingvlotten op ro-ro passagiersschepen moeten zijn voorzien van voorzieningen voor vrij opdrijven die voldoen aan de vereisten van voorschrift 23.

2.3. Alle reddingvlotten op ro-ro passagiersschepen moeten zijn voorzien van een inschrijvingsfaciliteit die voldoet aan de vereisten van voorschrift 39.4.1 of voorschrift 40.4.1, naar gelang van hetgeen van toepassing is.

2.4. Alle reddingvlotten op ro-ro passagiersschepen moeten van het automatisch zelfoprichtende type of het overkapt omkeerbare type zijn en stabiel zijn in zee en volkomen veilig kunnen worden gebruikt ongeacht de zijde waarop zij drijven. Een andere mogelijkheid is dat het schip, naast het normale aantal reddingvlotten, automatisch zelfrichtende of omkeerbare overdekte reddingvlotten aan boord heeft, waarvan de totale capaciteit voldoende is om plaats te bieden aan 50% van de personen voor wie geen plaats is in de reddingboten.

De aanvullende reddingvlotcapaciteit moet worden vastgesteld op basis van het verschil tussen het totale aantal personen aan boord en het aantal personen dat in reddingboten kan worden ondergebracht. Alle betrokken reddingvlotten moeten door de Administratie zijn goedgekeurd, met inachtneming van de door de Organisatie aangenomen aanbevelingen.

## 3. Snelle hulpverleningsboten

3.1. Ten minste één van de hulpverleningsboten op ro-ro passagiersschepen moet een door de Administratie met inachtneming van de door de Organisatie aangenomen aanbevelingen goedgekeurde snelle hulpverleningsboot zijn.

3.2. Elke snelle hulpverleningsboot moet worden bediend door middel van door de Administratie goedgekeurde tewaterlatingsmiddelen. Bij de goedkeuring van deze middelen moet de Administratie er rekening mee houden dat de snelle hulpverleningsboot onder zeer slechte weersomstandigheden te water moet kunnen worden gelaten en kunnen worden teruggehaald; ook moet de Administratie hierbij rekening houden met de door de Organisatie aangenomen aanbevelingen.



3.3. Ten minste twee bemanningsleden van elke snelle hulpverleningsboot moeten zijn opgeleid en regelmatig oefenen, rekening houdend met de Code inzake de opleiding, diplomering en wachtdienst van zeevarenden (STCW-Code) en de door de Organisatie aangenomen aanbevelingen, met inbegrip van alle aspecten van redding, behandeling, manoeuvreren en besturing van deze vaartuigen in uiteenlopende omstandigheden, alsmede van het rechtzetten hiervan na kapseizen.

3.4. Ingeval de inrichting of omvang van een ro-ro passagiersschip gebouwd vóór 1 juli 1997 zodanig is dat het onmogelijk is de in paragraaf 3.1 vereiste snelle hulpverleningsboot te installeren, kan de snelle hulpverleningsboot worden geïnstalleerd op de plaats van een bestaande reddingboot die wordt toegelaten als hulpverleningsboot of, in het geval van schepen gebouwd vóór 1 juli 1986, boten gebruikt voor noodgevallen, mits aan alle volgende voorwaarden wordt voldaan:

- .1 de geïnstalleerde snelle hulpverleningsboot wordt bediend door een tewaterlatingsmiddel dat in overeenstemming is met de bepalingen van paragraaf 3.2;
- .2 de capaciteit die door de bovengenoemde vervanging van de reddingboten en -vloten verloren gaat, wordt gecompenseerd door de installatie van reddingvloten die in staat zijn om ten minste een gelijk aantal personen te dragen als dat welk de vervangen reddingboot had kunnen dragen; en
- .3 deze reddingvloten worden bediend door middel van de bestaande tewaterlatingsmiddelen of systemen voor evacuatie op zee.

#### 4. Reddingmiddelen

4.1. Elk ro-ro passagiersschip moet zijn uitgerust met doeltreffende middelen voor het snel terughalen van overlevenden uit het water en voor het overbrengen van overlevenden van hulpverleningsunits of reddingboten en -vloten naar het schip.

4.2. De middelen voor het overbrengen van overlevenden naar het schip mogen deel uitmaken van een systeem voor evacuatie op zee, of deel uitmaken van een systeem ontworpen voor reddingdoeleinden.

4.3. Ingeval de glijbaan van een systeem voor evacuatie op zee is bedoeld als middel om overlevenden over te brengen naar het schipdek, moet de glijbaan zijn voorzien van handlijnen of ladders om het beklimmen van de glijbaan te vergemakkelijken.

#### 5. Reddinggordels

5.1. Onverminderd de vereisten van de voorschriften 7.2 en 21.2 moet een voldoende aantal reddinggordels zijn opgeslagen in de nabijheid van de verzamelplaatsen zodat passagiers niet naar hun hut terug hoeven te gaan om hun reddinggordel op te halen.

5.2. Op ro-ro passagiersschepen moet elke reddinggordel zijn uitgerust met een licht dat voldoet aan de vereisten van voorschrift 32.3.

## Voorschrift 24-2

*Informatie betreffende passagiers*

1. Alle personen aan boord van passagiersschepen moeten voor het vertrek worden geteld.
2. Informatie over personen die te kennen hebben speciale zorg of hulp nodig te hebben in noodsituaties moet voor het vertrek worden vastgelegd en aan de kapitein worden medegedeeld.
3. Bovendien moeten uiterlijk op 1 januari 1999 de namen en het geslacht van alle opvarenden, waarbij onderscheid wordt gemaakt tussen volwassenen, kinderen en zuigelingen, worden geregistreerd voor opsporings- en reddingsdoeleinden.
4. De in de paragrafen 1, 2 en 3 verlangde informatie moet aan wal worden bewaard en wanneer dat nodig is snel ter beschikking van opsporings- en reddingsdiensten worden gesteld.
5. De Administraties mogen passagiersschepen vrijstellen van de vereisten van paragraaf 3 indien de reizen in lijndienst van deze schepen het praktisch onuitvoerbaar maken deze registratie op te maken.

## Voorschrift 24-3

*Helikopterlandingsplaatsen en -evacuatieplaatsen*

1. Alle ro-ro passagiersschepen moeten zijn uitgerust met een door de Administratie met inachtneming van de door de Organisatie aangenomen aanbevelingen goedgekeurde helikopterevacuatieplaats.
2. Ro-ro passagiersschepen gebouwd vóór 1 juli 1997 moeten uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1997 aan de vereisten van paragraaf 1 voldoen.
3. Passagiersschepen met een lengte van 130 m of meer, gebouwd op of na 1 juli 1999, moeten zijn voorzien van een door de Administratie met inachtneming van de door de Organisatie aangenomen aanbevelingen goedgekeurde helikopterlandingsplaats.

## Voorschrift 24-4

*Beslissingshulpsysteem voor kapiteins van passagiersschepen*

1. Dit voorschrift is van toepassing op alle passagiersschepen. Passagiersschepen gebouwd vóór 1 juli 1997 moeten uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1999 aan de vereisten van dit voorschrift voldoen.
2. Op alle passagiersschepen moet op de brug een beslissingshulpsysteem voor het beheersen van noodsituaties zijn aangebracht.

3. Het systeem moet minimaal bestaan uit een of meer gedrukte noodplannen. Alle voorzienbare noodsituaties moeten in het noodplan of de noodplannen zijn aangegeven, met inbegrip van, maar niet beperkt tot, de volgende hoofdgroepen noodsituaties:

- .1 brand;
- .2 beschadiging van het schip;
- .3 vervuiling;
- .4 wederrechtelijke handelingen die de veiligheid van het schip en de veiligheid van de passagiers en bemanning in gevaar brengen;
- .5 personeelsongelukken;
- .6 ongelukken verband houdend met de lading; en
- .7 noodhulp aan andere schepen.

4. De in het noodplan of de noodplannen vastgestelde noodprocedures moeten een beslissingshulpmiddel bevatten voor de kapitein voor de beheersing van alle mogelijke combinaties van noodsituaties.

5. Het noodplan of de noodplannen moeten een uniforme structuur hebben en eenvoudig te gebruiken zijn. Indien van toepassing moet de feitelijke beladingstoestand berekend voor de stabiliteit gedurende de reis van het passagiersschip, worden gebruikt voor de beheersing van averij.

6. In aanvulling op het gedrukte noodplan of de gedrukte noodplannen, mag de Administratie ook het gebruik toestaan van een geautomatiseerd beslissingshulpsysteem op de brug dat voorziet in alle in het noodplan of de noodplannen, procedures, checklists, enzovoort, genoemde informatie en dat in staat is een lijst te produceren van aanbevolen maatregelen die in mogelijke noodsituaties moeten worden getroffen.”

#### HOOFDSTUK IV

##### RADIOVERBINDINGEN

###### Voorschrift 1

###### *Toepassing*

25. In paragraaf 5 wordt de verwijzing naar „paragraaf 4” vervangen door „de paragrafen 4 en 7”.

26. Aan het einde van paragraaf 5.1.2, na de bestaande datum „1992” wordt de zin: „; passagiersschepen wordt, ongeacht hun omvang, echter geen vrijstelling verleend van de vereisten van voorschrift 3 van hoofdstuk IV van dat Verdrag” toegevoegd.

27. De volgende nieuwe paragraaf 7 wordt toegevoegd na de bestaande paragraaf 6:

„7. Passagiersschepen gebouwd vóór 1 juli 1997 moeten uiterlijk op de datum van het eerste periodieke onderzoek na 1 juli 1997 te voldoen aan de vereisten van de voorschriften 6.4, 6.5, 6.6 en 7.5.”

28. De bestaande paragraaf 7 wordt vernummerd tot paragraaf 8.

Voorschrift 6

*Radio-installaties*

29. De volgende nieuwe paragrafen 4, 5 en 6 worden toegevoegd na de bestaande paragraaf 3:

„4. Op passagiersschepen moet een ‚noodpaneel‘ worden geïnstalleerd op de plaats waar het schip wordt bestuurd. Dit paneel bevat hetzij een enkele knop die, bij indrukken, een noodalarm in werking stelt waarbij alle voor dat doel aan boord vereiste radioverbindinginstallaties worden gebruikt, hetzij een knop voor elke afzonderlijke installatie. Telkens wanneer een knop of knoppen zijn ingedrukt, moet dit op het paneel duidelijk zichtbaar zijn aangegeven. Er moeten voorzieningen worden aangebracht om het onbedoeld indrukken van de knop of knoppen te voorkomen. Indien het satelliet-noodradiobaken wordt gebruikt als secundair noodalarm en niet op afstand wordt geactiveerd, kan een aanvullend noodradiobaken worden geplaatst in het stuurhuis in de nabijheid van de plaats waar het schip wordt bestuurd.

5. Op passagiersschepen moet informatie betreffende de positie van het schip continu en automatisch worden verstrekt aan alle daarvoor in aanmerking komende radioverbindingsmiddelen die het eerste noodalarm moeten doorgeven wanneer de knop of knoppen van het noodpaneel worden ingedrukt.

6. Op passagiersschepen moet een noodalarm-paneel worden geïnstalleerd op de plaats waar het schip wordt bestuurd. Dit noodalarm-paneel moet een zichtbaar en hoorbaar signaal verschaffen van alle aan boord ontvangen alarmmeldingen en moet eveneens aangeven via welke radioverbindingdienst de noodalar-men zijn ontvangen.”

Voorschrift 7

*Radio-apparatuur: Algemeen*

30. De volgende nieuwe paragraaf 5 wordt toegevoegd na de bestaande paragraaf 4:

„5. Elk passagiersschip moet zijn uitgerust met middelen voor het ter plaatse uitzenden en ontvangen van radioberichten voor opsporings- en reddingsdoeleinden, met gebruikmaking van de luchtvaartfrequenties 121,5 MHz en 123,1 MHz, vanaf de plaats waar het schip normaliter wordt bestuurd.”

Voorschrift 16

*Radiopersoneel*

31. De bestaande paragraaf wordt vernummerd tot paragraaf 1.

32. Na de vernummerde paragraaf 1 wordt de volgende paragraaf 2 toegevoegd:

„2. Op passagiersschepen moet ten minste één persoon die in overeenstemming met paragraaf 1 bekwaam is, worden aangewezen voor de verzorging van uitsluitend radioberichtgeving tijdens noodgevallen.”

## HOOFDSTUK V

### VEILIGHEID VAN DE NAVIGATIE

#### Voorschrift 10

##### *Noodberichten: Verplichtingen en procedures*

33. De bestaande tekst van de paragrafen a tot en met d wordt vervangen door de volgende tekst:

„a. De kapitein van een schip op zee dat zich in een positie bevindt die hulpverlening mogelijk maakt, is gehouden, wanneer hij een melding, uit welke bron ook ontvangt dat mensen op zee in nood verkeren, met de meeste spoed deze mensen te hulp te komen, hen of de opsporings- en reddingsdienst zo mogelijk daaromtrent inlichtende. Indien het schip dat het noodsignaal ontvangt niet in staat is of het, in de bijzondere omstandigheden van het geval, onredelijk of onnodig acht hen te hulp te komen, moet de kapitein in het logboek vermelden om welke reden hij de in nood verkerende personen niet te hulp is gekomen en, met inachtneming van de aanbevelingen van de Organisatie, de betreffende opsporings- en reddingsdienst hiervan op de hoogte brengen.

b. De kapitein van een in nood verkerend schip of de desbetreffende opsporings- en reddingsdienst hebben het recht, na voor zover mogelijk de kapiteins te hebben geraadpleegd van de schepen die zijn oproep om hulp hebben beantwoord, één of meer van deze schepen die hij het beste in staat acht hulp te verlenen daartoe op te vorderen, en het is de plicht van de kapitein van het opgevorderde schip of de kapiteins van de opgevorderde schepen gevolg te geven aan de opvordering door met de meeste spoed het te hulp komen van de in nood verkerende personen voort te zetten.

c. Kapiteins van schepen zijn ontheven van de krachtens paragraaf a van dit voorschrift op hen rustende verplichting wanneer zij vernemen dat hun schip niet is opgevorderd en dat één of meer andere schepen zijn opgevorderd en aan de opvordering gevolg geven. Dit besluit moet, indien mogelijk, aan de andere opgevorderde schepen en aan de opsporings- en reddingsdienst worden medegedeeld.

d. De kapitein van een schip is ontheven van de krachtens paragraaf (a) van dit voorschrift op hem rustende verplichting en, indien zijn schip opgevorderd is, van de krachtens paragraaf b van dit voorschrift op hem rustende verplichting, indien hem door de in nood verkerende personen

of door de opsporings- en reddingsdienst of door de kapitein van een ander schip dat deze personen heeft bereikt, wordt medegedeeld dat hulpverlening niet langer nodig is.”

34. Het volgende nieuwe voorschrift 10-1 wordt toegevoegd na het bestaande voorschrift 10:

„Voorschrift 10-1

*Discretionaire bevoegdheid van de kapitein met betrekking tot de veiligheid van de navigatie*

De kapitein kan door de reder, bevrachter, of enige andere persoon niet worden weerhouden van het nemen van beslissingen die, naar het professionele oordeel van de kapitein, nodig zijn voor de veiligheid van de navigatie, met name bij zwaar weer en ruwe zee.”

Voorschrift 13

*Bemanning*

35. De volgende nieuwe paragraaf c wordt toegevoegd na de bestaande paragraaf b:

„c. Op elk passagiersschip waarop Hoofdstuk I van toepassing is, moet ter waarborging van het doeltreffende optreden van de bemanning op het gebied van de veiligheid, een werktaal worden vastgesteld en vermeld in het logboek van het schip. De rederij of de kapitein, afhankelijk van het geval, stelt de geschikte werktaal vast. Elke zeevarende wordt geacht deze taal te begrijpen en, in voorkomend geval, in deze taal orders en instructies te geven en verslag uit te brengen. Indien de werktaal niet een officiële taal is van het land waarvan het schip bevoegd is de vlag te voeren, moeten alle plattegronden en lijsten die moeten worden opgehangen zijn voorzien van een vertaling in de werktaal.”

Voorschrift 15

*Opsporing en redding*

36. De volgende nieuwe paragraaf c wordt toegevoegd na de bestaande paragraaf b:

„c. Passagiersschepen waarop Hoofdstuk I van toepassing is en die op vaste routes worden geëxploiteerd, moeten een plan aan boord hebben voor samenwerking met de desbetreffende opsporings- en reddingsdiensten in geval van nood. Dit plan moet worden ontwikkeld in samenwerking tussen het schip en de opsporings- en reddingsdiensten en moet door de Administratie worden goedgekeurd. Het plan moet bepalingen bevatten voor periodieke oefeningen zoals overeengekomen tussen het passagiersschip en de betrokken opsporings- en reddingsdiensten teneinde de doeltreffendheid ervan te beproeven”.

37. Het volgende nieuwe voorschrift 23 wordt toegevoegd na het bestaande voorschrift 22:

„Voorschrift 23

*Beperkingen met betrekking tot de exploitatie*

(Dit voorschrift is van toepassing op alle passagiersschepen waarop Hoofdstuk I van toepassing is)

1. Op passagiersschepen gebouwd vóór 1 juli 1997 zijn de vereisten van dit voorschrift uiterlijk van toepassing op de datum van het eerste periodieke onderzoek na 1 juli 1997.

2. Voordat een passagiersschip in dienst wordt genomen, moet een lijst met alle beperkingen met betrekking tot de exploitatie van het passagiersschip worden opgesteld, met inbegrip van ontheffingen van deze voorschriften, beperkingen in de vaargebieden, beperkingen vanwege het weer, beperkingen met betrekking tot de toestand van de zee of de toegestane lading, beperkingen ten aanzien van kop- of stuurlast, snelheid en andere beperkingen, hetzij opgelegd door de Administratie, hetzij vastgesteld tijdens de ontwerp- of bouwfase. Deze lijst, te zamen met alle andere nodige uitleg, moet worden vastgelegd in een document opgesteld in een voor de Administratie aanvaardbare vorm, dat aan boord op eenvoudige wijze door de kapitein kan worden geraadpleegd. De lijst moet worden geactualiseerd. Indien de gebruikte taal het Engels noch het Frans is, moet de lijst in één van deze twee talen beschikbaar zijn.”

## HOOFDSTUK VI

### VERVOER VAN LADING

#### Voorschrift 5

##### *Stuwage en zeevast zetten*

38. De volgende nieuwe paragraaf 6 wordt toegevoegd na de bestaande paragraaf 5:

„6. Laadeenheden, met inbegrip van voertuigen en containers, moeten gedurende de gehele reis worden geladen, gestuwd en zeevast gezet in overeenstemming met het door de Administratie goedgekeurde Cargo Securing Manual (Handleiding vastzetten van lading). Op schepen met ro-ro laadruimten zoals omschreven in voorschrift II-2/3.14, moet het zeevast zetten van laadeenheden, in overeenstemming met het Cargo Securing Manual, zijn voltooid voordat het schip de aanlegplaats verlaat. De instructies in het Cargo Securing Manual moeten ten minste gelijkwaardig zijn aan de door de organisatie geformuleerde richtlijnen.”

*Resolutie MSC.47(66) van 4 juni 1996*

Bij Resolutie MSC.47(66) heeft de Maritieme Veiligheidscommissie van de Internationale Maritieme Organisatie op 4 juni 1996 in overeenstemming met artikel VIII(b)(iv) van het Verdrag wijzigingen aangenomen.

De wijzigingen behoeven in overeenstemming met artikel 7, onderdeel f, van de Rijkswet goedkeuring en bekendmaking verdragen niet de goedkeuring van de Staten-Generaal.

De wijzigingen zijn in overeenstemming met artikel VIII(b)(vi)(2)(bb) van het Verdrag op 1 januari 1998 aanvaard en zullen ingevolge artikel VIII(b)(vii)(2) op 1 juli 1998 in werking treden.

De Engelse tekst van de Resolutie luidt als volgt:

**Resolution MSC.47(66)****(adopted on 4 June 1996)****Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974**

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 procedures for amending the Annex to the Convention, other than the provisions of chapter I thereof,

Having considered, at its sixty-sixth 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 amendments shall be deemed to have been accepted on 1 January 1998, 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 1998 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.

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**Annex**

**Amendments to the International Convention for the Safety of Life at Sea, 1974**

CHAPTER II-1

CONSTRUCTION - SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

1. The existing title of chapter II-1 is replaced by the following:  
“CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS”

2. The following new part A-1 is inserted between part A and part B:

“PART A-1

STRUCTURE OF SHIPS

Regulation 3-1

*Structural, mechanical and electrical requirements for ships*

In addition to the requirements contained elsewhere in the present regulations, ships shall be designed, constructed and maintained in compliance with the structural, mechanical and electrical requirements of a classification society which is recognized by the Administration in accordance with the provisions of regulation XI/1, or with applicable national standards of the Administration which provide an equivalent level of safety.

Regulation 3-2

*Corrosion prevention of seawater ballast tanks*

1. This regulation applies to oil tankers and bulk carriers constructed on or after 1 July 1998.

2. All dedicated seawater ballast tanks shall have an efficient corrosion prevention system, such as hard protective coatings or equivalent. The coatings should preferably be of a light colour. The scheme for the selection, application and maintenance of the system shall be approved by the Administration, based on the guidelines adopted by the Organization. Where appropriate, sacrificial anodes shall also be used.”

#### Regulation 8

##### *Stability of passenger ships in damaged condition*

3. The following is added at the end of paragraph 2.3.1:  
“This range may be reduced to a minimum of 10°, in the case where the area under the righting lever curve is that specified in paragraph 2.3.2, increased by the ratio:

$$\frac{15}{\text{Range}}$$

where the range is expressed in degrees.”

4. The words “range specified in 2.3.1” in paragraph 2.3.3 are replaced by the words “range of positive stability”.

#### Regulation 25-1

##### *Application*

5. The following sentence is added at the end of existing paragraph 1:  
“The requirements in this part shall also apply to cargo ships of 80 m in  $L_s$  and upwards but not exceeding 100 m in  $L_s$  constructed on or after 1 July 1998.”

#### Regulation 25-3

##### *Required subdivision index R*

6. Existing paragraph 2 is replaced by the following:  
“2. The degree of subdivision to be provided shall be determined by the required subdivision index R, as follows:

.1 for ships over 100 m in  $L_s$ :  
 $R = (0.002 + 0.0009L_s)^{1/3}$ ,

where  $L_s$  is in metres: and

.2 for ships of 80 m in  $L_s$  and upwards but not exceeding

100 m in length  $L_s$ :

$$R = 1 - \left[ 1 / \left( 1 + \frac{L_s}{100} \cdot \frac{R_o}{1 - R_o} \right) \right],$$

where  $R_o$  is the value  $R$  as calculated in accordance with the formula in subparagraph .1.”

#### Regulation 45

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

7. The words “55 V” in paragraph 1.1.1 are replaced by “50 V”.
8. The existing text of chapter III is replaced by the following:

#### “CHAPTER III

#### LIFE-SAVING APPLIANCES AND ARRANGEMENTS

##### PART A

##### GENERAL

#### Regulation 1

##### *Application*

1. Unless expressly provided otherwise, this chapter shall apply to ships the keels of which are laid or which are at a similar stage of construction on or after 1 July 1998.
2. For the purpose of this chapter the term 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 1% of the estimated mass of all structural material, whichever is less.
3. For the purpose of this chapter:
  - .1 the expression ships constructed means ships the keels of which are laid or which are at a similar stage of construction;
  - .2 the expression all ships means ships constructed before, on or after 1 July 1998; the expressions all passenger ships and all cargo ships shall be construed accordingly;:
  - .3 a cargo ship, whenever built, which is converted to a passenger ship shall be treated as a passenger ship constructed on the date on which such a conversion commences.
4. For ships constructed before 1 July 1998, the Administration shall:

- .1 ensure that, subject to the provisions of paragraph 4.2, the requirements which are applicable under chapter III of the International Convention for the Safety of Life at Sea, 1974, in force prior to 1 July 1998 to new or existing ships as prescribed by that chapter are complied with; and
- .2 ensure that when life-saving appliances or arrangements on such ships are replaced or such ships undergo repairs, alterations or modifications of a major character which involve replacement of, or any addition to, their existing life-saving appliances or arrangements, such life-saving appliances or arrangements, in so far as is reasonable and practicable, comply with the requirements of this chapter. However, if a survival craft other than an inflatable liferaft is replaced without replacing its launching appliance, or vice versa, the survival craft or launching appliance may be of the same type as that replaced.

#### Regulation 2

##### *Exemptions*

1. The Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this chapter unreasonable or unnecessary, exempt from those requirements individual ships or classes of ships which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

2. In the case of passenger ships which are employed in special trades for the carriage of large numbers of special trade passengers, such as the pilgrim trade, the Administration, if satisfied that it is impracticable to enforce compliance with the requirements of this chapter, may exempt such ships from those requirements, provided that such ships comply fully with the provisions of:

- .1 the rules annexed to the Special Trade Passenger Ships Agreement, 1971; and
- .2 the rules annexed to the Protocol on Space Requirements for Special Trade Passenger Ships, 1973.

#### Regulation 3

##### *Definitions*

For the purpose of this chapter, unless expressly provided otherwise:

1. Anti-exposure suit is a protective suit designed for use by rescue boat crews and marine evacuation system parties.
2. Certificated person is a person who holds a certificate of proficiency in survival craft issued under the authority of, or recognized as

valid by, the Administration in accordance with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, in force: or a person who holds a certificate issued or recognized by the Administration of a State not a Party to that Convention for the same purpose as the convention certificate.

3. Detection is the determination of the location of survivors or survival craft.

4. Embarkation ladder is the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.

5. Float-free launching is that method of launching a survival craft whereby the craft is automatically released from a sinking ship and is ready for use.

6. Free-fall launching is that method of launching a survival craft whereby the craft with its complement of persons and equipment on board is released and allowed to fall into the sea without any restraining apparatus.

7. Immersion suit is a protective suit which reduces the body heatloss of a person wearing it in cold water.

8. Inflatable appliance is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept uninflated until ready for use.

9. Inflated appliance is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is kept inflated and ready for use at all times.

10. International Life-Saving Appliance (LSA) Code (referred to as "the Code" in this chapter) means the International Life-Saving Appliance (LSA) Code adopted by the Maritime Safety Committee of the Organization by resolution MSC.48(66), as it 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.

11. Launching appliance or arrangement is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.

12. Length is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline.

13. Lightest sea-going condition is the loading condition with the ship on even keel, without cargo, with 10% stores and fuel remaining and in the case of a passenger ship with the full number of passengers and crew and their luggage.

14. Marine evacuation system is an appliance for the rapid transfer of persons from the embarkation deck of a ship to a floating survival craft.

15. Moulded depth

- .1 The moulded depth is the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.
- .2 In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design.
- .3 Where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

16. Novel life-saving appliance or arrangement is a life-saving appliance or arrangement which embodies new features not fully covered by the provisions of this chapter or the Code but which provides an equal or higher standard of safety.

17. Positive stability is the ability of a craft to return to its original position after the removal of a heeling moment.

18. Recovery time for a rescue boat is the time required to raise the boat to a position where persons on board can disembark to the deck of the ship. Recovery time includes the time required to make preparations for recovery on board the rescue boat such as passing and securing a painter, connecting the rescue boat to the launching appliance, and the time to raise the rescue boat. Recovery time does not include the time needed to lower the launching appliance into position to recover the rescue boat.

19. Rescue boat is a boat designed to rescue persons in distress and to marshal survival craft.

20. Retrieval is the safe recover of survivors.

21. Ro-ro passenger ship means a passenger ship with ro-ro cargo spaces or special category spaces as defined in regulation II-2/3.

22. Short international voyage is an international voyage in the course of which a ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination nor the return voyage shall exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the ship commences its return voyage to the country in which the voyage began.

23. Survival craft is a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.

24. Thermal protective aid is a bag or suit made of waterproof material with low thermal conductance.

#### Regulation 4

##### *Evaluation, testing and approval of life-saving appliances and arrangements*

1. Except as provided in paragraphs 5 and 6, life-saving appliances and arrangements required by this chapter shall be approved by the Administration.

2. Before giving approval to life-saving appliances and arrangements, the Administration shall ensure that such life-saving appliances and arrangements:

- .1 are tested, to confirm that they comply with the requirements of this chapter and the Code, in accordance with the recommendations of the Organization; or
- .2 have successfully undergone, to the satisfaction of the Administration, tests which are substantially equivalent to those specified in those recommendations.

3. Before giving approval to novel life-saving appliances or arrangements, the Administration shall ensure that such appliances or arrangements:

- .1 provide safety standards at least equivalent to the requirements of this chapter and the Code and have been evaluated and tested in accordance with the recommendations of the Organization; or
- .2 have successfully undergone, to the satisfaction of the Administration, evaluation and tests which are substantially equivalent to those recommendations.

4. Procedures adopted by the Administration for approval shall also include the conditions whereby approval would continue or would be withdrawn.

5. Before accepting life-saving appliances and arrangements that have not been previously approved by the Administration, the Administration

shall be satisfied that life-saving appliances and arrangements comply with the requirements of this chapter and the Code.

6. Life-saving appliances required by this chapter for which detailed specifications are not included in the Code shall be to the satisfaction of the Administration.

#### Regulation 5

##### *Production tests*

The Administration shall require life-saving appliances to be subjected to such production tests as are necessary to ensure that the life-saving appliances are manufactured to the same standard as the approved prototype.

#### PART B

#### REQUIREMENTS FOR SHIPS AND LIFE-SAVING APPLIANCES

#### SECTION I

#### PASSENGER SHIPS AND CARGO SHIPS

#### Regulation 6

##### *Communications*

1. Paragraph 2 applies to all passenger ships and to all cargo ships of 300 gross tonnage and upwards.

2. Radio life-saving appliances

2.1. Two-way VHF radiotelephone apparatus

2.1.1. At least three two-way VHF radiotelephone apparatus shall be provided on every passenger ship and on every cargo ship of 500 gross tonnage and upwards. At least two two-way VHF radiotelephone apparatus shall be provided on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage. Such apparatus shall conform to performance standards not inferior to those adopted by the Organization. If a fixed two-way VHF radiotelephone apparatus is fitted in a survival craft it shall conform to performance standards not inferior to those adopted by Organization.

2.1.2. Two-way VHF radiotelephone apparatus provided on board ships prior to 1 February 1992 and not complying fully with the performance standards adopted by the Organization may be accepted by the Administration until 1 February 1999 provided the Administration is satisfied that they are compatible with approved two-way VHF radiotelephone apparatus.



## 2.2. Radar transponders

At least one radar transponder shall be carried on each side of every passenger ship and of every cargo ship of 500 gross tonnage and upwards. At least one radar transponder shall be carried on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage. Such radar transponders shall conform to performance standards not inferior to those adopted by the Organization. The radar transponders shall be stowed in such locations that they can be rapidly placed in any survival craft other than the liferaft or liferafts required by regulation 31.1.4. Alternatively, one radar transponder shall be stowed in each survival craft other than those required by regulation 31.1.4. On ships carrying at least two radar transponders and equipped with free-fall lifeboats one of the radar transponders shall be stowed in a free-fall lifeboat and the other located in the immediate vicinity of the navigation bridge so that it can be utilized on board and ready for transfer to any of the other survival craft.

## 3. Distress flares

Not less than 12 rocket parachute flares, complying with the requirements of section 3.1 of the Code, shall be carried and be stowed on or near the navigation bridge.

## 4. On-board communications and alarm systems

4.1. An emergency means comprised of either fixed or portable equipment or both shall be provided for two-way communications between emergency control stations, muster and embarkation stations and strategic positions on board.

4.2. A general emergency alarm system complying with the requirements of paragraph 7.2.1 of the Code shall be provided and shall be used for summoning passengers and crew to muster stations and to initiate the actions included in the muster list. The system shall be supplemented by either a public address system complying with the requirements of paragraph 7.2.2 of the Code or other suitable means of communication. Entertainment sound systems shall automatically be turned off when the general emergency alarm system is activated.

4.3. On passenger ships the general emergency alarm system shall be audible on all open decks.

4.4. On ships fitted with a marine evacuation system communication between the embarkation station and the platform or the survival craft shall be ensured.

## 5. Public address systems on passenger ships

5.1. In addition to the requirements of regulation II-2/40.5 or regulation II-2/41.2, as appropriate, and of paragraph 6.4.2, all passenger ships shall be fitted with a public address system. With respect to passenger ships constructed before 1 July 1997 the requirements of paragraphs 5.2 and 5.4, subject to the provisions of paragraph 5.5, shall apply not later than the date of the first periodical survey after 1 July 1997.

5.2. The public address system shall be clearly audible above the ambient noise in all spaces, prescribed by paragraph 7.2.2.1 of the Code, and shall be provided with an override function controlled from one location on the navigation bridge and such other places on board as the Administration deems necessary, so that all emergency messages will be broadcast if any loudspeaker in the spaces concerned has been switched off, its volume has been turned down or the public address system is used for other purposes.

5.3. On passenger ships constructed on or after 1 July 1997:

- .1 the public address system shall have at least two loops which shall be sufficiently separated throughout their length and have two separate and independent amplifiers; and
- .2 the public address system and its performance standards shall be approved by the Administration having regard to the recommendations adopted by the Organization.

5.4. The public address system shall be connected to the emergency source of electrical power required by regulation 11-1/42.2.2.

5.5. Ships constructed before 1 July 1997 which are already fitted with the public address system approved by the Administration which complies substantially with those required by paragraphs 5.2 and 5.4 above and paragraph 7.2.2.1 of the Code are not required to change their system.

#### Regulation 7

##### *Personal life-saving appliances*

#### 1. Lifebuoys

1.1. Lifebuoys complying with the requirements of paragraph 2.1.1 of the Code shall be:

- .1 so distributed as to be readily available on both sides of the ship and as far as practicable on all open decks extending to the ship's side; at least one shall be placed in the vicinity of the stern; and
- .2 so stowed as to be capable of being rapidly cast loose, and not permanently secured in any way.

1.2. At least one lifebuoy on each side of the ship shall be fitted with a buoyant lifeline complying with the requirements of paragraph 2.1.4 of the Code equal in length to not less than twice the height at which it is stowed above the waterline in the lightest seagoing condition, or 30 m, whichever is the greater.

1.3. Not less than one half of the total number of lifebuoys shall be provided with lifebuoy self-igniting lights complying with the requirements of paragraph 2.1.2 of the Code; not less than two of these shall also be provided with lifebuoy self-activating smoke signals complying with the requirements of paragraph 2.1.3 of the Code and be capable of quick release from the navigation bridge: lifebuoys with lights and those

with lights and smoke signals shall be equally distributed on both sides of the ship and shall not be the lifebuoys provided with lifelines in compliance with the requirements of paragraph 1.2.

1.4. Each lifebuoy shall be marked in block capitals of the Roman alphabet with the name and port of registry of the ship on which it is carried.

## 2. Lifejackets

2.1. A lifejacket complying with the requirements of paragraph 2.2.1 or 2.2.2 of the Code shall be provided for every person on board the ship and, in addition:

- .1 a number of lifejackets suitable for children equal to at least 10% of the number of passengers on board shall be provided or such greater number as may be required to provide a lifejacket for each child; and
- .2 a sufficient number of lifejackets shall be carried for persons on watch and for use at remotely located survival craft stations. The lifejackets carried for persons on watch should be stowed on the bridge, in the engine control room and at any other manned watch station.

2.2. Lifejackets shall be so placed as to be readily accessible and their position shall be plainly indicated. Where, due to the particular arrangements of the ship, the lifejackets provided in compliance with the requirements of paragraph 2.1 may become inaccessible, alternative provisions shall be made to the satisfaction of the Administration which may include an increase in the number of lifejackets to be carried.

2.3. The lifejackets used in totally enclosed lifeboats, except free-fall lifeboats, shall not impede entry into the lifeboat or seating, including operation of the seat belts in the lifeboat.

2.4. Lifejackets selected for free-fall lifeboats, and the manner in which they are carried or worn, shall not interfere with entry into the lifeboat, occupant safety or operation of the lifeboat.

## 3. Immersion suits and anti-exposure suits

An immersion suit, complying with the requirements of section 2.3 of the Code or an anti-exposure suit complying with section 2.4 of the Code, of an appropriate size, shall be provided for every person assigned to crew the rescue boat or assigned to the marine evacuation system party. If the ship is constantly engaged in warm climates where, in the opinion of the Administration, thermal protection is unnecessary, this protective clothing need not be carried.

## Regulation 8

### *Muster list and emergency instructions*

1. This regulation applies to all ships.

2. Clear instructions to be followed in the event of an emergency shall be provided for every person on board. In the case of passenger ships these instructions shall be drawn up in the language or languages required by the ship's flag State and in the English language.

3. Muster lists and emergency instructions complying with the requirements of regulation 37 shall be exhibited in conspicuous places throughout the ship including the navigation bridge, engine-room and crew accommodation spaces.

4. Illustrations and instructions in appropriate languages shall be posted in passenger cabins and be conspicuously displayed at muster stations and other passenger spaces to inform passengers of:

- .1 their muster station;
- .2 the essential actions they must take in an emergency; and
- .3 the method of donning lifejackets.

#### Regulation 9

##### *Operating instructions*

1. This regulation applies to all ships.
2. Posters or signs shall be provided on or in the vicinity of survival craft and their launching controls and shall:
  - .1 illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings;
  - .2 be easily seen under emergency lighting conditions; and
  - .3 use symbols in accordance with the recommendations of the Organization.

#### Regulation 10

##### *Manning of survival craft and supervision*

1. This regulation applies to all ships.
2. There shall be a sufficient number of trained persons on board for mustering and assisting untrained persons.
3. There shall be a sufficient number of crew members, who may be deck officers or certificated persons, on board for operating the survival craft and launching arrangements required for abandonment by the total number of persons on board.
4. A deck officer or certificated person shall be placed in charge of each survival craft to be used. However, the Administration, having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practised in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.

5. The person in charge of the survival craft shall have a list of the survival craft crew and shall see that the crew under his command are acquainted with their duties. In lifeboats the second-in-command shall also have a list of the lifeboat crew.

6. Every motorized survival craft shall have a person assigned who is capable of operating the engine and carrying out minor adjustments.

7. The master shall ensure the equitable distribution of persons referred to in paragraphs 2, 3 and 4 among the ship's survival craft.

#### Regulation 11

##### *Survival craft muster and embarkation arrangements*

1. Lifeboats and liferafts for which approved launching appliances are required shall be stowed as close to accommodation and service spaces as possible.

2. Muster stations shall be provided close to the embarkation stations. Each muster station shall have sufficient clear deck space to accommodate all persons assigned to muster at that station, but at least 0.35 m<sup>2</sup> per person.

3. Muster and embarkation stations shall be readily accessible from accommodation and work areas.

4. Muster and embarkation stations shall be adequately illuminated by lighting supplied from the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate.

5. Alleyways, stairways and exits giving access to the muster and embarkation stations shall be lighted. Such lighting shall be capable of being supplied by the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate. In addition to and as part of the markings required under regulation II-2/28.1.10, routes to muster stations shall be indicated with the muster station symbol, intended for that purpose, in accordance with the Recommendations of the Organization.

6. Davit-launched and free-fall launched survival craft muster and embarkation stations shall be so arranged as to enable stretcher cases to be placed in survival craft.

7. An embarkation ladder complying with the requirements of paragraph 6.1.6 of the Code extending, in a single length, from the deck to the waterline in the lightest seagoing condition under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way shall be provided at each embarkation station or at every two adjacent embarkation stations for survival craft launched down the side of the ship. However, the Administration may permit such ladders to be replaced by

approved devices to afford access to the survival craft when waterborne, provided that there shall be at least one embarkation ladder on each side of the ship. Other means of embarkation enabling descent to the water in a controlled manner may be permitted for the liferafts required by regulation 31.1.4.

8. Where necessary, means shall be provided for bringing the davit-launched survival craft against the ship's side and holding them alongside so that persons can be safely embarked.

#### Regulation 12

##### *Launching stations*

Launching stations shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull and so that, as far as possible, survival craft, except survival craft specially designed for free-fall launching, can be launched down the straight side of the ship. If positioned forward, they shall be located abaft the collision bulkhead in a sheltered position and, in this respect, the Administration shall give special consideration to the strength of the launching appliance.

#### Regulation 13

##### *Stowage of survival craft*

1. Each survival craft shall be stowed:
  - .1 so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching station;
  - .2 as near the water surface as is safe and practicable and, in the case of a survival craft other than a liferaft intended for throw-overboard launching, in such a position that the survival craft in the embarkation position is not less than 2 m above the waterline with the ship in the fully loaded condition under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way, or to the angle at which the ship's weather deck edge becomes submerged, whichever is less;
  - .3 in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than 5 min;
  - .4 fully equipped as required by this chapter and the Code; and
  - .5 as far as practicable, in a secure and sheltered position and protected from damage by fire and explosion. In particular, survival craft on tankers, other than the liferafts required by regulation 31.1.4, shall not be stowed on or above a cargo tank, slop tank, or other tank containing explosive or hazardous cargoes.

2. Lifeboats for lowering down the ship's side shall be stowed as far forward of the propeller as practicable. On cargo ships of 80 m in length and upwards but less than 120 m in length, each lifeboat shall be so stowed that the after end of the lifeboat is not less than the length of the lifeboat forward of the propeller. On cargo ships of 120 m in length and upwards and passenger ships of 80 m in length and upwards, each lifeboat shall be so stowed that the after end of the lifeboat is not less than 1.5 times the length of the lifeboat forward of the propeller. Where appropriate, the ship shall be so arranged that lifeboats, in their stowed positions, are protected from damage by heavy seas.

3. Lifeboats shall be stowed attached to launching appliances.

4.1. Every liferaft shall be stowed with its painter permanently attached to the ship.

4.2. Each liferaft or group of liferafts shall be stowed with a float-free arrangement complying with the requirements of paragraph 4.1.6 of the Code so that each floats free and, if inflatable, inflates automatically when the ship sinks.

4.3. Liferafts shall be so stowed as to permit manual release of one raft or container at a time from their securing arrangements.

4.4. Paragraphs 4.1 and 4.2 do not apply to liferafts required by regulation 31.1.4.

5. Davit-launched liferafts shall be stowed within reach of the lifting hooks, unless some means of transfer is provided which is not rendered inoperable within the limits of trim and list prescribed in paragraph 1.2 or by ship motion or power failure.

6. Liferafts intended for throw-overboard launching shall be so stowed as to be readily transferable for launching on either side of the ship unless liferafts, of the aggregate capacity required by regulation 31.1 to be capable of being launched on either side, are stowed on each side of the ship.

#### Regulation 14

##### *Stowage of rescue boats*

Rescue boats shall be stowed:

- .1 in a state of continuous readiness for launching in not more than 5 min;
- .2 in a position suitable for launching and recovery;
- .3 so that neither the rescue boat nor its stowage arrangements will interfere with the operation of any survival craft at any other launching station; and
- .4 if it is also a lifeboat, in compliance with the requirements of regulation 13.

## Regulation 15

*Stowage of marine evacuation systems*

1. The ship's side shall not have any openings between the embarkation station of the marine evacuation system and the waterline in the lightest seagoing condition and means shall be provided to protect the system from any projections.
2. Marine evacuation systems shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull and so that, as far as practicable, the system can be launched down the straight side of the ship.
3. Each marine evacuation system shall be stowed so that neither the passage nor platform nor its stowage or operational arrangements will interfere with the operation of any other life-saving appliance at any other launching station.
4. Where appropriate, the ship shall be so arranged that the marine evacuation systems in their stowed positions are protected from damage by heavy seas.

## Regulation 16

*Survival craft launching and recovery arrangements*

1. Unless expressly provided otherwise, launching and embarkation appliances complying with the requirements of section 6.1 of the Code shall be provided for all survival craft except those which are:
  - .1 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which have a mass of not more than 185 kg; or
  - .2 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which are stowed for launching directly from the stowed position under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way; or
  - .3 carried in excess of the survival craft for 200% of the total number of persons on board the ship and which have a mass of not more than 185 kg; or
  - .4 carried in excess of the survival craft for 200% of the total number of persons on board the ship, are stowed for launching directly from the stowed position under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way; or
  - .5 provided for use in conjunction with a marine evacuation system, complying with the requirements of section 6.2 of the Code and stowed for launching directly from the stowed position under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way.



2. Each lifeboat shall be provided with an appliance which is capable of launching and recovering the lifeboat. In addition, there shall be provision for hanging-off the lifeboat to free the release gear for maintenance.

3. Launching and recovery arrangements shall be such that the appliance operator on the ship is able to observe the survival craft at all times during launching and for lifeboats during recovery.

4. Only one type of release mechanism shall be used for similar survival craft carried on board the ship.

5. Preparation and handling of survival craft at any one launching station shall not interfere with the prompt preparation and handling of any other survival craft or rescue boat at any other station.

6. Falls, where used, shall be long enough for the survival craft to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way.

7. During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched shall be adequately illuminated by lighting supplied from the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate.

8. Means shall be available to prevent any discharge of water on to survival craft during abandonment.

9. If there is a danger of the survival craft being damaged by the ship's stabilizer wings, means shall be available, powered by an emergency source of energy, to bring the stabilizer wings inboard: indicators operated by an emergency source of energy shall be available on the navigation bridge to show the position of the stabilizer wings.

10. If partially enclosed lifeboats complying with the requirements of section 4.5 of the Code are carried, a davit span shall be provided, fitted with not less than two lifelines of sufficient length to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of a trim of up to 10° and a list of up to 20° either way.

#### Regulation 17

##### *Rescue boat embarkation, launching and recovery arrangements*

1. The rescue boat embarkation and launching arrangements shall be such that the rescue boat can be boarded and launched in the shortest possible time.

2. If the rescue boat is one of the ship's survival craft, the embarkation arrangements and launching station shall comply with the requirements of regulations 11 and 12.

3. Launching arrangements shall comply with the requirements of regulation 16. However, all rescue boats shall be capable of being launched, where necessary utilizing painters, with the ship making headway at speeds up to 5 knots in calm water.

4. Recovery time of the rescue boat shall be not more than 5 min in moderate sea conditions when loaded with its full complement of persons and equipment. If the rescue boat is also a lifeboat, this recovery time shall be possible when loaded with its lifeboat equipment and the approved rescue boat complement of at least six persons.

5. Rescue boat embarkation and recovery arrangements shall allow for safe and efficient handling of a stretcher case. Foul weather recovery strops shall be provided for safety if heavy fall blocks constitute a danger.

#### Regulation 18

##### *Line-throwing appliances*

A line-throwing appliance complying with the requirements of section 7.1 of the Code shall be provided.

#### Regulation 19

##### *Emergency training and drills*

1. This regulation applies to all ships.

2. Familiarity with safety installations and practice musters

2.1. Every crew member with assigned emergency duties shall be familiar with these duties before the voyage begins.

2.2. On a ship engaged on a voyage where passengers are scheduled to be on board for more than 24 h, musters of the passengers shall take place within 24 h after their embarkation. Passengers shall be instructed in the use of the lifejackets and the action to take in an emergency.

2.3. Whenever new passengers embark, a passenger safety briefing shall be given immediately before sailing, or immediately after sailing. The briefing shall include the instructions required by regulations 8.2 and 8.4, and shall be made by means of an announcement, in one or more languages likely to be understood by the passengers. The announcement shall be made on the ship's public address system, or by other equivalent means likely to be heard at least by the passengers who have not yet heard it during the voyage. The briefing may be included

in the muster required by paragraph 2.2 if the muster is held immediately upon departure. Information cards or posters or video programmes displayed on ships video displays may be used to supplement the briefing, but may not be used to replace the announcement.

### 3. Drills

3.1. Drills shall, as far as practicable, be conducted as if there were an actual emergency.

3.2. Every crew member shall participate in at least one abandon ship drill and one fire drill every month. The drills of the crew shall take place within 24 h of the ship leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular ship in the previous month. When a ship enters service for the first time, after modification of a major character or when a new crew is engaged, these drills shall be held before sailing. The Administration may accept other arrangements that are at least equivalent for those classes of ships for which this is impracticable.

#### 3.3. Abandon ship drill

3.3.1. Each abandon ship drill shall include:

- .1 summoning of passengers and crew to muster stations with the alarm required by regulation 6.4.2 followed by drill announcement on the public address or other communication system and ensuring that they are made aware of the order to abandon ship;
- .2 reporting to stations and preparing for the duties described in the muster list;
- .3 checking that passengers and crew are suitably dressed;
- .4 checking that lifejackets are correctly donned;
- .5 lowering of at least one lifeboat after any necessary preparation for launching;
- .6 starting and operating the lifeboat engine;
- .7 operation of davits used for launching liferafts;
- .8 a mock search and rescue of passengers trapped in their staterooms; and
- .9 instruction in the use of radio life-saving appliances.

3.3.2. Different lifeboats shall, as far as practicable, be lowered in compliance with the requirements of paragraph 3.3.1.5 at successive drills.

3.3.3. Except as provided in paragraphs 3.3.4 and 3.3.5 each lifeboat shall be launched with its assigned operating crew aboard and manoeuvred in the water at least once every 3 months during an abandon ship drill.

3.3.4. Lowering into the water, rather than launching of a lifeboat arranged for free-fall launching, is acceptable where free-fall launching is impracticable provided the lifeboat is free-fall launched with its assigned operating crew aboard and manoeuvred in the water at least once every 6 months. However, in cases where it is impracticable, the

Administration may extend this period to 12 months provided that arrangements are made for simulated launching which will take place at intervals of not more than 6 months.

3.3.5. The Administration may allow ships operating on short international voyages not to launch the lifeboats on one side if their berthing arrangements in port and their trading patterns do not permit launching of lifeboats on that side. However, all such lifeboats shall be lowered at least once every 3 months and launched at least annually.

3.3.6. As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, shall be launched each month with their assigned crew aboard and manoeuvred in the water. In all cases this requirement shall be complied with at least once every 3 months.

3.3.7. If lifeboat and rescue boat launching drills are carried out with the ship making headway, such drills shall, because of the dangers involved, be practised in sheltered waters only and under the supervision of an officer experienced in such drills.

3.3.8. If a ship is fitted with marine evacuation systems, drills shall include exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on-board training aids required by regulation 35.4. Additionally every system party member shall, as far as practicable, be further trained by participation in a full deployment of a similar system into water, either on board a ship or ashore, at intervals of not longer than 2 years, but in no case longer than 3 years. This training can be associated with the deployments required by regulation 20.8.2.

3.3.9. Emergency lighting for mustering and abandonment shall be tested at each abandon ship drill.

#### 3.4. Fire drills

3.4.1. Fire drills should be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of ships and the cargo.

3.4.2. Each fire drill shall include:

- .1 reporting to stations and preparing for the duties described in the muster list required by regulation 8;
- .2 starting of a fire pump, using at least the two required jets of water to show that the system is in proper working order;
- .3 checking of fireman's outfit and other personal rescue equipment;
- .4 checking of relevant communication equipment;
- .5 checking the operation of watertight doors, fire doors, fire dampers and main inlets and outlets of ventilation systems in the drill area; and
- .6 checking the necessary arrangements for subsequent abandoning of the ship.

3.4.3. The equipment used during drills shall immediately be brought back to its fully operational condition and any faults and defects discovered during the drills shall be remedied as soon as possible.

#### 4. On-board training and instructions

4.1. On-board training in the use of the ship's life-saving appliances, including survival craft equipment, and in the use of the ship's fire-extinguishing appliances shall be given as soon as possible but not later than 2 weeks after a crew member joins the ship. However, if the crew member is on a regularly scheduled rotating assignment to the ship, such training shall be given not later than 2 weeks after the time of first joining the ship. Instructions in the use of the ship's fire-extinguishing appliances, life-saving appliances, and in survival at sea shall be given at the same interval as the drills. Individual instruction may cover different parts of the ship's life-saving and fire-extinguishing appliances, but all the ship's life-saving and fire-extinguishing appliances shall be covered within any period of 2 months.

4.2. Every crew member shall be given instructions which shall include but not necessarily be limited to:

- .1 operation and use of the ship's inflatable liferafts;
- .2 problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;
- .3 special instructions necessary for use of the ship's life-saving appliances in severe weather and severe sea conditions; and
- .4 operation and use of fire-extinguishing appliances.

4.3. On-board training in the use of davit-launched liferafts shall take place at intervals of not more than 4 months on every ship fitted with such appliances. Whenever practicable this shall include the inflation and lowering of a liferaft. This liferaft may be a special liferaft intended for training purposes only, which is not part of the ship's life-saving equipment: such a special liferaft shall be conspicuously marked.

#### 5. Records

The date when musters are held, details of abandon ship drills and fire drills, drills of other life-saving appliances and on board training shall be recorded in such log-book as may be prescribed by the Administration. If a full muster, drill or training session is not held at the appointed time, an entry shall be made in the log-book stating the circumstances and the extent of the muster, drill or training session held.

### Regulation 20

#### *Operational readiness, maintenance and inspections*

1. This regulation applies to all ships. The requirements of paragraphs 3 and 6.2 shall be complied with, as far as is practicable, on ships constructed before 1 July 1986.

## 2. Operational readiness

Before the ship leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

## 3. Maintenance

3.1. Instructions for on-board maintenance of life-saving appliances complying with the requirements of regulation 36 shall be provided and maintenance shall be carried out accordingly.

3.2. The Administration may accept, in lieu of the instructions required by paragraph 3.1, a shipboard planned maintenance programme which includes the requirements of regulation 36.

## 4. Maintenance of falls

4.1. Falls used in launching shall be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier.

4.2. The Administration may accept in lieu of the "end for ending" required in paragraph 4.1, periodic inspection of the falls and their renewal whenever necessary due to deterioration or at intervals of not more than 4 years, whichever one is earlier.

## 5. Spares and repair equipment

Spares and repair equipment shall be provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly.

## 6. Weekly inspection

The following tests and inspections shall be carried out weekly:

- .1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use;
- .2 all engines in lifeboats and rescue boats shall be run for a total period of not less than 3 min provided the ambient temperature is above the minimum temperature required for starting and running the engine. During this period of time, it should be demonstrated that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow it to be run other than with its propeller submerged for a period of 3 min, it should be run for such period as prescribed in the manufacturer's handbook. In special cases the Administration may waive this requirement for ships constructed before 1 July 1986: and
- .3 the general emergency alarm system shall be tested.

## 7. Monthly inspections

Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist required by regulation 36.1 to ensure that they are complete and in good order. A report of the inspection shall be entered in the log-book.

8. Servicing of inflatable liferafts, inflatable lifejackets, marine evacuation systems and inflated rescue boats

8.1. Every inflatable liferaft, inflatable lifejacket and marine evacuation system shall be serviced:

- .1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Administration may extend this period to 17 months; and
- .2 at an approved servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

8.2. Rotational deployment of marine evacuation systems

In addition to, or in conjunction with, the servicing intervals of marine evacuation systems required by paragraph 8.1, each marine evacuation system should be deployed from the ship on a rotational basis at intervals to be agreed by the Administration provided that each system is to be deployed at least once every 6 years.

8.3. An Administration which approves new and novel inflatable liferaft arrangements pursuant to regulation 4 may allow for extended service intervals on the following conditions:

8.3.1. The new and novel liferaft arrangement has proved to maintain the same standard, as required by testing procedure, during extended service intervals.

8.3.2. The liferaft system shall be checked on board by certified personnel according to paragraph 8.1.1.

8.3.3. Service at intervals not exceeding 5 years shall be carried out in accordance with the recommendations of the Organization.

8.4. All repairs and maintenance of inflated rescue boats shall be carried out in accordance with the manufacturer's instructions. Emergency repairs may be carried out on board the ship; however, permanent repairs shall be effected at an approved servicing station.

8.5. An Administration which permits extension of liferaft service intervals in accordance with paragraph 8.3 shall notify the Organization of such action in accordance with regulation I/5(b).

9. Periodic servicing of hydrostatic release units

Hydrostatic release units, other than disposable hydrostatic release units, shall be serviced:

- .1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Administration may extend this period to 17 months; and
- .2 at a servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

10. Marking of stowage locations

Containers, brackets, racks, and other similar stowage locations for life-saving equipment shall be marked with symbols in accordance with

the recommendations of the Organization, indicating the devices stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices shall also be indicated.

11. Periodic servicing of launching appliances and on-load release gear

11.1. Launching appliances:

- .1 shall be serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation 36;
- .2 shall be subjected to a thorough examination at intervals not exceeding 5 years; and
- .3 shall upon completion of the examination in .2 be subjected to a dynamic test of the winch brake in accordance with paragraph 6.1.2.5.2 of the Code.

11.2. Lifeboat on-load release gear shall be:

- .1 serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation 36;:
- .2 subjected to a thorough examination and test during the surveys required by regulation 1/7 and 1/8 by properly trained personnel familiar with the system; and
- .3 operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment whenever the release gear is overhauled. Such overhauling and test shall be carried out at least once every 5 years.

## SECTION II

### PASSENGER SHIPS (ADDITIONAL REQUIREMENTS)

#### Regulation 21

##### *Survival craft and rescue boats*

1. Survival craft

1.1. Passenger ships engaged on international voyages which are not short international voyages shall carry:

- .1 partially or totally enclosed lifeboats complying with the requirements of section 4.5 or 4.6 of the Code on each side of such aggregate capacity as will accommodate not less than 50% of the total number of persons on board. The Administration may permit the substitution of lifeboats by liferafts of equivalent total capacity provided that there shall never be less than sufficient lifeboats on each side of the ship to accommodate 37.5% of the total number of persons on board. The inflatable or rigid liferafts shall comply with the require-



- ments of section 4.2 or 4.3 of the Code and shall be served by launching appliances equally distributed on each side of the ship; and
- .2 in addition, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code of such aggregate capacity as will accommodate at least 25% of the total number of persons on board. These liferafts shall be served by at least one launching appliance on each side which may be those provided in compliance with the requirements of paragraph 1.1.1 or equivalent approved appliances capable of being used on both sides. However, stowage of these liferafts need not comply with the requirements of regulation 1.3.5.
- 1.2. Passenger ships engaged on short international voyages and complying with the special standards of subdivision prescribed by regulation II-1/6.5 shall carry:
- .1 partially or totally enclosed lifeboats complying with the requirements of section 4.5 or 4.6 of the Code of such aggregate capacity as will accommodate at least 30% of the total number of persons on board. The lifeboats shall, as far as practicable, be equally distributed on each side of the ship. In addition inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code shall be carried of such aggregate capacity that, together with the lifeboat capacity, the survival craft will accommodate the total number of persons on board. The liferafts shall be served by launching appliances equally distributed on each side of the ship; and
  - .2 in addition, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code of such aggregate capacity as will accommodate at least 25% of the total number of persons on board. These liferafts shall be served by at least one launching appliance on each side which may be those provided in compliance with the requirements of paragraph 1.2.1 or equivalent approved appliances capable of being used on both sides. However, stowage of these liferafts need not comply with the requirements of regulation 1.3.5.
- 1.3. Passenger ships engaged on short international voyages and not complying with the special standards of subdivision prescribed by regulation II-1/6.5, shall carry survival craft complying with the requirements of paragraph 1.1.
- 1.4. All survival craft required to provide for abandonment by the total number of persons on board shall be capable of being launched with their full complement of persons and equipment within a period of 30 min. from the time the abandon ship signal is given.
- 1.5. In lieu of meeting the requirements of paragraph 1.1, 1.2 or 1.3, passenger ships of less than 500 gross tonnage where the total number of persons on board is less than 200, may comply with the following:

- .1 they shall carry on each side of the ship, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code and of such aggregate capacity as will accommodate the total number of persons on board.
- .2 unless the liferafts required by paragraph 1.5.1 are stowed in a position providing for easy side-to-side transfer at a single open deck level, additional liferafts shall be provided so that the total capacity available on each side will accommodate 150% of the total number of persons on board;
- .3 if the rescue boat required by paragraph 2.2 is also a partially or totally enclosed lifeboat complying with the requirements of section 4.5 or 4.6 of the Code, it may be included in the aggregate capacity required by paragraph 1.5.1, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board; and
- .4 in the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side, including those which are stowed in a position providing for easy side-to-side transfer at a single open deck level, to accommodate the total number of persons on board.

1.6. A marine evacuation system or systems complying with section 6.2 of the Code may be substituted for the equivalent capacity of liferafts and launching appliances required by paragraph 1.1.1 or 1.2.1.

## 2. Rescue boats

2.1. Passenger ships of 500 gross tonnage and over shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code on each side of the ship.

2.2. Passenger ships of less than 500 gross tonnage shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code.

2.3. A lifeboat may be accepted as a rescue boat provided it also complies with the requirements for a rescue boat.

## 3. Marshalling of liferafts

3.1. The number of lifeboats and rescue boats that are carried on passenger ships shall be sufficient to ensure that in providing for abandonment by the total number of persons on board not more than six liferafts need be marshalled by each lifeboat or rescue boat.

3.2. The number of lifeboats and rescue boats that are carried on passenger ships engaged on short international voyages and complying with the special standards of subdivision prescribed by regulation II-1/6.5 shall be sufficient to ensure that in providing for abandonment by the total number of persons on board not more than nine liferafts need be marshalled by each lifeboat or rescue boat.

## Regulation 22

*Personal life-saving appliances*

## 1. Lifebuoys

1.1. A passenger ship shall carry not less than the number of lifebuoys complying with the requirements of regulation 7.1 and section 2.1 of the Code prescribed in the following table:

| <i>Length of ship in metres</i> | <i>Minimum number of lifebuoys</i> |
|---------------------------------|------------------------------------|
| Under 60                        | 8                                  |
| 60 and under 120                | 12                                 |
| 120 and under 180               | 18                                 |
| 180 and under 240               | 24                                 |
| 240 and over                    | 30                                 |

1.2. Notwithstanding regulation 7.1.3, passenger ships of under 60 m in length shall carry not less than six lifebuoys provided with self-igniting lights.

## 2. Lifejackets

2.1. In addition to the lifejackets required by regulation 7.2, every passenger ship shall carry lifejackets for not less than 5% of the total number of persons on board. These lifejackets shall be stowed in conspicuous places on deck or at muster stations.

2.2. Where lifejackets for passengers are stowed in staterooms which are located remotely from direct routes between public spaces and muster stations, the additional lifejackets for these passengers required under regulation 7.2.2, shall be stowed either in the public spaces, the muster stations, or on direct routes between them. The lifejackets shall be stowed so that their distribution and donning does not impede orderly movement to muster stations and survival craft embarkation stations.

## 3. Lifejacket lights

3.1. On all passenger ships each lifejacket shall be fitted with a light complying with the requirements of paragraph 2.2.3 of the Code.

3.2. Lights fitted on lifejackets on board passenger ships prior to 1 July 1998 and not complying fully with paragraph 2.2.3 of the Code may be accepted by the Administration until the lifejacket light would normally be replaced or until the first periodical survey after 1 July 2002, whichever is the earliest.

#### 4. Immersion suits and thermal protective aids

4.1. All passenger ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of section 2.3 of the Code and, in addition, a thermal protective aid complying with the requirements of section 2.5 of the Code for every person to be accommodated in the lifeboat and not provided with an immersion suit. These immersion suits and thermal protective aids need not be carried:

- .1 for persons to be accommodated in totally or partially enclosed lifeboats; or
- .2 if the ship is constantly engaged on voyages in warm climates where, in the opinion of the Administration, they are unnecessary.

4.2. The provisions of paragraph 4.1.1 also apply to partially or totally enclosed lifeboats not complying with the requirements of section 4.5 or 4.6 of the Code, provided they are carried on ships constructed before 1 July 1986.

### Regulation 23

#### *Survival craft and rescue boat embarkation arrangements*

1. On passenger ships, survival craft embarkation arrangements shall be designed for:

- .1 all lifeboats to be boarded and launched either directly from the stowed position or from an embarkation deck but not both; and
- .2 davit-launched liferafts to be boarded and launched from a position immediately adjacent to the stowed position or from a position to which, in compliance with the requirements of regulation 13.5, the liferaft is transferred prior to launching.

2. Rescue boat arrangements shall be such that the rescue boat can be boarded and launched directly from the stowed position with the number of persons assigned to crew the rescue boat on board. Notwithstanding the requirements of paragraph 1.1, if the rescue boat is also a lifeboat and the other lifeboats are boarded and launched from an embarkation deck, the arrangements shall be such that the rescue boat can also be boarded and launched from the embarkation deck.

### Regulation 24

#### *Stowage of survival craft*

The stowage height of a survival craft on a passenger ship shall take into account the requirements of regulation 13.1.2, the escape provisions of regulation 11-2/28, the size of the ship, and the weather conditions likely to be encountered in its intended area of operation. For a davit-launched survival craft, the height of the davit head with the survival craft in embarkation position, shall, as far as practicable, not exceed 15 m to the waterline when the ship is in its lightest seagoing condition.

## Regulation 25

*Muster stations*

Every passenger ship shall, in addition to complying with the requirements of regulation 11, have passenger muster stations which shall:

- .1 be in the vicinity of, and permit ready access for the passengers to, the embarkation stations unless in the same location; and
- .2 have ample room for marshalling and instruction of the passengers, but at least 0.35 m<sup>2</sup> per passenger.

## Regulation 26

*Additional requirements for ro-ro passenger ships*

1. This regulation applies to all ro-ro passenger ships. Ro-ro passenger ships constructed:

- .1 on or after 1 July 1998 shall comply with the requirements of paragraphs 2.3, 2.4, 3.1, 3.2, 3.3, 4 and 5;
- .2 on or after 1 July 1986 and before 1 July 1998 shall comply with the requirements of paragraph 5 not later than the first periodical survey after 1 July 1998 and with the requirements of paragraphs 2.3, 2.4, 3 and 4 not later than the first periodical survey after 1 July 2000; and
- .3 before 1 July 1986 shall comply with the requirements of paragraph 5 not later than the first periodical survey after 1 July 1998 and with the requirements of paragraphs 2.1, 2.2, 2.3, 2.4, 3 and 4 not later than the first periodical survey after 1 July 2000.

## 2. Liferafts

2.1. The ro-ro passenger ship's liferafts shall be served by marine evacuation systems complying with the requirements of section 6.2 of the Code or launching appliances complying with the requirements of paragraph 6.1.5 of the Code, equally distributed on each side of the ship.

2.2. Every liferaft on ro-ro passenger ships shall be provided with float-free stowage arrangements complying with the requirements of regulation 1.3.4.

2.3. Every liferaft on ro-ro passenger ships shall be of a type fitted with a boarding ramp complying with the requirements of paragraph 4.2.4.1 or 4.3.4.1 of the Code, as appropriate.

2.4. Every liferaft on ro-ro passenger ships shall either be automatically self-righting or be a canopied reversible liferaft which is stable in a seaway and is capable of operating safely whichever way up it is floating. Alternatively, the ship shall carry automatically self-righting liferafts or canopied reversible liferafts, in addition to its normal complement of liferafts, of such aggregate capacity as will accommodate at least 50% of the persons not accommodated in lifeboats. This additional liferaft

capacity shall be determined on the basis of the difference between the total number of persons on board and the number of persons accommodated in lifeboats. Every such liferaft shall be approved by the Administration having regard to the recommendations adopted by the Organization.

### 3. Fast rescue boats

3.1. At least one of the rescue boats on a ro-ro passenger ship shall be a fast rescue boat approved by the Administration having regard to the recommendations adopted by the Organization.

3.2. Each fast rescue boat shall be served by a suitable launching appliance approved by the Administration. When approving such launching appliances, the Administration shall take into account that the fast rescue boat is intended to be launched and retrieved even under severe adverse weather conditions, and also shall have regard to the recommendations adopted by the Organization.

3.3. At least two crews of each fast rescue boat shall be trained and drilled regularly having regard to the Seafarers Training, Certification and Watchkeeping (STCW) Code and recommendations adopted by the Organization, including all aspects of rescue, handling, manoeuvring, operating these craft in various conditions, and righting them after capsize.

3.4. In the case where the arrangement or size of a ro-ro passenger ship, constructed before 1 July 1997, is such as to prevent the installation of the fast rescue boat required by paragraph 3.1, the fast rescue boat may be installed in place of an existing lifeboat which is accepted as a rescue boat or, in the case of ships constructed prior to 1 July 1986, boats for use in an emergency, provided that all of the following conditions are met:

- .1 the fast rescue boat installed is served by a launching appliance complying with the provisions of paragraph 3.2;
- .2 the capacity of the survival craft lost by the above substitution is compensated by the installation of liferafts capable of carrying at least an equal number of persons served by the lifeboat replaced; and
- .3 such liferafts are served by the existing launching appliances or marine evacuation systems.

### 4. Means of rescue

4.1. Each ro-ro passenger ship shall be equipped with efficient means for rapidly recovering survivors from the water and transferring survivors from rescue units or survival craft to the ship.

4.2. The means of transfer of survivors to the ship may be part of a marine evacuation system, or may be part of a system designed for rescue purposes.

4.3. If the slide of a marine evacuation system is intended to provide the means of transfer of survivors to the deck of the ship, the slide shall be equipped with handlines or ladders to aid in climbing up the slide.

#### 5. Lifejackets

5.1. Notwithstanding the requirements of regulations 7.2 and 22.2, a sufficient number of lifejackets shall be stowed in the vicinity of the muster stations so that passengers do not have to return to their cabins to collect their lifejackets.

5.2. In ro-ro passenger ships, each lifejacket shall be fitted with a light complying with the requirements of paragraph 2.2.3 of the Code.

#### Regulation 27

##### *Information on passengers*

1. All persons on board all passenger ships shall be counted prior to departure.

2. Details of persons who have declared a need for special care or assistance in emergency situations shall be recorded and communicated to the master prior to departure.

3. In addition, not later than 1 January 1999, the names and gender of all persons on board, distinguishing between adults, children and infants shall be recorded for search and rescue purposes.

4. The information required by paragraphs 1, 2 and 3 shall be kept ashore and made readily available to search and rescue services when needed.

5. Administrations may exempt passenger ships from the requirements of paragraph 3, if the scheduled voyages of such ships render it impracticable for them to prepare such records.

#### Regulation 28

##### *Helicopter landing and pick-up areas*

1. All ro-ro passenger ships, shall be provided with a helicopter pick-up area approved by the Administration having regard to the recommendations adopted by the Organization.

2. Passenger ships of 130 m in length and upwards, constructed on or after 1 July 1999, shall be fitted with a helicopter landing area approved by the Administration having regard to the recommendations adopted by the Organization.

#### Regulation 29

##### *Decision support system for masters of passenger ships*

1. This regulation applies to all passenger ships. Passenger ships constructed before 1 July 1997 shall comply with the requirements of this regulation not later than the date of the first periodical survey after 1 July 1999.

2. In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge.

3. The system shall, as a minimum, consist of a printed emergency plan or plans. All foreseeable emergency situations shall be identified in the emergency plan or plans, including, but not limited to, the following main groups of emergencies:

- .1 fire;
- .2 damage to ship;
- .3 pollution;
- .4 unlawful acts threatening the safety of the ship and the security of its passengers and crew;
- .5 personnel accidents;
- .6 cargo-related accidents; and
- .7 emergency assistance to other ships.

4. The emergency procedures established in the emergency plan or plans shall provide decision support to masters for handling any combination of emergency situations.

5. The emergency plan or plans shall have a uniform structure and be easy to use. Where applicable, the actual loading condition as calculated for the passenger ship's voyage stability shall be used for damage control purposes.

6. In addition to the printed emergency plan or plans, the Administration may also accept the use of a computer-based decision-support system on the navigation bridge which provides all the information contained in the emergency plan or plans, procedures, checklists, etc., which is able to present a list of recommended actions to be carried out in foreseeable emergencies.

#### Regulation 30

##### *Drills*

1. This regulation applies to all passenger ships.

2. On passenger ships, an abandon ship drill and fire drill shall take place weekly. The entire crew need not be involved in every drill, but each crew member must participate in an abandon ship drill and a fire drill each month as required in regulation 19.3.2. Passengers shall be strongly encouraged to attend these drills.

#### SECTION III

#### CARGO SHIPS (ADDITIONAL REQUIREMENTS)

#### Regulation 31

##### *Survival craft and rescue boats*

1. Survival craft

1.1. Cargo ships shall carry:



- .1 one or more totally enclosed lifeboats complying with the requirements of section 4.6 of the Code of such aggregate capacity on each side of the ship as will accommodate the total number of persons on board; and
  - .2 in addition, one or more inflatable or rigid liferafts, complying with the requirements of section 4.2 or 4.3 of the Code, stowed in a position providing for easy side-to-side transfer at a single open deck level, and of such aggregate capacity as will accommodate the total number of persons on board. If the liferaft or liferafts are not stowed in a position providing for easy side-to-side transfer at a single open deck level, the total capacity available on each side shall be sufficient to accommodate the total number of persons on board.
- 1.2. In lieu of meeting the requirements of paragraph 1.1, cargo ships may carry:
- .1 one or more free-fall lifeboats, complying with the requirements of section 4.7 of the Code, capable of being free-fall launched over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board; and
  - .2 in addition, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code, on each side of the ship, of such aggregate capacity as will accommodate the total number of persons on board.

The liferafts on at least one side of the ship shall be served by launching appliances.

1.3. In lieu of meeting the requirements of paragraph 1.1 or 1.2, cargo ships of less than 85 m in length other than oil tankers, chemical tankers and gas carriers, may comply with the following:

- .1 they shall carry on each side of the ship, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code and of such aggregate capacity as will accommodate the total number of persons on board;
- .2 unless the liferafts required by paragraph 1.3.1 are stowed in a position providing for easy side-to-side transfer at a single open deck level, additional liferafts shall be provided so that the total capacity available on each side will accommodate 150% of the total number of persons on board;
- .3 if the rescue boat required by paragraph 2 is also a totally enclosed lifeboat complying with the requirements of section 4.6 of the Code, it may be included in the aggregate capacity required by paragraph 1.3.1, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board; and
- .4 in the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side, including any which are stowed in a

position providing for easy side-to-side transfer at a single open deck level, to accommodate the total number of persons on board.

1.4. Cargo ships where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than 100 m shall carry, in addition to the liferafts required by paragraphs 1.1.2 and 1.2.2, a liferaft stowed as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. Such liferaft or liferafts may be securely fastened so as to permit manual release and need not be of the type which can be launched from an approved launching device.

1.5. With the exception of the survival craft referred to in regulation 16.1.1, all survival craft required to provide for abandonment by the total number of persons on board shall be capable of being launched with their full complement of persons and equipment within a period of 10 min from the time the abandon ship signal is given.

1.6. Chemical tankers and gas carriers carrying cargoes emitting toxic vapours or gases shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, lifeboats with a self-contained air support system complying with the requirements of section 4.8 of the Code.

1.7. Oil tankers, chemical tankers and gas carriers carrying cargoes having a flashpoint not exceeding 60°C (closed cup test) shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, fire-protected lifeboats complying with the requirements of section 4.9 of the Code.

## 2. Rescue boats

Cargo ships shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code. A lifeboat may be accepted as a rescue boat, provided that it also complies with the requirements for a rescue boat.

3. In addition to their lifeboats, all cargo ships constructed before 1 July 1986 shall carry:

- .1 One or more liferafts capable of being launched on either side of the ship and of such aggregate capacity as will accommodate the total number of persons on board. The liferaft or liferafts shall be equipped with a lashing or an equivalent means of securing the liferaft which will automatically release it from a sinking ship; and
- .2 where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than 100 m, in addition to the liferafts required by paragraph 3.1, a liferaft stowed as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. Notwithstanding the requirements of paragraph 3.1, such

liferaft or liferafts may be securely fastened so as to permit manual release.

### Regulation 32

#### *Personal life-saving appliances*

##### 1. Lifebuoys

1.1. Cargo ships shall carry not less than the number of lifebuoys complying with the requirements of regulation 7.1 and section 2.1 of the Code prescribed in the following table:

| <i>Length of ship in metres</i> | <i>Minimum number of lifebuoys</i> |
|---------------------------------|------------------------------------|
| Under 100                       | 8                                  |
| 100 and under 150               | 10                                 |
| 150 and under 200               | 12                                 |
| 200 and over                    | 14                                 |

1.2. Self-igniting lights for lifebuoys on tankers required by regulation 7.1.3 shall be of an electric battery type.

##### 2. Lifejacket lights

2.1. This paragraph applies to all cargo ships.

2.2. On cargo ships, each lifejacket shall be fitted with a lifejacket light complying with the requirements of paragraph 2.2.3 of the Code.

2.3. Lights fitted on lifejackets on board cargo ships prior to 1 July 1998 and not complying fully with paragraph 2.2.3 of the Code may be accepted by the Administration until the lifejacket light would normally be replaced or until the first periodical survey after 1 July 2001, whichever is the earliest.

##### 3. Immersion suits and thermal protective aids

3.1. This paragraph applies to all cargo ships.

3.2. Cargo ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of section 2.3 of the Code or, if the Administration considers it necessary and practicable, one immersion suit complying with the requirements of section 2.3 of the Code for every person on board the ship; however, the ship shall carry in addition to the thermal protective aids required by paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.2.13 of the Code, thermal protective aids complying with the requirements of section 2.5 of the Code for persons on board not provided with immersion suits. These immersion suits and thermal protective aids need not be required if the ship:

- .1 has totally enclosed lifeboats on each side of the ship of such aggregate capacity as will accommodate the total number of persons on board; or
  - .2 has totally enclosed lifeboats capable of being launched by free fall over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board and which are boarded and launched directly from the stowed position, together with liferafts on each side of the ship of such aggregate capacity as will accommodate the total number of persons on board; or
  - .3 is constantly engaged on voyages in warm climates where, in the opinion of the Administration, immersion suits are unnecessary.
- 3.3. Cargo ships complying with the requirements of regulation 31.1.3 shall carry immersion suits complying with the requirements of section 2.3 of the Code for every person on board unless the ship:
- .1 has davit-launched liferafts; or
  - .2 has liferafts served by equivalent approved appliances capable of being used on both sides of the ship and which do not require entry into the water to board the liferaft; or
  - .3 is constantly engaged on voyages in warm climates where, in the opinion of the Administration, immersion suits are unnecessary.
- 3.4. The immersion suits required by this regulation may be used to comply with the requirements of regulation 7.3.
- 3.5. The totally enclosed lifeboats referred to in paragraphs 3.2.1 and 3.2.2 carried on cargo ships constructed before 1 July 1986 need not comply with the requirements of section 4.6 of the Code.

### Regulation 33

#### *Survival craft embarkation and launching arrangements*

1. Cargo ship survival craft embarkation arrangements shall be so designed that lifeboats can be boarded and launched directly from the stowed position and davit-launched liferafts can be boarded and launched from a position immediately adjacent to the stowed position or from a position to which the liferaft is transferred prior to launching in compliance with the requirements of regulation 13.5.
2. On cargo ships of 20,000 gross tonnage and upwards, lifeboats shall be capable of being launched, where necessary utilizing painters, with the ship making headway at speeds up to 5 knots in calm water.

## SECTION IV

## LIFE-SAVING APPLIANCES AND ARRANGEMENTS REQUIREMENTS

## Regulation 34

All life-saving appliances and arrangements shall comply with the applicable requirements of the Code.

## SECTION V

## MISCELLANEOUS

## Regulation 35

*Training manual and on-board training aids*

1. This regulation applies to all ships.
2. A training manual complying with the requirements of paragraph 3 shall be provided in each crew mess room and recreation room or in each crew cabin.
3. The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances provided in the ship and on the best methods of survival. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual. The following shall be explained in detail:
  - .1 donning of lifejackets, immersion suits and anti-exposure suits, as appropriate;
  - .2 muster at the assigned stations;
  - .3 boarding, launching, and clearing the survival craft and rescue boats, including, where applicable, use of marine evacuation systems;
  - .4 method of launching from within the survival craft;
  - .5 release from launching appliances;
  - .6 methods and use of devices for protection in launching areas, where appropriate;
  - .7 illumination in launching areas;
  - .8 use of all survival equipment;
  - .9 use of all detection equipment;
  - .10 with the assistance of illustrations, the use of radio life-saving appliances;
  - .11 use of drogues;
  - .12 use of engine and accessories;
  - .13 recovery of survival craft and rescue boats including stowage and securing;

- .14 hazards of exposure and the need for warm clothing;
  - .15 best use of the survival craft facilities in order to survive;
  - .16 methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore life-saving apparatus and ship's line-throwing apparatus;
  - .17 all other functions contained in the muster list and emergency instructions; and
  - .18 instructions for emergency repair of the life-saving appliances.
4. Every ship fitted with a marine evacuation system shall be provided with on-board training aids in the use of the system.

#### Regulation 36

##### *Instructions for on-board maintenance*

Instructions for on-board maintenance of life-saving appliances shall be easily understood, illustrated wherever possible, and, as appropriate, shall include the following for each appliance:

- .1. a checklist for use when carrying out the inspections required by regulation 20.7;
- .2 maintenance and repair instructions;
- .3 schedule of periodic maintenance;
- .4 diagram of lubrication points with the recommended lubricants;
- .5 list of replaceable parts;
- .6 list of sources of spare parts; and
- .7 log for records of inspections and maintenance.

#### Regulation 37

##### *Muster list and emergency instructions*

1. The muster list shall specify details of the general emergency alarm and public address system prescribed by section 7.2 of the Code and also action to be taken by crew and passengers when this alarm is sounded. The muster list shall also specify how the order to abandon ship will be given.

2. Each passenger ship shall have procedures in place for locating and rescuing passengers trapped in their staterooms.

3. The muster list shall show the duties assigned to the different members of the crew including:

- .1 closing of the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings in the ship;
- .2 equipping of the survival craft and other life-saving appliances;
- .3 preparation and launching of survival craft;
- .4 general preparations of other life-saving appliances;

- .5 muster of passengers;
  - .6 use of communication equipment;
  - .7 manning of fire parties assigned to deal with fires; and
  - .8 special duties assigned in respect to the use of fire-fighting equipment and installations.
4. The muster list shall specify which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use.
5. The muster list shall specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.
6. The muster list shall show the duties assigned to members of the crew in relation to passengers in case of emergency. These duties shall include:
- .1 warning the passengers;
  - .2 seeing that they are suitably clad and have donned their lifejackets correctly;
  - .3 assembling passengers at muster stations;
  - .4 keeping order in the passageways and on the stairways and generally controlling the movements of the passengers; and
  - .5 ensuring that a supply of blankets is taken to the survival craft.
7. The muster list shall be prepared before the ship proceeds to sea. After the muster list has been prepared, if any change takes place in the crew which necessitates an alteration in the muster list, the master shall either revise the list or prepare a new list.
8. The format of the muster list used on passenger ships shall be approved.

## CHAPTER VI

### CARRIAGE OF CARGOES

#### Regulation 2

##### *Cargo information*

9. Existing subparagraph 2 of paragraph 2 is replaced by the following:
- “.2 in the case of bulk cargo, information on the stowage factor of the cargo, the trimming procedures, likelihood of shifting including angle of repose, if applicable, and any other relevant special properties. In the case of a concentrate or other cargo which may liquefy, additional information in the form of a certificate on the moisture content of the cargo and its transportable moisture limit.”

## Regulation 7

*Stowage of bulk cargo*

10. The existing text of regulation 7 is replaced by the following:

## “Regulation 7

*Loading, unloading and stowage of bulk cargoes*

1. For the purpose of this regulation, *terminal representative* means a person appointed by the terminal or other facility, where the ship is loading or unloading, who has responsibility for operations conducted by that terminal or facility with regard to the particular ship.

2. To enable the master to prevent excessive stresses in the ship's structure, the ship shall be provided with a booklet, which shall be written in a language with which the ship's officers responsible for cargo operations are familiar. If this language is not English, the ship shall be provided with a booklet written also in the English language. The booklet shall, as a minimum, include:

- .1 stability data, as required by regulation II-1/22;
- .2 ballasting and deballasting rates and capacities;
- .3 maximum allowable load per unit surface area of the tank top plating;
- .4 maximum allowable load per hold;
- .5 general loading and unloading instructions with regard to the strength of the ship's structure including any limitations on the most adverse operating conditions during loading, unloading, ballasting operations and the voyage;
- .6 any special restrictions such as limitations on the most adverse operating conditions imposed by the Administration or organization recognised by it, if applicable; and
- .7 where strength calculations are required, maximum permissible forces and moments on the ship's hull during loading, unloading and the voyage.

3. Before a solid bulk cargo is loaded or unloaded, the master and the terminal representative shall agree on a plan which shall ensure that the permissible forces and moments on the ship are not exceeded during loading or unloading, and shall include the sequence, quantity and rate of loading or unloading, taking into consideration the speed of loading or unloading, the number of pours and the deballasting or ballasting capability of the ship. The plan and any subsequent amendments thereto shall be lodged with the appropriate authority of the port State.

4. Bulk cargoes shall be loaded and trimmed reasonably level, as necessary, to the boundaries of the cargo space so as to minimize the risk of shifting and to ensure that adequate stability will be maintained throughout the voyage.



5. When bulk cargoes are carried in 'tween-decks, the hatchways of such 'tween-decks shall be closed in those cases where the loading information indicates an unacceptable level of stress of the bottom structure if the hatchways are left open. The cargo shall be trimmed reasonably level and shall either extend from side to side or be secured by additional longitudinal divisions of sufficient strength. The safe load-carrying capacity of the 'tween-decks shall be observed to ensure that the deck-structure is not overloaded.

6. The master and terminal representative shall ensure that loading and unloading operations are conducted in accordance with the agreed plan.

7. If during loading or unloading any of the limits of the ship referred to in paragraph 2 are exceeded or are likely to become so if the loading or unloading continues, the master has the right to suspend operation and the obligation to notify accordingly the appropriate authority of the port State with which the plan has been lodged. The master and the terminal representative shall ensure that corrective action is taken. When unloading cargo, the master and terminal representative shall ensure that the unloading method does not damage the ship's structure.

8. The master shall ensure that ship's personnel continuously monitor cargo operations. Where possible, the ship's draught shall be checked regularly during loading or unloading to confirm the tonnage figures supplied. Each draught and tonnage observation shall be recorded in a cargo log-book. If significant deviations from the agreed plan are detected, cargo or ballast operations or both shall be adjusted to ensure that the deviations are corrected."

## CHAPTER XI

### SPECIAL MEASURES TO ENHANCE MARITIME SAFETY

#### Regulation 1

##### *Authorization of recognized organizations*

11. The existing text of the regulation is replaced by the following:  
"Organizations referred to in regulation I/6 shall comply with the Guidelines adopted by the Organization by resolution A.739(18), as may be amended by the Organization and the Specifications adopted by the Organization by resolution A.789(19), 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."

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*Resolutie MSC.57(67) van 5 december 1996*

Bij Resolutie MSC.57(67) heeft de Maritieme Veiligheidscommissie van de Internationale Maritieme Organisatie op 5 december 1996 in overeenstemming met artikel VIII(b)(iv) van het Verdrag wijzigingen aangenomen.

De wijzigingen behoeven in overeenstemming met artikel 7, onderdeel f, van de Rijkswet goedkeuring en bekendmaking verdragen niet de goedkeuring van de Staten-Generaal.

De wijzigingen zijn in overeenstemming met artikel VIII(b)(vi)(2)(bb) van het Verdrag op 1 januari 1998 aanvaard en zullen ingevolge artikel VIII(b)(vii)(2) op 1 juli 1998 in werking treden.

De Engelse tekst van de Resolutie luidt als volgt:

**Resolution MSC.57(67)****(adopted on 5 December 1996)****Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974**

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 procedures for amending the Annex to the Convention, other than the provisions of chapter I thereof,

Having considered, at its sixty-seventh 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 amendments shall be deemed to have been accepted on 1 January 1998, 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 fleets 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 1998 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.

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**Annex**

**Amendments to the International Convention for the Safety of Life at Sea, 1974**

CHAPTER II-1

CONSTRUCTION – SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

PART A-1

STRUCTURE OF SHIPS

1. The following new regulations 3–3 and 3–4 are added to part A-1 of chapter II-1:

“Regulation 3–3

*Safe access to tanker bows*

1. For the purpose of this regulation and regulation 3–4, tankers include oil tankers as defined in regulation 2.12, chemical tankers as defined in regulation VII/8.2 and gas carriers as defined in regulation VII/11.2.

2. Every tanker constructed on or after 1 July 1998 shall be provided with the means to enable the crew to gain safe access to the bow even in severe weather conditions. For tankers constructed before 1 July 1998, such means of access shall be provided at the first scheduled dry-docking after 1 July 1998, but not later than 1 July 2001. Such means of access shall be approved by the Administration based on the guidelines developed by the Organization.

Regulation 3–4

*Emergency towing arrangements on tankers*

Emergency towing arrangements shall be fitted at both ends on board every tanker of not less than 20,000 tonnes deadweight, constructed on

or after 1 January 1996. For tankers constructed before 1 January 1996, such an arrangement shall be fitted at the first scheduled dry-docking after 1 January 1996 but not later than 1 January 1999. The design and construction of the towing arrangements shall be approved by the Administration, based on the guidelines developed by the Organization.”

## PART B

## SUBDIVISION AND STABILITY

2. The following new regulation 17-1 is added after existing regulation 17:

## “Regulation 17-1

*Openings in the shell plating below the bulkhead deck of passenger ships and the freeboard deck of cargo ships*

Notwithstanding the requirements of regulation 17, ships constructed on or after 1 July 1998 shall comply with the requirements of regulation 17 where a reference to ‘margin line’ shall be deemed to mean a reference to the bulkhead deck of passenger ships and the freeboard deck of cargo ships.”

## PART C

## MACHINERY INSTALLATIONS

## Regulation 26

*General*

3. The following new paragraphs 9, 10 and 11 are added after existing paragraph 8:

“9. Non-metallic expansion joints in piping systems, if located in a system which penetrates the ship’s side and both the penetration and the non-metallic expansion joint are located below the deepest load waterline, shall be inspected as part of the surveys prescribed in regulation I/10(a) and replaced as necessary, or at an interval recommended by the manufacturer.

10. Operating and maintenance instructions and engineering drawings for ship machinery and equipment essential to the safe operation of the ship shall be written in a language understandable by those officers and crew members who are required to understand such information in the performance of their duties.

11. Location and arrangement of vent pipes for fuel oil service, settling and lubrication oil tanks shall be such that in the event of

a broken vent pipe this shall not directly lead to the risk of ingress of seawater splashes or rainwater. Two fuel oil service tanks for each type of fuel used on board necessary for propulsion and vital systems or equivalent arrangements shall be provided on each new ship, with a capacity of at least 8 h at maximum continuous rating of the propulsion plant and normal operating load at sea of the generator plant. This paragraph applies only to ships constructed on or after 1 July 1998.”

#### Regulation 31

##### *Machinery controls*

4. The following new paragraph 5 is added after existing paragraph 4:
  - “5. Ships constructed on or after 1 July 1998 shall comply with the requirements of paragraphs 1 to 4, as amended, as follows:
    - .1 paragraph 1 is replaced by the following:
      - “1 Main and auxiliary machinery essential for the propulsion, control and safety of the ship shall be provided with effective means for its operation and control. All control systems essential for the propulsion, control and safety of the ship shall be independent or designed such that failure of one system does not degrade the performance of another system.”;
      - .2 in the second and third lines of paragraph 2, the words “and the machinery spaces are intended to be manned” are deleted;
      - .3 the first sentence of paragraph 2.2 is replaced by the following:
        - “.2 the control shall be performed by a single control device for each independent propeller, with automatic performance of all associated services, including, where necessary, means of preventing overload of the propulsion machinery.”;
      - .4 paragraph 2.4 is replaced by the following:
        - “.4 propulsion machinery orders from the navigation bridge shall be indicated in the main machinery control room and at the manoeuvring platform.”;
      - .5 a new sentence is added at the end of paragraph 2.6 to read as follows:
        - “It shall also be possible to control the auxiliary machinery, essential for the propulsion and safety of the ship, at or near the machinery concerned”; and
      - .6 paragraphs 2.8, 2.8.1 and 2.8.2 are replaced by the following:
        - “.8 indicators shall be fitted on the navigation bridge, the

main machinery control room and at the manoeuvring platform, for:

- .8.1 propeller speed and direction of rotation in the case of fixed pitch propellers; and
- .8.2 propeller speed and pitch position in the case of controllable pitch propellers;”.

PART D

ELECTRICAL INSTALLATIONS

Regulation 41

*Main source of electrical power and lighting systems*

5. The following new paragraph 5 is added after existing paragraph 4:

- “5. Ships constructed on or after 1 July 1998:
- .1 in addition to paragraphs 1 to 3, shall comply with the following:
    - .1.1 where the main source of electrical power is necessary for propulsion and steering of the ship, the system shall be so arranged that the electrical supply to equipment necessary for propulsion and steering and to ensure safety of the ship will be maintained or immediately restored in the case of loss of any one of the generators in service;
    - .1.2 load shedding or other equivalent arrangements shall be provided to protect the generators required by this regulation against sustained overload;
    - .1.3 where the main source of electrical power is necessary for propulsion of the ship, the main busbar shall be subdivided into at least two parts which shall normally be connected by circuit breakers or other approved means; so far as is practicable, the connection of generating sets and other duplicated equipment shall be equally divided between the parts; and
  - .2 need not comply with paragraph 4.”

Regulation 42

*Emergency source of electrical power in passenger ships*

6. The following new paragraph 3.4 is added after existing paragraph 3.3:

- “3.4. For ships constructed on or after 1 July 1998, where electrical power is necessary to restore propulsion, the capacity shall be sufficient to restore propulsion to the ship in conjunction with other

machinery, as appropriate, from a dead ship condition within 30 min after blackout.”

#### Regulation 43

##### *Emergency source of electrical power in cargo ships*

7. The following new paragraph 3.4 is added after existing paragraph 3.3:

“3.4. For ships constructed on or after 1 July 1998, where electrical power is necessary to restore propulsion, the capacity shall be sufficient to restore propulsion to the ship in conjunction with other machinery, as appropriate, from a dead ship condition within 30 min after blackout.”

## CHAPTER II-2

### CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION

#### PART A

#### GENERAL

#### Regulation 1

##### *Application*

8. Existing paragraph 1.1 is replaced by the following:  
 “1.1. Unless expressly provided otherwise, this chapter shall apply to ships the keels of which are laid or which are at a similar stage of construction on or after 1 July 1998.”
9. Existing paragraph 1.3.2 is replaced by the following:  
 “.2 the expression *all ships* means ships constructed before, on or after 1 July 1998”.
10. Existing paragraph 2 is replaced by the following:  
 “2. Unless expressly provided otherwise, for ships constructed before 1 July 1998 the Administration shall ensure that the requirements which are applicable under chapter II-2 of the International Convention for the Safety of Life at Sea, 1974, as amended by resolutions MSC.1(XLV), MSC.6(48), MSC.13(57), MSC.22(59), MSC.24(60), MSC.27(61) and MSC.31(63), are complied with.”
11. In paragraph 3.1, the expression “1 July 1986” is replaced by “1 July 1998”.

#### Regulation 3

##### *Definitions*

12. Existing paragraph 1 is replaced by the following:  
 “1. *Non-combustible material* is a material which neither burns

nor gives off flammable vapours in sufficient quantity for self-ignition when heated to approximately 750°C, this being determined in accordance with the Fire Test Procedures Code. Any other material is a combustible material.”

13. Existing paragraph 2 is replaced by the following:  
“2. A *standard fire test* is one in which the specimens of the relevant bulkheads and decks are exposed in a test furnace to temperatures corresponding approximately to the standard timetemperature curve. The test methods shall be in accordance with the Fire Test Procedures Code.”
14. In paragraph 3.4, “139°C” is replaced by “140°C”.
15. Existing paragraph 3.5 is replaced by the following:  
“.5 the Administration shall require a test of a prototype bulkhead or deck in accordance with the Fire Test Procedures Code to ensure that it meets the above requirements for integrity and temperature rise.”
16. In paragraph 4.2, “139°C” is replaced by “140°C”.
17. Existing paragraph 4.4 is replaced by the following:  
“.4 the Administration shall require a test of a prototype division, in accordance with the Fire Test Procedures Code, to ensure that it meets the above requirements for integrity and temperature rise.”
18. Existing paragraph 8 is replaced by the following:  
“8. *Low flame spread* means that the surface thus described will adequately restrict the spread of flame, this being determined in accordance with the Fire Test Procedures Code.”
19. Existing paragraph 22-1 is replaced by the following:  
“22-1. *Central control station* is a control station in which the following control and indicator functions are centralized:
  - .1 fixed fire detection and alarm systems;
  - .2 automatic sprinklers, fire detection and alarm systems;
  - .3 fire door indicator panels;
  - .4 fire door closures;
  - .5 watertight door indicator panels;
  - .6 watertight door closures;
  - .7 ventilation fans;
  - .8 general/fire alarms;
  - .9 communication systems including telephones; and
  - .10 microphones to public address systems.”
20. Existing paragraph 23.3 is replaced by the following:  
“.3 all draperies, curtains and other suspended textile materials have qualities of resistance to the propagation of



flame not inferior to those of wool of mass 0.8 kg/m<sup>2</sup>, this being determined in accordance with the Fire Test Procedures Code.”

21. Existing paragraph 23.4 is replaced by the following:  
“4 all floor coverings have low flame spread characteristics.”
22. Existing paragraph 23.6 is replaced by the following:  
“6 all upholstered furniture has qualities of resistance to the ignition and propagation of flame, this being determined in accordance with the Fire Test Procedures Code.”
23. The following new paragraph 23.7 is added:  
“7 all bedding components have qualities of resistance to the ignition and propagation of flame, this being determined in accordance with the Fire Test Procedures Code.”
24. The following new paragraph 34 is added:  
“34. *Fire Test Procedures Code* means the International Code for Application of Fire Test Procedures, as adopted by the Maritime Safety Committee of the Organization by resolution MSC.61(67), 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 12

##### *Automatic sprinkler, fire detection and fire alarm systems*

25. Existing paragraph 1.2 is replaced by the following:  
“1.2 Each section of sprinklers shall include means for giving a visual and audible alarm signal automatically at one or more indicating units whenever any sprinkler comes into operation. Such alarm systems shall be such as to indicate if any fault occurs in the system. Such units shall indicate in which section served by the system fire has occurred and shall be centralized on the navigation bridge and in addition, visible and audible alarms from the unit shall be located in a position other than on the navigation bridge, so as to ensure that the indication of fire is immediately received by the crew.”
26. Existing paragraphs 1.2.1 and 1.2.2 are deleted.

## Regulation 16

*Ventilation systems in ships other than passenger ships carrying more than 36 passengers*

27. Existing text of paragraph 1.1 is replaced by the following:  
“.1 these ducts shall be of a material which has low flame spread characteristics.”
28. The following new paragraph 11 is added:  
“11. The following arrangements shall be tested in accordance with the Fire Test Procedures Code:  
.1 fire dampers, including relevant means of operation; and  
.2 duct penetrations through “A” class divisions. Where steel sleeves are directly joined to ventilation ducts by means of rivetted or screwed flanges or by welding, the test is not required.”

## Regulation 17

*Fireman’s outfit*

29. At the end of paragraph 3.1.1 the following sentence is added:  
“however, for stairway enclosures which constitute individual main vertical zones and for the main vertical zones in the fore or aft end of a ship which do not contain spaces of categories 26.2.2(6), (7), (8) or (12), no additional fireman’s outfits are required.”

## Regulation 18

*Miscellaneous items*

30. In the parenthesis below the title of the regulation, the words “and 8” in the first sentence are deleted and the following sentence is added:  
“Paragraph 8 of this regulation applies to ships constructed on or after 1 July 1998.”
31. Existing paragraph 8 is replaced by the following:  
“8. Provisions for helicopter facilities shall be in accordance with the standards developed by the Organization.”

## PART B

## FIRE SAFETY MEASURES FOR PASSENGER SHIPS

## Regulation 24

*Main vertical zones and horizontal zones*

32. The third sentence of existing paragraph 1.1 is replaced by the following:

“Where a category 26.2.2(5), (9) or (10) space is on one side or where fuel oil tanks are on both sides of the division, the standard may be reduced to A-0.”

#### Regulation 26

##### *Fire integrity of bulkheads and decks in ships carrying more than 36 passengers*

33. The words “26.1 to 26.4” in paragraph 1 are replaced by “26.1 and 26.2” and the superscript “d” is added in the fourth row under columns 6, 7, 8 and 9 of table 26.1 and the following note is added to table 26.1:

“Where spaces of category 6, 7, 8 and 9 are located completely within the outer perimeter of the muster station, the bulkheads of these spaces are allowed to be of “B-0” class integrity. Control positions for audio, video and light installations may be considered as part of the muster station.”

#### Regulation 28

##### *Means of escape*

34. At the end of paragraph 1.10, “.” is replaced by “; and”.
35. The following new subparagraph .11 is added:  
 “.11 In all passenger ships carrying more than 36 passengers, the requirements of 1.10 and regulation 41–2.4.7 shall also apply to the crew accommodation areas.”

#### Regulation 30

##### *Openings in “A” class divisions*

36. Existing paragraph 4 is replaced by the following:  
 “4. Fire doors in main vertical zone bulkheads, galley boundaries and stairway enclosures other than power-operated watertight doors and those which are normally locked, shall satisfy the following requirements:
- .1 the doors shall be self-closing and be capable of closing against an angle of inclination of up to 3.5° opposing closure;
  - .2 the approximate time of closure for hinged fire doors shall be no more than 40 s and no less than 10 s from the beginning of their movement with the ship in upright position. The approximate uniform rate of closure for sliding fire doors shall be of no more than 0.2 m/s and no less than 0.1 m/s with the ship in the upright position;

- .3 the doors shall be capable of remote release from the continuously manned central control station, either simultaneously or in groups and shall be capable of release also individually from a position at both sides of the door. Release switches shall have an on-off function to prevent automatic resetting of the system;
- .4 hold-back hooks not subject to central control station release are prohibited;
- .5 a door closed remotely from the central control station shall be capable of being re-opened at both sides of the door by local control. After such local opening, the door shall automatically close again;
- .6 indication shall be provided at the fire door indicator panel in the continuously manned central control station whether each of the remote-released doors are closed;
- .7 the release mechanism shall be so designed that the door will automatically close in the event of disruption of the control system or main source of electric power;
- .8 local power accumulators for power-operated doors shall be provided in the immediate vicinity of the doors to enable the doors to be operated after disruption of the control system or main source of electric power at least ten times (fully opened and closed) using the local controls;
- .9 disruption of the control system or main source of electric power at one door shall not impair the safe functioning of the other doors;
- .10 remote-released sliding or power-operated doors shall be equipped with an alarm that sounds for at least 5 s but no more than 10 s after the door is released from the central control station and before the door begins to move and continue sounding until the door is completely closed;
- .11 a door designed to re-open upon contacting an object in its path shall re-open not more than 1 m from the point of contact;
- .12 double-leaf doors equipped with a latch necessary to their fire integrity shall have a latch that is automatically activated by the operation of the doors when released by the control system;
- .13 doors giving direct access to special category spaces which are power-operated and automatically closed need not be equipped with the alarms and remoterelease mechanisms required in .3 and .10;
- .14 the components of the local control system shall be accessible for maintenance and adjusting; and
- .15 power-operated doors shall be provided with a control

system of an approved type which shall be able to operate in case of fire, this being determined in accordance with the Fire Test Procedures Code. This system shall satisfy the following requirements:

- .15.1 the control system shall be able to operate the door at the temperature of at least 200°C for at least 60 min, served by the power supply;
  - .15.2 the power supply for all other doors not subject to fire shall not be impaired; and
  - .15.3 at temperatures exceeding 200°C the control system shall be automatically isolated from the power supply and shall be capable of keeping the door closed up to at least 945°C.”
37. The second sentence of existing paragraph 6 is replaced by the following:  
“The requirements for “A” class integrity of the outer boundaries of the ship shall not apply to exterior doors, except for those in superstructures and deckhouses facing life-saving appliances, embarkation and external muster station areas, external stairs and open decks used for escape routes. Stairway enclosure doors need not meet this requirement.”

#### Regulation 32

##### *Ventilation systems*

38. Existing paragraph 1.1 is replaced by the following:  
“1.1. The ventilation system of a passenger ship carrying more than 36 passengers shall, in addition to this part of this regulation, also be in compliance with the requirements of regulations 16.2 to 16.6, 16.8, 16.9 and 16.11.”
39. Existing paragraph 1.4.3.1 is replaced by the following:  
“.3.1. the duct is constructed of a material which has low flame spread characteristics;”

#### Regulation 34

##### *Restricted use of combustible materials*

40. Existing paragraph 2 is replaced by the following:  
“2. Vapour barriers and adhesives used in conjunction with insulation, as well as insulation of pipe fittings, for cold service systems need not be non-combustible, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have low flame spread characteristics.”

41. Existing paragraph 7 is replaced by the following:  
“7. Paints, varnishes and other finishes used on exposed interior surfaces shall not be capable of producing excessive quantities of smoke and toxic products, this being determined in accordance with the Fire Test Procedures Code.”
42. Existing paragraph 8 is replaced by the following:  
“8. Primary deck coverings, if applied within accommodation and service spaces and control stations, shall be of an approved material which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures, this being determined in accordance with the Fire Test Procedures Code.”

Regulation 37

*Protection of special category spaces*

43. In paragraph 1.2.1, the following third sentence is added:  
“Where fuel oil tanks are below a special category space, the integrity of the deck between such spaces may be reduced to “A-0” standard.”
44. The following new paragraph 4 is added:  
“4. Permanent openings for ventilation  
Permanent openings in the side plating, the ends or deckhead of special category spaces shall be so situated that a fire in the special category space does not endanger stowage areas and embarkation stations for survival craft and accommodation spaces, service spaces and control stations in superstructures and deckhouses above the special category spaces.”

Regulation 38

*Protection of cargo spaces, other than special category spaces, intended for the carriage of motor vehicles with fuel in their tanks for their own propulsion*

45. The following new paragraphs 5 and 6 are added:  
“5. Permanent openings for ventilation  
Permanent openings in the side plating, the ends or deckhead of cargo spaces shall be so situated that a fire in the cargo space does not endanger stowage areas and embarkation stations for survival craft and accommodation spaces, service spaces and control stations in superstructures and deckhouses above the cargo spaces.  
6. Structural protection  
For ro-ro cargo spaces of ships constructed on or after 1 July 1998, the requirements of paragraphs 1.1,1.2 and 1.3 of regulation 38-1 shall be complied with.”

46. The following new regulation 38–1 is added:

“Regulation 38–1

*Protection of closed and open ro-ro cargo spaces, other than special category spaces and ro-ro cargo spaces intended for the carriage of motor vehicles with fuel in their tanks*

1. General

1.1. The basic principles underlying regulation 37.1.1 also apply to this regulation.

1.2. In passenger ships carrying more than 36 passengers, the boundary bulkheads and decks of closed and open ro-ro cargo spaces shall be insulated to “A-60” class standard. However, where a category 26.2.2(5), (9) or (10) space is on one side of the division, the standard may be reduced to “A-0”. Where fuel oil tanks are below a ro-ro cargo space, the integrity of the deck between such spaces may be reduced to “A-0” standard.

1.3. In passenger ships carrying not more than 36 passengers the boundary bulkheads and decks of closed and open ro-ro cargo spaces shall have a fire integrity as required for category (8) spaces in table 27.1 and the horizontal boundaries as required for category (8) spaces in table 27.2.

1.4. Permanent openings in the side plating, the ends or deckhead of open and closed ro-ro cargo spaces shall be so situated that a fire in the cargo space does not endanger stowage areas and embarkation stations for survival craft and accommodation spaces, service spaces and control stations in superstructures and deck-houses above the cargo spaces.

2. Closed ro-ro cargo spaces

Closed ro-ro cargo spaces shall comply with the requirements of regulation 38, except for paragraph 4 of that regulation.

3. Open ro-ro cargo spaces

Open ro-ro cargo spaces shall comply with the requirements of regulations 37.1.3, 37.2.1, 38.1, except that a sample extraction smoke detection system is not permitted, and 38.2.3.”

PART C

FIRE SAFETY MEASURES FOR CARGO SHIPS

Regulation 49

*Restricted use of combustibile materials*

47. Existing paragraph 2 is replaced by the following:

“2. Paints, varnishes and other finishes used on exposed interior

surfaces shall not be capable of producing excessive quantities of smoke and toxic products, this being determined in accordance with the Fire Test Procedures Code.”

48. Existing paragraph 3 is replaced by the following:  
“3. Primary deck coverings, if applied within accommodation and service spaces and control stations, shall be of approved material which will not readily ignite, or give rise to toxic or explosive hazards at elevated temperatures, this being determined in accordance with the Fire Test Procedures Code.”

Regulation 50

*Details of construction*

49. Existing paragraph 3.1 is replaced by the following:  
“3.1. Except in cargo spaces or refrigerated compartments of service spaces, insulating materials shall be non-combustible. Vapour barriers and adhesives used in conjunction with insulation, as well as the insulation of pipe fittings, for cold service systems, need not be of non-combustible materials, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have low flame spread characteristics.”

Regulation 53

*Fire protection arrangements in cargo spaces*

50. Existing paragraphs 1.2 and 1.3 are replaced by the following:  
“1.2. Notwithstanding the provisions of paragraph 1.1, any cargo space in a ship engaged in the carriage of dangerous goods on deck or in cargo spaces shall be provided with a fixed gas fire-extinguishing system complying with the provisions of regulation 5 or with a fire-extinguishing system which, in the opinion of the Administration, gives equivalent protection for the cargoes carried.  
1.3. The Administration may exempt from the requirements of paragraphs 1.1 and 1.2 cargo spaces of any ship if constructed and solely intended for the carriage of ore, coal, grain, unseasoned timber, non-combustible cargoes or cargoes which, in the opinion of the Administration, constitute a low fire risk. Such exemptions may be granted only if the ship is fitted with steel hatch covers and effective means of closing all ventilators and other openings leading to the cargo spaces. When such exemptions are granted, the Administration shall issue an Exemption Certificate, irrespective of the date of construction of the ship concerned, in accordance with regulation I/12(a)(vi), and shall ensure that the list of cargoes the ship is permitted to carry is attached to the Exemption Certificate.”



51. The following new paragraph 2.5 is added:  
 “2.5. Permanent openings in the side plating, the ends or deck-head of open and closed ro-ro cargo spaces shall be so situated that a fire in the cargo space does not endanger stowage areas and embarkation stations for survival craft and accommodation spaces, service spaces and control stations in superstructures and deck-houses above the cargo spaces.”

#### Regulation 54

##### *Special requirements for ships carrying dangerous goods*

52. The following new paragraph 2.4.3 is added:  
 “2.4.3. Natural ventilation shall be provided in enclosed cargo spaces intended for the carriage of solid dangerous goods in bulk, where there is no provision for mechanical ventilation.”
53. The following new paragraphs 2.10 and 2.11 are added:  
 “2.10. In ships having ro-ro cargo spaces, a separation shall be provided between a closed ro-ro cargo space and an adjacent open ro-ro cargo space. The separation shall be such as to minimize the passage of dangerous vapours and liquids between such spaces. Alternatively, such separation need not be provided if the ro-ro cargo space is considered to be a closed cargo space over its entire length and shall fully comply with the relevant special requirements of this regulation.  
 2.11. In ships having ro-ro cargo spaces, a separation shall be provided between a closed ro-ro cargo space and the adjacent weather deck. The separation shall be such as to minimize the passage of dangerous vapours and liquids between such spaces. Alternatively, a separation need not be provided if the arrangements of the closed ro-ro cargo spaces are in accordance with those required for the dangerous goods carried on the adjacent weather deck.”

#### **Table 54.1 – Application of the requirements to different modes of carriage of dangerous goods in ships and cargo spaces**

54. Existing table 54.1 is replaced by the following:

*“Wherever X appears in table 54.1 it means that this requirement is applicable to all classes of dangerous goods as given in the appropriate line of table 54.3, except as indicated by the notes.*

| Regulation 54.1.2<br><br>Regulation 54.2 | <i>Weather decks .1 to .5 inclusive</i> | <b>.1</b><br><br><i>Not specifically designed</i> | <b>2.</b><br><br><i>Container cargo spaces<sup>5</sup></i> | <b>3.</b>                                    |                                | <b>4.</b><br><br><i>Solid dangerous goods in bulk</i>  | <b>5.</b><br><br><i>Shipborne barges</i> |
|--|---|---|--|--|--------------------------------|--|--|
|  |   |   |  | <i>Closed ro-ro cargo spaces<sup>5</sup></i> | <i>Open ro-ro cargo spaces</i> |  |  |
| .1.1                                     | X                                       | X   | X  | X  | X                              | For application of requirements of regulation 54 to different classes of dangerous goods, see table 54.2 | X  |
| .1.2                                     | X                                       | X   | X  | X  | X                              |  | –  |
| .1.3                                     | –                                       | X   | X  | X  | X                              |  | X  |
| .1.4                                     | –                                       | X   | X  | X  | X                              |  | X  |
| .2                                       | –                                       | X   | X  | X  | X                              |  | X <sup>4)</sup>                          |
| .3                                       | –                                       | X   | X  | X  | –                              |  | X <sup>4)</sup>                          |
| .4.1                                     | –                                       | X   | X <sup>1)</sup>  | X  | –                              |  | X <sup>4)</sup>                          |
| .4.2                                     | –                                       | X   | X <sup>1)</sup>  | X  | –                              |  | X <sup>4)</sup>                          |
| .5                                       | –                                       | X   | X  | X  | –                              |  | –  |
| .6.1                                     | X                                       | X   | X  | X  | X                              |  | –  |
| .6.2                                     | X                                       | X   | X  | X  | X                              |  | –  |
| .7                                       | X                                       | X   | –  | –  | X                              |  | –  |
| .8                                       | X                                       | X   | X <sup>2)</sup>  | X  | X                              |  | –  |
| .9                                       | –                                       | –   | –  | X <sup>3)</sup>                              | X                              |  | –  |

<sup>1)</sup> For classes 4 and 5.1 not applicable to closed freight containers.

For classes 2, 3, 6.1 and 8 when carried in closed freight containers the ventilation rate may be reduced to not less than two air changes. For the purpose of this requirement a portable tank is a closed freight container.

2) Applicable to decks only.

3) Applies only to closed ro-ro cargo spaces, not capable of being sealed.

4) In the special case where the barges are capable of containing flammable vapours or alternatively if they are capable of discharging flammable vapours to a safe space outside the barge carrier compartment by means of ventilation ducts connected to the barges, these requirements may be reduced or waived to the satisfaction of the Administration.

5) Special category spaces shall be treated as closed ro-ro cargo spaces when dangerous goods are carried.”

**Table 54.2 – Application of the requirements to different classes of dangerous goods for ships and cargo spaces carrying solid dangerous goods in bulk**

55. Existing table 54.2 is replaced by the following:

| Class      | 4.1             | 4.2             | 4.3 <sup>6)</sup> | 5.1                | 6.1 | 8 | 9                  |
|------------|-----------------|-----------------|-------------------|--------------------|-----|---|--------------------|
| Regulation |                 |                 |                   |                    |     |   |                    |
| 54.2.1.1   | X               | X               | –                 | X                  | –   | – | X                  |
| 54.2.1.2   | X               | X               | –                 | X                  | –   | – | X                  |
| 54.2.2     | X               | X <sup>7)</sup> | X                 | X <sup>8)</sup>    | –   | – | X <sup>8)</sup>    |
| 54.2.4.1   | –               | X <sup>7)</sup> | X                 | –                  | –   | – |                    |
| 54.2.4.2   | X <sup>9)</sup> | X <sup>7)</sup> | X                 | X <sup>6, 9)</sup> | –   | – | X <sup>7, 9)</sup> |
| 54.2.4.3   | X               | X               | X                 | X                  | X   | X | X                  |
| 54.2.6     | X               | X               | X                 | X                  | X   | X | X                  |
| 54.2.8     | X               | X               | X                 | X <sup>7)</sup>    | –   | – | X <sup>10)</sup>   |

<sup>6)</sup> The hazards of substances in this class which may be carried in bulk are such that special consideration must be given by the Administration to the construction and equipment of the ship involved in addition to meeting the requirements enumerated in this table.

<sup>7)</sup> Only applicable to Seedcake containing solvent extractions, to Ammonium nitrate and to Ammonium nitrate fertilizers.

<sup>8)</sup> Only applicable to Ammonium nitrate and to Ammonium nitrate fertilizers. However, a degree of protection in accordance with standards contained in the International Electrotechnical Commission, publication 79 – Electrical Apparatus for Explosive Gas Atmospheres, is sufficient.

<sup>9)</sup> Only suitable wire mesh guards are required.

<sup>10)</sup> The requirements of the Code of Safe Practice for Solid Bulk Cargoes adopted by resolution A.434(XI), as amended, are sufficient.”

**Table 54.3 – Application of the requirements to different classes of dangerous goods except solid dangerous goods in bulk**

56. Existing table 54.3 is replaced by the following:

| Class      | 1.1–1.6          | 1.4S | 2.1 | 2.2 | 2.3 | 3.1<br>3.2 | 3.3 | 4.1              | 4.2              | 4.3 | 5.1              | 5.2 | 6.1<br>liquids | 6.1<br>liquids<br>≤23°C | 6.1<br>liquids<br>>23°C<br>≤61°C | 6.1<br>solids    | 8<br>liquids | 8<br>liquids<br>≤23°C | 8<br>liquids<br>≤23°C<br>≥61°C | 8<br>solids | 9                |
|------------|------------------|------|-----|-----|-----|------------|-----|------------------|------------------|-----|------------------|-----|----------------|-------------------------|----------------------------------|------------------|--------------|-----------------------|--------------------------------|-------------|------------------|
| Regulation |                  |      |     |     |     |            |     |                  |                  |     |                  |     |                |                         |                                  |                  |              |                       |                                |             |                  |
| 54.2.1.1   | X                | X    | X   | X   | X   | X          | X   | X                | X                | X   | X                | X   | X              | X                       | X                                | X                | X            | X                     | X                              | X           | X                |
| 54.2.1.2   | X                | X    | X   | X   | X   | X          | X   | X                | X                | X   | X                | X   | X              | X                       | X                                | X                | X            | X                     | X                              | X           | -                |
| 54.2.1.3   | X                | -    | -   | -   | -   | -          | -   | -                | -                | -   | -                | -   | -              | -                       | -                                | -                | -            | -                     | -                              | -           | -                |
| 54.2.1.4   | X                | -    | -   | -   | -   | -          | -   | -                | -                | -   | -                | -   | -              | -                       | -                                | -                | -            | -                     | -                              | -           | -                |
| 54.2.2     | X                | -    | X   | -   | -   | X          | -   | -                | -                | -   | -                | -   | -              | X                       | -                                | -                | -            | X                     | -                              | -           | -                |
| 54.2.3     | X                | X    | X   | X   | X   | X          | X   | X                | X                | X   | X                | -   | X              | X                       | X                                | X                | X            | X                     | X                              | X           | -                |
| 54.2.4.1   | -                | -    | X   | -   | X   | X          | -   | X <sup>11)</sup> | X <sup>11)</sup> | X   | X <sup>11)</sup> | -   | -              | X                       | X                                | X <sup>11)</sup> | -            | X                     | X                              | -           | X <sup>11)</sup> |
| 54.2.4.2   | -                | -    | X   | -   | -   | X          | -   | -                | -                | -   | -                | -   | -              | X                       | X                                | -                | -            | X                     | X                              | -           | -                |
| 54.2.5     | -                | -    | -   | -   | -   | X          | -   | -                | -                | -   | -                | -   | X              | X                       | X                                | -                | -            | X                     | -                              | -           | -                |
| 54.2.6     | -                | -    | X   | X   | X   | X          | X   | X                | X                | X   | X                | X   | X              | X                       | X                                | X                | x            | x                     | X                              | X           | X <sup>14)</sup> |
| 54.2.7     | -                | -    | -   | -   | -   | X          | X   | X                | X                | X   | X                | -   | -              | X                       | X                                | -                | -            | X                     | X                              | -           | -                |
| 54.2.8     | X <sup>12)</sup> | -    | X   | X   | X   | X          | X   | X                | X                | X   | X <sup>13)</sup> | -   | -              | x                       | x                                | -                | -            | x                     | x                              | -           | -                |
| 54.2.9     | X                | X    | X   | X   | X   | X          | X   | X                | X                | X   | X                | X   | X              | X                       | X                                | X                | X            | X                     | X                              | X           | X                |

<sup>11)</sup> When “mechanically-ventilated spaces” are required by the International Maritime Dangerous Goods Code, as amended.

<sup>12)</sup> Stow 3 m horizontally away from the machinery space boundaries in all cases.

<sup>13)</sup> Refer to the International Maritime Dangerous Goods Code.

<sup>14)</sup> As appropriate to the goods being carried.”

## PART D

## FIRE SAFETY MEASURES FOR TANKERS

## Regulation 56

*Location and separation of spaces*

57. The sentence below the title is replaced by the following:  
“(This regulation applies to ships constructed on or after 1 February 1992, except that paragraph 9 applies to ships constructed on or after 1 July 1998).”
58. Existing paragraph 7 is replaced by the following:  
“7. Exterior boundaries of superstructures and deckhouses enclosing accommodation and including any overhanging decks which support such accommodation, shall be constructed of steel and insulated to “A-60” standard for the whole of the portions which face the cargo area and on the outward sides for a distance of 3 m from the end boundary facing the cargo area. In the case of the sides of those superstructures and deckhouses, such insulation shall be carried as high as is deemed necessary by the Administration.”
59. The second sentence in existing paragraph 8.3 is replaced by the following:  
“Such windows and sidescuttles, except wheelhouse windows, shall be constructed to “A-60” class standard.”
60. The following new paragraph 9 is added:  
“9. On every ship to which this regulation applies, where there is permanent access from a pipe tunnel to the main pump-room, a watertight door shall be fitted complying with the requirements of regulation 11-1/25-9.2 and in addition with the following:  
.1 in addition to bridge operation, the watertight door shall be capable of being manually closed from outside the main pump-room entrance; and  
.2 the watertight door shall be kept closed during normal operations of the ship except when access to the pipe tunnel is required.”

## Regulation 59

*Venting, purging, gas-freeing and ventilation*

61. The following new paragraph 1.2.3 is added:  
“.3 a secondary means of allowing full flow relief of vapour, air or inert gas mixtures to prevent over-pressure or under-pressure in the event of failure of the arrangements in 1.2.2. Alternatively,

pressure sensors may be fitted in each tank protected by the arrangement required in 1.2.2, with a monitoring system in the ship's cargo control room or the position from which cargo operations are normally carried out. Such monitoring equipment shall also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank."

62. Existing paragraph 1.3.2 is replaced by the following:  
"1.3.2. Where the arrangements are combined with other cargo tanks, either stop valves or other acceptable means shall be provided to isolate each cargo tank. Where stop valves are fitted, they shall be provided with locking arrangements which shall be under the control of the responsible ship's officer. There shall be a clear visual indication of the operational status of the valves or other acceptable means. Where tanks have been isolated, it shall be ensured that relevant isolating valves are opened before cargo loading or ballasting or discharging of those tanks is commenced. Any isolation must continue to permit the flow caused by thermal variations in a cargo tank in accordance with paragraph 1.2.1."
63. The following new paragraph 1.3.3 is added:  
"1.3.3. If cargo loading and ballasting or discharging of a cargo tank or cargo tank group is intended, which is isolated from a common venting system, that cargo tank or cargo tank group shall be fitted with a means for over-pressure or under-pressure protection as required in paragraph 1.2.3."
64. The following new paragraph 1.11 is added:  
"1.11. Ships constructed before 1 July 1998 shall comply with the requirements of paragraphs 1.2.3 and 1.3.3 by the date of the first scheduled dry-docking after 1 July 1998, but not later than 1 July 2001."
65. The following new paragraph 5 is added:  
"5. Combustible gas indicators  
All tankers shall be equipped with at least one portable instrument for measuring flammable vapour concentrations, together with a sufficient set of spares. Suitable means shall be provided for the calibration of such instruments."

#### Regulation 62

##### *Inert gas systems*

66. In paragraph 11.2.1, the following sentence is added at the end:  
"The control system operated shall provide positive indication of the operational status of such valves."

## CHAPTER V

## SAFETY OF NAVIGATION

67. Existing regulation 15-1 is deleted.

## CHAPTER VII

## CARRIAGE OF DANGEROUS GOODS

## Regulation 2

*Classification*

68. "Class 6.1 – Poisonous (toxic) substances" is replaced by the following:

"Class 6.1 – Toxic substances".

69. The words "Miscellaneous dangerous substances, that is" in the existing text for Class 9 are replaced by the following:

"Miscellaneous dangerous substances and articles, i.e."

## Regulation 7

*Explosives in passenger ships*

70. The following new paragraph 1.5 is added:

“.5 articles in compatibility group N shall only be allowed in passenger ships if the total net explosive mass does not exceed 50 kg per ship and no other explosives, apart from division 1.4 compatibility group S, are carried.”

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In overeenstemming met artikel 19, tweede lid, van de Rijkswet goedkeuring en bekendmaking verdragen heeft de Minister van Buitenlandse Zaken bepaald dat de wijzigingen zullen zijn bekendgemaakt in het gehele Koninkrijk op de dag na de datum van uitgifte van dit Tractatenblad.

Uitgegeven de vierentwintigste juni 1998.

*De Minister van Buitenlandse Zaken,*

H. A. F. M. O. VAN MIERLO



## INHOUD

|    |  |    |
|----|--|----|
| A. | TITEL . . . . .  | 1  |
| B. | TEKST . . . . .  | 1  |
| C. | VERTALING . . . . .  | 1  |
| D. | PARLEMENT . . . . .  | 1  |
| E. | BEKRACHTIGING . . . . .  | 1  |
| F. | TOETREDING . . . . .   | 2  |
| G. | INWERKINGTREDING . . . . .   | 2  |
| H. | TOEPASSELIJKVERKLARING . . . . .                                   | 2  |
| J. | GEGEVENS . . . . .   | 2  |
|    | Wijzigingen . . . . .  | 2  |
|    | Resolutie MSC.31(63) van 23 mei 1994 . . . . .                     | 2  |
|    | Resolutie I van 24 mei 1994 . . . . .                              | 3  |
|    | Resolutie I van 29 november 1995 (vertaling) . . . . .             | 3  |
|    | Resolutie MSC.47(66) van 4 juni 1996 (Engelse tekst) . . . . .     | 24 |
|    | Resolutie MSC.57(67) van 5 december 1996 (Engelse tekst) . . . . . | 65 |

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